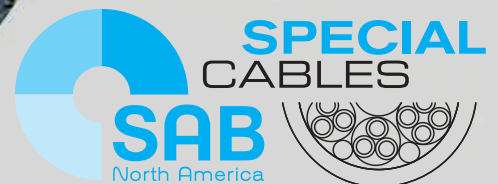


# HALOGEN-FREE CABLES



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# Halogen-free Cables

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| ■ SABIX® A 156 FRNC |  | Wiring cable with improved fire performance and extended temperature range, 450/750 V ..... | K/14 |
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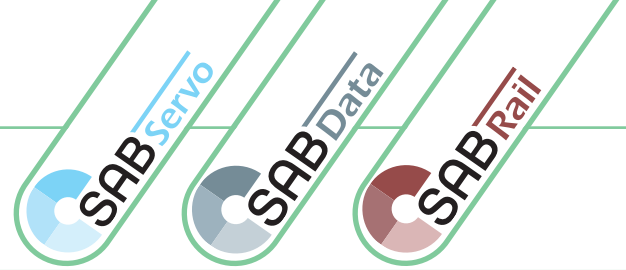
### Halogen-free Control Cables with UL Recognition, CSA Approval




|                           |  |  |      |
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# Halogen-free Cables

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You will find halogen-free Ethernet cables especially for use in rail vehicles in chapter J  
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# Halogen-free Cables

## Content



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| ■ SABIX® BL 410 FRNC  |  | Flexible power cable, 0.6/1 kV  | K/61 |
| ■ SABIX® BL 412 C FRNC  |  | Flexible power cable with overall tinned copper shield, 0.6/1 kV                      | K/62 |

**BL TA 180 C - You will find FEP connection cable especially for maritime use in chapter L**  
**You will find Industrial Ethernet Cables especially for maritime use in chapter J**

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|  |  |   |      |
|--|--|---|------|
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| ■ SABIX® S 712 C FRNC C1   |  | Continuous flex halogen-free shielded control cable with extended temperature range and higher fire protection            | K/66 |
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# Halogen-free Cables

## Applications

### ■ Applications of halogen-free SABIX® single conductors and wiring cables

These single conductors are installed in applications where high flex halogen-free cables are required. The various versions of these cables offer excellent characteristics such as oil resistance, low temperature flexibility, heat resistance, hot-air resistance, weather resistance, and are halogen-free.

#### Exemplary applications:

|   |  |
|---|--|
| <b>SABIX® A 146 FRNC</b><br><b>SABIX® A 156 FRNC</b><br><b>SABIX® A 166 FRNC</b><br><b>SABIX® A 147FRNC</b><br><b>SABIX® A 157 FRNC</b> | Production of control cabinets, appliances and devices for communication technologies, household appliances, construction of generators and transformers, machine construction, railway technologies: furthermore, the FRNC type is particularly suitable for internal wiring of rail vehicles |
| <b>SABIX® A 100 HT</b><br><b>SABIX® A 101 HT</b>  | Internal wiring at high ambient temperatures in protected rooms  |

### ■ Application of halogen-free SABIX® control and connection cables

These cables are particularly suitable for control panels at tool working machines, assembly lines, transporting systems, production lines, rail technologies etc. Once installed these cables can be moved easily for installation and adjustment as well as inspection of machines. Note: Cables can not be mechanically overloaded during the movement. If a certain protection against electromagnetic interferences is requested, cables with an overall tinned copper shield should be used. The excellent characteristics of SABIX® cables, in various versions are oil resistance, low temperature flexibility, heat resistance, hot-air resistance, weather resistance, and are also halogen-free.

#### Exemplary applications:

|   |   |
|---|---|
| <b>SABIX® A 200 FRNC</b><br><b>SABIX® A 205 FRNC</b>            | Automation systems, car manufacturing industry, machine construction, railway technologies  |
| <b>SABIX® A 238 FRNC</b>  | Transporting systems, construction of industrial plants, automation technologies  |
| <b>SABIX® A 260 PUR</b>   | Automation technologies, steel and iron industries, car manufacturing industry, machine construction, refrigeration and climate technologies, car wash, rising platforms for trucks   |
| <b>SABIX® A 130 HT</b>  | Plastics processing, packaging machine construction, smelters, steelworks and hot rolling mills, safety engineering, processing of cement, glass and ceramics, sauna construction, heat, refrigeration and climate technologies |
| <b>SABIX® A 810 FRNC</b><br><b>SABIX® A 812 C FRNC</b>          | Automation technologies, car manufacturing industry, machine construction, power supply cable between frequency converter and servo motor   |
| <b>SABIX® CC 625 FRNC M</b>                                     | Automation technologies, car manufacturing industry, machine construction, railway technologies   |
| <b>SABIX® CC 625 S FRNC M</b><br><b>SABIX® CC 625 SH FRNC M</b> | Transporting systems, construction of industrial plants, automation technologies  |

# Halogen-free Cables

## Applications

### ■ Application of halogen-free SABIX® data cables

Data cables are used for the transmission of signals, measuring values and control signals in electronic control appliances, data processing systems, railway technologies, weighing installations, office appliances or wherever small cross sections, bending radii, shielding or high flexibility is demanded. The excellent characteristics of these cables, in various versions are oil resistance, low temperature flexibility, heat resistance, weather resistance, flexibility and being halogen-free.

#### Exemplary applications:

|                             |   |
|-----------------------------|---|
| <b>SABIX® D 305 FRNC</b>    | Communication technologies  |
| <b>SABIX® D 315 FRNC</b>    | Electronic data processing systems, weighing installations, office appliances   |
| <b>SABIX® D 345 FRNC TP</b> | Electronic data processing systems, weighing installations, office appliances, for increased requirements on transmission characteristics and near-end cross talk attenuation |

### ■ Application of halogen-free SABIX® Rail Data and Rail Control tested acc. to EN 45545-2

In sensitive areas, such as in public buildings and facilities and rail vehicles, the requirements for the protection of the general security are very high. In addition, halogen-free cables must be flame-retardant and self extinguishing and must not contribute to fire propagation. All of these characteristics, can be found in our brand name of SABIX®. Our SABIX® Rail Cables meet the highest safety standards according to EN 45545-2, and are certified by the Fire Technology Laboratory Currenta GmbH.

#### Exemplary applications:

**SABIX® R 600 FRNC**  
**SABIX® R 638 FRNC**  
**SABIX® R 605 FRNC**  
**SABIX® R 615 FRNC**  
**SABIX® R 645 FRNC TP**  
**SABIX® R flex**  
**SAB RailLine 560**  
**SABIX® A 280 FRNC X**  
**SABIX® A 285 FRNC X**  
**SABIX® A 280 FRNC X (FR)**

Cables for internal wiring of rail vehicles acc. to EN 45545-2

**SABIX®** cables can be fully recycled and in separate components newly supplied to the resource cycle. Cables with FRNC outer sheath avoid flame propagation in case of local flaming and are flame retardant and self-extinguishing acc. to VDE, EN and IEC. They fulfil the smoke

# Halogen-free Cables

## Applications

### ■ Application of halogen-free SABIX® BL data, control and power cables for shipbuilding

The development of the BL cable series has been achieved with co-operation from our customers coming from the shipbuilding field. The new cables are available as halogen-free SABIX® BL cables. All SABIX® BL types are constructed with tinned copper strands in class 5 in order to offer advantages in corrosion resistance and flexibility. Their SABIX® characteristics fulfill the highest safety-related aspects in shipbuilding with regards to both fire performance as well as being halogen-free. Data cables, type SABIX® BL Data, are available with small cross sections beginning with 26 AWG. This results in a small outer diameter which offers an outstanding advantage particularly where there is only a little space. The types SABIX® BL Control as well as SABIX® BL Power complement the new product series with control and power supply cables for electrical components.

#### Exemplary applications:

SABIX® BL 405 FRNC  
SABIX® BL 415 FRNC  
SABIX® BL 443 C FRNC TT  
SABIX® BL 445 C FRNC TP  
SABIX® BL 446 C FRNC FTP

Installation and wiring of navigation and bridge electronics as BNWAS, power supply of electrical components

Data cables

SABIX® BL 400 FRNC  
SABIX® BL 438 C FRNC

Control cables

SABIX® BL 402 FRNC  
SABIX® BL 408 FRNC  
SABIX® BL 409 C FRNC  
SABIX® BL 410 FRNC  
SABIX® BL 412 C FRNC

Power cables

### ■ Application of halogen-free SABIX® Ultra - continuous flex with highest fire protection

Fire protection, halogen-free, flexibility and oil resistance are the characteristics united by our new product range SABIX® Ultra. Due to the new jacket material, the cable can be used for flexible applications and shows the highest fire protection features by the standards EN 60332-1-2, EN 60332-3 Cat C or D, IEC 60754-1, IEC 60754-2, EN 61034, NF C 32-070 C1, NF X 70-100.

#### Exemplary applications:

SABIX® SD 705 FRNC C1  
SABIX® SD 715 FRNC C1  
SABIX® SD 745 FRNC C1 TP

as festoon cable for polar cranes in nuclear power plants, in rail technology  
as sensor cable at the vehicle chassis, cable track applications  
with moderate mechanical stress

SABIX® S 710 FRNC C1  
SABIX® S 712 C FRNC C1

as festoon cable for polar cranes in nuclear power plants, in rail technology  
as sensor cable at the vehicle chassis or as flexible control cable at the train doors,  
cable chain applications with moderate mechanical stress

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# Halogen-free Cables

## Selection Table



|                                       |  | K/13              | K/14              | K/15              | K/16              | K/16              | K/17            | K/17            | K/18              | K/19              | K/20                 | K/22              | K/23             | K/24            |  |
|---------------------------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|-----------------|-------------------|-------------------|----------------------|-------------------|------------------|-----------------|--|
|                                       |  | Cable Type        |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       |  | SABIX® A 146 FRNC | SABIX® A 156 FRNC | SABIX® A 166 FRNC | SABIX® A 147 FRNC | SABIX® A 157 FRNC | SABIX® A 100 HT | SABIX® A 101 HT | SABIX® A 200 FRNC | SABIX® A 205 FRNC | SABIX® A 224 FRNC C1 | SABIX® A 238 FRNC | SABIX® A 260 PUR | SABIX® A 130 HT |  |
| Basic construction                    | Single conductor   | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               |                   |                   |                      |                   |                  |                 |  |
|                                       | Shielded   |                   |                   |                   |                   |                   |                 |                 |                   |                   | ●                    | ●                 |                  |                 |  |
|                                       | Colored conductors   |                   |                   |                   |                   |                   |                 |                 |                   |                   | ●                    |                   |                  | ●               |  |
|                                       | Numbered conductors  |                   |                   |                   |                   |                   |                 |                 | ●                 |                   |                      | ●                 | ●                | ●               |  |
|                                       | Twisted pairs  |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Inner jacket   |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
| Temperature range fixed installation* | +220°C   |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | +105°C   | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               |                   |                   |                      |                   |                  |                 |  |
|                                       | +90°C  | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               |                   |                   |                      |                   |                  |                 |  |
|                                       | +85°C  | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               |                   |                   |                      |                   |                  |                 |  |
|                                       | +70°C  | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               |                   |                   |                      |                   |                  |                 |  |
|                                       | -30°C  | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               |                   |                   |                      |                   |                  |                 |  |
|                                       | -40°C  | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               |                   |                   |                      |                   |                  |                 |  |
|                                       | -50°C  | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               |                   |                   |                      |                   |                  |                 |  |
| Voltage                               | Peak operating voltage max. 350 V  |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Peak operating voltage max. 500 V  |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Nominal voltage Uo/U 300/500 V   | ●                 |                   |                   | ●                 |                   | ●               | ●               | ●                 | ●                 |                      | ●                 | ●                | ●               |  |
|                                       | Nominal voltage Uo/U 450/750 V   |                   | ●                 |                   |                   | ●                 |                 |                 |                   |                   | ●                    |                   |                  |                 |  |
|                                       | Nominal voltage Uo/U 0.6/1 kV  |                   |                   | ●                 |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Voltage UL resp. CSA 600 V   |                   |                   |                   | ●                 |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Voltage UL resp. CSA 1000 V  |                   |                   |                   |                   | ●                 |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Testing voltage 1500 V   |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Testing voltage 2000 V   | ●                 |                   |                   | ●                 |                   | ●               | ●               |                   |                   |                      |                   |                  | ●               |  |
|                                       | Testing voltage 2500 V   |                   | ●                 |                   |                   | ●                 |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Testing voltage 3000 V   |                   |                   | ●                 |                   |                   |                 |                 | ●                 | ●                 | ●                    | ●                 | ●                |                 |  |
| Testing voltage 4000 V                |  |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
| Standards                             | Halogen-free acc. to IEC 60754-1+ VDE 0482-754-1   | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               | ●                 | ●                 | ●                    | ●                 | ●                | ●               |  |
|                                       | Fire performance: No flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 cat. C resp. D                            |                   |                   | ●                 | ●                 | ●                 |                 |                 | ●                 | ●                 | ●                    | ●                 |                  |                 |  |
|                                       | Fire performance: No flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 and EN 50305 + VDE 0260-305 section 9.1.2 | ●                 | ●                 |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Fire performance: Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2  | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               | ●                 | ●                 | ●                    | ●                 |                  | ●               |  |
|                                       | Fire performance acc. to CSA FT1   |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Fire performance acc. to NF C 32-070-C1  |                   |                   |                   |                   |                   |                 |                 |                   |                   | ●                    |                   |                  |                 |  |
|                                       | Corrosiveness of conflagration gases: In compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases                              | ●                 | ●                 | ●                 | ●                 | ●                 | ●               | ●               | ●                 | ●                 | ●                    | ●                 |                  | ●               |  |
|                                       | Smoke density acc. to IEC 61034 + EN 61034   | ●                 | ●                 | ●                 | ●                 | ●                 |                 |                 | ●                 | ●                 | ●                    | ●                 |                  |                 |  |
| Special Features                      | UL resp. CSA   |                   |                   |                   | ●                 | ●                 |                 |                 |                   |                   |                      |                   |                  |                 |  |
|                                       | Very good oil resistance acc. to EN 50363-10-2 + DIN VDE 0207-363-10-2   |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   | ●                |                 |  |
|                                       | Good chemical resistance   |                   |                   |                   |                   |                   |                 |                 |                   |                   |                      |                   | ●                |                 |  |
|                                       | UV, ozone, and weather resistant   |                   |                   |                   |                   |                   |                 |                 |                   |                   | ●                    | ●                 |                  |                 |  |

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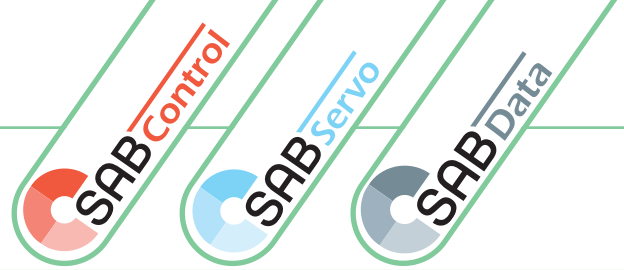
\*The temperature range for flexible application is mentioned on the corresponding catalog page





# Halogen-free Cables

## Selection Table



|  |  | Cable Type  | K/25 | K/27 | K/29 | K/31 | K/32 | K/33 | K/35 | K/37 |
|--|--|---|------|------|------|------|------|------|------|------|
|  |  | SABIX® CC 625 FRNC M                              |      |      |      |      |      |      |      |      |
|  |  | SABIX® CC 625 S FRNC M                            |      |      |      |      |      |      |      |      |
|  |  | SABIX® CC 625 SH FRNC M                           |      |      |      |      |      |      |      |      |
|  |  | SABIX® A 810 FRNC                                 |      |      |      |      |      |      |      |      |
|  |  | SABIX® A 812 C FRNC                               |      |      |      |      |      |      |      |      |
|  |  | SABIX® D 305 FRNC                                 |      |      |      |      |      |      |      |      |
|  |  | SABIX® D 315 FRNC                                 |      |      |      |      |      |      |      |      |
|  |  | SABIX® D 345 FRNC TP                              |      |      |      |      |      |      |      |      |
| Basic construction   | Single conductor   |   |      |      |      |      |      |      |      |      |
|  | Shielded   |   |      | ●    | ●    |      | ●    |      | ●    | ●    |
|  | Colored conductors   |   |      |      |      |      |      | ●    | ●    | ●    |
|  | Numbered conductors  | ●   | ●    | ●    | ●    | ●    | ●    |      |      |      |
|  | Twisted pairs  |   |      |      |      |      |      |      |      | ●    |
|  | Inner jacket   |   |      | ●    |      |      | ●    |      |      |      |
| Temperature range fixed installation*  | +220°C   |   |      |      |      |      |      |      |      |      |
|  | +105°C   |   |      |      |      |      |      |      |      |      |
|  | +90°C  |   | ●    | ●    | ●    |      |      |      |      |      |
|  | +85°C  |   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
|  | +70°C  |   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
|  | -30°C  |   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
|  | -40°C  |   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
|  | -50°C  |   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
|  |  |   |      |      |      |      |      |      |      |      |
| Voltage  | Peak operating voltage max. 350 V                                      |   |      |      |      |      |      | ●    | ●    | ●    |
|  | Peak operating voltage max. 500 V                                      |   |      |      |      |      |      | ●    | ●    | ●    |
|  | Nominal voltage Uo/U 300/500 V   | ●   | ●    | ●    |      |      |      |      |      |      |
|  | Nominal voltage Uo/U 450/750 V   |   |      |      |      |      |      |      |      |      |
|  | Nominal voltage Uo/U 0.6/1 kV  |   |      |      | ●    | ●    |      |      |      |      |
|  | Voltage UL resp. CSA 600 V   | ●   | ●    | ●    |      |      |      |      |      |      |
|  | Voltage UL resp. CSA 1000 V  |   |      |      |      |      |      |      |      |      |
|  | Testing voltage 1500 V   |   |      |      |      |      |      | ●    | ●    | ●    |
|  | Testing voltage 2000 V   |   |      |      |      |      |      |      |      |      |
|  | Testing voltage 2500 V   |   |      |      |      |      |      |      |      |      |
|  | Testing voltage 3000 V   | ●   | ●    | ●    |      |      |      |      |      |      |
|  | Testing voltage 4000 V   |   |      |      | ●    | ●    |      |      |      |      |
|  | Standards  | Halogen-free acc. to IEC 60754-1 + VDE 0482-754-1 | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| Fire performance: No flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 cat. C resp. D                            |  | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| Fire performance: No flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 and EN 50305 + VDE 0260-305 section 9.1.2 |  |   |      |      |      |      |      |      |      |      |
| Fire performance: Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2  |  | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| Fire performance acc. to CSA FT1   |  | ●   | ●    | ●    |      |      |      |      |      |      |
| Corrosiveness of conflagration gases: In compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases                              |  | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| Smoke density acc. to IEC 61034 + EN 61034   |  | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| UL resp. CSA   |  | ●   | ●    | ●    |      |      |      |      |      |      |
|  |  |   |      |      |      |      |      |      |      |      |
| Special Features   | Very good oil resistance acc. to EN 50363-10-2 + DIN VDE 0207-363-10-2 |   |      |      |      |      |      |      |      |      |
|  | Good chemical resistance   |   |      |      |      |      |      |      |      |      |



\*The temperature range for flexible application is mentioned on the corresponding catalog page

# Halogen-free Cables

## Selection Table

Cables for Railway Technology acc. to EN 45545-2



|                                       |   | Cable Type   | K/38 | K/39 | K/41 | K/42 | K/44 | K/45 | K/47 | K/48 | K/49 | K/50 |   |
|---------------------------------------|---|--|------|------|------|------|------|------|------|------|------|------|---|
| Applications                          | Single conductor  | SABIX® R 600 FRNC  |      |      |      |      |      |      |      | ●    |      |      |   |
|                                       | Multi-conductor cable   | SABIX® R 638 FRNC  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |   |
|                                       | Shielded  | SABIX® R 605 FRNC  |      | ●    |      | ●    | ●    | ●    | ●    |      | ●    |      |   |
|                                       | Wiring cable  | SABIX® R 615 FRNC  |      |      |      |      |      |      |      | ●    |      |      |   |
|                                       | Data cable  | SABIX® R 645 FRNC TP   |      |      |      |      |      |      |      |      |      |      |   |
|                                       | Control cable   | SABIX® R flex  | ●    | ●    |      |      |      | ●    | ●    | ●    | ●    | ●    |   |
|                                       | Cross linked type   | SAB RailLine 560   |      |      |      |      |      |      | ●    | ●    | ●    | ●    |   |
| Standards                             | Halogen-free  | Tested acc. to EN 45545-2  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |   |
|                                       |   | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4,3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ● |
|                                       | Fire Performance  | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ● |
|                                       |   | Burning test acc. to ASTM E 162-09   |      |      |      | ●    | ●    |      |      |      |      |      |   |
|                                       |   | Flame retardant ISO 6722 (UN/ECE R118)   |      |      | ●    | ●    | ●    |      |      |      |      |      |   |
|                                       |   | Insulation integrity in case of fire acc. to EN 50200 PH 30,<br>VDE 0482-200, IEC 60331-21 FE 180 + VDE 0482-331-21  |      |      |      |      |      |      |      |      |      |      | ● |
|                                       |   | Toxicity acc. to EN 50305 + VDE 0260-305   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ● |
|                                       |   | Smoke density acc. to IEC 61034 + VDE 0482-1034  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ● |
|                                       |   | Smoke density acc. to ASTM E 662-09  |      |      |      | ●    | ●    |      |      |      |      |      |   |
|                                       |   | Oil and fuel resistance acc. to EN 50264-1 + VDE 0260-264-1  |      |      |      |      |      |      | ●    | ●    |      |      |   |
| Temperature range fixed installation* | +125 °C   |  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |   |
|                                       | + 90 °C   |  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |   |
|                                       | - 40 °C   |  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |   |
|                                       | - 50 °C   |  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |   |
|                                       |   |  | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    |   |
| Voltage                               | Peak operating voltage:<br>< 0.25 mm <sup>2</sup> = max. 350 V<br>≥ 0.25 mm <sup>2</sup> = max. 500 V |  |      | ●    | ●    | ●    |      |      |      |      |      |      |   |
|                                       | Nominal voltage U <sub>0</sub> /U 300/500 V   | ●  | ●    |      |      |      |      | ●    | ●    | ●    | ●    | ●    |   |
|                                       | Nominal voltage U <sub>0</sub> /U 0.6/1 kV  |  |      |      |      |      |      |      | ●    |      |      |      |   |
|                                       | Testing voltage 1500 V  |  |      | ●    | ●    | ●    |      |      |      |      |      |      |   |
|                                       | Testing voltage 2000 V  |  |      |      |      |      |      | ●    | ●    | ●    | ●    | ●    |   |
|                                       | Testing voltage 3000 V  | ●  | ●    |      |      |      |      |      |      |      |      |      |   |
|                                       | Testing voltage 4000 V  |  |      |      |      |      |      |      | ●    |      |      |      |   |

K  
10



\*The temperature range for flexible application is mentioned on the corresponding catalog page

# Halogen-free Cables

## Selection Table

SABIX® BL - Cables for Shipbuilding



|                                       |   | K/51          | K/52                 | K/53                    | K/54                    | K/55                    | K/56               | K/57                 | K/58               | K/59               | K/60                 | K/61               | K/62                 |
|---------------------------------------|---|---------------|----------------------|-------------------------|-------------------------|-------------------------|--------------------|----------------------|--------------------|--------------------|----------------------|--------------------|----------------------|
|                                       |   | Cable Type    |                      |                         |                         |                         |                    |                      |                    |                    |                      |                    |                      |
|                                       |   | SABIX® BL 405 | SABIX® BL 415 C FRNC | SABIX® BL 443 C FRNC TT | SABIX® BL 445 C FRNC TP | SABIX® BL 446 C FRNC TP | SABIX® BL 400 FRNC | SABIX® BL 438 C FRNC | SABIX® BL 402 FRNC | SABIX® BL 408 FRNC | SABIX® BL 409 C FRNC | SABIX® BL 410 FRNC | SABIX® BL 412 C FRNC |
| Construction                          | Data cable  | ●             | ●                    | ●                       | ●                       | ●                       |                    |                      |                    |                    |                      |                    |                      |
|                                       | Control cable   |               |                      |                         |                         |                         | ●                  | ●                    |                    |                    |                      |                    |                      |
|                                       | Power cable   |               |                      |                         |                         |                         |                    |                      | ●                  | ●                  |                      |                    |                      |
|                                       | Shielded  |               | ●                    | ●                       | ●                       | ●                       |                    | ●                    |                    |                    | ●                    |                    | ●                    |
|                                       | Twisted pairs   |               |                      |                         | ●                       | ●                       |                    |                      |                    |                    |                      |                    | ●                    |
|                                       | Twisted triple  |               |                      | ●                       |                         |                         |                    |                      |                    |                    |                      |                    |                      |
| Temperature range fixed installation* | + 90 °C   | ●             | ●                    | ●                       | ●                       | ●                       | ●                  | ●                    | ●                  | ●                  | ●                    | ●                  | ●                    |
|                                       | - 40 °C   | ●             | ●                    | ●                       | ●                       | ●                       | ●                  | ●                    | ●                  | ●                  | ●                    | ●                  | ●                    |
| Voltage Range                         | Peak operating voltage max. 300 V   |               |                      | ●                       |                         | ●                       |                    |                      |                    |                    |                      |                    |                      |
|                                       | Peak operating voltage max. 350 V   | ●             | ●                    |                         | ●                       |                         |                    |                      |                    |                    |                      |                    |                      |
|                                       | Nominal voltage U <sub>0</sub> /U 300/500 V   |               |                      |                         |                         |                         | ●                  | ●                    |                    |                    |                      |                    |                      |
|                                       | Nominal voltage U <sub>0</sub> /U 0.6/1 kV  |               |                      |                         |                         |                         |                    |                      | ●                  | ●                  | ●                    | ●                  | ●                    |
|                                       | Testing voltage 1500 V  | ●             | ●                    | ●                       | ●                       | ●                       |                    |                      |                    |                    |                      |                    |                      |
|                                       | Testing voltage 2000 V  |               |                      |                         |                         |                         | ●                  | ●                    |                    |                    |                      |                    |                      |
|                                       | Testing voltage 4000 V  |               |                      |                         |                         |                         |                    |                      | ●                  | ●                  | ●                    | ●                  | ●                    |
| Standards                             | Halogen-free acc. to IEC 60754-1 + VDE 0482-754-1   | ●             | ●                    | ●                       | ●                       | ●                       | ●                  | ●                    | ●                  | ●                  | ●                    | ●                  | ●                    |
|                                       | Fire performance:<br>No flame propagation acc. to IEC 60332-3-22 + VDE 0482-332-3-22 Cat. A   | ●             | ●                    | ●                       | ●                       | ●                       | ●                  | ●                    | ●                  | ●                  | ●                    | ●                  | ●                    |
|                                       | Fire performance:<br>Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2                                    | ●             | ●                    | ●                       | ●                       | ●                       | ●                  | ●                    | ●                  | ●                  | ●                    | ●                  | ●                    |
|                                       | Corrosiveness of conflagration gases: In compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases | ●             | ●                    | ●                       | ●                       | ●                       | ●                  | ●                    | ●                  | ●                  | ●                    | ●                  | ●                    |
|                                       | Smoke density acc. to IEC 61034 + VDE 0482-1034   | ●             | ●                    | ●                       | ●                       | ●                       | ●                  | ●                    | ●                  | ●                  | ●                    | ●                  | ●                    |
| Approvals                             | DNV-GL  | ●             | ●                    | ●                       | ●                       | ●                       | ●                  | ●                    | ●                  | ●                  | ●                    | ●                  | ●                    |
| Characteristics                       | flexible conductor stranding  | ●             | ●                    | ●                       | ●                       | ●                       | ●                  | ●                    |                    |                    |                      | ●                  | ●                    |
|                                       | extended cross section range  | ●             | ●                    |                         | ●                       |                         |                    |                      |                    |                    |                      |                    |                      |



\*The temperature range for flexible application is mentioned on the corresponding catalog page

# Halogen-free Cables

## Selection Table

Continuously flexible with highest fire protection



|                                       |   | K/61       | K/62                  | K/63                  | K/64                  | K/65                  |                          |
|---------------------------------------|---|------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------|
|                                       |   | Cable Type | SABIX® SD 705 FRNC C1 | SABIX® SD 710 FRNC C1 | SABIX® SD 715 FRNC C1 | SABIX® SD 712 FRNC C1 | SABIX® SD 745 FRNC C1 TP |
| Construction                          | Data cable  | ●          |                       | ●                     |                       | ●                     |                          |
|                                       | Control cable   |            | ●                     |                       | ●                     |                       |                          |
|                                       | Shielded  |            |                       | ●                     | ●                     | ●                     |                          |
|                                       | Twisted pairs   |            |                       |                       |                       | ●                     |                          |
| Temperature range fixed installation* | + 90 °C   | ●          | ●                     | ●                     | ●                     | ●                     |                          |
|                                       | - 40 °C   | ●          | ●                     | ●                     | ●                     | ●                     |                          |
| Voltage Range                         | Peak operating voltage<br>< 0.25 mm <sup>2</sup> = max. 350 V<br>≥ 0.25 mm <sup>2</sup> = max. 500 V  | ●          |                       | ●                     |                       | ●                     |                          |
|                                       | Nominal voltage U <sub>0</sub> /U 0.6/1 kV  |            | ●                     |                       | ●                     |                       |                          |
|                                       | Testing voltage 1500 V  | ●          |                       | ●                     |                       | ●                     |                          |
|                                       | Testing voltage 4000 V  |            | ●                     |                       | ●                     |                       |                          |
| Standards                             | Halogen-free acc. to IEC 60754-1 + VDE 0482-754-1   | ●          | ●                     | ●                     | ●                     | ●                     |                          |
|                                       | Fire performance: No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25 cat. C resp. D | ●          | ●                     | ●                     | ●                     | ●                     |                          |
|                                       | Flame retardant and self-extinguishing acc. to<br>IEC 60332-1-2, VDE 0482-332-1-2 + NF C 32-070 C1  | ●          | ●                     | ●                     | ●                     | ●                     |                          |
|                                       | Corrosiveness of conflagration gases: In compliance<br>with IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases   | ●          | ●                     | ●                     | ●                     | ●                     |                          |
|                                       | Smoke density acc. to IEC 61034 + VDE 0482-1034   | ●          | ●                     | ●                     | ●                     | ●                     |                          |
|                                       | Toxicity acc. to NF X 70-100  | ●          | ●                     | ●                     | ●                     | ●                     |                          |
|                                       | Oil and fuel resistance acc. to EN 50264-1 + VDE 0260-264-1   | ●          | ●                     | ●                     | ●                     | ●                     |                          |

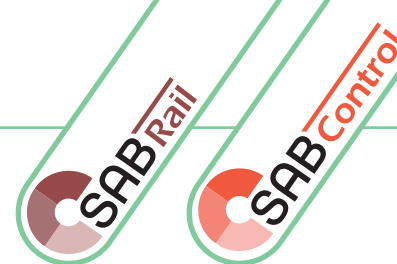


\*The temperature range for flexible application is mentioned on the corresponding catalog page

# Halogen-free Cables

## SABIX® A 146 FRNC

Wiring cable with improved fire performance and extended temperature range, 300/500V



BRÖCKSKES · D-VIERSEN · SABIX® A 146 FRNC 300/500 V 0.5 mm² CE



Marking for SABIX® A 146 FRNC 61460150:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 146 FRNC 300/500 V 0.5 mm² CE

### Construction:

|                    |   |
|--------------------|---|
| <b>Conductor:</b>  | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b> | SABIX®  |
| <b>Color code:</b> | colored, see table below                                    |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- very good stripping
- flexible
- fulfills fire protection requirements R15 (EL1A)  
acc. to EN 45545-2 for hazard levels HL1-3
- flame retardant acc. to UN/ECE R118

### Technical data:

|  |  |
|--|--|
| <b>Nominal voltage:</b>                              | Uo/U 300/500 V   |
| <b>Testing voltage:</b>                              | 2000 V   |
| <b>Min. bending radius:<br/>For one single bend:</b> | 7.5 x O.D.<br>5 x O.D.   |
| <b>Temperature range:<br/>static<br/>flexible:</b>   | <b>DIN VDE</b><br>-40/+90°C<br>-30/+90°C   |
| <b>Halogen-free:</b>                                 | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>complementary for rail technology:</b>            | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2   |
| <b>Burning characteristics:</b>                      | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2<br>Flame retardant acc. to ISO 6722 (UN/ECE R118) |
| <b>Corrosivity:</b>                                  | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                                | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                                  | good   |
| <b>Approvals:</b>                                    | CE, RoHS   |
| <b>Absence of harmful substances:</b>                | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.     | mm²  | AWG          | outer-ø      |            | cable weight<br>≈lbs/mft |
|--------------|------|--------------|--------------|------------|--------------------------|
|              |      |              | ±10%<br>inch | ±10%<br>mm |                          |
| ▶ 6146 .. 50 | 0.50 | 20 (≈ 16/32) | 0.083        | 2.1        | 6                        |
| ▶ 6146 .. 75 | 0.75 | 19 (≈ 23/32) | 0.094        | 2.4        | 8                        |
| ▶ 6146 .. 80 | 1.00 | 18 (≈ 30/32) | 0.098        | 2.5        | 9                        |

Other dimensions and colors are available on request

#### Color code for single conductors:

|             |                   |
|-------------|-------------------|
| 01 = black  | 07 = violet       |
| 02 = blue   | 08 = white        |
| 03 = brown  | 09 = orange       |
| 04 = gray   | 11 = red          |
| 05 = yellow | 16 = gentian blue |
| 06 = green  | 27 = green/yellow |



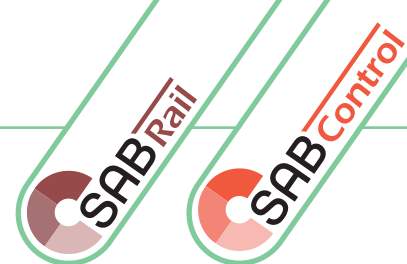
On request with  
tinned copper strands



# Halogen-free Cables

## SABIX® A 156 FRNC

Wiring cable with improved fire performance and extended temperature range, 450/750V



BRÖCKSKES · D-VIERSEN · SABIX® A 156 FRNC 450/750 V 1.5 mm² CE



Marking for SABIX® A 156 FRNC 61560182:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 156 FRNC 450/750 V 1.5 mm² CE

### Construction:

|                    |   |
|--------------------|---|
| <b>Conductor:</b>  | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b> | SABIX®  |
| <b>Color code:</b> | colored, see table below                                    |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- very good stripping
- flexible
- fulfills fire protection requirements R15 (EL1A)  
acc. to EN 45545-2 for hazard levels HL1-3
- flame retardant acc. to UN/ECE R118

### Technical data:

|   |  |
|---|--|
| <b>Nominal voltage:</b>   | Uo/U 450/750 V   |
| <b>Testing voltage:</b>   | 2500 V   |
| <b>Min. bending radius:<br/>For one single bend:</b>            | 7.5 x O.D.<br>5 x O.D.   |
| <b>Temperature range:</b><br><i>static:</i><br><i>flexible:</i> | <b>DIN VDE</b><br>-40/+90°C<br>-30/+90°C   |
| <b>Halogen-free:</b>  | acc. to IEC 60754-1 + VDE 0482-754-1<br>acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2             |
| <b>complementary for rail technology:</b>                       |  |
| <b>Burning characteristics:</b>                                 | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2<br>Flame retardant acc. to ISO 6722 (UN/ECE R118) |
| <b>Corrosivity:</b>   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>   | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>   | good   |
| <b>Approvals:</b>   | CE, RoHS   |
| <b>Absence of harmful substances:</b>                           | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.     | mm²    | AWG<br>MCM      | outer-ø      |            | cable<br>weight<br>≈lbs/mft |
|--------------|--------|-----------------|--------------|------------|-----------------------------|
|              |        |                 | ±10%<br>inch | ±10%<br>mm |                             |
| ▶ 6156 .. 82 | 1.50   | 16 (≈ 27-29/30) | 0.118        | 3.0        | 13                          |
| ▶ 6156 .. 84 | 2.50   | 14 (≈ 46/30)    | 0.142        | 3.6        | 22                          |
| ▶ 6156 .. 86 | 4.00   | 12 (≈ 52/28)    | 0.165        | 4.2        | 32                          |
| ▶ 6156 .. 87 | 6.00   | 10 (≈ 78/28)    | 0.185        | 4.7        | 45                          |
| ▶ 6156 .. 88 | 10.00  | 8 (≈ 77/26)     | 0.248        | 6.3        | 79                          |
| ▶ 6156 .. 89 | 16.00  | 6 (≈ 122/26)    | 0.315        | 8.0        | 122                         |
| ▶ 6156 .. 90 | 25.00  | 4 (≈ 190/26)    | 0.390        | 9.9        | 196                         |
| ▶ 6156 .. 91 | 35.00  | 2 (≈ 272/26)    | 0.437        | 11.1       | 265                         |
| ▶ 6156 .. 92 | 50.00  | 1 (≈ 400/26)    | 0.496        | 12.6       | 378                         |
| ▶ 6156 .. 93 | 70.00  | 2/0 (≈ 543/26)  | 0.583        | 14.8       | 505                         |
| ▶ 6156 .. 94 | 95.00  | 3/0 (≈ 484/24)  | 0.717        | 18.2       | 695                         |
| ▶ 6156 .. 95 | 120.00 | 4/0 (≈ 589/24)  | 0.776        | 19.7       | 834                         |
| ▶ 6156 .. 96 | 150.00 | 250 (≈ 740/24)  | 0.858        | 21.8       | 1037                        |
| ▶ 6156 .. 97 | 185.00 | 350 (≈ 902/24)  | 0.913        | 23.2       | 1254                        |
| ▶ 6156 .. 98 | 240.00 | 450 (≈ 1220/24) | 1.059        | 26.9       | 1684                        |
| ▶ 6156 .. 99 | 300.00 | 550 (≈ 1525/24) | 1.181        | 30.0       | 2100                        |

Other dimensions and colors are available on request

#### Color code for single conductors:

|             |                   |
|-------------|-------------------|
| 01 = black  | 07 = violet       |
| 02 = blue   | 08 = white        |
| 03 = brown  | 09 = orange       |
| 04 = gray   | 11 = red          |
| 05 = yellow | 16 = gentian blue |
| 06 = green  | 27 = green/yellow |



On request with  
tinned copper strands

K  
14

# Halogen-free Cables

## SABIX® A 166 FRNC

Wiring cable with improved fire performance and extended temperature range, 0.6/1kV



BRÖCKSKES · D-VIERSEN · SABIX® A 166 FRNC 0.6/1 kV 1.5 mm<sup>2</sup> CE

Marking for SABIX® A 166 FRNC 61660182:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 166 FRNC 0.6/1 kV 1.5 mm<sup>2</sup> CE

### Construction:

|                    |   |
|--------------------|---|
| <b>Conductor:</b>  | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b> | SABIX®  |
| <b>Color code:</b> | colored, see table below                                    |

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Nominal voltage:</b>               | Uo/U 0.6/1 V  |
| <b>Testing voltage:</b>               | 3000 V  |
| <b>Min. bending radius:</b>           | 7.5 x O.D.  |
| <b>For one single bend:</b>           | 5 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b>  |
| <i>static:</i>                        | -40/+90°C   |
| <i>flexible:</i>                      | -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>       | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D;<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility:</b>                   | good  |
| <b>Approvals:</b>                     | CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- very good stripping
- flexible

| item no.      | mm <sup>2</sup> | AWG<br>MCM      | outer-ø      |            | cable<br>weight<br>≈lbs/mft |
|---------------|-----------------|-----------------|--------------|------------|-----------------------------|
|               |                 |                 | ±10%<br>inch | ±10%<br>mm |                             |
| ▶ 6166 .. 82* | 1.50            | 16 (≈ 27-29/30) | 0.126        | 3.2        | 15                          |
| ▶ 6166 .. 84* | 2.50            | 14 (≈ 46/30)    | 0.154        | 3.9        | 24                          |
| ▶ 6166 .. 86* | 4.00            | 12 (≈ 52/28)    | 0.177        | 4.5        | 34                          |
| ▶ 6166 .. 87* | 6.00            | 10 (≈ 78/28)    | 0.197        | 5.0        | 48                          |
| ▶ 6166 .. 88* | 10.00           | 8 (≈ 77/26)     | 0.287        | 7.3        | 88                          |
| ▶ 6166 .. 89* | 16.00           | 6 (≈ 122/26)    | 0.327        | 8.3        | 134                         |
| ▶ 6166 .. 90* | 25.00           | 4 (≈ 190/26)    | 0.402        | 10.2       | 205                         |
| ▶ 6166 .. 91* | 35.00           | 2 (≈ 272/26)    | 0.449        | 11.4       | 271                         |
| ▶ 6166 .. 92* | 50.00           | 1 (≈ 400/26)    | 0.555        | 14.1       | 387                         |
| ▶ 6166 .. 93* | 70.00           | 2/0 (≈ 543/26)  | 0.594        | 15.1       | 514                         |
| ▶ 6166 .. 94* | 95.00           | 3/0 (≈ 484/24)  | 0.728        | 18.5       | 707                         |
| ▶ 6166 .. 95* | 120.00          | 4/0 (≈ 589/24)  | 0.787        | 20.0       | 847                         |
| ▶ 6166 .. 96* | 150.00          | 250 (≈ 740/24)  | 0.870        | 22.1       | 1053                        |
| ▶ 6166 .. 97* | 185.00          | 350 (≈ 902/24)  | 0.925        | 23.5       | 1271                        |
| ▶ 6166 .. 98* | 240.00          | 450 (≈ 1220/24) | 1.071        | 27.2       | 1705                        |

Other dimensions and colors are available on request

#### Color code for single conductors:

|             |                   |
|-------------|-------------------|
| 01 = black  | 07 = violet       |
| 02 = blue   | 08 = white        |
| 03 = brown  | 09 = orange       |
| 04 = gray   | 11 = red          |
| 05 = yellow | 16 = gentian blue |
| 06 = green  | 27 = green/yellow |



On request with  
tinned copper strands

# Halogen-free Cables

**SABIX® A 147 FRNC** Wiring cable 600 V

**SABIX® A 157 FRNC** Wiring cable 1000 V



A 147 FRNC 300/500V 0.5 mm<sup>2</sup> 20 AWG AWM Style 10528 75°C 600V CE

Marking for SABIX® A 147 FRNC 61470150:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 147 FRNC 300/500V 0.5 mm<sup>2</sup> 20 AWG AWM Style 10528 75°C 600V CE

## Construction:

|                    |   |
|--------------------|---|
| <b>Conductor:</b>  | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b> | SABIX®  |
| <b>Color code:</b> | colored, see table below                                      |

## Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- UL recognition

## Technical data:

|  |  |  |
|--|--|--|
| <b>Nominal voltage:</b>                              | <b>SABIX® A 147 FRNC:</b><br>20 - 18 AWG<br>U <sub>o</sub> /U 300/500 V  | <b>SABIX® A 157 FRNC:</b><br>16 AWG - 550 MCM<br>U <sub>o</sub> /U 450/750 V |
| <b>Voltage UL:</b>                                   | <b>SABIX® A 147 FRNC:</b><br>20 - 18 AWG<br>600 V  | <b>SABIX® A 157 FRNC:</b><br>16 AWG - 550 MCM<br>1000 V                      |
| <b>Testing voltage:</b>                              | <b>SABIX® A 147 FRNC:</b><br>2000 V  | <b>SABIX® A 157 FRNC:</b><br>2500 V  |
| <b>Min. bending radius:<br/>For one single bend:</b> | 7.5 x O.D.<br>5 x O.D.   |  |
| <b>Temperature range:</b>                            | <b>DIN VDE:</b><br>static:<br>flexible:<br>-40/+90°C<br>-30/+90°C  | <b>UL:</b><br>up to +75°C  |
| <b>Halogen-free:</b>                                 | acc. to IEC 60754-1 + VDE 0482-754-1   |  |
| <b>Burning characteristics:</b>                      | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp D;<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |  |
| <b>Corrosivity:</b>                                  | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |  |
| <b>Smoke density:</b>                                | acc. to IEC 61034 + VDE 0482-1034  |  |
| <b>Flexibility:</b>                                  | good   |  |
| <b>Approvals:</b>                                    | UR AWM, CE, RoHS   |  |
| <b>Absence of harmful substances:</b>                | acc. to RoHS directive of the European Union<br>see page O/30  |  |

## SABIX® A 147 FRNC (U<sub>o</sub>/U 300/500 V)

| item no.     | mm <sup>2</sup> | AWG          | outer-ø      |            | cable weight<br>≈lbs/mft |
|--------------|-----------------|--------------|--------------|------------|--------------------------|
|              |                 |              | ±10%<br>inch | ±10%<br>mm |                          |
| ▶ 6147 .. 50 | 0.50            | 20 (≈ 16/32) | 0.098        | 2.5        | 8                        |
| ▶ 6147 .. 75 | 0.75            | 19 (≈ 23/32) | 0.110        | 2.8        | 9                        |
| ▶ 6147 .. 80 | 1.00            | 18 (≈ 30/32) | 0.114        | 2.9        | 11                       |

Other dimensions and colors are available on request

## SABIX® A 157 FRNC (U<sub>o</sub>/U 450/750 V)

| item no.     | mm <sup>2</sup> | AWG<br>MCM      | outer-ø      |            | cable weight<br>≈lbs/mft |
|--------------|-----------------|-----------------|--------------|------------|--------------------------|
|              |                 |                 | ±10%<br>inch | ±10%<br>mm |                          |
| ▶ 6157 .. 82 | 1.50            | 16 (≈ 27-29/30) | 0.126        | 3.2        | 15                       |
| ▶ 6157 .. 84 | 2.50            | 14 (≈ 46/30)    | 0.142        | 3.6        | 22                       |
| ▶ 6157 .. 86 | 4.00            | 12 (≈ 52/28)    | 0.169        | 4.3        | 31                       |
| ▶ 6157 .. 87 | 6.00            | 10 (≈ 78/28)    | 0.217        | 5.5        | 50                       |
| ▶ 6157 .. 88 | 10.00           | 8 (≈ 77/26)     | 0.264        | 6.7        | 79                       |
| ▶ 6157 .. 89 | 16.00           | 6 (≈ 122/26)    | 0.346        | 8.8        | 129                      |
| ▶ 6157 .. 90 | 25.00           | 4 (≈ 190/26)    | 0.402        | 10.2       | 189                      |
| ▶ 6157 .. 91 | 35.00           | 2 (≈ 272/26)    | 0.500        | 12.7       | 278                      |
| ▶ 6157 .. 92 | 50.00           | 1 (≈ 400/26)    | 0.547        | 13.9       | 385                      |
| ▶ 6157 .. 93 | 70.00           | 2/0 (≈ 543/26)  | 0.642        | 16.3       | 521                      |
| ▶ 6157 .. 94 | 95.00           | 3/0 (≈ 484/24)  | 0.724        | 18.4       | 678                      |
| ▶ 6157 .. 95 | 120.00          | 4/0 (≈ 589/24)  | 0.823        | 20.9       | 839                      |
| ▶ 6157 .. 96 | 150.00          | 250 (≈ 740/24)  | 0.882        | 22.4       | 1029                     |
| ▶ 6157 .. 97 | 185.00          | 350 (≈ 902/24)  | 0.984        | 25.0       | 1269                     |
| ▶ 6157 .. 98 | 240.00          | 450 (≈ 1220/24) | 1.114        | 28.3       | 1662                     |
| ▶ 6157 .. 99 | 300.00          | 550 (≈ 1525/24) | 1.220        | 31.0       | 2058                     |

Other dimensions and colors are available on request

### Color code for single conductors:

|             |                   |
|-------------|-------------------|
| 01 = black  | 07 = violet       |
| 02 = blue   | 08 = white        |
| 03 = brown  | 09 = orange       |
| 04 = gray   | 11 = red          |
| 05 = yellow | 16 = gentian blue |
| 06 = green  | 27 = green/yellow |

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# Halogen-free Cables

## SABIX® A 100 HT

High temperature resistant single conductor wire with nickel-plated strands

## SABIX® A 101 HT

High temperature resistant single conductor wire with silver-plated strands



SCM BRÖCKSKES · D-VIERSEN · SABIX® A 100 HT · 220°C · CE

Marking for SABIX® A 100 HT 71000150:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 100 HT · 220°C · CE

### Construction:

|                    |  |
|--------------------|--|
| <b>Conductor:</b>  | <b>SABIX® A 100 HT:</b><br>nickel-plated copper strands<br><b>SABIX® A 101 HT:</b><br>silver-plated copper strands<br><br>fine wires<br>acc. to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b> | SABIX®   |
| <b>Color code:</b> | colored, see table below   |

### Outstanding features:

- halogen-free
- high temperature resistant
- flexible
- SABIX® A 101 HT: good solderability

### Technical data:

|  |   |
|--|---|
| <b>Nominal voltage:</b>                              | Uo/U 300/500 V  |
| <b>Testing voltage:</b>                              | 2000 V  |
| <b>Min. bending radius:<br/>For one single bend:</b> | 7.5 x O.D.<br>5 x O.D.  |
| <b>Temperature range:<br/>static:<br/>flexible:</b>  | <b>DIN VDE</b><br>-40/+220°C<br>-25/+220°C  |
| <b>Halogen-free:</b>                                 | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>                      | flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2                      |
| <b>Corrosivity:</b>                                  | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases |
| <b>Approvals:</b>                                    | CE, RoHS  |
| <b>Absence of harmful substances:</b>                | acc. to RoHS directive of the European Union<br>see page O/30   |

### SABIX® A 100 HT

| item no.     | mm <sup>2</sup> | AWG<br>MCM      | outer-ø      |            | cable<br>weight<br>≈lbs/mft |
|--------------|-----------------|-----------------|--------------|------------|-----------------------------|
|              |                 |                 | ±10%<br>inch | ±10%<br>mm |                             |
| ▶ 7100 .. 25 | 0.25            | 24 (≈ 14/34)    | 0.091        | 2.3        | 5                           |
| ▶ 7100 .. 34 | 0.34            | 22 (≈ 7/30)     | 0.094        | 2.4        | 5                           |
| ▶ 7100 .. 50 | 0.50            | 20 (≈ 16/32)    | 0.098        | 2.5        | 7                           |
| ▶ 7100 .. 75 | 0.75            | 19 (≈ 23/32)    | 0.110        | 2.8        | 9                           |
| ▶ 7100 .. 80 | 1.00            | 18 (≈ 30/32)    | 0.114        | 2.9        | 10                          |
| ▶ 7100 .. 82 | 1.50            | 16 (≈ 27-29/30) | 0.134        | 3.4        | 14                          |
| ▶ 7100 .. 84 | 2.50            | 14 (≈ 46/30)    | 0.157        | 4.0        | 22                          |
| ▶ 7100 .. 86 | 4.00            | 12 (≈ 52/28)    | 0.181        | 4.6        | 32                          |
| ▶ 7100 .. 87 | 6.00            | 10 (≈ 78/28)    | 0.201        | 5.1        | 45                          |
| ▶ 7100 .. 88 | 10.0            | 8 (≈ 77/26)     | 0.291        | 7.4        | 81                          |
| ▶ 7100 .. 89 | 16.0            | 6 (≈ 122/26)    | 0.331        | 8.4        | 118                         |
| ▶ 7100 .. 90 | 25.0            | 4 (≈ 190/26)    | 0.406        | 10.3       | 190                         |
| ▶ 7100 .. 91 | 35.0            | 2 (≈ 272/26)    | 0.453        | 11.5       | 259                         |
| ▶ 7100 .. 92 | 50.0            | 1 (≈ 400/26)    | 0.559        | 14.2       | 369                         |
| ▶ 7100 .. 93 | 70.0            | 2/0 (≈ 543/26)  | 0.598        | 15.2       | 495                         |
| ▶ 7100 .. 94 | 95.0            | 3/0 (≈ 484/24)  | 0.732        | 18.6       | 678                         |
| ▶ 7100 .. 95 | 120.0           | 4/0 (≈ 589/24)  | 0.791        | 20.1       | 816                         |
| ▶ 7100 .. 96 | 150.0           | 250 (≈ 740/24)  | 0.874        | 22.2       | 1015                        |
| ▶ 7100 .. 97 | 185.0           | 350 (≈ 902/24)  | 0.929        | 23.6       | 1228                        |
| ▶ 7100 .. 98 | 240.0           | 450 (≈ 1220/24) | 1.075        | 27.3       | 1651                        |
| ▶ 7100 .. 99 | 300.0           | 550 (≈ 1525/24) | 1.197        | 30.4       | 2057                        |

Other dimensions and colors are available on request

### SABIX® A 101 HT

| item no.     | mm <sup>2</sup> | AWG<br>MCM      | outer-ø      |            | cable<br>weight<br>≈lbs/mft |
|--------------|-----------------|-----------------|--------------|------------|-----------------------------|
|              |                 |                 | ±10%<br>inch | ±10%<br>mm |                             |
| ▶ 7101 .. 25 | 0.25            | 24 (≈ 14/34)    | 0.091        | 2.3        | 5                           |
| ▶ 7101 .. 34 | 0.34            | 22 (≈ 7/30)     | 0.094        | 2.4        | 5                           |
| ▶ 7101 .. 50 | 0.50            | 20 (≈ 16/32)    | 0.098        | 2.5        | 7                           |
| ▶ 7101 .. 75 | 0.75            | 19 (≈ 23/32)    | 0.110        | 2.8        | 9                           |
| ▶ 7101 .. 80 | 1.00            | 18 (≈ 30/32)    | 0.114        | 2.9        | 10                          |
| ▶ 7101 .. 82 | 1.50            | 16 (≈ 27-29/30) | 0.134        | 3.4        | 14                          |
| ▶ 7101 .. 84 | 2.50            | 14 (≈ 46/30)    | 0.157        | 4.0        | 22                          |
| ▶ 7101 .. 86 | 4.00            | 12 (≈ 52/28)    | 0.181        | 4.6        | 32                          |
| ▶ 7101 .. 87 | 6.00            | 10 (≈ 78/28)    | 0.201        | 5.1        | 45                          |
| ▶ 7101 .. 88 | 10.0            | 8 (≈ 77/26)     | 0.291        | 7.4        | 81                          |
| ▶ 7101 .. 89 | 16.0            | 6 (≈ 122/26)    | 0.331        | 8.4        | 118                         |
| ▶ 7101 .. 90 | 25.0            | 4 (≈ 190/26)    | 0.406        | 10.3       | 190                         |
| ▶ 7101 .. 91 | 35.0            | 2 (≈ 272/26)    | 0.453        | 11.5       | 259                         |
| ▶ 7101 .. 92 | 50.0            | 1 (≈ 400/26)    | 0.559        | 14.2       | 369                         |
| ▶ 7101 .. 93 | 70.0            | 2/0 (≈ 543/26)  | 0.598        | 15.2       | 495                         |
| ▶ 7101 .. 94 | 95.0            | 3/0 (≈ 484/24)  | 0.732        | 18.6       | 678                         |
| ▶ 7101 .. 95 | 120.0           | 4/0 (≈ 589/24)  | 0.791        | 20.1       | 816                         |
| ▶ 7101 .. 96 | 150.0           | 250 (≈ 740/24)  | 0.874        | 22.2       | 1015                        |
| ▶ 7101 .. 97 | 185.0           | 350 (≈ 902/24)  | 0.929        | 23.6       | 1228                        |
| ▶ 7101 .. 98 | 240.0           | 450 (≈ 1220/24) | 1.075        | 27.3       | 1651                        |
| ▶ 7101 .. 99 | 300.0           | 550 (≈ 1525/24) | 1.197        | 30.4       | 2057                        |

Other dimensions and colors are available on request

#### Color code for single conductors:

|             |                   |
|-------------|-------------------|
| 01 = black  | 07 = violet       |
| 02 = blue   | 08 = white        |
| 03 = brown  | 09 = orange       |
| 04 = gray   | 11 = red          |
| 05 = yellow | 16 = gentian blue |
| 06 = green  | 27 = green/yellow |

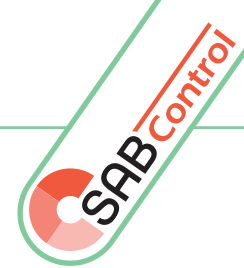


temperature resistant  
up to +220°C

# Halogen-free Cables

## SABIX® A 200 FRNC

Control cable with numbered conductors with improved fire performance and extended temperature range



Marking for SABIX® A 200 FRNC 62001215:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 200 FRNC 12 x 1.5 mm² CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- very flexible
- very good stripping

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 3000 V  |
| <b>Min. bending radius:</b>           | 4 x O.D.<br>fixed installation:<br>free movement: 6 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br>static: -40/+85°C<br>flexible: -30/+85°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.                             | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm²</b> |                                |                   |                 |                       |
| 62000205                             | 2                              | 0.197             | 5.0             | 25                    |
| 62000305                             | 3                              | 0.209             | 5.3             | 29                    |
| 62000405                             | 4                              | 0.224             | 5.7             | 34                    |
| 62000505                             | 5                              | 0.252             | 6.4             | 42                    |
| 62000705                             | 7                              | 0.272             | 6.9             | 52                    |
| 62001005                             | 10                             | 0.346             | 8.8             | 73                    |
| 62001205                             | 12                             | 0.366             | 9.3             | 85                    |
| 62001805                             | 18                             | 0.429             | 10.9            | 121                   |
| 62002505                             | 25                             | 0.516             | 13.1            | 161                   |
| 62003205                             | 32                             | 0.559             | 14.2            | 200                   |
| 62004205                             | 42                             | 0.626             | 15.9            | 255                   |
| 62006105                             | 61                             | 0.736             | 18.7            | 356                   |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm²</b> |                                |                   |                 |                       |
| 62000207                             | 2                              | 0.220             | 5.6             | 32                    |
| 62000307                             | 3                              | 0.232             | 5.9             | 38                    |
| 62000407                             | 4                              | 0.260             | 6.6             | 47                    |
| 62000507                             | 5                              | 0.283             | 7.2             | 56                    |
| 62000707                             | 7                              | 0.315             | 8.0             | 71                    |
| 62001007                             | 10                             | 0.402             | 10.2            | 101                   |
| 62001207                             | 12                             | 0.421             | 10.7            | 117                   |
| 62001807                             | 18                             | 0.496             | 12.6            | 167                   |
| 62002507                             | 25                             | 0.602             | 15.3            | 228                   |
| 62003207                             | 32                             | 0.654             | 16.6            | 282                   |
| 62004207                             | 42                             | 0.732             | 18.6            | 359                   |
| 62006107                             | 61                             | 0.858             | 21.8            | 504                   |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm²</b> |                                |                   |                 |                       |
| 62000210                             | 2                              | 0.228             | 5.8             | 36                    |
| 62000310                             | 3                              | 0.248             | 6.3             | 45                    |
| 62000410                             | 4                              | 0.268             | 6.8             | 54                    |

| item no.                                | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm²</b>    |                                |                   |                 |                       |
| 62000510                                | 5                              | 0.303             | 7.7             | 67                    |
| 62000710                                | 7                              | 0.327             | 8.3             | 83                    |
| 62001010                                | 10                             | 0.425             | 10.8            | 120                   |
| 62001210                                | 12                             | 0.437             | 11.1            | 136                   |
| 62001810                                | 18                             | 0.516             | 13.1            | 196                   |
| 62002510                                | 25                             | 0.626             | 15.9            | 267                   |
| 62003210                                | 32                             | 0.681             | 17.3            | 331                   |
| 62004210                                | 42                             | 0.772             | 19.6            | 420                   |
| 62006110                                | 61                             | 0.902             | 22.9            | 595                   |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm²</b> |                                |                   |                 |                       |
| 62000215                                | 2                              | 0.260             | 6.6             | 48                    |
| 62000315                                | 3                              | 0.276             | 7.0             | 58                    |
| 62000415                                | 4                              | 0.307             | 7.8             | 73                    |
| 62000515                                | 5                              | 0.335             | 8.5             | 87                    |
| 62000715                                | 7                              | 0.370             | 9.4             | 112                   |
| 62001015                                | 10                             | 0.480             | 12.2            | 161                   |
| 62001215                                | 12                             | 0.496             | 12.6            | 183                   |
| 62001815                                | 18                             | 0.591             | 15.0            | 267                   |
| 62002515                                | 25                             | 0.717             | 18.2            | 369                   |
| 62003215                                | 32                             | 0.776             | 19.7            | 458                   |
| 62004215                                | 42                             | 0.874             | 22.2            | 593                   |
| 62006115                                | 61                             | 1.024             | 26.0            | 833                   |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm²</b>    |                                |                   |                 |                       |
| 62000225                                | 2                              | 0.315             | 8.0             | 73                    |
| 62000325                                | 3                              | 0.335             | 8.5             | 88                    |
| 62000425                                | 4                              | 0.370             | 9.4             | 110                   |
| 62000525                                | 5                              | 0.406             | 10.3            | 132                   |
| 62000725                                | 7                              | 0.449             | 11.4            | 171                   |
| 62001025                                | 10                             | 0.591             | 15.0            | 251                   |
| 62001225                                | 12                             | 0.610             | 15.5            | 287                   |
| 62001825                                | 18                             | 0.724             | 18.4            | 416                   |
| 62002525                                | 25                             | 0.886             | 22.5            | 568                   |

| item no.                              | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm²</b>  |                                |                   |                 |                       |
| 62000340                              | 3                              | 0.390             | 9.9             | 129                   |
| 62000440                              | 4                              | 0.433             | 11.0            | 161                   |
| 62000540                              | 5                              | 0.484             | 12.3            | 199                   |
| 62000740                              | 7                              | 0.535             | 13.6            | 259                   |
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm²</b>  |                                |                   |                 |                       |
| 62000360                              | 3                              | 0.457             | 11.6            | 183                   |
| 62000460                              | 4                              | 0.508             | 12.9            | 230                   |
| 62000560                              | 5                              | 0.567             | 14.4            | 284                   |
| 62000760                              | 7                              | 0.606             | 15.4            | 370                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm²</b>  |                                |                   |                 |                       |
| 62000461                              | 4                              | 0.665             | 16.9            | 394                   |
| 62000561                              | 5                              | 0.740             | 18.8            | 480                   |
| 62000761                              | 7                              | 0.823             | 20.9            | 638                   |
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm²</b> |                                |                   |                 |                       |
| 62000462                              | 4                              | 0.819             | 20.8            | 601                   |
| 62000562                              | 5                              | 0.913             | 23.2            | 751                   |
| 62000762                              | 7                              | 1.012             | 25.7            | 974                   |
| <b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm²</b> |                                |                   |                 |                       |
| 62000463                              | 4                              | 0.980             | 24.9            | 933                   |
| 62000563                              | 5                              | 1.106             | 28.1            | 1176                  |
| <b>▶ 2 AWG (≈ 272/26) ▪ 35.00 mm²</b> |                                |                   |                 |                       |
| 62000464                              | 4                              | 1.134             | 28.8            | 1295                  |
| 62000564                              | 5                              | 1.280             | 32.5            | 1621                  |

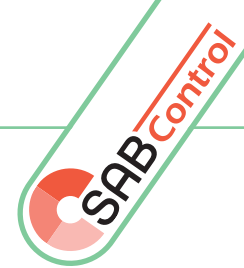
Other dimensions and colors are available on request

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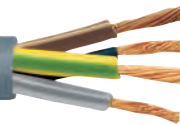
# Halogen-free Cables

## SABIX® A 205 FRNC

Control cable with colored conductors with improved fire performance and extended temperature range



BRÖCKSKES · D-VIERSEN · SABIX® A 205 FRNC 4 x 1.5 mm<sup>2</sup> CE



Marking for SABIX® A 205 FRNC 62050415:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 205 FRNC 4 x 1.5 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | up to 5 conductors- HD 308, see below,<br>from 6 conductors- black conductors with<br>consecutive numbers acc. to EN 50334 +<br>VDE 0293-334<br>from 3 conductors- a green/yellow ground |
| <b>Stranding:</b>       | in layers  |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- very flexible
- very good stripping

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 3000 V  |
| <b>Min. bending radius:</b>           |  |
| <i>fixed installation:</i>            | 4 x O.D.   |
| <i>free movement:</i>                 | 6 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b>   |
| <i>static:</i>                        | -40/+85°C  |
| <i>flexible:</i>                      | -30/+85°C  |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62050205  | 2                              | 0.197             | 5.0             | 25                    |
| 62050305  | 3                              | 0.209             | 5.3             | 29                    |
| 62050405  | 4                              | 0.224             | 5.7             | 34                    |
| 62050505  | 5                              | 0.236             | 6.0             | 42                    |
| 62050705  | 7                              | 0.272             | 6.9             | 52                    |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62050207  | 2                              | 0.220             | 5.6             | 32                    |
| 62050307  | 3                              | 0.232             | 5.9             | 38                    |
| 62050407  | 4                              | 0.260             | 6.6             | 47                    |
| 62050507  | 5                              | 0.283             | 7.2             | 56                    |
| 62050707  | 7                              | 0.315             | 8.0             | 71                    |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62050210  | 2                              | 0.228             | 5.8             | 36                    |
| 62050310  | 3                              | 0.248             | 6.3             | 45                    |
| 62050410  | 4                              | 0.268             | 6.8             | 54                    |
| 62050510  | 5                              | 0.303             | 7.7             | 67                    |
| 62050710  | 7                              | 0.327             | 8.3             | 83                    |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62050215   | 2                              | 0.260             | 6.6             | 48                    |
| 62050315   | 3                              | 0.276             | 7.0             | 58                    |
| 62050415   | 4                              | 0.307             | 7.8             | 73                    |
| 62050515   | 5                              | 0.335             | 8.5             | 87                    |
| 62050715   | 7                              | 0.370             | 9.4             | 112                   |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 62050225   | 2                              | 0.315             | 8.0             | 73                    |
| 62050325   | 3                              | 0.335             | 8.5             | 88                    |
| 62050425   | 4                              | 0.370             | 9.4             | 110                   |
| 62050525   | 5                              | 0.413             | 10.5            | 132                   |
| 62050725   | 7                              | 0.449             | 11.4            | 171                   |
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 62050340   | 3                              | 0.390             | 9.9             | 129                   |
| 62050440   | 4                              | 0.433             | 11.0            | 161                   |
| 62050540   | 5                              | 0.484             | 12.3            | 199                   |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 62050360   | 3                              | 0.457             | 11.6            | 184                   |
| 62050460   | 4                              | 0.488             | 12.4            | 230                   |
| 62050560   | 5                              | 0.567             | 14.4            | 284                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 62050361   | 3                              | 0.602             | 15.3            | 316                   |
| 62050461   | 4                              | 0.665             | 16.9            | 394                   |
| 62050561   | 5                              | 0.740             | 18.8            | 481                   |
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62050462   | 4                              | 0.819             | 20.8            | 601                   |
| <b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62050463   | 4                              | 0.980             | 24.9            | 933                   |
| <b>▶ 2 AWG (≈ 272/26) ▪ 35.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62050464   | 4                              | 1.134             | 28.8            | 1295                  |
| <b>▶ 1 AWG (≈ 400/26) ▪ 50.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62050465   | 4                              | 1.311             | 33.3            | 1768                  |

Other dimensions and colors are available on request

### HD 308 color code: up to 5 conductors

2c cable: blue, brown

3c cable: green/yellow, blue, brown

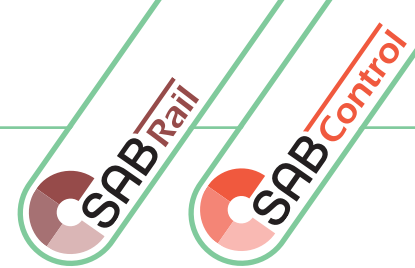
4c cable: green/yellow, brown, black, gray

5c cable: green/yellow, blue, brown, black, gray

# Halogen-free Cables

## SABIX® A 224 FRNC C1

Control cable with numbered conductors,  
improved fire performance and temperature range



Marking for SABIX® A 224 FRNC C1 62241405:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 224 FRNC C1 14 x 0.5 mm² CE

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5   |
| <b>Insulation:</b>      | SABIX®  |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers   |
| <b>Jacket material:</b> | SABIX®  |
| <b>Jacket color:</b>    | black (RAL 9005)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- NF C32-070 C1

### Technical data:

|  |   |
|--|---|
| <b>Nominal voltage:</b>                      | Uo/U 450/750 V  |
| <b>Testing voltage:</b>                      | conductor/conductor: 3000 V   |
| <b>Min. bending radius:</b>                  |   |
| <i>fixed installation:</i>                   | 4 x O.D.  |
| <i>free movement:</i>                        | 6 x O.D.  |
| <b>Radiation resistance:</b>                 | 1 x 10 <sup>7</sup> cJ/kg (100 kGy)   |
| <b>Temperature range:</b>                    | <b>DIN VDE</b>  |
| <i>static:</i>                               | -30/+90°C   |
| <i>flexible:</i>                             | -20/+90°C   |
| <b>Halogen-free:</b>                         | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>              | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2<br>+ NF C32-070 C1 |
| <b>Corrosiveness of conflagration gases:</b> | in compliance with<br>IEC 60332-1-2 + VDE 0482-332-1-2<br>no development of corrosive conflagration gases   |
| <b>Smoke density:</b>                        | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Approvals:</b>                            | CE, RoHS  |
| <b>Absence of harmful substances:</b>        | acc. to RoHS directive of the European Union<br>see page O/30   |

| item no.                              | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>► 20 AWG • 0.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62240205                              | 2                              | 0.228             | 5.8             | 24                    |
| 62240305                              | 3                              | 0.248             | 6.3             | 33                    |
| 62240405                              | 4                              | 0.268             | 6.8             | 40                    |
| 62240505                              | 5                              | 0.303             | 7.7             | 51                    |
| 62240705                              | 7                              | 0.327             | 8.3             | 63                    |
| 32240805                              | 8                              | 0.386             | 9.8             | 79                    |
| 62240905                              | 9                              | 0.417             | 10.6            | 91                    |
| 62241005                              | 10                             | 0.425             | 10.8            | 94                    |
| 62241205                              | 12                             | 0.437             | 11.1            | 107                   |
| 62241405                              | 14                             | 0.457             | 11.6            | 120                   |
| 62241605                              | 16                             | 0.492             | 12.5            | 139                   |
| 62241805                              | 18                             | 0.516             | 13.1            | 153                   |
| 62242105                              | 21                             | 0.575             | 14.6            | 182                   |
| 62242505                              | 25                             | 0.626             | 15.9            | 212                   |
| 62243005                              | 30                             | 0.654             | 16.6            | 248                   |
| 62243405                              | 34                             | 0.713             | 18.1            | 285                   |
| 62244005                              | 40                             | 0.772             | 19.6            | 334                   |
| 62244205                              | 42                             | 0.772             | 19.6            | 345                   |
| 62245005                              | 50                             | 0.843             | 21.4            | 404                   |
| 62246105                              | 61                             | 0.902             | 22.9            | 482                   |

| item no.                              | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>► 19 AWG • 0.75 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62240207                              | 2                              | 0.252             | 6.4             | 30                    |
| 62240307                              | 3                              | 0.276             | 7.0             | 41                    |
| 62240407                              | 4                              | 0.307             | 7.8             | 53                    |
| 62240507                              | 5                              | 0.335             | 8.5             | 64                    |
| 62240707                              | 7                              | 0.370             | 9.4             | 84                    |
| 62240807                              | 8                              | 0.433             | 11.0            | 103                   |
| 62240907                              | 9                              | 0.472             | 12.0            | 120                   |
| 62241007                              | 10                             | 0.480             | 12.2            | 124                   |
| 62241207                              | 12                             | 0.496             | 12.6            | 140                   |
| 62241407                              | 14                             | 0.520             | 13.2            | 159                   |
| 62241607                              | 16                             | 0.555             | 14.1            | 183                   |
| 62241807                              | 18                             | 0.591             | 15.0            | 207                   |
| 62242107                              | 21                             | 0.654             | 16.6            | 244                   |
| 62242507                              | 25                             | 0.717             | 18.2            | 285                   |
| 62243007                              | 30                             | 0.740             | 18.8            | 327                   |
| 62243407                              | 34                             | 0.803             | 20.4            | 374                   |
| 62244007                              | 40                             | 0.874             | 22.2            | 444                   |
| 62244207                              | 42                             | 0.874             | 22.2            | 460                   |
| 62245007                              | 50                             | 0.961             | 24.4            | 540                   |
| 62246107                              | 61                             | 1.024             | 26.0            | 643                   |

| item no.                              | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>► 18 AWG • 1.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62240210                              | 2                              | 0.268             | 6.8             | 36                    |
| 62240310                              | 3                              | 0.283             | 7.2             | 46                    |
| 62240410                              | 4                              | 0.315             | 8.0             | 60                    |
| 62240510                              | 5                              | 0.346             | 8.8             | 73                    |
| 62240810                              | 8                              | 0.449             | 11.4            | 117                   |
| 62240910                              | 9                              | 0.488             | 12.4            | 134                   |
| 62241010                              | 10                             | 0.496             | 12.6            | 140                   |
| 62240710                              | 7                              | 0.382             | 9.7             | 95                    |
| 62248010                              | 8                              | 0.449             | 11.4            | 117                   |
| 62240910                              | 9                              | 0.488             | 12.4            | 134                   |
| 62241010                              | 10                             | 0.496             | 12.6            | 140                   |
| 62241210                              | 12                             | 0.512             | 13.0            | 161                   |
| 62241410                              | 14                             | 0.543             | 13.8            | 186                   |
| 62241610                              | 16                             | 0.575             | 14.6            | 209                   |
| 62241810                              | 18                             | 0.610             | 15.5            | 237                   |
| 62242110                              | 21                             | 0.677             | 17.2            | 279                   |
| 62242510                              | 25                             | 0.740             | 18.8            | 326                   |
| 62243010                              | 30                             | 0.772             | 19.6            | 382                   |
| 62243410                              | 34                             | 0.839             | 21.3            | 436                   |
| 62244010                              | 40                             | 0.906             | 23.0            | 510                   |
| 62244210                              | 42                             | 0.906             | 23.0            | 529                   |

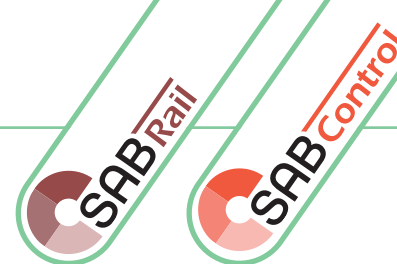
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20

# Halogen-free Cables

## SABIX® A 224 FRNC C1

Control cable with numbered conductors,  
improved fire performance and temperature range



Marking for SABIX® A 224 FRNC C1 62241405:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 224 FRNC C1 14 x 0.5 mm² CE

| item no.                   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|----------------------------|--------------------------------|-----------|---------|-----------------------|
|                            |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 16 AWG ▪ 1.50 mm²</b> |                                |           |         |                       |
| 62240215                   | 2                              | 0.291     | 7.4     | 44                    |
| 62240315                   | 3                              | 0.315     | 8.0     | 60                    |
| 62240415                   | 4                              | 0.343     | 8.7     | 75                    |
| 62240515                   | 5                              | 0.386     | 9.8     | 94                    |
| 62240715                   | 7                              | 0.425     | 10.8    | 124                   |
| 62240815                   | 8                              | 0.500     | 12.7    | 152                   |
| 62240915                   | 9                              | 0.539     | 13.7    | 173                   |
| 62241015                   | 10                             | 0.551     | 14.0    | 181                   |
| 62241215                   | 12                             | 0.567     | 14.4    | 208                   |
| 62241415                   | 14                             | 0.602     | 15.3    | 241                   |
| 62241615                   | 16                             | 0.646     | 16.4    | 277                   |
| 62241815                   | 18                             | 0.677     | 17.2    | 306                   |
| 62242115                   | 21                             | 0.760     | 19.3    | 368                   |
| 62242515                   | 25                             | 0.827     | 21.0    | 432                   |
| 62243015                   | 30                             | 0.854     | 21.7    | 499                   |
| 62243415                   | 34                             | 0.937     | 23.8    | 577                   |
| 62244215                   | 40                             | 1.012     | 25.7    | 675                   |
| 62244215                   | 42                             | 1.1012    | 25.7    | 699                   |
| 62245015                   | 50                             | 1.114     | 28.3    | 832                   |
| 62246115                   | 61                             | 1.189     | 30.2    | 994                   |

| item no.                   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|----------------------------|--------------------------------|-----------|---------|-----------------------|
|                            |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 14 AWG ▪ 2.50 mm²</b> |                                |           |         |                       |
| 62240225                   | 2                              | 0.346     | 8.8     | 65                    |
| 62240325                   | 3                              | 0.374     | 9.5     | 89                    |
| 62240425                   | 4                              | 0.417     | 10.6    | 114                   |
| 62240525                   | 5                              | 0.457     | 11.6    | 140                   |
| 62240725                   | 7                              | 0.504     | 12.8    | 185                   |
| 62240825                   | 8                              | 0.598     | 15.2    | 228                   |
| 62240925                   | 9                              | 0.650     | 16.5    | 261                   |
| 62241025                   | 10                             | 0.661     | 16.8    | 273                   |
| 62241225                   | 12                             | 0.681     | 17.3    | 315                   |
| 62241425                   | 14                             | 0.724     | 18.4    | 365                   |
| 62241625                   | 16                             | 0.772     | 19.6    | 418                   |
| 62241825                   | 18                             | 0.819     | 20.8    | 470                   |
| 62242125                   | 21                             | 0.906     | 23.0    | 554                   |
| 62242525                   | 25                             | 0.996     | 25.3    | 652                   |
| <b>▶ 12 AWG ▪ 4.00 mm²</b> |                                |           |         |                       |
| 62240340                   | 3                              | 0.433     | 11.0    | 126                   |
| 62240440                   | 4                              | 0.480     | 12.2    | 163                   |
| 62240540                   | 5                              | 0.535     | 13.6    | 204                   |
| 62240740                   | 7                              | 0.591     | 15.0    | 271                   |

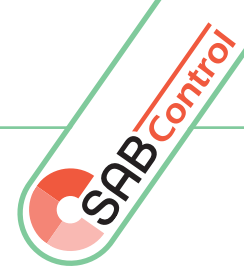
| item no.                   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|----------------------------|--------------------------------|-----------|---------|-----------------------|
|                            |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 10 AWG ▪ 6.00 mm²</b> |                                |           |         |                       |
| 62240360                   | 3                              | 0.500     | 12.7    | 177                   |
| 62240460                   | 4                              | 0.555     | 14.1    | 229                   |
| 62240560                   | 5                              | 0.618     | 15.7    | 286                   |
| 62240760                   | 7                              | 0.681     | 17.3    | 382                   |
| <b>▶ 8 AWG ▪ 10.00 mm²</b> |                                |           |         |                       |
| 62240461                   | 4                              | 0.709     | 18.0    | 380                   |
| 62240561                   | 5                              | 0.988     | 25.1    | 661                   |
| 62240761                   | 7                              | 0.988     | 25.1    | 753                   |
| <b>▶ 6 AWG ▪ 16.00 mm²</b> |                                |           |         |                       |
| 62240462                   | 4                              | 0.992     | 25.2    | 689                   |
| 62240562                   | 5                              | 0.996     | 25.3    | 730                   |
| 62240762                   | 7                              | 1.067     | 27.1    | 943                   |
| <b>▶ 4 AWG ▪ 25.00 mm²</b> |                                |           |         |                       |
| 62240463                   | 4                              | 0.961     | 24.4    | 855                   |
| 62240563                   | 5                              | 1.071     | 27.2    | 1074                  |
| <b>▶ 2 AWG ▪ 35.00 mm²</b> |                                |           |         |                       |
| 62240464                   | 4                              | 1.094     | 27.8    | 1176                  |
| <b>▶ 1 AWG ▪ 50.00 mm²</b> |                                |           |         |                       |
| 62240465                   | 4                              | 1.362     | 34.6    | 1656                  |

Other dimensions and colors are available on request

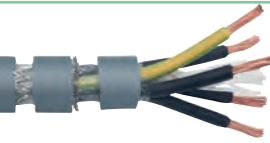
# Halogen-free Cables

## SABIX® A 238 FRNC

Control cable with numbered conductors, overall tinned copper shield, improved fire performance, and extended temperature range



SKES · D-VIERSEN · SABIX® A 238 FRNC 5 x 1.5 mm<sup>2</sup> CE



Marking for SABIX® A 238 FRNC 62380515:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 238 FRNC 5 x 1.5 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- very good stripping

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 3000 V<br>conductor/shielding: 2000 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>free movement:</i> 10 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+85°C<br><i>flexible:</i> -30/+85°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62380205  | 2                              | 0.217             | 5.5             | 28                    |
| 62380305  | 3                              | 0.228             | 5.8             | 34                    |
| 62380405  | 4                              | 0.252             | 6.4             | 42                    |
| 62380505  | 5                              | 0.256             | 6.5             | 50                    |
| 62380705  | 7                              | 0.291             | 7.4             | 58                    |
| 62381205  | 12                             | 0.386             | 9.8             | 96                    |
| 62381805  | 18                             | 0.457             | 11.6            | 144                   |
| 62382505  | 25                             | 0.583             | 14.8            | 191                   |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62380207  | 2                              | 0.248             | 6.3             | 37                    |
| 62380307  | 3                              | 0.260             | 6.6             | 44                    |
| 62380407  | 4                              | 0.280             | 7.1             | 52                    |
| 62380507  | 5                              | 0.311             | 7.9             | 65                    |
| 62380707  | 7                              | 0.335             | 8.5             | 79                    |
| 62381207  | 12                             | 0.449             | 11.4            | 136                   |
| 62381807  | 18                             | 0.531             | 13.5            | 195                   |
| 62382507  | 25                             | 0.646             | 16.4            | 275                   |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 62380210   | 2                              | 0.256             | 6.5             | 41                    |
| 62380310   | 3                              | 0.268             | 6.8             | 49                    |
| 62380410   | 4                              | 0.287             | 7.3             | 59                    |
| 62380510   | 5                              | 0.323             | 8.2             | 75                    |
| 62380710   | 7                              | 0.346             | 8.8             | 91                    |
| 62381210   | 12                             | 0.472             | 12.0            | 161                   |
| 62381810   | 18                             | 0.551             | 14.0            | 223                   |
| 62382510   | 25                             | 0.669             | 17.0            | 314                   |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62380215   | 2                              | 0.280             | 7.1             | 50                    |
| 62380315   | 3                              | 0.303             | 7.7             | 65                    |
| 62380415   | 4                              | 0.327             | 8.3             | 78                    |
| 62380515   | 5                              | 0.362             | 9.2             | 96                    |
| 62380715   | 7                              | 0.390             | 9.9             | 119                   |
| 62381215   | 12                             | 0.531             | 13.5            | 210                   |
| 62381815   | 18                             | 0.626             | 15.9            | 306                   |
| 62382515   | 25                             | 0.760             | 19.3            | 421                   |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 62380225   | 2                              | 0.335             | 8.5             | 71                    |
| 62380325   | 3                              | 0.362             | 9.2             | 93                    |
| 62380425   | 4                              | 0.390             | 9.9             | 114                   |
| 62380525   | 5                              | 0.441             | 11.2            | 149                   |
| 62380725   | 7                              | 0.484             | 12.3            | 191                   |
| 62381225   | 12                             | 0.654             | 16.6            | 328                   |
| 62381825   | 18                             | 0.768             | 19.5            | 370                   |
| 62382525   | 25                             | 0.929             | 23.6            | 637                   |
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 62380440   | 4                              | 0.461             | 11.7            | 173                   |
| 62380540   | 5                              | 0.512             | 13.0            | 212                   |
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 62380460   | 4                              | 0.543             | 13.8            | 243                   |
| 62380560   | 5                              | 0.610             | 15.5            | 313                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 62380461   | 4                              | 0.709             | 18.0            | 423                   |
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62380462   | 4                              | 0.854             | 21.7            | 617                   |

Other dimensions and colors are available on request

# Halogen-free Cables

## SABIX® A 260 PUR

Cold flexible, oil resistant control cable with numbered conductors



SKES · D-VIERSEN · SABIX® A 260 PUR 12 x 1.5 mm<sup>2</sup> CE



Marking for SABIX® A 260 PUR 52601215:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 260 PUR 12 x 1.5 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Inner jacket:</b>    | SABIX® - from 12 AWG   |
| <b>Jacket material:</b> | PUR, TMPU acc. to EN 50363-10-2 +<br>DIN VDE 0207-363-10-2   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |



### Outstanding features:

- halogen-free
- oil resistant
- flexible at low temperatures
- weather resistant

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 3000 V   |
| <b>Min. bending radius:</b>           |   |
| <i>fixed installation:</i>            | 4 x O.D.  |
| <i>free movement:</i>                 | 6 x O.D.  |
| <b>Radiation resistance:</b>          | 5 x 10 <sup>7</sup> cj/kg   |
| <b>Temperature range:</b>             | <b>DIN VDE</b>  |
| <i>static:</i>                        | -50/+90°C   |
| <i>flexible:</i>                      | -40/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1                                |
| <b>Oil resistance:</b>                | very good - TMPU acc. to<br>EN 50363-10-2 + VDE 0207-363-10-2       |
| <b>Chemical resistance:</b>           | good-against acids, alkalines, solvents,<br>hydraulic liquids, etc. |
| <b>Flexibility:</b>                   | very good   |
| <b>Weather resistance:</b>            | good  |
| <b>Approvals:</b>                     | CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30       |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 52600207  | 2                              | 0.220             | 5.6             | 26                    |
| 52600307  | 3                              | 0.232             | 5.9             | 32                    |
| 52600407  | 4                              | 0.252             | 6.4             | 38                    |
| 52600507  | 5                              | 0.276             | 7.0             | 46                    |
| 52600707  | 7                              | 0.299             | 7.6             | 58                    |
| 52601007  | 10                             | 0.378             | 9.6             | 80                    |
| 52601207  | 12                             | 0.406             | 10.3            | 97                    |
| 52601807  | 18                             | 0.472             | 12.0            | 138                   |
| 52602507  | 25                             | 0.579             | 14.7            | 191                   |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 52600210  | 2                              | 0.228             | 5.8             | 30                    |
| 52600310  | 3                              | 0.240             | 6.1             | 36                    |
| 52600410  | 4                              | 0.260             | 6.6             | 44                    |
| 52600510  | 5                              | 0.287             | 7.3             | 54                    |
| 52600710  | 7                              | 0.311             | 7.9             | 69                    |
| 52601010  | 10                             | 0.409             | 10.4            | 96                    |
| 52601210  | 12                             | 0.421             | 10.7            | 116                   |
| 52601810  | 18                             | 0.492             | 12.5            | 166                   |
| 52602510  | 25                             | 0.602             | 15.3            | 229                   |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 52600215   | 2                              | 0.252             | 6.4             | 38                    |
| 52600315   | 3                              | 0.268             | 6.8             | 48                    |
| 52600415   | 4                              | 0.291             | 7.4             | 59                    |
| 52600515   | 5                              | 0.319             | 8.1             | 72                    |
| 52600715   | 7                              | 0.346             | 8.8             | 93                    |
| 52601015   | 10                             | 0.457             | 11.6            | 128                   |
| 52601215   | 12                             | 0.472             | 12.0            | 157                   |
| 52601815   | 18                             | 0.551             | 14.0            | 226                   |
| 52602515   | 25                             | 0.669             | 17.0            | 303                   |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 52600225   | 2                              | 0.299             | 7.6             | 58                    |
| 52600325   | 3                              | 0.335             | 8.5             | 77                    |
| 52600425   | 4                              | 0.346             | 8.8             | 91                    |
| 52600525   | 5                              | 0.398             | 10.1            | 116                   |
| 52600725   | 7                              | 0.433             | 11.0            | 151                   |
| 52601025   | 10                             | 0.551             | 14.0            | 209                   |
| 52601225   | 12                             | 0.587             | 14.9            | 251                   |
| 52601825   | 18                             | 0.685             | 17.4            | 362                   |
| 52602525   | 25                             | 0.854             | 21.7            | 507                   |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 52600340   | 3                              | 0.461             | 11.7            | 133                   |
| 52600440   | 4                              | 0.496             | 12.6            | 163                   |
| 52600540   | 5                              | 0.539             | 13.7            | 197                   |
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 52600360   | 3                              | 0.551             | 14.0            | 195                   |
| 52600460   | 4                              | 0.594             | 15.1            | 240                   |
| 52600560   | 5                              | 0.646             | 16.4            | 290                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 52600461   | 4                              | 0.744             | 18.9            | 391                   |
| 52600561   | 5                              | 0.811             | 20.6            | 476                   |
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 52600462   | 4                              | 0.874             | 22.2            | 572                   |
| 52600562   | 5                              | 0.961             | 24.4            | 699                   |

Other dimensions and colors are available on request

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# Halogen-free Cables

## SABIX® A 130 HT

High temperature resistant control cable with numbered or colored conductors



Marking for SABIX® A 130 HT 71300415:  
SAB BRÖCKSKES · D-VIERSEN · SABIX® A 130 HT CE

| Construction:           |   |
|-------------------------|---|
| <b>Conductor:</b>       | silver-plated copper strands acc. to IEC 60228, VDE 0295, class 5   |
| <b>Insulation:</b>      | SABIX®  |
| <b>Color code:</b>      | up to 5 conductors: HD 308, see below, more than 6 conductors: black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers   |
| <b>Jacket material:</b> | SABIX®  |
| <b>Jacket color:</b>    | gray (RAL 7015)   |

| Technical data:                       |   |
|---------------------------------------|---|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 2000 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 4 x O.D.<br><i>free movement:</i> 6 x O.D.                             |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+220°C<br><i>flexible:</i> -25/+220°C                        |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>       | flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2                   |
| <b>Corrosivity:</b>                   | in compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases |
| <b>Approvals:</b>                     | CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union see page O/30  |

| Outstanding features: |                            |
|-----------------------|----------------------------|
| ●                     | halogen-free               |
| ●                     | high temperature resistant |
| ●                     | flexible                   |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>► 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 71300205  | 2                              | 0.197             | 5.0             | 20                    |
| 71300305  | 3                              | 0.209             | 5.3             | 24                    |
| 71300405  | 4                              | 0.224             | 5.7             | 30                    |
| 71300505  | 5                              | 0.248             | 6.3             | 36                    |
| 71300705  | 7                              | 0.268             | 6.8             | 45                    |
| 71301005  | 10                             | 0.346             | 8.8             | 64                    |
| 71301205  | 12                             | 0.358             | 9.1             | 73                    |
| 71301805  | 18                             | 0.425             | 10.8            | 108                   |
| <b>► 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 71300207  | 2                              | 0.220             | 5.6             | 26                    |
| 71300307  | 3                              | 0.232             | 5.9             | 32                    |
| 71300407  | 4                              | 0.252             | 6.4             | 39                    |
| 71300507  | 5                              | 0.280             | 7.1             | 49                    |
| 71300707  | 7                              | 0.311             | 7.9             | 62                    |
| 71301007  | 10                             | 0.402             | 10.2            | 89                    |
| 71301207  | 12                             | 0.413             | 10.5            | 102                   |
| 71301807  | 18                             | 0.492             | 12.5            | 151                   |
| <b>► 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 71300210  | 2                              | 0.228             | 5.8             | 30                    |
| 71300310  | 3                              | 0.240             | 6.1             | 37                    |
| 71300410  | 4                              | 0.264             | 6.7             | 46                    |
| 71300510  | 5                              | 0.287             | 7.3             | 57                    |
| 71300710  | 7                              | 0.323             | 8.2             | 74                    |
| 71301010  | 10                             | 0.417             | 10.6            | 109                   |
| 71301210  | 12                             | 0.429             | 10.9            | 121                   |
| 71301810  | 18                             | 0.512             | 13.0            | 179                   |
| 71302510  | 25                             | 0.618             | 15.7            | 241                   |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>► 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 71300215   | 2                              | 0.264             | 6.7             | 41                    |
| 71300315   | 3                              | 0.280             | 7.1             | 51                    |
| 71300415   | 4                              | 0.311             | 7.9             | 65                    |
| 71300515   | 5                              | 0.346             | 8.8             | 83                    |
| 71300715   | 7                              | 0.378             | 9.6             | 104                   |
| 71301015   | 10                             | 0.496             | 12.6            | 150                   |
| 71301215   | 12                             | 0.512             | 13.0            | 173                   |
| 71301815   | 18                             | 0.614             | 15.6            | 259                   |
| 71302515   | 25                             | 0.740             | 18.8            | 351                   |
| <b>► 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 71300225   | 2                              | 0.323             | 8.2             | 64                    |
| 71300325   | 3                              | 0.343             | 8.7             | 81                    |
| 71300425   | 4                              | 0.374             | 9.5             | 100                   |
| 71300525   | 5                              | 0.425             | 10.8            | 129                   |
| 71300725   | 7                              | 0.465             | 11.8            | 165                   |
| 71301025   | 10                             | 0.606             | 15.4            | 235                   |
| 71301225   | 12                             | 0.626             | 15.9            | 273                   |
| 71301825   | 18                             | 0.740             | 18.8            | 402                   |
| <b>► 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 71300340   | 3                              | 0.409             | 10.4            | 122                   |
| 71300440   | 4                              | 0.445             | 11.3            | 151                   |
| 71300540   | 5                              | 0.500             | 12.7            | 191                   |
| 71300740   | 7                              | 0.543             | 13.8            | 245                   |

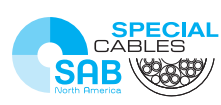
| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>► 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 71300360   | 3                              | 0.457             | 11.6            | 167                   |
| 71300460   | 4                              | 0.500             | 12.7            | 210                   |
| 71300560   | 5                              | 0.551             | 14.0            | 261                   |
| 71300760   | 7                              | 0.618             | 15.7            | 346                   |
| <b>► 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 71300461   | 4                              | 0.740             | 18.8            | 400                   |
| 71300561   | 5                              | 0.819             | 20.8            | 499                   |
| 71300761   | 7                              | 0.913             | 23.2            | 669                   |
| <b>► 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 71300462   | 4                              | 0.850             | 21.6            | 607                   |
| 71300562   | 5                              | 0.957             | 24.3            | 770                   |
| 71300762   | 7                              | 1.047             | 26.6            | 998                   |
| <b>► 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 71300263   | 2                              | 0.882             | 22.4            | 560                   |
| 71300463   | 4                              | 1.047             | 26.6            | 930                   |
| 71300563   | 5                              | 1.161             | 29.5            | 1160                  |
| <b>► 2 AWG (≈ 272/26) ▪ 35.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 71300364   | 3                              | 1.055             | 26.8            | 965                   |
| 71300464   | 4                              | 1.161             | 29.5            | 1222                  |

Other dimensions and colors are available on request

### HD 308 color code: up to 5 conductors

- 2c cable: blue, brown
- 3c cable: green/yellow, blue, brown
- 4c cable: green/yellow, brown, black, gray
- 5c cable: green/yellow, blue, brown, black, gray

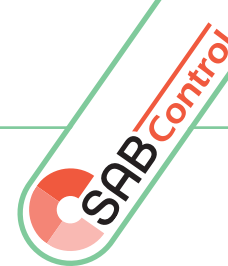
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# Halogen-free Cables

## SABIX® CC 625 FRNC M Control cable with numbered conductors



Marking for SABIX® CC 625 FRNC M 62521612:

SAB BRÖCKSKES · D-VIERSEN · 62521612 12 x 1.5 mm<sup>2</sup> SABIX® CC 625 FRNC M 16 AWG/12c 62521215 AWM Style 21089 75°C 600V CSA AWM I/II A/B 80°C 600V FT1 CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- UL recognized, CSA approved
- no flame propagation
- flame retardant and self-extinguishing
- flexible

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V   |
| <b>Voltage UL/CSA:</b>                | 600 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 3000 V  |
| <b>Min. bending radius:</b>           | 4 x O.D.<br>fixed installation:<br>free movement: 6 x O.D.   |
| <b>Temperature range:</b>             | <b>UL:</b> up to +75°C <b>CSA:</b> up to +80°C<br><i>static</i><br><b>DIN VDE:</b> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | UR AWM, CSA AWM, CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of<br>conductors<br>incl. ground | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable<br>weight<br>≈lbs/mft |
|---|--------------------------------------|-------------------------|-----------------------|-----------------------------|
| <b>► 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                                      |                         |                       |                             |
| 62522002  | 2                                    | 0.205                   | 5.2                   | 27                          |
| 62522003  | 3                                    | 0.217                   | 5.5                   | 32                          |
| 62522004  | 4                                    | 0.232                   | 5.9                   | 38                          |
| 62522005  | 5                                    | 0.252                   | 6.4                   | 44                          |
| 62522007  | 7                                    | 0.276                   | 7.0                   | 56                          |
| 62522008  | 8                                    | 0.323                   | 8.2                   | 70                          |
| 62522009  | 9                                    | 0.350                   | 8.9                   | 79                          |
| 62522010  | 10                                   | 0.358                   | 9.1                   | 81                          |
| 62522012  | 12                                   | 0.366                   | 9.3                   | 91                          |
| 62522014  | 14                                   | 0.386                   | 9.8                   | 103                         |
| 62522016  | 16                                   | 0.413                   | 10.5                  | 119                         |
| 62522018  | 18                                   | 0.437                   | 11.1                  | 132                         |
| 62522025  | 25                                   | 0.531                   | 13.5                  | 181                         |
| 62522030  | 30                                   | 0.547                   | 13.9                  | 208                         |
| 62522034  | 34                                   | 0.598                   | 15.2                  | 239                         |
| 62522040  | 40                                   | 0.650                   | 16.5                  | 283                         |
| 62522041  | 41                                   | 0.650                   | 16.5                  | 288                         |
| 62522061  | 61                                   | 0.760                   | 19.3                  | 409                         |

| item no.  | no. of<br>conductors<br>incl. ground | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable<br>weight<br>≈lbs/mft |
|---|--------------------------------------|-------------------------|-----------------------|-----------------------------|
| <b>► 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                                      |                         |                       |                             |
| 62521902  | 2                                    | 0.224                   | 5.7                   | 32                          |
| 62521903  | 3                                    | 0.236                   | 6.0                   | 38                          |
| 62521904  | 4                                    | 0.256                   | 6.5                   | 46                          |
| 62521905  | 5                                    | 0.280                   | 7.1                   | 54                          |
| 62521907  | 7                                    | 0.311                   | 7.9                   | 71                          |
| 62521908  | 8                                    | 0.366                   | 9.3                   | 89                          |
| 62521909  | 9                                    | 0.390                   | 9.9                   | 97                          |
| 62521910  | 10                                   | 0.398                   | 10.1                  | 100                         |
| 62521912  | 12                                   | 0.417                   | 10.6                  | 118                         |
| 62521914  | 14                                   | 0.437                   | 11.1                  | 132                         |
| 62521916  | 16                                   | 0.469                   | 11.9                  | 152                         |
| 62521918  | 18                                   | 0.492                   | 12.5                  | 168                         |
| 62521925  | 25                                   | 0.598                   | 15.2                  | 231                         |
| 62521930  | 30                                   | 0.618                   | 15.7                  | 267                         |
| 62521934  | 34                                   | 0.673                   | 17.1                  | 304                         |
| 62521940  | 40                                   | 0.732                   | 18.6                  | 359                         |
| 62521941  | 41                                   | 0.732                   | 18.6                  | 366                         |
| 62521961  | 61                                   | 0.866                   | 22.0                  | 528                         |

| item no.  | no. of<br>conductors<br>incl. ground | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable<br>weight<br>≈lbs/mft |
|---|--------------------------------------|-------------------------|-----------------------|-----------------------------|
| <b>► 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b> |                                      |                         |                       |                             |
| 62521802  | 2                                    | 0.232                   | 5.9                   | 36                          |
| 62521803  | 3                                    | 0.248                   | 6.3                   | 44                          |
| 62521804  | 4                                    | 0.268                   | 6.8                   | 54                          |
| 62521805  | 5                                    | 0.295                   | 7.5                   | 65                          |
| 62521807  | 7                                    | 0.323                   | 8.2                   | 83                          |
| 62521808  | 8                                    | 0.378                   | 9.6                   | 102                         |
| 62521809  | 9                                    | 0.413                   | 10.5                  | 116                         |
| 62521810  | 10                                   | 0.421                   | 10.7                  | 120                         |
| 62521812  | 12                                   | 0.433                   | 11.0                  | 137                         |
| 62521814  | 14                                   | 0.453                   | 11.5                  | 155                         |
| 62521818  | 18                                   | 0.512                   | 13.0                  | 198                         |
| 62521825  | 25                                   | 0.622                   | 15.8                  | 271                         |
| 62521830  | 30                                   | 0.654                   | 16.6                  | 320                         |
| 62521834  | 34                                   | 0.709                   | 18.0                  | 365                         |
| 62521840  | 40                                   | 0.768                   | 19.5                  | 429                         |
| 62521841  | 41                                   | 0.768                   | 19.5                  | 454                         |
| 62521861  | 61                                   | 0.902                   | 22.9                  | 626                         |

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# Halogen-free Cables

## SABIX® CC 625 FRNC M Control cable with numbered conductors



Marking for SABIX® CC 625 FRNC M 62521612:

SAB BRÖCKSKES · D-VIERSEN · 62521612 12 x 1.5 mm<sup>2</sup> SABIX® CC 625 FRNC M 16 AWG/12c 62521215 AWM Style 21089 75°C 600V CSA AWM I/II A/B 80°C 600V FT1 CE

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 62521602   | 2                              | 0.256     | 6.5     | 46                    |
| 62521603   | 3                              | 0.272     | 6.9     | 57                    |
| 62521604   | 4                              | 0.299     | 7.6     | 71                    |
| 62521605   | 5                              | 0.327     | 8.3     | 87                    |
| 62521607   | 7                              | 0.366     | 9.3     | 112                   |
| 62521608   | 8                              | 0.429     | 10.9    | 136                   |
| 62521609   | 9                              | 0.465     | 11.8    | 153                   |
| 62521610   | 10                             | 0.476     | 12.1    | 161                   |
| 62521612   | 12                             | 0.488     | 12.4    | 184                   |
| 62521614   | 14                             | 0.512     | 13.0    | 209                   |
| 62521618   | 18                             | 0.587     | 14.9    | 271                   |
| 62521625   | 25                             | 0.713     | 18.1    | 375                   |
| 62521630   | 30                             | 0.736     | 18.7    | 435                   |
| 62521634   | 34                             | 0.807     | 20.5    | 502                   |
| 62521640   | 40                             | 0.874     | 22.2    | 587                   |
| 62521641   | 41                             | 0.874     | 22.2    | 593                   |
| 62521661   | 61                             | 1.024     | 26.0    | 861                   |

| item no.  | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|---|--------------------------------|-----------|---------|-----------------------|
|   |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 62521402  | 2                              | 0.307     | 7.8     | 70                    |
| 62521403  | 3                              | 0.327     | 8.3     | 86                    |
| 62521404  | 4                              | 0.362     | 9.2     | 108                   |
| 62521405  | 5                              | 0.398     | 10.1    | 131                   |
| 62521407  | 7                              | 0.441     | 11.2    | 173                   |
| 62521408  | 8                              | 0.528     | 13.4    | 212                   |
| 62521409  | 9                              | 0.563     | 14.3    | 234                   |
| 62521410  | 10                             | 0.583     | 14.8    | 252                   |
| 62521412  | 12                             | 0.602     | 15.3    | 290                   |
| 62521418  | 18                             | 0.717     | 18.2    | 425                   |
| 62521425  | 25                             | 0.878     | 22.3    | 585                   |
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62521203  | 3                              | 0.382     | 9.7     | 126                   |
| 62521204  | 4                              | 0.425     | 10.8    | 160                   |
| 62521205  | 5                              | 0.476     | 12.1    | 198                   |
| 62521207  | 7                              | 0.528     | 13.4    | 261                   |

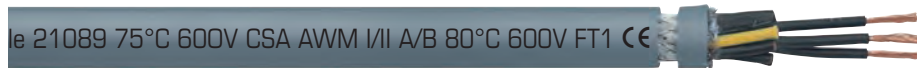
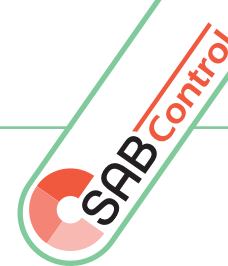
| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 62521003   | 3                              | 0.449     | 11.4    | 182                   |
| 62521004   | 4                              | 0.500     | 12.7    | 230                   |
| 62521005   | 5                              | 0.559     | 14.2    | 286                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 62520804   | 4                              | 0.677     | 17.2    | 409                   |
| 62520805   | 5                              | 0.760     | 19.3    | 508                   |
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62520604   | 4                              | 0.831     | 21.1    | 611                   |
| <b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62520404   | 4                              | 1.043     | 26.5    | 991                   |
| <b>▶ 2 AWG (≈ 272/26) ▪ 35.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62520204   | 4                              | 1.189     | 30.2    | 1346                  |

Other dimensions and colors are available on request

# Halogen-free Cables

## SABIX® CC 625 S FRNC M

Control cable with numbered conductors and overall tinned copper shield



Marking for SABIX® CC 625 S FRNC M 62341612:

SAB BRÖCKSKES · D-VIERSEN · 62341612 12 x 1.5 mm² SABIX® CC 625 S FRNC M 16 AWG/12c 62341215 AWM Style 21089 75°C 600V CSA AWM I/II A/B 80°C 600V FT1 CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V   |
| <b>Voltage UL/CSA:</b>                | 600 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 3000 V<br>conductor/shielding: 2000 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>free movement:</i> 10 x O.D.   |
| <b>Temperature range:</b>             | <b>UL:</b> up to +75°C <b>CSA:</b> up to +80°C<br><i>static:</i> <b>DIN VDE:</b> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | UR AWM, CSA AWM, CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- UL recognized, CSA approved
- no flame propagation
- good EMC characteristics\*
- flame retardant and self-extinguishing
- flexible

\*copper braiding should be connected circularly to optimize the EMC characteristics

| item no.                             | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>► 20 AWG (≈ 16/32) ▪ 0.50 mm²</b> |                                |                   |                 |                       |
| 62342002                             | 2                              | 0.224             | 5.7             | 30                    |
| 62342003                             | 3                              | 0.236             | 6.0             | 36                    |
| 62342004                             | 4                              | 0.252             | 6.4             | 43                    |
| 62342005                             | 5                              | 0.276             | 7.0             | 51                    |
| 62342007                             | 7                              | 0.299             | 7.6             | 65                    |
| 62342008                             | 8                              | 0.350             | 8.9             | 81                    |
| 62342009                             | 9                              | 0.370             | 9.4             | 88                    |
| 62342010                             | 10                             | 0.378             | 9.6             | 91                    |
| 62342012                             | 12                             | 0.386             | 9.8             | 102                   |
| 62342014                             | 14                             | 0.421             | 10.7            | 126                   |
| 62342016                             | 16                             | 0.441             | 11.2            | 138                   |
| 62342018                             | 18                             | 0.472             | 12.0            | 157                   |
| 62342025                             | 25                             | 0.543             | 13.8            | 206                   |
| 62342030                             | 30                             | 0.591             | 15.0            | 243                   |
| 62342034                             | 34                             | 0.642             | 16.3            | 288                   |
| 62342040                             | 40                             | 0.693             | 17.6            | 338                   |
| 62342041                             | 41                             | 0.693             | 17.6            | 345                   |
| 62342061                             | 61                             | 0.795             | 20.2            | 466                   |

| item no.                             | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>► 19 AWG (≈ 23/32) ▪ 0.75 mm²</b> |                                |                   |                 |                       |
| 62341902                             | 2                              | 0.244             | 6.2             | 35                    |
| 62341903                             | 3                              | 0.256             | 6.5             | 43                    |
| 62341904                             | 4                              | 0.276             | 7.0             | 52                    |
| 62341905                             | 5                              | 0.307             | 7.8             | 63                    |
| 62341907                             | 7                              | 0.331             | 8.4             | 79                    |
| 62341908                             | 8                              | 0.386             | 9.8             | 97                    |
| 62341909                             | 9                              | 0.425             | 10.8            | 122                   |
| 62341910                             | 10                             | 0.433             | 11.0            | 122                   |
| 62341912                             | 12                             | 0.445             | 11.3            | 139                   |
| 62341914                             | 14                             | 0.472             | 12.0            | 158                   |
| 62341916                             | 16                             | 0.496             | 12.6            | 174                   |
| 62341918                             | 18                             | 0.520             | 13.2            | 192                   |
| 62341925                             | 25                             | 0.642             | 16.3            | 280                   |
| 62341930                             | 30                             | 0.661             | 16.8            | 314                   |
| 62341934                             | 34                             | 0.717             | 18.2            | 359                   |
| 62341940                             | 40                             | 0.776             | 19.7            | 420                   |
| 62341941                             | 41                             | 0.776             | 19.7            | 427                   |
| 62341961                             | 61                             | 0.902             | 22.9            | 591                   |

| item no.                             | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>► 18 AWG (≈ 30/32) ▪ 1.00 mm²</b> |                                |                   |                 |                       |
| 62341802                             | 2                              | 0.252             | 6.4             | 39                    |
| 62341803                             | 3                              | 0.268             | 6.8             | 49                    |
| 62341804                             | 4                              | 0.287             | 7.3             | 58                    |
| 62341805                             | 5                              | 0.315             | 8.0             | 72                    |
| 62341807                             | 7                              | 0.350             | 8.9             | 93                    |
| 62341808                             | 8                              | 0.398             | 10.1            | 111                   |
| 62341809                             | 9                              | 0.441             | 11.2            | 134                   |
| 62341810                             | 10                             | 0.449             | 11.4            | 141                   |
| 62341812                             | 12                             | 0.469             | 11.9            | 162                   |
| 62341814                             | 14                             | 0.488             | 12.4            | 180                   |
| 62341818                             | 18                             | 0.547             | 13.9            | 228                   |
| 62341825                             | 25                             | 0.665             | 16.9            | 325                   |
| 62341830                             | 30                             | 0.697             | 17.7            | 374                   |
| 62341834                             | 34                             | 0.752             | 19.1            | 423                   |
| 62341840                             | 40                             | 0.811             | 20.6            | 490                   |
| 62341841                             | 41                             | 0.811             | 20.6            | 499                   |
| 62341861                             | 61                             | 0.945             | 24.0            | 700                   |

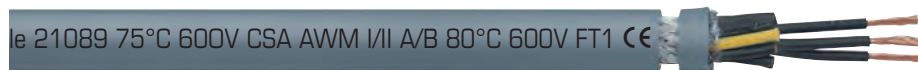
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# Halogen-free Cables

## SABIX® CC 625 S FRNC M

Control cable with numbered conductor and overall tinned copper shield



Marking for SABIX® CC 625 S FRNC M 62341612:

SAB BRÖCKSKES · D-VIERSEN · 62341612 12 x 1.5 mm<sup>2</sup> SABIX® CC 625 S FRNC M 16 AWG/12c 62341215 AWM Style 21089 75°C 600V CSA AWM I/II A/B 80°C 600V FT1 CE

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 62341602   | 2                              | 0.276     | 7.0     | 48                    |
| 62341603   | 3                              | 0.295     | 7.5     | 62                    |
| 62341604   | 4                              | 0.319     | 8.1     | 76                    |
| 62341605   | 5                              | 0.354     | 9.0     | 93                    |
| 62341607   | 7                              | 0.386     | 9.8     | 120                   |
| 62341608   | 8                              | 0.465     | 11.8    | 159                   |
| 62341609   | 9                              | 0.492     | 12.5    | 174                   |
| 62341610   | 10                             | 0.504     | 12.8    | 183                   |
| 62341612   | 12                             | 0.524     | 13.3    | 210                   |
| 62341614   | 14                             | 0.547     | 13.9    | 238                   |
| 62341618   | 18                             | 0.622     | 15.8    | 312                   |
| 62341625   | 25                             | 0.756     | 19.2    | 433                   |
| 62341630   | 30                             | 0.780     | 19.8    | 493                   |
| 62341634   | 34                             | 0.843     | 21.4    | 561                   |
| 62341640   | 40                             | 0.909     | 23.1    | 647                   |
| 62341641   | 41                             | 0.909     | 23.1    | 653                   |
| 62341661   | 61                             | 1.067     | 27.1    | 943                   |

| item no.  | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|---|--------------------------------|-----------|---------|-----------------------|
|   |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 62341402  | 2                              | 0.327     | 8.3     | 68                    |
| 62341403  | 3                              | 0.354     | 9.0     | 91                    |
| 62341404  | 4                              | 0.382     | 9.7     | 113                   |
| 62341405  | 5                              | 0.433     | 11.0    | 148                   |
| 62341407  | 7                              | 0.476     | 12.1    | 192                   |
| 62341408  | 8                              | 0.555     | 14.1    | 232                   |
| 62341409  | 9                              | 0.598     | 15.2    | 259                   |
| 62341410  | 10                             | 0.618     | 15.7    | 288                   |
| 62341412  | 12                             | 0.646     | 16.4    | 331                   |
| 62341418  | 18                             | 0.760     | 19.3    | 478                   |
| 62341425  | 25                             | 0.921     | 23.4    | 648                   |
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62341203  | 3                              | 0.417     | 10.6    | 138                   |
| 62341204  | 4                              | 0.453     | 11.5    | 172                   |
| 62341205  | 5                              | 0.504     | 12.8    | 212                   |
| 62341207  | 7                              | 0.555     | 14.1    | 277                   |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 62341003   | 3                              | 0.484     | 12.3    | 191                   |
| 62341004   | 4                              | 0.535     | 13.6    | 243                   |
| 62341005   | 5                              | 0.594     | 15.1    | 302                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 62340804   | 4                              | 0.720     | 18.3    | 427                   |
| 62340805   | 5                              | 0.795     | 20.2    | 526                   |
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62340604   | 4                              | 0.874     | 22.2    | 623                   |
| <b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62340404   | 4                              | 1.079     | 27.4    | 974                   |
| <b>▶ 2 AWG (≈ 272/26) ▪ 35.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62340204   | 4                              | 1.232     | 31.3    | 1316                  |

Other dimensions and colors are available on request

# Halogen-free Cables

## SABIX® CC 625 SH FRNC M

Control cable with numbered conductors, inner jacket, and overall tinned copper shield



Marking for SABIX® CC 625 SH FRNC M 62571612:

SAB BRÖCKSKES · D-VIERSEN · 62571612 12 x 1.5 mm<sup>2</sup> SABIX® CC 625 SH FRNC M 16 AWG/12c 62571215 AWM Style 21089 75°C 600V CSA AWM I/II A/B 80°C 600V FT1

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Inner jacket:</b>    | SABIX®   |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V   |
| <b>Voltage UL/CSA:</b>                | 600 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 3000 V<br>conductor/shielding: 2000 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>free movement:</i> 10 x O.D.   |
| <b>Temperature range:</b>             | <b>UL:</b> up to +75°C <b>CSA:</b> up to +80°C<br><i>static:</i> <b>DIN VDE:</b> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | UR AWM, CSA AWM, CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

### Outstanding features:



- low smoke halogen-free (LSHF)
- UL recognized, CSA approved
- no flame propagation
- good EMC characteristics\*
- flame retardant and self-extinguishing
- flexible

\*copper braiding should be connected circularly to optimize the EMC characteristics

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 20 AWG (≈ 16/32) - 0.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62572002  | 2                              | 0.276             | 7.0             | 50                    |
| 62572003  | 3                              | 0.287             | 7.3             | 55                    |
| 62572004  | 4                              | 0.307             | 7.8             | 64                    |
| 62572005  | 5                              | 0.331             | 8.4             | 74                    |
| 62572007  | 7                              | 0.358             | 9.1             | 90                    |
| 62572008  | 8                              | 0.409             | 10.4            | 110                   |
| 62572009  | 9                              | 0.437             | 11.1            | 127                   |
| 62572010  | 10                             | 0.445             | 11.3            | 132                   |
| 62572012  | 12                             | 0.453             | 11.5            | 143                   |
| 62572014  | 14                             | 0.488             | 12.4            | 164                   |
| 62572016  | 16                             | 0.508             | 12.9            | 180                   |
| 62572018  | 18                             | 0.539             | 13.7            | 199                   |
| 62572025  | 25                             | 0.642             | 16.3            | 275                   |
| 62572030  | 30                             | 0.657             | 16.7            | 303                   |
| 62572034  | 34                             | 0.709             | 18.0            | 343                   |
| 62572040  | 40                             | 0.768             | 19.5            | 404                   |
| 62572041  | 41                             | 0.768             | 19.5            | 409                   |
| 62572061  | 61                             | 0.878             | 22.3            | 546                   |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 19 AWG (≈ 23/32) - 0.75 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62571902  | 2                              | 0.299             | 7.6             | 58                    |
| 62571903  | 3                              | 0.311             | 7.9             | 65                    |
| 62571904  | 4                              | 0.331             | 8.4             | 76                    |
| 62571905  | 5                              | 0.366             | 9.3             | 90                    |
| 62571907  | 7                              | 0.390             | 9.9             | 108                   |
| 62571908  | 8                              | 0.453             | 11.5            | 140                   |
| 62571909  | 9                              | 0.484             | 12.3            | 155                   |
| 62571910  | 10                             | 0.500             | 12.7            | 164                   |
| 62571912  | 12                             | 0.512             | 13.0            | 179                   |
| 62571914  | 14                             | 0.539             | 13.7            | 200                   |
| 62571916  | 16                             | 0.563             | 14.3            | 220                   |
| 62571918  | 18                             | 0.594             | 15.1            | 243                   |
| 62571925  | 25                             | 0.709             | 18.0            | 335                   |
| 62571930  | 30                             | 0.736             | 18.7            | 378                   |
| 62571934  | 34                             | 0.791             | 20.1            | 427                   |
| 62571940  | 40                             | 0.850             | 21.6            | 494                   |
| 62571941  | 41                             | 0.850             | 21.6            | 501                   |
| 62571961  | 61                             | 0.992             | 25.2            | 691                   |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 18 AWG (≈ 30/32) - 1.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 62571802  | 2                              | 0.307             | 7.8             | 63                    |
| 62571803  | 3                              | 0.323             | 8.2             | 73                    |
| 62571804  | 4                              | 0.350             | 8.9             | 87                    |
| 62571805  | 5                              | 0.374             | 9.5             | 100                   |
| 62571807  | 7                              | 0.409             | 10.4            | 123                   |
| 62571808  | 8                              | 0.480             | 12.2            | 162                   |
| 62571809  | 9                              | 0.508             | 12.9            | 177                   |
| 62571810  | 10                             | 0.524             | 13.3            | 186                   |
| 62571812  | 12                             | 0.535             | 13.6            | 204                   |
| 62571814  | 14                             | 0.555             | 14.1            | 226                   |
| 62571818  | 18                             | 0.622             | 15.8            | 289                   |
| 62571825  | 25                             | 0.740             | 18.8            | 384                   |
| 62571830  | 30                             | 0.772             | 19.6            | 441                   |
| 62571834  | 34                             | 0.827             | 21.0            | 492                   |
| 62571840  | 40                             | 0.886             | 22.5            | 568                   |
| 62571841  | 41                             | 0.886             | 22.5            | 576                   |
| 62571861  | 61                             | 1.035             | 26.3            | 800                   |

Continued on next page

# Halogen-free Cables

## SABIX® CC 625 SH FRNC M

Control cable with numbered conductors, inner jacket and overall tinned copper shield



Marking for SABIX® CC 625 SH FRNC M 62571612:

SAB BRÖCKSKES · D-VIERSEN · 62571612 12 x 1.5 mm<sup>2</sup> SABIX® CC 625 SH FRNC M 16 AWG/12c 62571215 UL AWM Style 21089 75°C 600V CSA AWM I/II A/B 80°C 600V FT1 CE

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 62571602   | 2                              | 0.331     | 8.4     | 75                    |
| 62571603   | 3                              | 0.354     | 9.0     | 91                    |
| 62571604   | 4                              | 0.378     | 9.6     | 106                   |
| 62571605   | 5                              | 0.421     | 10.7    | 134                   |
| 62571607   | 7                              | 0.453     | 11.5    | 163                   |
| 62571608   | 8                              | 0.531     | 13.5    | 202                   |
| 62571609   | 9                              | 0.559     | 14.2    | 222                   |
| 62571610   | 10                             | 0.579     | 14.7    | 234                   |
| 62571612   | 12                             | 0.591     | 15.0    | 259                   |
| 62571614   | 14                             | 0.622     | 15.8    | 300                   |
| 62571618   | 18                             | 0.697     | 17.7    | 374                   |
| 62571625   | 25                             | 0.831     | 21.1    | 503                   |
| 62571630   | 30                             | 0.854     | 21.7    | 570                   |
| 62571634   | 34                             | 0.925     | 23.5    | 644                   |
| 62571640   | 40                             | 1.000     | 25.4    | 751                   |
| 62571641   | 41                             | 1.000     | 25.4    | 757                   |
| 62571661   | 61                             | 1.157     | 29.4    | 1058                  |

| item no.  | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|---|--------------------------------|-----------|---------|-----------------------|
|   |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 62571402  | 2                              | 0.386     | 9.8     | 105                   |
| 62571403  | 3                              | 0.421     | 10.7    | 136                   |
| 62571404  | 4                              | 0.449     | 11.4    | 160                   |
| 62571405  | 5                              | 0.500     | 12.7    | 195                   |
| 62571407  | 7                              | 0.543     | 13.8    | 240                   |
| 62571408  | 8                              | 0.638     | 16.2    | 305                   |
| 62571409  | 9                              | 0.673     | 17.1    | 335                   |
| 62571410  | 10                             | 0.693     | 17.6    | 355                   |
| 62571412  | 12                             | 0.720     | 18.3    | 400                   |
| 62571418  | 18                             | 0.835     | 21.2    | 552                   |
| 62571425  | 25                             | 1.004     | 25.5    | 749                   |
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62571203  | 3                              | 0.484     | 12.3    | 153                   |
| 62571204  | 4                              | 0.528     | 13.4    | 226                   |
| 62571205  | 5                              | 0.579     | 14.7    | 272                   |
| 62571207  | 7                              | 0.638     | 16.2    | 353                   |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 62571003   | 3                              | 0.551     | 14.0    | 253                   |
| 62571004   | 4                              | 0.610     | 15.5    | 320                   |
| 62571005   | 5                              | 0.669     | 17.0    | 386                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 62570804   | 4                              | 0.795     | 20.2    | 531                   |
| 62570805   | 5                              | 0.878     | 22.3    | 645                   |
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62570604   | 4                              | 0.957     | 24.3    | 769                   |
| <b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62570404   | 4                              | 1.169     | 29.7    | 1181                  |
| <b>▶ 2 AWG (≈ 272/26) ▪ 35.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 62570204   | 4                              | 1.331     | 33.8    | 1584                  |

Other dimensions and colors are available on request

# Halogen-free Cables

## SABIX® A 810 FRNC

Motor connection cable with numbered conductors, improved fire performance, and extended temperature range

0.6/1 kV

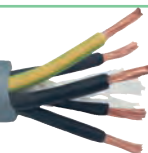
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ES · D-VIERSEN · SABIX® A 810 FRNC rf 0.6/1 kV 5 x 1.5 mm<sup>2</sup> CE



Marking for SABIX® A 810 FRNC 68100515:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 810 FRNC rf 0.6/1 kV 5 x 1.5 mm<sup>2</sup> CE



### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 0.6/1 kV  |
| <b>Testing voltage:</b>               | conductor/conductor: 4000 V  |
| <b>Min. bending radius:</b>           |  |
| <i>fixed installation:</i>            | 4 x O.D.   |
| <i>free movement:</i>                 | 6 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b>   |
| <i>static:</i>                        | -40/+85°C  |
| <i>flexible:</i>                      | -30/+85°C  |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 16 AWG (≈ 27-29/30) - 1.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 68100315   | 3                              | 0.370     | 9.4     | 85                    |
| 68100415   | 4                              | 0.398     | 10.1    | 100                   |
| 68100515   | 5                              | 0.433     | 11.0    | 118                   |
| 68100715   | 7                              | 0.469     | 11.9    | 144                   |
| <b>▶ 14 AWG (≈ 46/30) - 2.50 mm<sup>2</sup></b>    |                                |           |         |                       |
| 68100325   | 3                              | 0.417     | 10.6    | 116                   |
| 68100425   | 4                              | 0.453     | 11.5    | 138                   |
| 68100525   | 5                              | 0.496     | 12.6    | 165                   |
| 68100725   | 7                              | 0.543     | 13.8    | 208                   |
| <b>▶ 12 AWG (≈ 52/28) - 4.00 mm<sup>2</sup></b>    |                                |           |         |                       |
| 68100340   | 3                              | 0.469     | 11.9    | 157                   |
| 68100440   | 4                              | 0.520     | 13.2    | 192                   |
| 68100540   | 5                              | 0.563     | 14.3    | 226                   |
| 68100740   | 7                              | 0.618     | 15.7    | 292                   |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 10 AWG (≈ 78/28) - 6.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 68100360   | 3                              | 0.524     | 13.3    | 207                   |
| 68100460   | 4                              | 0.563     | 14.3    | 251                   |
| 68100560   | 5                              | 0.622     | 15.8    | 301                   |
| 68100760   | 7                              | 0.677     | 17.2    | 389                   |
| <b>▶ 8 AWG (≈ 77/26) - 10.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 68100370   | 3                              | 0.720     | 18.3    | 392                   |
| 68100470   | 4                              | 0.787     | 20.0    | 476                   |
| 68100570   | 5                              | 0.862     | 21.9    | 568                   |
| 68100770   | 7                              | 0.941     | 23.9    | 727                   |
| <b>▶ 6 AWG (≈ 122/26) - 16.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 68100380   | 3                              | 0.846     | 21.5    | 553                   |
| 68100480   | 4                              | 0.925     | 23.5    | 677                   |
| 68100580   | 5                              | 1.020     | 25.9    | 828                   |
| 68100780   | 7                              | 1.114     | 28.3    | 1065                  |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 4 AWG (≈ 190/26) - 25.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 68100390   | 3                              | 1.020     | 25.9    | 850                   |
| 68100490   | 4                              | 1.118     | 28.4    | 1046                  |
| 68100590   | 5                              | 1.236     | 31.4    | 1262                  |
| 68100790   | 7                              | 1.354     | 34.4    | 1643                  |

Other dimensions and colors are available on request

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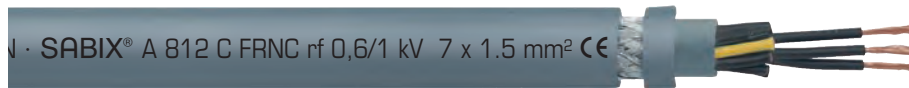
# Halogen-free Cables

## SABIX® A 812 C FRNC

Motor connection cable with numbered conductors, improved fire performance, inner jacket, overall tinned copper shield, and extended temperature range

0.6/1 kV

SAB Servo



Marking for SABIX® A 812 C FRNC 68120715:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 812 C FRNC rf 0.6/1 kV 7 x 1.5 mm² CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Inner jacket:</b>    | SABIX®   |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 0.6/1 kV  |
| <b>Testing voltage:</b>               | conductor/conductor: 4000 V<br>conductor/shielding: 4000 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>free movement:</i> 10 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+85°C<br><i>flexible:</i> -30/+85°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.                                | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm²</b> |                                |                   |                 |                       |
| 68120315                                | 3                              | 0.445             | 11.3            | 136                   |
| 68120415                                | 4                              | 0.472             | 12.0            | 152                   |
| 68120715                                | 7                              | 0.543             | 13.8            | 210                   |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm²</b>    |                                |                   |                 |                       |
| 68120325                                | 3                              | 0.496             | 12.6            | 173                   |
| 68120425                                | 4                              | 0.531             | 13.5            | 200                   |
| 68120525                                | 5                              | 0.591             | 15.0            | 251                   |
| 68120725                                | 7                              | 0.638             | 16.2            | 294                   |
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm²</b>    |                                |                   |                 |                       |
| 68120440                                | 4                              | 0.642             | 16.3            | 305                   |
| 68120740                                | 7                              | 0.709             | 18.0            | 396                   |

| item no.                             | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm²</b> |                                |                   |                 |                       |
| 68120360                             | 3                              | 0.594             | 15.1            | 286                   |
| 68120460                             | 4                              | 0.657             | 16.7            | 347                   |
| 68120760                             | 7                              | 0.783             | 19.9            | 522                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm²</b> |                                |                   |                 |                       |
| 68120370                             | 3                              | 0.764             | 19.4            | 413                   |
| 68120470                             | 4                              | 0.827             | 21.0            | 501                   |
| 68120570                             | 5                              | 0.898             | 22.8            | 615                   |
| 68120770                             | 7                              | 0.988             | 25.1            | 775                   |

| item no.                              | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm²</b> |                                |                   |                 |                       |
| 68120380                              | 3                              | 0.882             | 22.4            | 556                   |
| 68120480                              | 4                              | 0.972             | 24.7            | 709                   |
| 68120580                              | 5                              | 1.063             | 27.0            | 867                   |
| 68120780                              | 7                              | 1.169             | 29.7            | 1116                  |
| <b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm²</b> |                                |                   |                 |                       |
| 68120390                              | 3                              | 1.051             | 26.7            | 798                   |
| 68120490                              | 4                              | 1.157             | 29.4            | 1015                  |
| 68120590                              | 5                              | 1.272             | 32.3            | 1251                  |

Other dimensions and colors are available on request



# Halogen-free Cables

## SABIX® D 305 FRNC

Flexible data cable with improved fire performance and extended temperature range



D-VIERSEN · SABIX® D 305 FRNC 32 x 0.5 mm<sup>2</sup> CE



Marking for SABIX® D 305 FRNC 63053250:

SAB BRÖCKSKES · D-VIERSEN · SABIX® D 305 FRNC 32 x 0.5 mm<sup>2</sup> CE

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | bare copper strands<br>with reference to VDE 0812 |
| <b>Insulation:</b>      | SABIX®  |
| <b>Color code:</b>      | DIN 47100, see below                              |
| <b>Stranding:</b>       | in layers   |
| <b>Jacket material:</b> | SABIX®  |
| <b>Jacket color:</b>    | grayish tan (RAL 7015)                            |

### Outstanding features:



- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- easy stripping
- low capacitance
- flexible

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Peak operating voltage:</b>        | < 24 AWG = max. 350 V<br>≥ 24 AWG = max. 500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V  |
| <b>Min. bending radius:</b>           |  |
| <i>fixed installation:</i>            | 5 x O.D.   |
| <i>free movement:</i>                 | 10 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b>   |
| <i>static:</i>                        | -40/+85°C  |
| <i>flexible:</i>                      | -30/+85°C  |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft |
|---|-------------------|--------------|------------|--------------------------|
|   |                   | ±10%<br>inch | ±10%<br>mm |                          |
| <b>▶ 26 AWG (≈ 18/38) • 0.14 mm<sup>2</sup></b> |                   |              |            |                          |
| 63050214  | 2                 | 0.130        | 3.3        | 11                       |
| 63050314  | 3                 | 0.138        | 3.5        | 12                       |
| 63050414  | 4                 | 0.146        | 3.7        | 13                       |
| 63050514  | 5                 | 0.154        | 3.9        | 15                       |
| 63050714  | 7                 | 0.169        | 4.3        | 19                       |
| 63050814  | 8                 | 0.205        | 5.2        | 24                       |
| 63051214  | 12                | 0.217        | 5.5        | 28                       |
| 63051414  | 14                | 0.224        | 5.7        | 32                       |
| 63051614  | 16                | 0.244        | 6.2        | 37                       |
| 63051814  | 18                | 0.256        | 6.5        | 41                       |
| 63052114  | 21                | 0.280        | 7.1        | 48                       |
| 63052414  | 24                | 0.295        | 7.5        | 54                       |
| 63052714  | 27                | 0.319        | 8.1        | 61                       |
| 63053014  | 30                | 0.327        | 8.3        | 65                       |
| 63053214  | 32                | 0.339        | 8.6        | 69                       |
| 63053614  | 36                | 0.350        | 8.9        | 76                       |
| 63054014  | 40                | 0.374        | 9.5        | 83                       |
| 63054414  | 44                | 0.390        | 9.9        | 89                       |
| 63055014  | 50                | 0.406        | 10.3       | 95                       |
| 63056114  | 61                | 0.429        | 10.9       | 111                      |

| item no.  | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft |
|---|-------------------|--------------|------------|--------------------------|
|   |                   | ±10%<br>inch | ±10%<br>mm |                          |
| <b>▶ 24 AWG (≈ 14/34) • 0.25 mm<sup>2</sup></b> |                   |              |            |                          |
| 63050225  | 2                 | 0.142        | 3.6        | 13                       |
| 63050325  | 3                 | 0.150        | 3.8        | 15                       |
| 63050425  | 4                 | 0.161        | 4.1        | 17                       |
| 63050525  | 5                 | 0.173        | 4.4        | 21                       |
| 63050725  | 7                 | 0.189        | 4.8        | 26                       |
| 63050825  | 8                 | 0.213        | 5.4        | 30                       |
| 63051225  | 12                | 0.248        | 6.3        | 41                       |
| 63051425  | 14                | 0.260        | 6.6        | 46                       |
| 63051625  | 16                | 0.272        | 6.9        | 52                       |
| 63051825  | 18                | 0.287        | 7.3        | 57                       |
| 63052125  | 21                | 0.327        | 8.3        | 71                       |
| 63052425  | 24                | 0.331        | 8.4        | 74                       |
| 63052725  | 27                | 0.339        | 8.6        | 77                       |
| 63053025  | 30                | 0.350        | 8.9        | 84                       |
| 63053225  | 32                | 0.362        | 9.2        | 89                       |
| 63053625  | 36                | 0.394        | 10.0       | 105                      |
| 63054025  | 40                | 0.417        | 10.6       | 116                      |
| 63054425  | 44                | 0.437        | 11.1       | 124                      |
| 63055025  | 50                | 0.457        | 11.6       | 137                      |
| 63056125  | 61                | 0.484        | 12.3       | 162                      |

| item no.                                       | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft |
|--|-------------------|--------------|------------|--------------------------|
|  |                   | ±10%<br>inch | ±10%<br>mm |                          |
| <b>▶ 22 AWG (≈ 7/30) • 0.34 mm<sup>2</sup></b> |                   |              |            |                          |
| 63050234                                       | 2                 | 0.165        | 4.2        | 17                       |
| 63050334                                       | 3                 | 0.173        | 4.4        | 20                       |
| 63050434                                       | 4                 | 0.181        | 4.6        | 24                       |
| 63050534                                       | 5                 | 0.205        | 5.2        | 29                       |
| 63050734                                       | 7                 | 0.224        | 5.7        | 36                       |
| 63050834                                       | 8                 | 0.264        | 6.7        | 44                       |
| 63051234                                       | 12                | 0.295        | 7.5        | 57                       |
| 63051434                                       | 14                | 0.327        | 8.3        | 70                       |
| 63051634                                       | 16                | 0.343        | 8.7        | 78                       |
| 63051834                                       | 18                | 0.362        | 9.2        | 86                       |
| 63052134                                       | 21                | 0.394        | 10.0       | 98                       |
| 63052434                                       | 24                | 0.417        | 10.6       | 105                      |
| 63052734                                       | 27                | 0.425        | 10.8       | 116                      |
| 63053034                                       | 30                | 0.441        | 11.2       | 126                      |
| 63053234                                       | 32                | 0.457        | 11.6       | 134                      |
| 63053634                                       | 36                | 0.476        | 12.1       | 148                      |
| 63054034                                       | 40                | 0.508        | 12.9       | 164                      |
| 63054434                                       | 44                | 0.531        | 13.5       | 175                      |
| 63055034                                       | 50                | 0.571        | 14.5       | 204                      |
| 63056134                                       | 61                | 0.606        | 15.4       | 241                      |

Continued on next page

#### DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown, #17- white-gray, #18- gray-brown, #19- white-pink, #20- pink-brown, #21- white-blue, #22- brown-blue, #23- white-red, #24- brown-red, #25- white-black, #26- brown-black, #27- gray-green, #28- yellow-gray, #29- pink-green, #30- yellow-pink, #31- green-blue, #32- yellow-blue, #33- green-red, #34- yellow-red, #35- green-black, #36- yellow-black, #37- gray-blue, #38- pink-blue, #39- gray-red, #40- pink-red, #41- gray-black, #42- pink-black, #43- blue-black, #44- red-black, #45- white-brown-black, #46- yellow-green-black, #47- gray-pink-black, #48- red-blue-black, #49- white-green-black, #50- brown-green-black, #51- white-yellow-black, #52- yellow-brown-black, #53- white-gray-black, #54- gray-brown-black, #55- white-pink-black, #56- pink-brown-black, #57- white-blue-black, #58- brown-blue-black, #59- white-red-black, #60- brown-red-black, #61- black-white



# Halogen-free Cables

## SABIX® D 305 FRNC

Flexible data cable with improved fire performance and extended temperature range



D-VIERSEN · SABIX® D 305 FRNC 32 x 0.5 mm<sup>2</sup> CE



Marking for SABIX® D 305 FRNC 63053250:

SAB BRÖCKSKES · D-VIERSEN · SABIX® D 305 FRNC 32 x 0.5 mm<sup>2</sup> CE

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                   |           |         |              |
| 63050250  | 2                 | 0.177     | 4.5     | 21           |
| 63050350  | 3                 | 0.185     | 4.7     | 24           |
| 63050450  | 4                 | 0.201     | 5.1     | 29           |
| 63050550  | 5                 | 0.220     | 5.6     | 34           |
| 63050750  | 7                 | 0.248     | 6.3     | 45           |
| 63050850  | 8                 | 0.287     | 7.3     | 55           |
| 63051250  | 12                | 0.335     | 8.5     | 76           |
| 63051450  | 14                | 0.350     | 8.9     | 85           |
| 63051650  | 16                | 0.370     | 9.4     | 95           |
| 63051850  | 18                | 0.390     | 9.9     | 105          |
| 63052150  | 21                | 0.429     | 10.9    | 121          |
| 63052450  | 24                | 0.453     | 11.5    | 131          |
| 63052750  | 27                | 0.461     | 11.7    | 143          |
| 63053050  | 30                | 0.476     | 12.1    | 156          |
| 63053250  | 32                | 0.496     | 12.6    | 167          |
| 63053650  | 36                | 0.516     | 13.1    | 184          |
| 63054450  | 44                | 0.594     | 15.1    | 229          |
| 63055050  | 50                | 0.618     | 15.7    | 276          |
| 63056150  | 61                | 0.657     | 16.7    | 301          |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                   |           |         |              |
| 63050275  | 2                 | 0.201     | 5.1     | 28           |
| 63050375  | 3                 | 0.213     | 5.4     | 33           |
| 63050475  | 4                 | 0.240     | 6.1     | 42           |
| 63050575  | 5                 | 0.260     | 6.6     | 49           |
| 63050775  | 7                 | 0.283     | 7.2     | 61           |
| 63050875  | 8                 | 0.343     | 8.7     | 80           |
| 63051275  | 12                | 0.386     | 9.8     | 103          |
| 63051475  | 14                | 0.406     | 10.3    | 114          |
| 63051675  | 16                | 0.425     | 10.8    | 129          |
| 63051875  | 18                | 0.449     | 11.4    | 143          |
| 63052175  | 21                | 0.492     | 12.5    | 167          |
| 63052475  | 24                | 0.524     | 13.3    | 181          |
| 63052775  | 27                | 0.535     | 13.6    | 200          |
| 63053075  | 30                | 0.571     | 14.5    | 228          |
| 63053275  | 32                | 0.591     | 15.0    | 242          |
| 63053675  | 36                | 0.614     | 15.6    | 268          |
| 63054075  | 40                | 0.657     | 16.7    | 298          |
| 63054475  | 44                | 0.689     | 17.5    | 319          |
| 63055075  | 50                | 0.720     | 18.3    | 356          |
| 63056175  | 61                | 0.780     | 19.8    | 435          |

| item no.   | no. of conductors | outer-ø   |         | cable weight |
|--|-------------------|-----------|---------|--------------|
|  |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>    |                   |           |         |              |
| 63050280   | 2                 | 0.209     | 5.3     | 32           |
| 63050380   | 3                 | 0.220     | 5.6     | 38           |
| 63050480   | 4                 | 0.248     | 6.3     | 48           |
| 63050580   | 5                 | 0.272     | 6.9     | 58           |
| 63050680   | 6                 | 0.295     | 7.5     | 67           |
| 63050780   | 7                 | 0.311     | 7.9     | 78           |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                   |           |         |              |
| 63050285   | 2                 | 0.240     | 6.1     | 43           |
| 63050385   | 3                 | 0.252     | 6.4     | 52           |
| 63050485   | 4                 | 0.276     | 7.0     | 63           |
| 63050585   | 5                 | 0.319     | 8.1     | 82           |
| 63050685   | 6                 | 0.346     | 8.8     | 95           |
| 63050785   | 7                 | 0.346     | 8.8     | 103          |

Other dimensions and colors are available on request

### DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown, #17- white-gray, #18- gray-brown, #19- white-pink, #20- pink-brown, #21- white-blue, #22- brown-blue, #23- white-red, #24- brown-red, #25- white-black, #26- brown-black, #27- gray-green, #28- yellow-gray, #29- pink-green, #30- yellow-pink, #31- green-blue, #32- yellow-blue, #33- green-red, #34- yellow-red, #35- green-black, #36- yellow-black, #37- gray-blue, #38- pink-blue, #39- gray-red, #40- pink-red, #41- gray-black, #42- pink-black, #43- blue-black, #44- red-black, #45- white-brown-black, #46- yellow-green-black, #47- gray-pink-black, #48- red-blue-black, #49- white-green-black, #50- brown-green-black, #51- white-yellow-black, #52- yellow-brown-black, #53- white-gray-black, #54- gray-brown-black, #55- white-pink-black, #56- pink-brown-black, #57- white-blue-black, #58- brown-blue-black, #59- white-red-black, #60- brown-red-black, #61- black-white

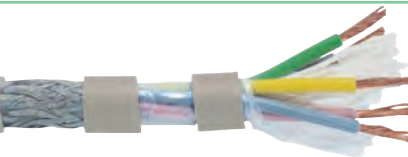
# Halogen-free Cables

## SABIX® D 315 FRNC

Flexible data cable with improved fire performance, overall tinned copper shield, and extended temperature range



SEN · SABIX® D 315 FRNC 7 x 0.5 mm<sup>2</sup> CE



Marking for SABIX® D 315 FRNC 63150750:

SAB BRÖCKSKES · D-VIERSEN · SABIX® D 315 FRNC 7 x 0.5 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands with reference to VDE 0812 |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | DIN 47100, see next page                       |
| <b>Stranding:</b>       | in layers                                      |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding                         |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | grayish tan (RAL 7032)                         |

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Peak operating voltage:</b>        | < 24 AWG = max. 350 V<br>≥ 24 AWG = max. 500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V   |
| <b>Min. bending radius:</b>           | 5 x O.D.<br><i>fixed installation:</i><br>10 x O.D.<br><i>free movement:</i>   |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+85°C<br><i>flexible:</i> -30/+85°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

### Outstanding features:



- low smoke halogen-free (LSHF)
- no flame propagation
- good EMC characteristics\*
- flame retardant and self-extinguishing

\*copper braiding should be connected circularly to optimize the EMC characteristics

| item no.  | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft |
|---|-------------------|--------------|------------|--------------------------|
|   |                   | ±10%<br>inch | ±10%<br>mm |                          |
| <b>▶ 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b> |                   |              |            |                          |
| 63150214  | 2                 | 0.150        | 3.8        | 15                       |
| 63150314  | 3                 | 0.157        | 4.0        | 17                       |
| 63150414  | 4                 | 0.165        | 4.2        | 18                       |
| 63150514  | 5                 | 0.177        | 4.5        | 22                       |
| 63150714  | 7                 | 0.189        | 4.8        | 26                       |
| 63150814  | 8                 | 0.220        | 5.6        | 31                       |
| 63151014  | 10                | 0.236        | 6.0        | 34                       |
| 63151214  | 12                | 0.260        | 6.6        | 43                       |
| 63151414  | 14                | 0.268        | 6.8        | 46                       |
| 63151614  | 16                | 0.280        | 7.1        | 51                       |
| 63151814  | 18                | 0.291        | 7.4        | 55                       |
| 63152114  | 21                | 0.315        | 8.0        | 56                       |
| 63152414  | 24                | 0.315        | 8.0        | 60                       |
| 63152714  | 27                | 0.339        | 8.6        | 70                       |
| 63153014  | 30                | 0.346        | 8.8        | 75                       |
| 63153214  | 32                | 0.358        | 9.1        | 79                       |
| 63153614  | 36                | 0.370        | 9.4        | 86                       |
| 63154014  | 40                | 0.394        | 10.0       | 95                       |
| 63154414  | 44                | 0.417        | 10.6       | 109                      |
| 63155014  | 50                | 0.433        | 11.0       | 118                      |
| 63155214  | 52                | 0.433        | 11.0       | 120                      |
| 63156114  | 61                | 0.457        | 11.6       | 136                      |

| item no.  | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft |
|---|-------------------|--------------|------------|--------------------------|
|   |                   | ±10%<br>inch | ±10%<br>mm |                          |
| <b>▶ 24 AWG (≈ 14/34) ▪ 0.25 mm<sup>2</sup></b> |                   |              |            |                          |
| 63150225  | 2                 | 0.161        | 4.1        | 17                       |
| 63150325  | 3                 | 0.169        | 4.3        | 19                       |
| 63150425  | 4                 | 0.181        | 4.6        | 22                       |
| 63150525  | 5                 | 0.201        | 5.1        | 29                       |
| 63150725  | 7                 | 0.217        | 5.5        | 34                       |
| 63150825  | 8                 | 0.256        | 6.5        | 44                       |
| 63151025  | 10                | 0.276        | 7.0        | 50                       |
| 63151225  | 12                | 0.283        | 7.2        | 54                       |
| 63151425  | 14                | 0.295        | 7.5        | 60                       |
| 63151625  | 16                | 0.307        | 7.8        | 66                       |
| 63151825  | 18                | 0.323        | 8.2        | 73                       |
| 63152125  | 21                | 0.346        | 8.8        | 82                       |
| 63152425  | 24                | 0.366        | 9.3        | 87                       |
| 63152725  | 27                | 0.374        | 9.5        | 95                       |
| 63153025  | 30                | 0.386        | 9.8        | 102                      |
| 63153225  | 32                | 0.398        | 10.1       | 108                      |
| 63153625  | 36                | 0.421        | 10.7       | 127                      |
| 63154025  | 40                | 0.445        | 11.3       | 140                      |
| 63154425  | 44                | 0.465        | 11.8       | 148                      |
| 63155025  | 50                | 0.500        | 12.7       | 171                      |
| 63155225  | 52                | 0.500        | 12.7       | 175                      |
| 63156125  | 61                | 0.528        | 13.4       | 198                      |

| item no.                                       | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft |
|--|-------------------|--------------|------------|--------------------------|
|  |                   | ±10%<br>inch | ±10%<br>mm |                          |
| <b>▶ 22 AWG (≈ 7/30) ▪ 0.34 mm<sup>2</sup></b> |                   |              |            |                          |
| 63150234                                       | 2                 | 0.185        | 4.7        | 23                       |
| 63150334                                       | 3                 | 0.201        | 5.1        | 28                       |
| 63150434                                       | 4                 | 0.217        | 5.5        | 32                       |
| 63150534                                       | 5                 | 0.232        | 5.9        | 37                       |
| 63150734                                       | 7                 | 0.268        | 6.8        | 49                       |
| 63150834                                       | 8                 | 0.299        | 7.6        | 58                       |
| 63151034                                       | 10                | 0.323        | 8.2        | 65                       |
| 63151234                                       | 12                | 0.331        | 8.4        | 72                       |
| 63151434                                       | 14                | 0.346        | 8.8        | 79                       |
| 63151634                                       | 16                | 0.362        | 9.2        | 87                       |
| 63151834                                       | 18                | 0.382        | 9.7        | 97                       |
| 63152134                                       | 21                | 0.421        | 10.7       | 119                      |
| 63152434                                       | 24                | 0.445        | 11.3       | 130                      |
| 63152734                                       | 27                | 0.453        | 11.5       | 139                      |
| 63153034                                       | 30                | 0.469        | 11.9       | 149                      |
| 63153234                                       | 32                | 0.500        | 12.7       | 166                      |
| 63153634                                       | 36                | 0.520        | 13.2       | 183                      |
| 63154034                                       | 40                | 0.551        | 14.0       | 202                      |
| 63154434                                       | 44                | 0.575        | 14.6       | 214                      |
| 63155034                                       | 50                | 0.622        | 15.8       | 259                      |
| 63155234                                       | 52                | 0.622        | 15.8       | 265                      |
| 63156134                                       | 61                | 0.657        | 16.7       | 246                      |

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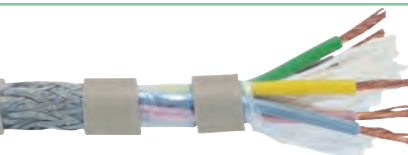
# Halogen-free Cables

## SABIX® D 315 FRNC

Flexible data cable with improved fire performance, overall tinned copper shield, and extended temperature range



SEN · SABIX® D 315 FRNC 7 x 0.5 mm<sup>2</sup> CE



Marking for SABIX® D 315 FRNC 63150750:

SAB BRÖCKSKES · D-VIERSEN · SABIX® D 315 FRNC 7 x 0.5 mm<sup>2</sup> CE

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                   |           |         |              |
| 63150250  | 2                 | 0.205     | 5.2     | 28           |
| 63150350  | 3                 | 0.213     | 5.4     | 31           |
| 63150450  | 4                 | 0.228     | 5.8     | 36           |
| 63150550  | 5                 | 0.264     | 6.7     | 48           |
| 63150750  | 7                 | 0.283     | 7.2     | 57           |
| 63150850  | 8                 | 0.323     | 8.2     | 69           |
| 63151050  | 10                | 0.346     | 8.8     | 76           |
| 63151250  | 12                | 0.354     | 9.0     | 85           |
| 63151450  | 14                | 0.370     | 9.4     | 93           |
| 63151650  | 16                | 0.390     | 9.9     | 105          |
| 63151850  | 18                | 0.417     | 10.6    | 124          |
| 63152150  | 21                | 0.457     | 11.6    | 148          |
| 63152450  | 24                | 0.496     | 12.6    | 162          |
| 63152750  | 27                | 0.504     | 12.8    | 175          |
| 63153050  | 30                | 0.520     | 13.2    | 190          |
| 63153250  | 32                | 0.539     | 13.7    | 201          |
| 63153650  | 36                | 0.559     | 14.2    | 222          |
| 63154450  | 44                | 0.646     | 16.4    | 284          |
| 63155050  | 50                | 0.669     | 17.0    | 315          |
| 63156150  | 61                | 0.709     | 18.0    | 363          |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                   |           |         |              |
| 63150275  | 2                 | 0.228     | 5.8     | 34           |
| 63150375  | 3                 | 0.256     | 6.5     | 44           |
| 63150475  | 4                 | 0.276     | 7.0     | 52           |
| 63150575  | 5                 | 0.295     | 7.5     | 60           |
| 63150775  | 7                 | 0.319     | 8.1     | 75           |
| 63150875  | 8                 | 0.362     | 9.2     | 89           |
| 63151275  | 12                | 0.413     | 10.5    | 120          |
| 63151475  | 14                | 0.433     | 11.0    | 133          |
| 63151675  | 16                | 0.453     | 11.5    | 151          |
| 63151875  | 18                | 0.488     | 12.4    | 173          |
| 63152175  | 21                | 0.535     | 13.6    | 200          |
| 63152475  | 24                | 0.567     | 14.4    | 218          |
| 63152775  | 27                | 0.579     | 14.7    | 237          |
| 63153075  | 30                | 0.622     | 15.8    | 280          |
| 63153275  | 32                | 0.642     | 16.3    | 296          |
| 63153675  | 36                | 0.665     | 16.9    | 322          |

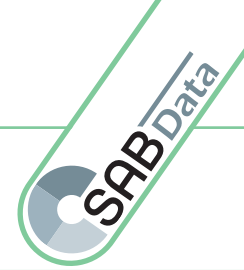
| item no.   | no. of conductors | outer-ø   |         | cable weight |
|--|-------------------|-----------|---------|--------------|
|  |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>    |                   |           |         |              |
| 63150280   | 2                 | 0.236     | 6.0     | 37           |
| 63150380   | 3                 | 0.264     | 6.7     | 49           |
| 63150480   | 4                 | 0.283     | 7.2     | 58           |
| 63150580   | 5                 | 0.307     | 7.8     | 69           |
| 63150680   | 6                 | 0.331     | 8.4     | 80           |
| 63150780   | 7                 | 0.331     | 8.4     | 85           |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                   |           |         |              |
| 63150285   | 2                 | 0.276     | 7.0     | 52           |
| 63150385   | 3                 | 0.287     | 7.3     | 60           |
| 63150485   | 4                 | 0.311     | 7.9     | 73           |
| 63150585   | 5                 | 0.339     | 8.6     | 87           |
| 63150685   | 6                 | 0.366     | 9.3     | 102          |
| 63150785   | 7                 | 0.366     | 9.3     | 109          |

Other dimensions and colors are available on request

### DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown, #17- white-gray, #18- gray-brown, #19- white-pink, #20- pink-brown, #21- white-blue, #22- brown-blue, #23- white-red, #24- brown-red, #25- white-black, #26- brown-black, #27- gray-green, #28- yellow-gray, #29- pink-green, #30- yellow-pink, #31- green-blue, #32- yellow-blue, #33- green-red, #34- yellow-red, #35- green-black, #36- yellow-black, #37- gray-blue, #38- pink-blue, #39- gray-red, #40- pink-red, #41- gray-black, #42- pink-black, #43- blue-black, #44- red-black, #45- white-brown-black, #46- yellow-green-black, #47- gray-pink-black, #48- red-blue-black, #49- white-green-black, #50- brown-green-black, #51- white-yellow-black, #52- yellow-brown-black, #53- white-gray-black, #54- gray-brown-black, #55- white-pink-black, #56- pink-brown-black, #57- white-blue-black, #58- brown-blue-black, #59- white-red-black, #60- brown-red-black, #61- black-white

# Halogen-free Cables



## SABIX® D 345 FRNC TP

Paired data cable with improved fire performance, overall tinned copper shield, and extended temperature range



345 FRNC TP 3 x 2 x 0.25 mm<sup>2</sup> CE

Marking for SABIX® D 345 FRNC TP 63450325:

SAB BRÖCKSKES · D-VIERSEN · SABIX® D 345 FRNC TP 3 x 2 x 0.25 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands with reference to VDE 0812 |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | DIN 47100, see below                           |
| <b>Stranding:</b>       | pairwise, pairs in layers                      |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding                         |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | grayish tan (RAL 7032)                         |

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Peak operating voltage:</b>        | < 24 AWG = max. 350 V<br>≥ 24 AWG = max. 500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V   |
| <b>Min. bending radius:</b>           | 5 x O.D.<br>fixed installation:<br>10 x O.D.<br>free movement:   |
| <b>Temperature range:</b>             | DIN VDE<br>static:<br>-40/+85°C<br>flexible:<br>-30/+85°C  |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- good EMC characteristics\*
- flame retardant and self-extinguishing
- good transmission rates and crosstalk attenuation

\*copper braiding should be connected circularly to optimize the EMC characteristics

| item no.  | no. of pairs | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable weight<br>≈lbs/mft |
|---|--------------|-------------------------|-----------------------|--------------------------|
| <b>▶ 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b> |              |                         |                       |                          |
| 63450214  | 2            | 0.213                   | 5.4                   | 27                       |
| 63450314  | 3            | 0.232                   | 5.9                   | 32                       |
| 63450414  | 4            | 0.272                   | 6.9                   | 42                       |
| 63450514  | 5            | 0.291                   | 7.4                   | 47                       |
| 63450614  | 6            | 0.299                   | 7.6                   | 50                       |
| 63450814  | 8            | 0.323                   | 8.2                   | 55                       |
| 63451014  | 10           | 0.350                   | 8.9                   | 69                       |
| 63451214  | 12           | 0.382                   | 9.7                   | 75                       |
| 63451614  | 16           | 0.413                   | 10.5                  | 89                       |
| 63451814  | 18           | 0.437                   | 11.1                  | 105                      |
| 63452414  | 24           | 0.504                   | 12.8                  | 137                      |
| <b>▶ 24 AWG (≈ 14/34) ▪ 0.25 mm<sup>2</sup></b> |              |                         |                       |                          |
| 63450225  | 2            | 0.232                   | 5.9                   | 30                       |
| 63450325  | 3            | 0.268                   | 6.8                   | 42                       |
| 63450425  | 4            | 0.283                   | 7.2                   | 48                       |
| 63450525  | 5            | 0.319                   | 8.1                   | 56                       |
| 63450625  | 6            | 0.327                   | 8.3                   | 63                       |
| 63450825  | 8            | 0.354                   | 9.0                   | 70                       |
| 63451025  | 10           | 0.386                   | 9.8                   | 91                       |
| 63451225  | 12           | 0.429                   | 10.9                  | 104                      |
| 63451625  | 16           | 0.469                   | 11.9                  | 130                      |
| 63451825  | 18           | 0.500                   | 12.7                  | 148                      |
| 63452425  | 24           | 0.567                   | 14.4                  | 192                      |

| item no.  | no. of pairs | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable weight<br>≈lbs/mft |
|---|--------------|-------------------------|-----------------------|--------------------------|
| <b>▶ 22 AWG (≈ 7/30) ▪ 0.34 mm<sup>2</sup></b>  |              |                         |                       |                          |
| 63450234  | 2            | 0.283                   | 7.2                   | 44                       |
| 63450334  | 3            | 0.307                   | 7.8                   | 55                       |
| 63450434  | 4            | 0.346                   | 8.8                   | 66                       |
| 63450534  | 5            | 0.370                   | 9.5                   | 76                       |
| 63450634  | 6            | 0.382                   | 9.7                   | 84                       |
| 63450834  | 8            | 0.425                   | 10.8                  | 104                      |
| 63451234  | 12           | 0.528                   | 13.4                  | 151                      |
| 63451634  | 16           | 0.583                   | 14.8                  | 193                      |
| 63451834  | 18           | 0.602                   | 15.3                  | 213                      |
| 63452434  | 24           | 0.693                   | 17.6                  | 271                      |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |              |                         |                       |                          |
| 63450250  | 2            | 0.299                   | 7.6                   | 50                       |
| 63450350  | 3            | 0.327                   | 8.3                   | 63                       |
| 63450450  | 4            | 0.370                   | 9.4                   | 78                       |
| 63450550  | 5            | 0.402                   | 10.2                  | 87                       |
| 63450650  | 6            | 0.409                   | 10.4                  | 102                      |
| 63450850  | 8            | 0.457                   | 11.6                  | 124                      |
| 63451050  | 10           | 0.520                   | 13.2                  | 156                      |
| 63451250  | 12           | 0.575                   | 14.6                  | 183                      |
| 63451650  | 16           | 0.642                   | 16.3                  | 244                      |
| 63451850  | 18           | 0.665                   | 16.9                  | 263                      |
| 63452450  | 24           | 0.748                   | 19.0                  | 328                      |

| item no.  | no. of pairs | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable weight<br>≈lbs/mft |
|---|--------------|-------------------------|-----------------------|--------------------------|
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |              |                         |                       |                          |
| 63450275  | 2            | 0.335                   | 8.5                   | 66                       |
| 63450375  | 3            | 0.370                   | 9.4                   | 79                       |
| 63450475  | 4            | 0.429                   | 10.9                  | 107                      |
| 63450575  | 5            | 0.461                   | 11.7                  | 122                      |
| 63450675  | 6            | 0.492                   | 12.5                  | 144                      |
| 63450875  | 8            | 0.594                   | 15.1                  | 202                      |
| 63451275  | 12           | 0.673                   | 17.1                  | 262                      |
| 63451675  | 16           | 0.732                   | 18.6                  | 318                      |
| 63451875  | 18           | 0.760                   | 19.3                  | 349                      |
| 63452475  | 24           | 0.858                   | 21.8                  | 433                      |

Other dimensions and colors are available on request

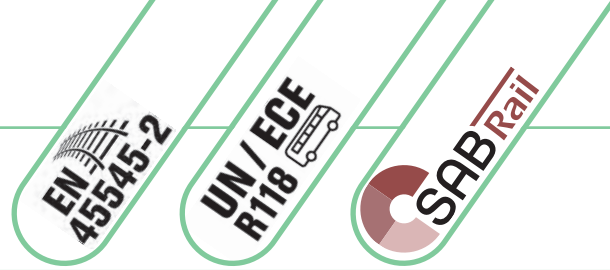
#### DIN 47100 color code:

#1- white/brown, #2- green/yellow, #3- gray/pink, #4- blue/red, #5- black/purple, #6- gray-pink/red-blue, #7- white-green/brown-green, #8- white-yellow/yellow-brown, #9- white-gray/gray-brown, #10- white-pink/pink-brown, #11- white-blue/brown-blue, #12- white-red/brown-red, #13- white-black/brown-black, #14- gray-green/yellow-gray, #15- pink-green/yellow-pink, #16- green-blue/yellow-blue, #17- green-red/yellow-red, #18- green-black/yellow-black, #19- gray-blue/pink-blue, #20- gray-red/pink-red, #21- gray-black/pink-black, #22- blue-black, red-black, #23- white/brown, #24- green/yellow

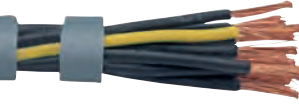
# Halogen-free Cables

## SABIX® R 600 FRNC

SABIX® Rail - Control cable with numbered conductors



D-VIERSEN · SABIX® R 600 FRNC 12 x 1.5 mm<sup>2</sup> CE



Marking for SABIX® R 600 FRNC 66001215:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R 600 FRNC 12 x 1.5 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Jacket material:</b> | special SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- fulfills fire protection requirements R15 (EL1A)  
acc. to EN 45545-2 for hazard levels HL1-3
- flame retardant acc. to UN/ECE R118

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 3000 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i><br>4 x O.D.<br><i>free movement:</i><br>6 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i><br>-40/+90°C<br><i>flexible:</i><br>-30/+90°C  |
| <b>Halogen-free:</b>                  | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2  |
| <b>Burning characteristics:</b>       | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2.<br>Flame retardant acc. to ISO 6722 (UN/ECE R118) |
| <b>Toxicity:</b>                      | acc. to EN 50305 + VDE 0260-305   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility:</b>                   | good  |
| <b>Approvals:</b>                     | CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30   |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 20 AWG (≈ 16/32) • 0.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66000205  | 2                              | 0.189             | 4.8             | 22                    |
| 66000305  | 3                              | 0.201             | 5.1             | 26                    |
| 66000405  | 4                              | 0.217             | 5.5             | 31                    |
| 66000505  | 5                              | 0.244             | 6.2             | 38                    |
| 66000705  | 7                              | 0.264             | 6.7             | 46                    |
| 66001005  | 10                             | 0.339             | 8.6             | 65                    |
| 66001205  | 12                             | 0.358             | 9.1             | 74                    |
| 66001805  | 18                             | 0.421             | 10.7            | 114                   |
| 66002505  | 25                             | 0.508             | 12.9            | 148                   |
| 66003205  | 32                             | 0.551             | 14.0            | 193                   |
| 66004205  | 42                             | 0.618             | 15.7            | 245                   |
| 66006105  | 61                             | 0.728             | 18.5            | 343                   |
| <b>▶ 19 AWG (≈ 23/32) • 0.75 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66000207  | 2                              | 0.213             | 5.4             | 30                    |
| 66000307  | 3                              | 0.224             | 5.7             | 34                    |
| 66000407  | 4                              | 0.252             | 6.4             | 42                    |
| 66000507  | 5                              | 0.276             | 7.0             | 52                    |
| 66000707  | 7                              | 0.307             | 7.8             | 65                    |
| 66001007  | 10                             | 0.394             | 10.0            | 97                    |
| 66001207  | 12                             | 0.413             | 10.5            | 110                   |
| 66001807  | 18                             | 0.488             | 12.4            | 155                   |
| 66002507  | 25                             | 0.594             | 15.1            | 212                   |
| 66003207  | 32                             | 0.646             | 16.4            | 261                   |
| 66004207  | 42                             | 0.724             | 18.4            | 346                   |
| 66006107  | 61                             | 0.850             | 21.6            | 484                   |
| <b>▶ 18 AWG (≈ 30/32) • 1.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66000210  | 2                              | 0.220             | 5.6             | 34                    |
| 66000310  | 3                              | 0.240             | 6.1             | 42                    |
| 66000410  | 4                              | 0.260             | 6.6             | 51                    |
| 66000510  | 5                              | 0.295             | 7.5             | 63                    |
| 66000710  | 7                              | 0.319             | 8.1             | 79                    |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 18 AWG (≈ 30/32) • 1.00 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 66001010   | 10                             | 0.417             | 10.6            | 116                   |
| 66001210   | 12                             | 0.429             | 10.9            | 132                   |
| 66001810   | 18                             | 0.508             | 12.9            | 188                   |
| 66002510   | 25                             | 0.618             | 15.7            | 256                   |
| 66003210   | 32                             | 0.673             | 17.1            | 327                   |
| 66004210   | 42                             | 0.764             | 19.4            | 414                   |
| 66006110   | 61                             | 0.894             | 22.7            | 587                   |
| <b>▶ 16 AWG (≈ 27-29/30) • 1.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66000215   | 2                              | 0.252             | 6.4             | 46                    |
| 66000315   | 3                              | 0.268             | 6.8             | 54                    |
| 66000415   | 4                              | 0.299             | 7.6             | 67                    |
| 66000515   | 5                              | 0.327             | 8.3             | 83                    |
| 66000715   | 7                              | 0.362             | 9.2             | 114                   |
| 66001015   | 10                             | 0.472             | 12.0            | 154                   |
| 66001215   | 12                             | 0.488             | 12.4            | 177                   |
| 66001815   | 18                             | 0.583             | 14.8            | 194                   |
| 66002515   | 25                             | 0.709             | 18.0            | 361                   |
| 66003215   | 32                             | 0.768             | 19.5            | 444                   |
| 66004215   | 42                             | 0.866             | 22.0            | 583                   |
| 66006115   | 61                             | 1.016             | 25.8            | 818                   |
| <b>▶ 14 AWG (≈ 46/30) • 2.50 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 66000225   | 2                              | 0.307             | 7.8             | 71                    |
| 66000325   | 3                              | 0.350             | 8.9             | 85                    |
| 66000425   | 4                              | 0.362             | 9.2             | 104                   |
| 66000525   | 5                              | 0.398             | 10.1            | 134                   |
| 66000725   | 7                              | 0.441             | 11.2            | 169                   |
| 66001025   | 10                             | 0.583             | 14.8            | 243                   |
| 66001225   | 12                             | 0.602             | 15.3            | 280                   |
| 66001825   | 18                             | 0.717             | 18.2            | 413                   |
| 66002525   | 25                             | 0.878             | 22.3            | 562                   |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 12 AWG (≈ 52/28) • 4.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 66000340   | 3                              | 0.382             | 9.7             | 124                   |
| 66000440   | 4                              | 0.425             | 10.8            | 157                   |
| 66000540   | 5                              | 0.476             | 12.1            | 195                   |
| 66000740   | 7                              | 0.528             | 13.4            | 252                   |
| <b>▶ 10 AWG (≈ 78/28) • 6.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 66000360   | 3                              | 0.449             | 11.4            | 181                   |
| 66000460   | 4                              | 0.500             | 12.7            | 226                   |
| 66000560   | 5                              | 0.559             | 14.2            | 279                   |
| 66000760   | 7                              | 0.618             | 15.7            | 366                   |
| <b>▶ 8 AWG (≈ 77/26) • 10.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 66000461   | 4                              | 0.657             | 16.7            | 389                   |
| 66000561   | 5                              | 0.732             | 18.6            | 497                   |
| 66000761   | 7                              | 0.815             | 20.7            | 645                   |
| <b>▶ 6 AWG (≈ 122/26) • 16.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66000462   | 4                              | 0.811             | 20.6            | 596                   |
| 66000562   | 5                              | 0.906             | 23.0            | 742                   |
| 66000762   | 7                              | 1.004             | 25.5            | 971                   |
| <b>▶ 4 AWG (≈ 190/26) • 25.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66000463   | 4                              | 0.980             | 24.9            | 933                   |
| 66000563   | 5                              | 1.106             | 28.1            | 1176                  |
| <b>▶ 2 AWG (≈ 272/26) • 35.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66000464   | 4                              | 1.134             | 28.8            | 1295                  |
| 66000564   | 5                              | 1.280             | 32.5            | 1621                  |

Other dimensions and colors are available on request

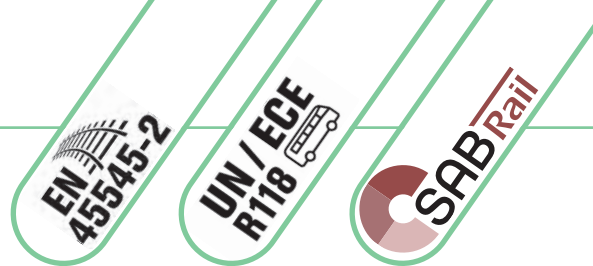
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38



# Halogen-free Cables

## SABIX® R 638 FRNC

SABIX® Rail - Control cable with numbered conductors and overall tinned copper shield

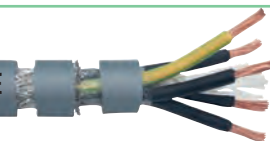


KES · D-VIERSEN · SABIX® R 638 FRNC 5 x 1.5 mm<sup>2</sup> CE



Marking for SABIX® R 638 FRNC 66380515:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R 638 FRNC 5 x 1.5 mm<sup>2</sup> CE



### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | special SABIX®   |
| <b>Jacket color:</b>    | gray (RAL 7000)  |

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 3000 V<br>conductor/shielding: 2000 V  |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>free movement:</i> 10 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C  |
| <b>Halogen-free:</b>                  | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluorine content < 0.1% acc. to IEC 60684-2   |
| <b>Burning characteristics:</b>       | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2.<br>Flame retardant acc. to ISO 6722 (UN/ECE R118) |
| <b>Toxicity:</b>                      | acc. to EN 50305+ VDE 0260-305  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility:</b>                   | good  |
| <b>Approvals:</b>                     | CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30   |

### Outstanding features:



- low smoke halogen-free (LSHF)
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- fulfills fire protection requirements R15 (EL1A)  
acc. to EN 45545-2 for hazard levels HL1-3
- flame retardant acc. to UN/ECE R118

\*copper braiding should be connected circularly to optimize the EMC characteristics

| item no.  | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|---|--------------------------------|-----------|---------|-----------------------|
|   |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 20 AWG (≈ 16/32) • 0.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 66380205  | 2                              | 0.209     | 5.3     | 26                    |
| 66380305  | 3                              | 0.220     | 5.6     | 30                    |
| 66380405  | 4                              | 0.244     | 6.2     | 41                    |
| 66380505  | 5                              | 0.264     | 6.7     | 47                    |
| 66380705  | 7                              | 0.283     | 7.2     | 54                    |
| 66381205  | 12                             | 0.378     | 9.6     | 101                   |
| 66381805  | 18                             | 0.449     | 11.4    | 138                   |
| 66382505  | 25                             | 0.543     | 13.8    | 183                   |
| <b>▶ 19 AWG (≈ 23/32) • 0.75 mm<sup>2</sup></b> |                                |           |         |                       |
| 66380207  | 2                              | 0.240     | 6.1     | 34                    |
| 66380307  | 3                              | 0.252     | 6.4     | 41                    |
| 66380407  | 4                              | 0.272     | 6.9     | 49                    |
| 66380507  | 5                              | 0.303     | 7.7     | 65                    |
| 66380707  | 7                              | 0.327     | 8.3     | 81                    |
| 66381207  | 12                             | 0.441     | 11.2    | 130                   |
| 66381807  | 18                             | 0.524     | 13.3    | 188                   |
| 66382507  | 25                             | 0.638     | 16.2    | 265                   |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 18 AWG (≈ 30/32) • 1.00 mm<sup>2</sup></b>    |                                |           |         |                       |
| 66380210   | 2                              | 0.248     | 6.3     | 38                    |
| 66380310   | 3                              | 0.260     | 6.6     | 46                    |
| 66380410   | 4                              | 0.280     | 7.1     | 63                    |
| 66380510   | 5                              | 0.315     | 8.0     | 74                    |
| 66380710   | 7                              | 0.339     | 8.6     | 93                    |
| 66381210   | 12                             | 0.465     | 11.8    | 152                   |
| 66381810   | 18                             | 0.543     | 13.8    | 212                   |
| 66382510   | 25                             | 0.661     | 16.8    | 305                   |
| <b>▶ 16 AWG (≈ 27-29/30) • 1.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 66380215   | 2                              | 0.272     | 6.9     | 42                    |
| 66380315   | 3                              | 0.283     | 7.2     | 60                    |
| 66380415   | 4                              | 0.319     | 8.1     | 74                    |
| 66380515   | 5                              | 0.354     | 9.0     | 91                    |
| 66380715   | 7                              | 0.382     | 9.7     | 120                   |
| 66381215   | 12                             | 0.547     | 13.9    | 202                   |
| 66381815   | 18                             | 0.618     | 15.7    | 305                   |
| 66382515   | 25                             | 0.752     | 19.1    | 412                   |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 14 AWG (≈ 46/30) • 2.50 mm<sup>2</sup></b>  |                                |           |         |                       |
| 66380225   | 2                              | 0.327     | 8.3     | 67                    |
| 66380325   | 3                              | 0.354     | 9.0     | 86                    |
| 66380425   | 4                              | 0.382     | 9.7     | 110                   |
| 66380525   | 5                              | 0.433     | 11.0    | 144                   |
| 66380725   | 7                              | 0.476     | 12.1    | 185                   |
| 66381225   | 12                             | 0.646     | 16.4    | 313                   |
| 66381825   | 18                             | 0.760     | 19.3    | 447                   |
| 66382525   | 25                             | 0.921     | 23.4    | 626                   |
| <b>▶ 12 AWG (≈ 52/28) • 4.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 66380440   | 4                              | 0.453     | 11.5    | 168                   |
| 66380540   | 5                              | 0.504     | 12.8    | 208                   |
| <b>▶ 10 AWG (≈ 78/28) • 6.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 66380460   | 4                              | 0.535     | 13.6    | 237                   |
| 66380560   | 5                              | 0.594     | 15.1    | 282                   |
| <b>▶ 8 AWG (≈ 77/26) • 10.00 mm<sup>2</sup></b>  |                                |           |         |                       |
| 66380461   | 4                              | 0.701     | 17.8    | 414                   |
| <b>▶ 6 AWG (≈ 122/26) • 16.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 66380462   | 4                              | 0.862     | 21.9    | 616                   |

Other dimensions and colors are available on request

# Halogen-free Cables

## SABIX® R 605 FRNC SABIX® Rail - Data cable



D-VIERSEN · SABIX® R 605 FRNC 32 x 0.5 mm<sup>2</sup> CE



Marking for SABIX® R 605 FRNC 66053250:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R 605 FRNC 32 x 0.5 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands with reference to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | DIN 47100, see next page   |
| <b>Stranding:</b>       | in layers  |
| <b>Jacket material:</b> | special SABIX®   |
| <b>Jacket color:</b>    | grayish tan (RAL 7032)   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- fulfills fire protection requirements R15 (EL1A)  
acc. to EN 45545-2 for hazard levels HL1-3
- fulfills fire protection requirements  
acc. to NFPA 130 section 8.6.7.1.1.1  
and section 12.2.1 (1) \*
- flame retardant acc. to UN/ECE R118

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Peak operating voltage:</b>        | < 24 AWG = max. 350 V<br>≥ 24 AWG = max. 500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V  |
| <b>Min. bending radius:</b>           |  |
| <i>fixed installation:</i>            | 5 x O.D.   |
| <i>free movement:</i>                 | 10 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b>   |
| <i>static:</i>                        | -40/+90°C  |
| <i>flexible:</i>                      | -30/+90°C  |
| <b>Halogen-free:</b>                  | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 μS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2   |
| <b>Burning characteristics:</b>       | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2.<br>Flame retardant acc. to UL 1685 section 12,<br>FT4/IEEE 1202*<br>Flame retardant acc. to ISO 6722 (UN/ECE R118) |
| <b>Toxicity:</b>                      | acc. to EN 50305 + VDE 0260-305  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft |
|---|-------------------|--------------|------------|--------------------------|
|   |                   | ±10%<br>inch | ±10%<br>mm |                          |
| <b>▶ 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b> |                   |              |            |                          |
| 66050214  | 2                 | 0.122        | 3.1        | 9                        |
| 66050314  | 3                 | 0.130        | 3.3        | 10                       |
| 66050414  | 4                 | 0.138        | 3.5        | 12                       |
| 66050514  | 5                 | 0.150        | 3.8        | 14                       |
| 66050714  | 7                 | 0.161        | 4.1        | 17                       |
| 66050814  | 8                 | 0.197        | 5.0        | 22                       |
| 66051214  | 12                | 0.209        | 5.3        | 26                       |
| 66051414  | 14                | 0.217        | 5.5        | 28                       |
| 66051614  | 16                | 0.236        | 6.0        | 34                       |
| 66051814  | 18                | 0.248        | 6.3        | 38                       |
| 66052114  | 21                | 0.272        | 6.9        | 44                       |
| 66052414  | 24                | 0.287        | 7.3        | 47                       |
| 66052714  | 27                | 0.303        | 7.7        | 54                       |
| 66053014  | 30                | 0.311        | 7.9        | 58                       |
| 66053214  | 32                | 0.323        | 8.2        | 62                       |
| 66053614  | 36                | 0.335        | 8.5        | 68                       |
| 66054014  | 40                | 0.358        | 9.1        | 75                       |
| 66054414  | 44                | 0.374        | 9.5        | 80                       |
| 66055014  | 50                | 0.406        | 10.3       | 95                       |
| 66056114  | 61                | 0.429        | 10.9       | 111                      |

| item no.  | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft |
|---|-------------------|--------------|------------|--------------------------|
|   |                   | ±10%<br>inch | ±10%<br>mm |                          |
| <b>▶ 24 AWG (≈ 14/34) ▪ 0.25 mm<sup>2</sup></b> |                   |              |            |                          |
| 66050225  | 2                 | 0.134        | 3.4        | 11                       |
| 66050325  | 3                 | 0.142        | 3.6        | 13                       |
| 66050425  | 4                 | 0.154        | 3.9        | 16                       |
| 66050525  | 5                 | 0.165        | 4.2        | 19                       |
| 66050725  | 7                 | 0.181        | 4.6        | 24                       |
| 66050825  | 8                 | 0.205        | 5.2        | 29                       |
| 66051225  | 12                | 0.240        | 6.1        | 38                       |
| 66051425  | 14                | 0.252        | 6.4        | 43                       |
| 66051625  | 16                | 0.264        | 6.7        | 48                       |
| 66051825  | 18                | 0.280        | 7.1        | 54                       |
| 66052125  | 21                | 0.311        | 7.9        | 65                       |
| 66052425  | 24                | 0.331        | 8.4        | 70                       |
| 66052725  | 27                | 0.339        | 8.6        | 77                       |
| 66053025  | 30                | 0.350        | 8.9        | 84                       |
| 66053225  | 32                | 0.362        | 9.2        | 89                       |
| 66053625  | 36                | 0.394        | 10.0       | 105                      |
| 66054025  | 40                | 0.417        | 10.6       | 116                      |
| 66054425  | 44                | 0.437        | 11.1       | 124                      |
| 66055025  | 50                | 0.457        | 11.6       | 137                      |
| 66056125  | 61                | 0.484        | 12.3       | 162                      |

| item no.                                       | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft |
|--|-------------------|--------------|------------|--------------------------|
|  |                   | ±10%<br>inch | ±10%<br>mm |                          |
| <b>▶ 22 AWG (≈ 7/30) ▪ 0.34 mm<sup>2</sup></b> |                   |              |            |                          |
| 66050234                                       | 2                 | 0.157        | 4.0        | 16                       |
| 66050334                                       | 3                 | 0.165        | 4.2        | 18                       |
| 66050434                                       | 4                 | 0.181        | 4.6        | 22                       |
| 66050534                                       | 5                 | 0.197        | 5.0        | 27                       |
| 66050734                                       | 7                 | 0.217        | 5.5        | 33                       |
| 66050834                                       | 8                 | 0.256        | 6.5        | 42                       |
| 66051234                                       | 12                | 0.287        | 7.3        | 54                       |
| 66051434                                       | 14                | 0.311        | 7.9        | 63                       |
| 66051634                                       | 16                | 0.327        | 8.3        | 71                       |
| 66051834                                       | 18                | 0.346        | 8.8        | 79                       |
| 66052134                                       | 21                | 0.394        | 10.0       | 98                       |
| 66052434                                       | 24                | 0.417        | 10.6       | 105                      |
| 66052734                                       | 27                | 0.425        | 10.8       | 116                      |
| 66053034                                       | 30                | 0.441        | 11.2       | 126                      |
| 66053234                                       | 32                | 0.457        | 11.6       | 134                      |
| 66053634                                       | 36                | 0.476        | 12.1       | 148                      |
| 66054034                                       | 40                | 0.508        | 12.9       | 164                      |
| 66054434                                       | 44                | 0.531        | 13.5       | 175                      |
| 66055034                                       | 50                | 0.571        | 14.5       | 204                      |
| 66056134                                       | 61                | 0.606        | 15.4       | 241                      |

\* NFPA 130 / FT4 only up to outer-ø < 13 mm (0.512").

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# Halogen-free Cables

## SABIX® R 605 FRNC

SABIX® Rail - Data cable



D-VIERSEN · SABIX® R 605 FRNC 32 x 0.5 mm<sup>2</sup> CE



Marking for SABIX® R 605 FRNC 66053250:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R 605 FRNC 32 x 0.5 mm<sup>2</sup> CE

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>► 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                   |           |         |              |
| 66050250  | 2                 | 0.169     | 4.3     | 19           |
| 66050350  | 3                 | 0.177     | 4.5     | 22           |
| 66050450  | 4                 | 0.193     | 4.9     | 27           |
| 66050550  | 5                 | 0.213     | 5.4     | 33           |
| 66050750  | 7                 | 0.240     | 6.1     | 42           |
| 66050850  | 8                 | 0.280     | 7.1     | 53           |
| 66051250  | 12                | 0.319     | 8.1     | 69           |
| 66051450  | 14                | 0.335     | 8.5     | 77           |
| 66051650  | 16                | 0.354     | 9.0     | 88           |
| 66051850  | 18                | 0.374     | 9.5     | 97           |
| 66052150  | 21                | 0.429     | 10.9    | 121          |
| 66052450  | 24                | 0.453     | 11.5    | 131          |
| 66052750  | 27                | 0.461     | 11.7    | 143          |
| 66053050  | 30                | 0.476     | 12.1    | 156          |
| 66053250  | 32                | 0.496     | 12.6    | 167          |
| 66053650  | 36                | 0.516     | 13.1    | 184          |
| 66054450  | 44                | 0.594     | 15.1    | 229          |
| 66055050  | 50                | 0.618     | 15.7    | 276          |
| 66056150  | 61                | 0.657     | 16.7    | 301          |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>► 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                   |           |         |              |
| 66050275  | 2                 | 0.193     | 4.9     | 26           |
| 66050375  | 3                 | 0.205     | 5.2     | 30           |
| 66050475  | 4                 | 0.232     | 5.9     | 39           |
| 66050575  | 5                 | 0.252     | 6.4     | 47           |
| 66050775  | 7                 | 0.276     | 7.0     | 58           |
| 66050875  | 8                 | 0.327     | 8.3     | 75           |
| 66051275  | 12                | 0.370     | 9.4     | 95           |
| 66051475  | 14                | 0.406     | 10.3    | 114          |
| 66051675  | 16                | 0.425     | 10.8    | 129          |
| 66051875  | 18                | 0.449     | 11.4    | 143          |
| 66052175  | 21                | 0.492     | 12.5    | 167          |
| 66052475  | 24                | 0.524     | 13.3    | 181          |
| 66052775  | 27                | 0.535     | 13.6    | 200          |
| 66053075  | 30                | 0.571     | 14.5    | 228          |
| 66053275  | 32                | 0.591     | 15.0    | 242          |
| 66053675  | 36                | 0.614     | 15.6    | 268          |
| 66054075  | 40                | 0.657     | 16.7    | 298          |
| 66054475  | 44                | 0.689     | 17.5    | 319          |
| 66055075  | 50                | 0.720     | 18.3    | 356          |
| 66056175  | 61                | 0.780     | 19.8    | 435          |

| item no.   | no. of conductors | outer-ø   |         | cable weight |
|--|-------------------|-----------|---------|--------------|
|  |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>► 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>    |                   |           |         |              |
| 66050280   | 2                 | 0.201     | 5.1     | 29           |
| 66050380   | 3                 | 0.213     | 5.4     | 36           |
| 66050480   | 4                 | 0.240     | 6.1     | 46           |
| 66050580   | 5                 | 0.264     | 6.7     | 55           |
| 66050680   | 6                 | 0.287     | 7.3     | 65           |
| 66050780   | 7                 | 0.287     | 7.3     | 70           |
| <b>► 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                   |           |         |              |
| 66050285   | 2                 | 0.220     | 5.6     | 37           |
| 66050385   | 3                 | 0.240     | 6.1     | 48           |
| 66050485   | 4                 | 0.264     | 6.7     | 58           |
| 66050585   | 5                 | 0.303     | 7.7     | 76           |
| 66050685   | 6                 | 0.331     | 8.4     | 90           |
| 66050785   | 7                 | 0.331     | 8.4     | 97           |

Other dimensions and colors are available on request

\* NFPA 130 / FT4 only up to outer-ø < 13 mm (0.512").

### DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown, #17- white-gray, #18- gray-brown, #19- white-pink, #20- pink-brown, #21- white-blue, #22- brown-blue, #23- white-red, #24- brown-red, #25- white-black, #26- brown-black, #27- gray-green, #28- yellow-gray, #29- pink-green, #30- yellow-pink, #31- green-blue, #32- yellow-blue, #33- green-red, #34- yellow-red, #35- green-black, #36- yellow-black, #37- gray-blue, #38- pink-blue, #39- gray-red, #40- pink-red, #41- gray-black, #42- pink-black, #43- blue-black, #44- red-black, #45- white-brown-black, #46- yellow-green-black, #47- gray-pink-black, #48- red-blue-black, #49- white-green-black, #50- brown-green-black, #51- white-yellow-black, #52- yellow-brown-black, #53- white-gray-black, #54- gray-brown-black, #55- white-pink-black, #56- pink-brown-black, #57- white-blue-black, #58- brown-blue-black, #59- white-red-black, #60- brown-red-black, #61- black-white

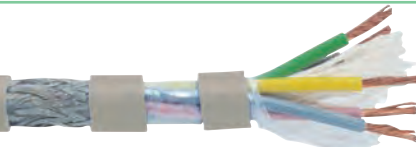
# Halogen-free Cables

## SABIX® R 615 FRNC

SABIX® Rail - Data cable with overall tinned copper shield



SEN · SABIX® R 615 FRNC 5 x 0.5 mm<sup>2</sup> CE



Marking for SABIX® R 615 FRNC 66150550:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R 615 FRNC 5 x 0.5 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands with reference to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | DIN 47100, see next page   |
| <b>Stranding:</b>       | in layers  |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | special SABIX®   |
| <b>Jacket color:</b>    | grayish tan (RAL 7032)   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- fulfills fire protection requirements R15 (EL1A)  
acc. to EN 45545-2 for hazard levels HL1-3
- fulfills fire protection requirements acc. to NFPA 130 section 8.6.7.1.1 and section 12.2.1 (1) \*
- tested acc. to American ASTM standard
- flame retardant acc. to UN/ECE R118

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Peak operating voltage:</b>        | < 24 AWG = max. 350 V<br>≥ 24 AWG = max. 500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V   |
| <b>Min. bending radius:</b>           | 5 x O.D.<br><i>fixed installation:</i><br>10 x O.D.<br><i>free movement:</i>   |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2   |
| <b>Burning characteristics:</b>       | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2.<br>Flame retardant acc. to UL 1685 section 12,<br>FT4/IEEE 1202. *<br>Burning tests acc. to ASTM E 162-09.<br>Flame retardant acc. to ISO 6722 (UN/ECE R118) |
| <b>Toxicity:</b>                      | acc. to EN 50305+ VDE 0260-305   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034 +<br>ASTM E 662-09   |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

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| item no.  | no. of conductors | outer-ø   |         | cable weight ≈lbs/mft |
|---|-------------------|-----------|---------|-----------------------|
|   |                   | ±10% inch | ±10% mm |                       |
| <b>▶ 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b> |                   |           |         |                       |
| 66150214  | 2                 | 0.142     | 3.6     | 14                    |
| 66150314  | 3                 | 0.150     | 3.8     | 15                    |
| 66150414  | 4                 | 0.157     | 4.0     | 16                    |
| 66150514  | 5                 | 0.169     | 4.3     | 19                    |
| 66150714  | 7                 | 0.181     | 4.6     | 22                    |
| 66150814  | 8                 | 0.213     | 5.4     | 29                    |
| 66151014  | 10                | 0.228     | 5.8     | 32                    |
| 66151214  | 12                | 0.244     | 6.2     | 36                    |
| 66151414  | 14                | 0.252     | 6.4     | 40                    |
| 66151614  | 16                | 0.264     | 6.7     | 45                    |
| 66151814  | 18                | 0.276     | 7.0     | 48                    |
| 66152114  | 21                | 0.299     | 7.6     | 56                    |
| 66152414  | 24                | 0.315     | 8.0     | 60                    |
| 66152714  | 27                | 0.339     | 8.6     | 70                    |
| 66153014  | 30                | 0.346     | 8.8     | 75                    |
| 66153214  | 32                | 0.358     | 9.1     | 79                    |
| 66153614  | 36                | 0.370     | 9.4     | 86                    |
| 66154014  | 40                | 0.394     | 10.0    | 95                    |
| 66154414  | 44                | 0.417     | 10.6    | 109                   |
| 66155014  | 50                | 0.433     | 11.0    | 118                   |
| 66155214  | 52                | 0.433     | 11.0    | 120                   |
| 66156114  | 61                | 0.457     | 11.6    | 136                   |

| item no.  | no. of conductors | outer-ø   |         | cable weight ≈lbs/mft |
|---|-------------------|-----------|---------|-----------------------|
|   |                   | ±10% inch | ±10% mm |                       |
| <b>▶ 24 AWG (≈ 14/34) ▪ 0.25 mm<sup>2</sup></b> |                   |           |         |                       |
| 66150225  | 2                 | 0.154     | 3.9     | 16                    |
| 66150325  | 3                 | 0.161     | 4.1     | 17                    |
| 66150425  | 4                 | 0.173     | 4.4     | 21                    |
| 66150525  | 5                 | 0.193     | 4.9     | 26                    |
| 66150725  | 7                 | 0.209     | 5.3     | 31                    |
| 66150825  | 8                 | 0.240     | 6.1     | 39                    |
| 66151025  | 10                | 0.260     | 6.6     | 43                    |
| 66151225  | 12                | 0.268     | 6.8     | 48                    |
| 66151425  | 14                | 0.280     | 7.1     | 54                    |
| 66151625  | 16                | 0.291     | 7.4     | 60                    |
| 66151825  | 18                | 0.307     | 7.8     | 66                    |
| 66152125  | 21                | 0.346     | 8.8     | 82                    |
| 66152425  | 24                | 0.366     | 9.3     | 87                    |
| 66152725  | 27                | 0.374     | 9.5     | 95                    |
| 66153025  | 30                | 0.386     | 9.8     | 102                   |
| 66153225  | 32                | 0.398     | 10.1    | 108                   |
| 66153625  | 36                | 0.421     | 10.7    | 127                   |
| 66154025  | 40                | 0.445     | 11.3    | 140                   |
| 66154425  | 44                | 0.465     | 11.8    | 148                   |
| 66155025  | 50                | 0.500     | 12.7    | 171                   |
| 66155225  | 52                | 0.500     | 12.7    | 175                   |
| 66156125  | 61                | 0.528     | 13.4    | 198                   |

| item no.                                       | no. of conductors | outer-ø   |         | cable weight ≈lbs/mft |
|--|-------------------|-----------|---------|-----------------------|
|  |                   | ±10% inch | ±10% mm |                       |
| <b>▶ 22 AWG (≈ 7/30) ▪ 0.34 mm<sup>2</sup></b> |                   |           |         |                       |
| 66150234                                       | 2                 | 0.177     | 4.5     | 21                    |
| 66150334                                       | 3                 | 0.193     | 4.9     | 24                    |
| 66150434                                       | 4                 | 0.209     | 5.3     | 29                    |
| 66150534                                       | 5                 | 0.224     | 5.7     | 34                    |
| 66150734                                       | 7                 | 0.252     | 6.4     | 42                    |
| 66150834                                       | 8                 | 0.283     | 7.2     | 52                    |
| 66151034                                       | 10                | 0.307     | 7.8     | 58                    |
| 66151234                                       | 12                | 0.315     | 8.0     | 65                    |
| 66151434                                       | 14                | 0.346     | 8.8     | 79                    |
| 66151634                                       | 16                | 0.362     | 9.2     | 87                    |
| 66151834                                       | 18                | 0.382     | 9.7     | 97                    |
| 66152134                                       | 21                | 0.421     | 10.7    | 119                   |
| 66152434                                       | 24                | 0.445     | 11.3    | 130                   |
| 66152734                                       | 27                | 0.453     | 11.5    | 139                   |
| 66153034                                       | 30                | 0.469     | 11.9    | 149                   |
| 66153234                                       | 32                | 0.500     | 12.7    | 166                   |
| 66153634                                       | 36                | 0.520     | 13.2    | 183                   |
| 66154034                                       | 40                | 0.551     | 14.0    | 202                   |
| 66154434                                       | 44                | 0.575     | 14.6    | 214                   |
| 66155034                                       | 50                | 0.622     | 15.8    | 259                   |
| 66155234                                       | 52                | 0.622     | 15.8    | 265                   |
| 66156134                                       | 61                | 0.657     | 16.7    | 246                   |

\* NFPA 130 / FT4 only up to outer-ø < 13 mm (0.512").

Continued on next page

# Halogen-free Cables

## SABIX® R 615 FRNC

SABIX® Rail - Data cable with overall tinned copper shield

EN 45545-2

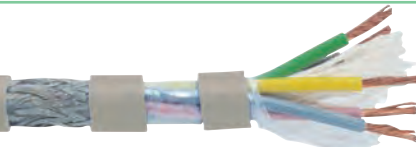
NFPA 130

UN/ECE R118

SAB Rail



SEN · SABIX® R 615 FRNC 5 x 0.5 mm<sup>2</sup> CE



Marking for SABIX® R 615 FRNC 66150550:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R 615 FRNC 5 x 0.5 mm<sup>2</sup> CE

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                   |           |         |              |
| 66150250  | 2                 | 0.197     | 5.0     | 26           |
| 66150350  | 3                 | 0.205     | 5.2     | 28           |
| 66150450  | 4                 | 0.220     | 5.6     | 34           |
| 66150550  | 5                 | 0.248     | 6.3     | 42           |
| 66150750  | 7                 | 0.268     | 6.8     | 51           |
| 66150850  | 8                 | 0.307     | 7.8     | 63           |
| 66151050  | 10                | 0.346     | 8.8     | 76           |
| 66151250  | 12                | 0.354     | 9.0     | 85           |
| 66151450  | 14                | 0.370     | 9.4     | 93           |
| 66151650  | 16                | 0.390     | 9.9     | 105          |
| 66151850  | 18                | 0.417     | 10.6    | 124          |
| 66152150  | 21                | 0.457     | 11.6    | 148          |
| 66152450  | 24                | 0.496     | 12.6    | 161          |
| 66152750  | 27                | 0.504     | 12.8    | 175          |
| 66153050  | 30                | 0.520     | 13.2    | 190          |
| 66153250  | 32                | 0.539     | 13.7    | 201          |
| 66153650  | 36                | 0.559     | 14.2    | 222          |
| 66154450  | 44                | 0.646     | 16.4    | 284          |
| 66155050  | 50                | 0.669     | 17.0    | 315          |
| 66156150  | 61                | 0.709     | 18.0    | 363          |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                   |           |         |              |
| 66150275  | 2                 | 0.220     | 5.6     | 32           |
| 66150375  | 3                 | 0.240     | 6.1     | 38           |
| 66150475  | 4                 | 0.260     | 6.6     | 50           |
| 66150575  | 5                 | 0.280     | 7.1     | 54           |
| 66150775  | 7                 | 0.303     | 7.7     | 68           |
| 66150875  | 8                 | 0.362     | 9.2     | 89           |
| 66151275  | 12                | 0.413     | 10.5    | 120          |
| 66151475  | 14                | 0.433     | 11.0    | 133          |
| 66151675  | 16                | 0.453     | 11.5    | 151          |
| 66151875  | 18                | 0.488     | 12.4    | 173          |
| 66152175  | 21                | 0.535     | 13.6    | 200          |
| 66152475  | 24                | 0.567     | 14.4    | 218          |
| 66152775  | 27                | 0.579     | 14.7    | 237          |
| 66153075  | 30                | 0.622     | 15.8    | 280          |
| 66153275  | 32                | 0.642     | 16.3    | 296          |
| 66153675  | 36                | 0.665     | 16.9    | 322          |

| item no.   | no. of conductors | outer-ø   |         | cable weight |
|--|-------------------|-----------|---------|--------------|
|  |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>    |                   |           |         |              |
| 66150280   | 2                 | 0.228     | 5.8     | 36           |
| 66150380   | 3                 | 0.248     | 6.3     | 44           |
| 66150480   | 4                 | 0.268     | 6.8     | 52           |
| 66150580   | 5                 | 0.291     | 7.4     | 64           |
| 66150680   | 6                 | 0.315     | 8.0     | 75           |
| 66150780   | 7                 | 0.315     | 8.0     | 79           |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                   |           |         |              |
| 66150285   | 2                 | 0.260     | 6.6     | 48           |
| 66150385   | 3                 | 0.268     | 6.8     | 60           |
| 66150485   | 4                 | 0.291     | 7.4     | 66           |
| 66150585   | 5                 | 0.339     | 8.6     | 87           |
| 66150685   | 6                 | 0.366     | 9.3     | 102          |
| 66150785   | 7                 | 0.366     | 9.3     | 109          |

Other dimensions and colors are available on request

\* NFPA 130 / FT4 only up to outer-ø < 13 mm (0.512").

### DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown, #17- white-gray, #18- gray-brown, #19- white-pink, #20- pink-brown, #21- white-blue, #22- brown-blue, #23- white-red, #24- brown-red, #25- white-black, #26- brown-black, #27- gray-green, #28- yellow-gray, #29- pink-green, #30- yellow-pink, #31- green-blue, #32- yellow-blue, #33- green-red, #34- yellow-red, #35- green-black, #36- yellow-black, #37- gray-blue, #38- pink-blue, #39- gray-red, #40- pink-red, #41- gray-black, #42- pink-black, #43- blue-black, #44- red-black, #45- white-brown-black, #46- yellow-green-black, #47- gray-pink-black, #48- red-blue-black, #49- white-green-black, #50- brown-green-black, #51- white-yellow-black, #52- yellow-brown-black, #53- white-gray-black, #54- gray-brown-black, #55- white-pink-black, #56- pink-brown-black, #57- white-blue-black, #58- brown-blue-black, #59- white-red-black, #60- brown-red-black, #61- black-white

# Halogen-free Cables

## SABIX® R 645 FRNC TP SABIX® Rail - Data cable, paired with overall tinned copper shield



R 645 FRNC TP 3 x 2 x 0.25 mm<sup>2</sup> CE



Marking for SABIX® R 645 FRNC TP 66450325:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R 645 FRNC TP 3 x 2 x 0.25 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands with reference to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | DIN 47100, see below   |
| <b>Stranding:</b>       | pairwise, pairs in layers  |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | special SABIX®   |
| <b>Jacket color:</b>    | grayish tan (RAL 7032)   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- good EMC characteristics\*
- flame retardant and self-extinguishing
- fulfills fire protection requirements R15 (EL1A)  
acc. to EN 45545-2 for hazard levels HL1-3
- fulfills fire protection requirements  
acc. to NFPA 130 section 8.6.7.1.1.1  
and section 12.2.1 (1) \*
- flame retardant acc. to UN/ECE R118
- tested acc. to American ASTM standard
- good transmission rates and crosstalk attenuation

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Peak operating voltage:</b>        | < 24 AWG = max. 350 V<br>≥ 24 AWG = max. 500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V   |
| <b>Min. bending radius:</b>           | 5 x O.D.   |
| <i>fixed installation:</i>            | 10 x O.D.  |
| <i>free movement:</i>                 |  |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br>static: -40/+90°C<br>flexible: -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2   |
| <b>Burning characteristics:</b>       | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2.<br>Flame retardant acc. to UL 1685 section 12,<br>FT4/IEEE 1202. *<br>Burning tests acc. to ASTM E 162-09.<br>Flame retardant acc. to ISO 6722 (UN/ECE R118) |
| <b>Toxicity:</b>                      | acc. to EN 50305+ VDE 0260-305   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034 +<br>ASTM E 662-09   |
| <b>Flexibility:</b>                   | good   |
| <b>Approvals:</b>                     | CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

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| item no.  | no. of pairs | outer-ø   |         | cable weight |
|---|--------------|-----------|---------|--------------|
|   |              | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 26 AWG (≈ 18/38) • 0.14 mm<sup>2</sup></b> |              |           |         |              |
| 66450214  | 2            | 0.205     | 5.2     | 26           |
| 66450314  | 3            | 0.224     | 5.7     | 30           |
| 66450414  | 4            | 0.256     | 6.5     | 36           |
| 66450514  | 5            | 0.276     | 7.0     | 43           |
| 66450614  | 6            | 0.283     | 7.2     | 48           |
| 66450814  | 8            | 0.307     | 7.8     | 56           |
| 66451014  | 10           | 0.350     | 8.9     | 71           |
| 66451214  | 12           | 0.382     | 9.7     | 81           |
| 66451614  | 16           | 0.413     | 10.5    | 99           |
| 66451814  | 18           | 0.437     | 11.1    | 117          |
| 66452414  | 24           | 0.504     | 12.8    | 150          |
| <b>▶ 24 AWG (≈ 14/34) • 0.25 mm<sup>2</sup></b> |              |           |         |              |
| 66450225  | 2            | 0.224     | 5.7     | 31           |
| 66450325  | 3            | 0.252     | 6.4     | 41           |
| 66450425  | 4            | 0.283     | 7.2     | 48           |
| 66450525  | 5            | 0.303     | 7.7     | 56           |
| 66450625  | 6            | 0.311     | 7.9     | 62           |
| 66450825  | 8            | 0.354     | 9.0     | 80           |
| 66451025  | 10           | 0.386     | 9.8     | 93           |
| 66451225  | 12           | 0.429     | 10.9    | 116          |
| 66451625  | 16           | 0.469     | 11.9    | 143          |
| 66451825  | 18           | 0.500     | 12.7    | 165          |
| 66452425  | 24           | 0.559     | 14.2    | 199          |

| item no.  | no. of pairs | outer-ø   |         | cable weight |
|---|--------------|-----------|---------|--------------|
|   |              | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 22 AWG (≈ 7/30) • 0.34 mm<sup>2</sup></b>  |              |           |         |              |
| 66450234  | 2            | 0.268     | 6.8     | 42           |
| 66450334  | 3            | 0.291     | 7.4     | 53           |
| 66450434  | 4            | 0.346     | 8.8     | 69           |
| 66450534  | 5            | 0.374     | 9.5     | 81           |
| 66450634  | 6            | 0.382     | 9.7     | 84           |
| 66450834  | 8            | 0.417     | 10.6    | 107          |
| 66451234  | 12           | 0.528     | 13.4    | 167          |
| 66451634  | 16           | 0.575     | 14.6    | 205          |
| 66451834  | 18           | 0.594     | 15.1    | 224          |
| 66452434  | 24           | 0.693     | 17.6    | 302          |
| <b>▶ 20 AWG (≈ 16/32) • 0.50 mm<sup>2</sup></b> |              |           |         |              |
| 66450250  | 2            | 0.283     | 7.2     | 48           |
| 66450350  | 3            | 0.311     | 7.9     | 62           |
| 66450450  | 4            | 0.370     | 9.4     | 80           |
| 66450550  | 5            | 0.402     | 10.2    | 95           |
| 66450650  | 6            | 0.409     | 10.4    | 104          |
| 66450850  | 8            | 0.449     | 11.4    | 120          |
| 66451050  | 10           | 0.520     | 13.2    | 169          |
| 66451250  | 12           | 0.567     | 14.4    | 198          |
| 66451650  | 16           | 0.642     | 16.3    | 255          |
| 66451850  | 18           | 0.665     | 16.9    | 293          |
| 66452450  | 24           | 0.748     | 19.0    | 341          |

| item no.  | no. of pairs | outer-ø   |         | cable weight |
|---|--------------|-----------|---------|--------------|
|   |              | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 19 AWG (≈ 23/32) • 0.75 mm<sup>2</sup></b> |              |           |         |              |
| 66450275  | 2            | 0.335     | 8.5     | 69           |
| 66450375  | 3            | 0.370     | 9.4     | 86           |
| 66450475  | 4            | 0.429     | 10.9    | 112          |
| 66450575  | 5            | 0.461     | 11.7    | 135          |
| 66450675  | 6            | 0.492     | 12.5    | 161          |
| 66450875  | 8            | 0.539     | 13.7    | 187          |
| 66451275  | 12           | 0.673     | 17.1    | 282          |
| 66451675  | 16           | 0.732     | 18.6    | 351          |
| 66451875  | 18           | 0.760     | 19.3    | 390          |
| 66452475  | 24           | 0.858     | 21.8    | 480          |

Other dimensions and colors are available on request

#### DIN 47100 color code:

- #1- white/brown, #2- green/yellow, #3- gray/pink,
- #4- blue/red, #5- black/purple, #6- gray-pink/red-blue,
- #7- white-green/brown-green, #8- white-yellow/yellow-brown,
- #9- white-gray/gray-brown, #10- white-pink/pink-brown,
- #11- white-blue/brown-blue, #12- white-red/brown-red,
- #13- white-black/brown-black, #14- gray-green/yellow-gray,
- #15- pink-green/yellow-pink, #16- green-blue/yellow-blue,
- #17- green-red/yellow-red, #18- green-black/yellow-black,
- #19- gray-blue/pink-blue, #20- gray-red/pink-red,
- #21- gray-black/pink-black, #22- blue-black, red-black,
- #23- white/brown, #24- green/yellow

\* NFPA 130 / FT4 only up to outer-ø < 13 mm (0.512").




# Halogen-free Cables

## SABIX® R flex

SABIX® Rail - Continuous flex cable with numbered conductors



BRÖCKSKES · D-VIERSEN · SABIX® R flex 5G0.75 mm<sup>2</sup> CE 

Marking for SABIX® R flex 66701105:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R flex 5G0.75 mm<sup>2</sup> CE

**Application:** Suitable for flexible and protected installation in the interior for door control or in protecting tubes for outdoor laying at the bogie, railway machines or as connection cable between the waggons. Appropriate for light and medium mechanical stress.

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 6  |
| <b>Insulation:</b>      | special polymer  |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors<br>Twisted pairs type without green/yellow ground |
| <b>Stranding:</b>       | in layers resp. pairwise   |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding<br>(if existing)  |
| <b>Jacket material:</b> | SABIX® Ultra   |
| <b>Jacket color:</b>    | black (RAL 9005)   |

### Outstanding features:

- halogen-free
- continuous flex
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- good ozone, UV and weather resistance
- good oil and fuel resistance
- good acid and alkalines resistance
- fulfills fire protection requirements R15 (EL1A) and R16 (EL1B) acc. to EN 45545-2 for hazard levels HL1-2
- flame retardant acc. to UN/ECE R118

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                       |  |                  |
|---------------------------------------|--|------------------|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V   |                  |
| <b>Testing voltage:</b>               | conductor/conductor: 2000 V<br>conductor/shielding: 2000 V   |                  |
| <b>Min. bending radius:</b>           | <b>unshielded:</b>   | <b>shielded:</b> |
| <i>fixed installation:</i>            | 4 x O.D.   | 5 x O.D.         |
| <i>flexible application:</i>          | 6 x O.D.   | 10 x O.D.        |
| <i>continuously flex:</i>             | 12 x O.D.  | 15 x O.D.        |
| <b>Temperature range:</b>             | <b>DIN VDE</b>   |                  |
| <i>static:</i>                        | -50/+90°C  |                  |
| <i>flexible:</i>                      | -40/+90°C  |                  |
| <b>Halogen-free:</b>                  | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2   |                  |
| <b>Burning characteristics:</b>       | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2.<br>Flame retardant acc. to UL 1685 section 12,<br>FT4/IEEE 1202.<br>Burning tests acc. to ASTM E 162-09.<br>Flame retardant acc. to ISO 6722 (UN/ECE R118) |                  |
| <b>Toxicity:</b>                      | acc. to EN 50305+ VDE 0260-305   |                  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |                  |
| <b>Oil and fuel resistance:</b>       | acc. to EN 50264-1 + VDE 0260-264-1  |                  |
| <b>Flexibility:</b>                   | very good  |                  |
| <b>Approvals:</b>                     | CE, RoHS   |                  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |                  |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>multi-conductor cable unshielded</b>         |                                |                   |                 |                       |
| <b>▶ 20 AWG (≈ 28/34) ▪ 0.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66700002  | 2                              | 0.181             | 4.6             | 21                    |
| 66700004  | 4                              | 0.213             | 5.4             | 32                    |
| 66700007  | 7                              | 0.272             | 6.9             | 51                    |
| 66700012  | 12                             | 0.331             | 8.4             | 76                    |
| 66700018  | 18                             | 0.390             | 9.9             | 108                   |
| 66700032  | 32                             | 0.504             | 12.8            | 179                   |
| <b>▶ 19 AWG (≈ 42/34) ▪ 0.75 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66700103  | 3                              | 0.220             | 5.6             | 34                    |
| 66700105  | 5                              | 0.264             | 6.7             | 50                    |
| 66700125  | 25                             | 0.543             | 13.8            | 204                   |
| <b>▶ 18 AWG (≈ 56/34) ▪ 1.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66700202  | 2                              | 0.224             | 5.7             | 33                    |
| 66700273  | 73                             | 0.906             | 23.0            | 665                   |
| <b>▶ 16 AWG (≈ 84/34) ▪ 1.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 66700303  | 3                              | 0.260             | 6.6             | 54                    |
| 66700307  | 7                              | 0.370             | 9.4             | 112                   |
| 66700318  | 18                             | 0.539             | 13.7            | 253                   |

| item no.  | no. of pairs | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------|-------------------|-----------------|-----------------------|
| <b>multi-pair cable shielded</b>                |              |                   |                 |                       |
| <b>▶ 20 AWG (≈ 28/34) ▪ 0.50 mm<sup>2</sup></b> |              |                   |                 |                       |
| 66703002  | 2            | 0.276             | 7.0             | 46                    |
| 66703003  | 3            | 0.315             | 8.0             | 60                    |
| 66703004  | 4            | 0.394             | 10.0            | 81                    |
| 66703006  | 6            | 0.409             | 10.4            | 108                   |
| 66703008  | 8            | 0.492             | 12.5            | 154                   |
| 66703012  | 12           | 0.563             | 14.3            | 187                   |
| <b>▶ 19 AWG (≈ 42/34) ▪ 0.75 mm<sup>2</sup></b> |              |                   |                 |                       |
| 66703103  | 3            | 0.350             | 8.9             | 76                    |
| 66703108  | 8            | 0.575             | 14.6            | 206                   |
| <b>▶ 18 AWG (≈ 56/34) ▪ 1.00 mm<sup>2</sup></b> |              |                   |                 |                       |
| 66703202  | 2            | 0.350             | 8.9             | 75                    |
| 66703203  | 3            | 0.374             | 9.5             | 91                    |
| 66703206  | 6            | 0.496             | 12.6            | 167                   |
| 66703208  | 8            | 0.594             | 15.1            | 240                   |
| <b>▶ 16 AWG (≈ 84/34) ▪ 1.50 mm<sup>2</sup></b> |              |                   |                 |                       |
| 66703302  | 2            | 0.406             | 10.3            | 105                   |
| 66703304  | 4            | 0.500             | 12.7            | 163                   |
| 66703306  | 6            | 0.563             | 14.3            | 232                   |

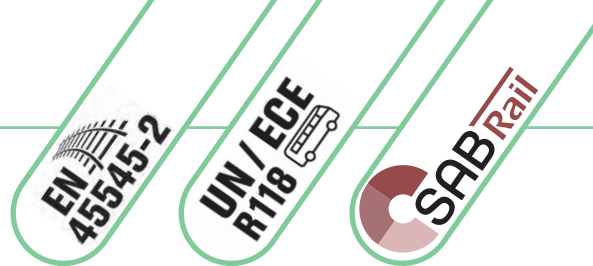
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# Halogen-free Cables

## SABIX® R flex

SABIX® Rail - Continuous flex cable with numbered conductors



BRÖCKSKES · D-VIERSEN · SABIX® R flex 5G0.75 mm<sup>2</sup> CE 

Marking for SABIX® R flex 66701105:

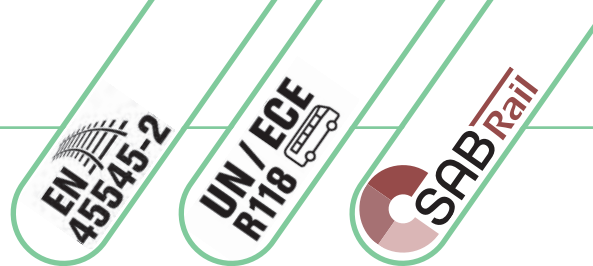
SAB BRÖCKSKES · D-VIERSEN · SABIX® R flex 5G0.75 mm<sup>2</sup> CE

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft | item no. | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft | item no. | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|----------|--------------------------------|-------------------|-----------------|-----------------------|----------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>multi-conductor cable shielded</b>                |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 20 AWG (≈ 28/34) ▪ 0.50 mm<sup>2</sup></b>      |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701002   | 2                              | 0.209             | 5.3             | 31                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701003   | 3                              | 0.217             | 5.5             | 34                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701005   | 5                              | 0.256             | 6.5             | 48                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701007   | 7                              | 0.291             | 7.4             | 61                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701018   | 18                             | 0.425             | 10.8            | 134                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701032   | 32                             | 0.539             | 13.7            | 213                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 19 AWG (≈ 42/34) ▪ 0.75 mm<sup>2</sup></b>      |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701103   | 3                              | 0.240             | 6.1             | 42                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701104   | 4                              | 0.264             | 6.7             | 51                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701105   | 5                              | 0.283             | 7.2             | 60                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701125   | 25                             | 0.571             | 14.5            | 236                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 18 AWG (≈ 56/34) ▪ 1.00 mm<sup>2</sup></b>      |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701204   | 4                              | 0.272             | 6.9             | 58                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701207   | 7                              | 0.343             | 8.7             | 92                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701212   | 12                             | 0.433             | 11.0            | 151                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 16 AWG (≈ 84/34) ▪ 1.50 mm<sup>2</sup></b>      |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701303   | 3                              | 0.280             | 7.1             | 62                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701304   | 4                              | 0.299             | 7.6             | 75                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701305   | 5                              | 0.335             | 8.5             | 92                    |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701318   | 18                             | 0.567             | 14.4            | 280                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 14 AWG (≈ 140/34) ▪ 2.50 mm<sup>2</sup></b>     |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701404   | 4                              | 0.382             | 9.7             | 117                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701405   | 5                              | 0.433             | 11.0            | 158                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701407   | 7                              | 0.520             | 13.2            | 218                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701412   | 12                             | 0.618             | 15.7            | 312                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 12 AWG (≈ 224/34) ▪ 4.00 mm<sup>2</sup></b>     |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701504   | 4                              | 0.449             | 11.4            | 175                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 10 AWG (≈ 183/32) ▪ 6.00 mm<sup>2</sup></b>     |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701604   | 4                              | 0.547             | 13.9            | 255                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 8 AWG (≈ 320/32) ▪ 10.00 mm<sup>2</sup></b>     |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701704   | 4                              | 0.661             | 16.8            | 406                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 6 AWG (≈ 504/32) ▪ 16.00 mm<sup>2</sup></b>     |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701804   | 4                              | 0.795             | 20.2            | 595                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| <b>▶ 4 AWG (≈ 760/32) ▪ 25.00 mm<sup>2</sup></b>     |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| 66701904   | 4                              | 0.949             | 24.1            | 869                   |          |                                |                   |                 |                       |          |                                |                   |                 |                       |
| Other dimensions and colors are available on request |                                |                   |                 |                       |          |                                |                   |                 |                       |          |                                |                   |                 |                       |

# Halogen-free Cables

## SAB RailLine 560

SABIX® Rail - Continuous flex cable for outdoor use, cross linked



D-VIERSEN · SAB RailLine 560 5x0.75mm<sup>2</sup> C 6560-1105 CE 

Marking for SAB RailLine 560 65601105:

SAB BRÖCKSKES · D-VIERSEN · SAB RailLine 560 5x0.75mm<sup>2</sup> C 65601105 CE

**Application:** Suitable for flexible and protected installation in the interior for door control or in protecting tubes for outdoor laying at the bogie, railway machines or as connection cable between the waggons. Appropriate for light and medium mechanical stress.

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | tinned copper strands, extra fine wires  |
| <b>Insulation:</b>      | SABIX® X   |
| <b>Color code:</b>      | black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers resp. pairwise   |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding (if existing)   |
| <b>Jacket material:</b> | SABIX® X   |
| <b>Jacket color:</b>    | black (RAL 9005)   |

### Outstanding features:

- weather resistant
- continuous flex
- good ozone, UV, and weather resistance
- good oil and fuel resistance
- good acid and alkalines resistance
- fulfills fire protection requirements R15 (EL1A) and R16 (EL1B) acc. to EN 45545-2 for hazard levels HL1-3
- flame retardant acc. to UN/ECE R118

### Technical data:

|                                       |   |           |          |
|---------------------------------------|---|-----------|----------|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V resp. 0.6/1 kV   |           |          |
| <b>Testing voltage:</b>               | conductor/conductor:  | 300/500 V | 0.6/1 kV |
|                                       | conductor/shielding:  | 2000 V    | 4000 V   |
| <b>Min. bending radius:</b>           |   |           |          |
| <i>fixed installation:</i>            | 4 x O.D.  |           |          |
| <i>flexible application:</i>          | 6 x O.D.  |           |          |
| <i>continuous flex:</i>               | 10 x O.D.   |           |          |
| <b>Torsion angle:</b>                 | ± 15°/1m  |           |          |
| <b>Temperature range:</b>             | <b>DIN VDE</b>  |           |          |
| <i>static:</i>                        | -50/+90°C   |           |          |
| <i>flexible:</i>                      | -50/+90°C   |           |          |
| <b>Halogen-free:</b>                  | acc. to EN 50306-1 + EN 50264-1 are fulfilled. Development of HCl is < 0.5% acc. to IEC 60754-1. pH-value is > 4.3 acc. to IEC 60754-2. Conductivity is < 10.0 µS/mm acc. to IEC 60754-2. Fluoric content < 0.1% acc. to IEC 60684-2  |           |          |
| <b>Burning characteristics:</b>       | No flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 and EN 50305 + VDE 0260-305 section 9.1.2. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2. Flame retardant acc. to ISO 6722 (UN/ECE R118) |           |          |
| <b>Toxicity:</b>                      | acc. to EN 50305 + VDE 0260-305   |           |          |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |           |          |
| <b>Weather resistance:</b>            | very good   |           |          |
| <b>Oil and fuel resistance:</b>       | acc. to EN 50264-1 + VDE 0260-264-1   |           |          |
| <b>Flexibility:</b>                   | very good   |           |          |
| <b>Approvals:</b>                     | CE, RoHS  |           |          |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union see page O/30  |           |          |

| item no.                                | dimensions AWG | outer-ø   |         | cable weight ≈lbs/mft | nominal voltage |
|---|----------------|-----------|---------|-----------------------|-----------------|
|   |                | ±10% inch | ±10% mm |                       |                 |
| <b>multi-conductor cable unshielded</b> |                |           |         |                       |                 |
| 65600002                                | 20 AWG/2c      | 0.193     | 4.9     | 25                    | 300/500 V       |
| 65600105                                | 19 AWG/5c      | 0.252     | 6.4     | 49                    | 300/500 V       |
| 65600203                                | 18 AWG/1c      | 0.209     | 5.3     | 37                    | 300/500 V       |
| 65600205                                | 18 AWG/5c      | 0.264     | 6.7     | 58                    | 300/500 V       |
| 65600207                                | 18 AWG/7c      | 0.311     | 7.9     | 85                    | 300/500 V       |
| 65600225                                | 18 AWG/25c     | 0.528     | 13.4    | 232                   | 300/500 V       |
| 65600304                                | 16 AWG/4c      | 0.272     | 6.9     | 68                    | 300/500 V       |
| 65600307                                | 16 AWG/7c      | 0.366     | 9.3     | 118                   | 300/500 V       |
| 65609001                                | 2 AWG/5c       | 1.307     | 33.2    | 1545                  | 0.6/1 kV        |
| <b>multi-conductor cable shielded</b>   |                |           |         |                       |                 |
| 65601002                                | 20 AWG/2c      | 0.193     | 4.9     | 28                    | 300/500 V       |
| 65601003                                | 20 AWG/3c      | 0.209     | 5.3     | 34                    | 300/500 V       |
| 65601005                                | 20 AWG/5c      | 0.240     | 6.1     | 45                    | 300/500 V       |
| 65601012                                | 20 AWG/12c     | 0.335     | 8.5     | 89                    | 300/500 V       |
| 65601105                                | 19 AWG/5c      | 0.268     | 6.8     | 58                    | 300/500 V       |
| 65601204                                | 18 AWG/4c      | 0.260     | 6.6     | 58                    | 300/500 V       |
| 65601213                                | 18 AWG/13c     | 0.425     | 10.8    | 158                   | 300/500 V       |
| 65601303                                | 16 AWG/3c      | 0.287     | 7.3     | 67                    | 300/500 V       |
| 65601305                                | 16 AWG/5c      | 0.327     | 8.3     | 102                   | 300/500 V       |
| 65601307                                | 16 AWG/7c      | 0.382     | 9.7     | 131                   | 300/500 V       |
| 65609002                                | 2 AWG/5c       | 1.343     | 34.1    | 1650                  | 0.6/1 kV        |

| item no.                         | dimensions AWG | outer-ø   |         | cable weight ≈lbs/mft | nominal voltage |
|----------------------------------|----------------|-----------|---------|-----------------------|-----------------|
|                                  |                | ±10% inch | ±10% mm |                       |                 |
| <b>multi-pair cable shielded</b> |                |           |         |                       |                 |
| 65609004                         | 24 AWG/6pr     | 0.315     | 8.0     | 66                    | 300/500 V       |
| 65609005                         | 22 AWG/12pr    | 0.469     | 11.9    | 137                   | 300/500 V       |
| 65603002                         | 20 AWG/2pr     | 0.264     | 6.7     | 46                    | 300/500 V       |
| 65603004                         | 20 AWG/4pr     | 0.335     | 8.5     | 73                    | 300/500 V       |
| 65603006                         | 20 AWG/6pr     | 0.386     | 9.8     | 103                   | 300/500 V       |
| 65603008                         | 20 AWG/8pr     | 0.484     | 12.3    | 155                   | 300/500 V       |
| 65603103                         | 19 AWG/3pr     | 0.331     | 8.4     | 83                    | 300/500 V       |

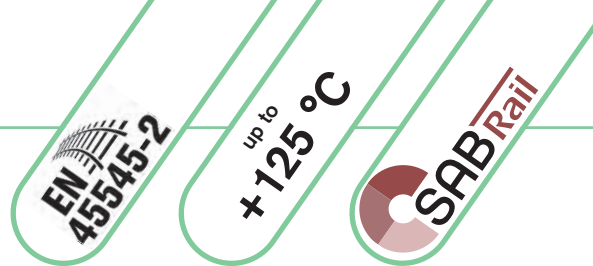
Other dimensions and colors are available on request



# Halogen-free Cables

## SABIX® A 280 FRNC X

SABIX® Rail - Wiring cable / Control cable  
with numbered conductors, cross linked



BRÖCKSKES · D-VIERSEN · SABIX® A 280 FRNC X 1 x 1,0 mm² CE

Marking for SABIX® A 280 FRNC X 62800110:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 280 FRNC X 1 x 1,0 mm² CE

CKSKES · D-VIERSEN · SABIX® A 280 FRNC X 5 x 0,5 mm² CE

Marking for SABIX® A 280 FRNC X 62800505:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 280 FRNC X 5 x 0,5 mm² CE

### Construction:

|   |  |
|---|--|
| <b>Conductor:</b>                           | tinned copper strands fine wires<br>acc. to IEC 60228, VDE 0295, class 5     |
| <b>Insulation:</b>                          | special SABIX®   |
| <b>Single conductor<br/>Color code:</b>     | white (similar RAL 9010)   |
| <b>Multi-conductor<br/>Color code:</b>      | white conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334 |
| <b>Multi-conductor<br/>Stranding:</b>       | in layers  |
| <b>Multi-conductor<br/>Jacket material:</b> | special SABIX®   |
| <b>Multi-conductor<br/>Jacket color:</b>    | black (RAL 9005)   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- flame retardant and self-extinguishing
- good ozone resistance
- good oil and chemical resistance
- fulfills fire protection requirements R15 (EL1A)  
acc. to EN 45545-2 for hazard levels HL1-3

### Technical data:

|   |  |
|---|--|
| <b>Nominal voltage:</b>   | Uo/U 300/500 V   |
| <b>Testing voltage:</b>   | conductor/conductor: 2000 V  |
| <b>Min. bending radius:</b>   | 5 x O.D.   |
| <b>Temperature range:</b><br><i>in conduit:</i><br><i>fixed installation:</i> | <b>DIN VDE</b><br>-40/+125°C (single conductor)<br>-50/+125°C (multi-conductor cable)  |
| <b>Halogen-free:</b>  | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2   |
| <b>Burning characteristics:</b>   | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Toxicity:</b>  | acc. to EN 50305+ VDE 0260-305   |
| <b>Smoke density:</b>   | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Approvals:</b>   | CE, RoHS   |
| <b>Absence of<br/>harmful substances:</b>                                     | acc. to RoHS directive of the European Union<br>see page O/30  |

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| item no.                             | no. of<br>conductors | outer-ø      |            | cable<br>weight<br>≈lbs/mft | ohmic<br>resistance at<br>20°C max. Ω/km | heating value<br>approx<br>KWh/km |
|--------------------------------------|----------------------|--------------|------------|-----------------------------|--|-----------------------------------|
|                                      |                      | ±10%<br>inch | ±10%<br>mm |                             |  |                                   |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm²</b> |                      |              |            |                             |  |                                   |
| 62800105                             | 1                    | 0.067        | 1.7        | 5                           | 40.1                                     | 13                                |
| 62800305                             | 3                    | 0.185        | 4.7        | 24                          | 40.1                                     | 115                               |
| 62800505                             | 5                    | 0.228        | 5.8        | 34                          | 40.1                                     | 170                               |
| 62800805                             | 8                    | 0.287        | 7.3        | 56                          | 40.1                                     | 246                               |
| 62801005                             | 10                   | 0.319        | 8.1        | 65                          | 40.1                                     | 275                               |
| 62801205                             | 12                   | 0.331        | 8.4        | 75                          | 40.1                                     | 306                               |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm²</b> |                      |              |            |                             |  |                                   |
| 62800607                             | 6                    | 0.283        | 7.2        | 58                          | 26.7                                     | 237                               |
| 62800807                             | 8                    | 0.287        | 7.3        | 68                          | 26.7                                     | 245                               |
| 62801007                             | 10                   | 0.370        | 9.4        | 89                          | 26.7                                     | 345                               |

| item no.                                | no. of<br>conductors | outer-ø      |            | cable<br>weight<br>≈lbs/mft | ohmic<br>resistance at<br>20°C max. Ω/km | heating value<br>approx<br>KWh/km |
|---|----------------------|--------------|------------|-----------------------------|--|-----------------------------------|
|   |                      | ±10%<br>inch | ±10%<br>mm |                             |  |                                   |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm²</b>    |                      |              |            |                             |  |                                   |
| 62800110                                | 1                    | 0.083        | 2.1        | 8                           | 20.0                                     | 16                                |
| 62800310                                | 3                    | 0.217        | 5.5        | 37                          | 20.0                                     | 162                               |
| 62800410                                | 4                    | 0.244        | 6.2        | 48                          | 20.0                                     | 186                               |
| 62800610                                | 6                    | 0.295        | 7.5        | 68                          | 20.0                                     | 252                               |
| 62800810                                | 8                    | 0.354        | 9.0        | 91                          | 20.0                                     | 338                               |
| 62801010                                | 10                   | 0.398        | 10.1       | 110                         | 20.0                                     | 402                               |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm²</b> |                      |              |            |                             |  |                                   |
| 62800115                                | 1                    | 0.098        | 2.5        | 11                          | 13.7                                     | 22.5                              |
| 62800315                                | 3                    | 0.260        | 6.6        | 46                          | 13.7                                     | 210                               |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm²</b>    |                      |              |            |                             |  |                                   |
| 62800125                                | 1                    | 0.122        | 3.1        | 18                          | 8.21                                     | 34                                |

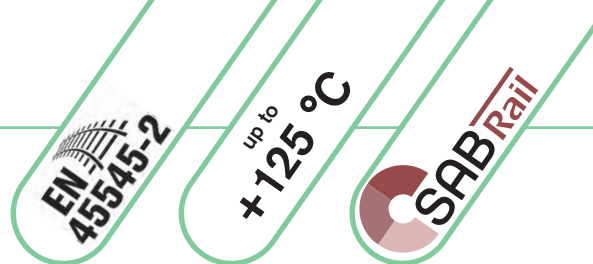
Other dimensions and colors are available on request



# Halogen-free Cables

## SABIX® A 285 FRNC X

SABIX® Rail - Control cable with numbered conductors, overall tinned copper shield, cross linked



Marking for SABIX® A 285 FRNC X 62850505:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 285 FRNC X 5 x 0.5 mm<sup>2</sup> CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | tinned copper strands fine wires<br>acc. to IEC 60228, VDE 0295, class 5     |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | white conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334 |
| <b>Stranding:</b>       | in layers  |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | special SABIX®   |
| <b>Jacket color:</b>    | black (RAL 9005)   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- good ozone resistance
- good oil and chemical resistance
- fulfills fire protection requirements R15 (EL1A)  
acc. to EN 45545-2 for hazard levels HL1-3

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|   |  |
|---|--|
| <b>Nominal voltage:</b>   | Uo/U 300/500 V   |
| <b>Testing voltage:</b>   | conductor/conductor: 2000 V<br>conductor/shielding: 2000 V   |
| <b>Min. bending radius:</b>   | 10 x O.D.  |
| <b>Temperature range:</b><br><i>in conduit,</i><br><i>fixed installation:</i> | DIN VDE<br>-50/+125°C  |
| <b>Halogen-free:</b>  | acc. to EN 50306-1 + EN 50264-1 are fulfilled.<br>Development of HCl is < 0.5% acc. to IEC 60754-1.<br>pH-value is > 4.3 acc. to IEC 60754-2.<br>Conductivity is < 10.0 µS/mm acc. to IEC 60754-2.<br>Fluoric content < 0.1% acc. to IEC 60684-2   |
| <b>Burning characteristics:</b>   | No flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>and EN 50305 + VDE 0260-305 section 9.1.2.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Toxicity:</b>  | acc. to EN 50305+ VDE 0260-305   |
| <b>Smoke density:</b>   | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Approvals:</b>   | CE, RoHS   |
| <b>Absence of harmful substances:</b>   | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft | ohmic resistance at<br>20°C max. Ω/km | heating value<br>approx.<br>KWh/km |
|---|-------------------|--------------|------------|--------------------------|---------------------------------------|------------------------------------|
|   |                   | ±10%<br>inch | ±10%<br>mm |                          |                                       |                                    |
| <b>▶ 20 AWG (≈ 16/32) • 0.50 mm<sup>2</sup></b> |                   |              |            |                          |                                       |                                    |
| 62850305  | 3                 | 0.205        | 5.2        | 30                       | 40.1                                  | 99                                 |
| 62850505  | 5                 | 0.248        | 6.3        | 46                       | 40.1                                  | 154                                |
| 62850805  | 8                 | 0.311        | 7.9        | 65                       | 40.1                                  | 237                                |
| 62851005  | 10                | 0.339        | 8.6        | 77                       | 40.1                                  | 258                                |
| 62851205  | 12                | 0.350        | 8.9        | 85                       | 40.1                                  | 288                                |
| <b>▶ 19 AWG (≈ 23/32) • 0.75 mm<sup>2</sup></b> |                   |              |            |                          |                                       |                                    |
| 62850607  | 6                 | 0.303        | 7.7        | 68                       | 26.7                                  | 231                                |
| 62850807  | 8                 | 0.358        | 9.1        | 89                       | 26.7                                  | 305                                |
| 62851007  | 10                | 0.409        | 10.4       | 116                      | 26.7                                  | 381                                |

| item no.  | no. of conductors | outer-ø      |            | cable weight<br>≈lbs/mft | ohmic resistance at<br>20°C max. Ω/km | heating value<br>approx.<br>KWh/km |
|---|-------------------|--------------|------------|--------------------------|---------------------------------------|------------------------------------|
|   |                   | ±10%<br>inch | ±10%<br>mm |                          |                                       |                                    |
| <b>▶ 18 AWG (≈ 30/32) • 1.00 mm<sup>2</sup></b> |                   |              |            |                          |                                       |                                    |
| 62850310  | 3                 | 0.244        | 6.2        | 44                       | 20.0                                  | 155                                |
| 62850610  | 6                 | 0.323        | 8.2        | 84                       | 20.0                                  | 285                                |
| 62850810  | 8                 | 0.386        | 9.8        | 108                      | 20.0                                  | 366                                |
| 62851010  | 10                | 0.425        | 10.8       | 134                      | 20.0                                  | 401                                |

Other dimensions and colors are available on request

# Halogen-free Cables

## SABIX® A 280 FRNC X (FR)

SABIX® Rail - Fire resistant control cable, cross linked

EN 45545-2

IEC 60331-21  
EN 50200

SABIX Rail



ES · D-VIERSEN · SABIX® A 280 FRNC X (FR) 5 x 0.5 mm<sup>2</sup> CE

Marking for SABIX® A 280 FRNC X (FR) 62809505:

SAB BRÖCKSKES · D-VIERSEN · SABIX® A 280 FRNC X (FR) 5 x 0.5 mm<sup>2</sup> CE



### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | tinned copper strands fine wires  |
| <b>Wrapping:</b>        | mica tape   |
| <b>Insulation:</b>      | special SABIX®  |
| <b>Color code:</b>      | white conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 |
| <b>Stranding:</b>       | in layers   |
| <b>Jacket material:</b> | special SABIX®  |
| <b>Jacket color:</b>    | black (RAL 9005)  |

### Technical data:

|  |  |
|--|--|
| <b>Nominal voltage:</b>  | Uo/U 300/500 V   |
| <b>Testing voltage:</b>  | conductor/conductor: 2000 V  |
| <b>Min. bending radius:</b>  | 10 x O.D.  |
| <b>Temperature range:</b><br><i>during protected fixed installation:</i> | DIN VDE<br>-50/+125°C  |
| <b>Halogen-free:</b>   | acc. to EN 50306-1 + EN 50264-1 are fulfilled. Development of HCl is < 0.5% acc. to IEC 60754-1. pH-value is > 4.3 acc. to IEC 60754-2. Conductivity is < 10.0 µS/mm acc. to IEC 60754-2. Fluoric content < 0.1% acc. to IEC 60684-2 |
| <b>Burning characteristics:</b>  | No flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 and EN 50305 + VDE 0260-305 section 9.1.2. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2  |
| <b>Insulation integrity in case of fire:</b>                             | EN 50200 PH 30, VDE 0482-200, IEC 60331-21 FE 180 + VDE 0482-331   |
| <b>Toxicity:</b>   | acc. to EN 50305 + VDE 0260-305  |
| <b>Smoke density:</b>  | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Approvals:</b>  | CE, RoHS   |
| <b>Absence of harmful substances:</b>                                    | acc. to RoHS directive of the European Union see page O/30   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- fire resistant
- flame retardant and self-extinguishing
- good ozone resistance
- good oil and chemical resistance
- fulfills fire protection requirements R15 (EL1A) acc. to EN 45545-2 for hazard levels HL1-3
- EN 50200 PH 30 + VDE 0482-200, IEC 60331-21 + VDE 0482-331-21

| item no.  | no. of conductors | outer-ø   |         | cable weight ≈lbs/mft |
|---|-------------------|-----------|---------|-----------------------|
|   |                   | ±10% inch | ±10% mm |                       |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                   |           |         |                       |
| 62809502  | 2                 | 0.228     | 5.8     | 32                    |
| 62809503  | 3                 | 0.240     | 6.1     | 39                    |
| 62809504  | 4                 | 0.264     | 6.7     | 44                    |
| 62809505  | 5                 | 0.291     | 7.4     | 53                    |
| 62809507  | 7                 | 0.327     | 8.3     | 69                    |
| 62809510  | 10                | 0.429     | 10.9    | 101                   |
| 62809512  | 12                | 0.441     | 11.2    | 116                   |
| 62809518  | 18                | 0.520     | 13.2    | 158                   |
| 62809525  | 25                | 0.638     | 16.2    | 224                   |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                   |           |         |                       |
| 62809602  | 2                 | 0.256     | 6.5     | 38                    |
| 62809603  | 3                 | 0.260     | 6.6     | 47                    |
| 62809604  | 4                 | 0.283     | 7.2     | 54                    |
| 62809605  | 5                 | 0.323     | 8.2     | 68                    |
| 62809607  | 7                 | 0.350     | 8.9     | 85                    |
| 62809608  | 8                 | 0.421     | 10.7    | 115                   |
| 62809610  | 10                | 0.461     | 11.7    | 125                   |
| 62809612  | 12                | 0.476     | 12.1    | 143                   |
| 62809618  | 18                | 0.575     | 14.6    | 209                   |
| 62809625  | 25                | 0.638     | 16.2    | 279                   |

| item no.   | no. of conductors | outer-ø   |         | cable weight ≈lbs/mft |
|--|-------------------|-----------|---------|-----------------------|
|  |                   | ±10% inch | ±10% mm |                       |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>    |                   |           |         |                       |
| 62809702   | 2                 | 0.252     | 6.4     | 42                    |
| 62809703   | 3                 | 0.268     | 6.8     | 52                    |
| 62809704   | 4                 | 0.291     | 7.4     | 60                    |
| 62809705   | 5                 | 0.331     | 8.4     | 76                    |
| 62809707   | 7                 | 0.362     | 9.2     | 96                    |
| 62809710   | 10                | 0.476     | 12.1    | 141                   |
| 62809712   | 12                | 0.492     | 12.5    | 161                   |
| 62809718   | 18                | 0.594     | 15.1    | 237                   |
| 62809725   | 25                | 0.713     | 18.1    | 317                   |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                   |           |         |                       |
| 62809802   | 2                 | 0.283     | 7.2     | 56                    |
| 62809803   | 3                 | 0.303     | 7.7     | 72                    |
| 62809804   | 4                 | 0.339     | 8.6     | 86                    |
| 62809805   | 5                 | 0.386     | 9.8     | 110                   |
| 62809807   | 7                 | 0.421     | 10.7    | 139                   |
| 62809808   | 8                 | 0.492     | 12.5    | 177                   |
| 62809810   | 10                | 0.539     | 13.7    | 196                   |
| 62809812   | 12                | 0.575     | 14.6    | 236                   |
| 62809818   | 18                | 0.673     | 17.1    | 333                   |
| 62809825   | 25                | 0.827     | 21.0    | 461                   |

| item no.  | no. of conductors | outer-ø   |         | cable weight ≈lbs/mft |
|---|-------------------|-----------|---------|-----------------------|
|   |                   | ±10% inch | ±10% mm |                       |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b> |                   |           |         |                       |
| 62809902  | 2                 | 0.339     | 8.6     | 81                    |
| 62809903  | 3                 | 0.358     | 9.1     | 105                   |
| 62809904  | 4                 | 0.406     | 10.3    | 127                   |
| 62809905  | 5                 | 0.449     | 11.4    | 155                   |
| 62809907  | 7                 | 0.492     | 12.5    | 200                   |
| 62809910  | 10                | 0.650     | 16.5    | 292                   |
| 62809912  | 12                | 0.669     | 17.0    | 335                   |
| 62809918  | 18                | 0.807     | 20.5    | 491                   |
| 62809925  | 25                | 0.984     | 25.0    | 682                   |

Other dimensions and colors are available on request

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# Halogen-free Cables

## SABIX® BL 405 FRNC

SABIX® BL - Flexible data cable



Marking for SABIX® BL 405 FRNC 64051650:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 405 FRNC 16 x 0.5mm² - IEC 60332-3-22 - 350V — DNV CE and current meter marking

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | tinned copper strands with reference to VDE 0812 resp. IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b>      | special SABIX®  |
| <b>Color code:</b>      | DIN 47100, see below  |
| <b>Stranding:</b>       | in layers   |
| <b>Jacket material:</b> | special SABIX® SHF 1 compound acc. to IEC 60092-360                                 |
| <b>Jacket color:</b>    | pigeon blue (RAL 5014)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications acc. to Hong Kong Convention ingredients tested acc. to the requirements of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Peak operating voltage:</b>        | max. 350 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V   |
| <b>Min. bending radius:</b>           | 5 x O.D.  |
| <i>fixed installation:</i>            | 10 x O.D.   |
| <i>free movement:</i>                 |   |
| <b>Temperature range:</b>             | <b>DIN VDE</b>  |
| <i>static:</i>                        | -40/+90°C   |
| <i>flexible:</i>                      | -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>       | no flame propagation acc. to IEC 60332-3-22 + VDE 0482-332-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility:</b>                   | very good   |
| <b>Approvals:</b>                     | DNV, CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union see page O/30  |

| item no.                             | no. of conductors | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|-------------------|-------------------|-----------------|-----------------------|
| <b>▶ 26 AWG (≈ 18/38) ▪ 0.14 mm²</b> |                   |                   |                 |                       |
| 64050214                             | 2                 | 0.142             | 3.6             | 12                    |
| 64050314                             | 3                 | 0.150             | 3.8             | 14                    |
| 64050414                             | 4                 | 0.161             | 4.1             | 16                    |
| 64050514                             | 5                 | 0.177             | 4.5             | 19                    |
| 64050614                             | 6                 | 0.189             | 4.8             | 22                    |
| 64050714                             | 7                 | 0.189             | 4.8             | 24                    |
| 64050814                             | 8                 | 0.217             | 5.5             | 28                    |
| 64051214                             | 12                | 0.248             | 6.3             | 38                    |
| 64051614                             | 16                | 0.276             | 7.0             | 47                    |
| <b>▶ 24 AWG (≈ 14/34) ▪ 0.25 mm²</b> |                   |                   |                 |                       |
| 64050225                             | 2                 | 0.154             | 3.9             | 15                    |
| 64050325                             | 3                 | 0.161             | 4.1             | 17                    |
| 64050425                             | 4                 | 0.177             | 4.5             | 21                    |
| 64050525                             | 5                 | 0.193             | 4.9             | 25                    |
| 64050625                             | 6                 | 0.209             | 5.3             | 29                    |
| 64050725                             | 7                 | 0.209             | 5.3             | 31                    |
| 64050825                             | 8                 | 0.244             | 6.2             | 38                    |
| 64051225                             | 12                | 0.276             | 7.0             | 50                    |
| 64051625                             | 16                | 0.303             | 7.7             | 62                    |

| item no.                             | no. of conductors | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|-------------------|-------------------|-----------------|-----------------------|
| <b>▶ 22 AWG (≈ 7/30) ▪ 1.00 mm²</b>  |                   |                   |                 |                       |
| 64050234                             | 2                 | 0.169             | 4.3             | 19                    |
| 64050334                             | 3                 | 0.181             | 4.6             | 22                    |
| 64050434                             | 4                 | 0.197             | 5.0             | 26                    |
| 64050534                             | 5                 | 0.213             | 5.4             | 32                    |
| 64050634                             | 6                 | 0.240             | 6.1             | 39                    |
| 64050734                             | 7                 | 0.240             | 6.1             | 41                    |
| 64050834                             | 8                 | 0.276             | 7.0             | 49                    |
| 64051234                             | 12                | 0.307             | 7.8             | 64                    |
| 64051634                             | 16                | 0.354             | 9.0             | 87                    |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm²</b> |                   |                   |                 |                       |
| 64050250                             | 2                 | 0.185             | 4.7             | 24                    |
| 64050350                             | 3                 | 0.197             | 5.0             | 28                    |
| 64050450                             | 4                 | 0.213             | 5.4             | 34                    |
| 64050550                             | 5                 | 0.240             | 6.1             | 43                    |
| 64050650                             | 6                 | 0.264             | 6.7             | 50                    |
| 64050750                             | 7                 | 0.264             | 6.7             | 53                    |
| 64050850                             | 8                 | 0.303             | 7.7             | 64                    |
| 64051250                             | 12                | 0.354             | 9.0             | 89                    |
| 64051650                             | 16                | 0.394             | 10.0            | 114                   |

| item no.                             | no. of conductors | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|-------------------|-------------------|-----------------|-----------------------|
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm²</b> |                   |                   |                 |                       |
| 64050275                             | 2                 | 0.205             | 5.2             | 29                    |
| 64050375                             | 3                 | 0.217             | 5.5             | 35                    |
| 64050475                             | 4                 | 0.244             | 6.2             | 44                    |
| 64050575                             | 5                 | 0.268             | 6.8             | 53                    |
| 64050675                             | 6                 | 0.291             | 7.4             | 62                    |
| 64050775                             | 7                 | 0.291             | 7.4             | 67                    |
| 64050875                             | 8                 | 0.346             | 8.8             | 85                    |
| 64051275                             | 12                | 0.398             | 10.1            | 112                   |
| 64051675                             | 16                | 0.437             | 11.1            | 142                   |

Other dimensions and colors are available on request

#### DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown



#### Possible on request:

- bare copper strands
- alternative color code and jacket color



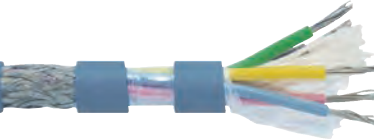
# Halogen-free Cables

## SABIX® BL 415 C FRNC

SABIX® BL - Flexible data cable with overall tinned copper shield



16 x 0.5mm<sup>2</sup> 60332-3-22 - 350V DNV CE



Marking for SABIX® BL 415 C FRNC 64150550:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 415 C FRNC 5 x 0.5mm<sup>2</sup> - IEC 60332-3-22 - 350V DNV CE

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | tinned copper strands with reference to VDE 0812 resp. IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b>      | special SABIX®  |
| <b>Color code:</b>      | DIN 47100, see below  |
| <b>Stranding:</b>       | in layers   |
| <b>Wrapping:</b>        | foil  |
| <b>Shielding:</b>       | tinned copper braiding  |
| <b>Jacket material:</b> | special SABIX® SHF 1 compound acc. to IEC 60092-360                                 |
| <b>Jacket color:</b>    | pigeon blue (RAL 5014)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications acc. to Hong Kong Convention ingredients tested acc. to the requirements of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Peak operating voltage:</b>        | max. 350 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V  |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>flexible movement:</i> 10 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C  |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>       | no flame propagation acc. to IEC 60332-3-22 + VDE 0482-332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility:</b>                   | very good   |
| <b>Approvals:</b>                     | DNV, CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union see page O/30  |

### Possible on request:

- bare copper strands
- alternative color code and jacket color

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| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b> |                   |           |         |              |
| 64150214  | 2                 | 0.161     | 4.1     | 17           |
| 64150314  | 3                 | 0.169     | 4.3     | 19           |
| 64150414  | 4                 | 0.181     | 4.6     | 24           |
| 64150514  | 5                 | 0.197     | 5.0     | 27           |
| 64150614  | 6                 | 0.209     | 5.3     | 29           |
| 64150714  | 7                 | 0.209     | 5.3     | 30           |
| 64150814  | 8                 | 0.244     | 6.2     | 38           |
| 64151214  | 12                | 0.268     | 6.8     | 47           |
| 64151614  | 16                | 0.295     | 7.5     | 57           |
| <b>▶ 24 AWG (≈ 14/34) ▪ 0.25 mm<sup>2</sup></b> |                   |           |         |              |
| 64150225  | 2                 | 0.173     | 4.4     | 22           |
| 64150325  | 3                 | 0.181     | 4.6     | 24           |
| 64150425  | 4                 | 0.197     | 5.0     | 28           |
| 64150525  | 5                 | 0.213     | 5.4     | 33           |
| 64150625  | 6                 | 0.228     | 5.8     | 36           |
| 64150725  | 7                 | 0.228     | 5.8     | 38           |
| 64150825  | 8                 | 0.264     | 6.7     | 48           |
| 64151225  | 12                | 0.295     | 7.5     | 60           |
| 64151625  | 16                | 0.339     | 8.6     | 79           |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 22 AWG (≈ 7/30) ▪ 1.00 mm<sup>2</sup></b>  |                   |           |         |              |
| 64150234  | 2                 | 0.189     | 4.8     | 25           |
| 64150334  | 3                 | 0.201     | 5.1     | 28           |
| 64150434  | 4                 | 0.217     | 5.5     | 34           |
| 64150534  | 5                 | 0.240     | 6.1     | 41           |
| 64150634  | 6                 | 0.260     | 6.6     | 48           |
| 64150734  | 7                 | 0.260     | 6.6     | 50           |
| 64150834  | 8                 | 0.295     | 7.5     | 59           |
| 64151234  | 12                | 0.343     | 8.7     | 81           |
| 64151634  | 16                | 0.374     | 9.5     | 100          |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                   |           |         |              |
| 64150250  | 2                 | 0.205     | 5.2     | 29           |
| 64150350  | 3                 | 0.217     | 5.5     | 35           |
| 64150450  | 4                 | 0.240     | 6.1     | 43           |
| 64150550  | 5                 | 0.260     | 6.6     | 52           |
| 64150650  | 6                 | 0.283     | 7.2     | 57           |
| 64150750  | 7                 | 0.283     | 7.2     | 60           |
| 64150850  | 8                 | 0.339     | 8.6     | 78           |
| 64151250  | 12                | 0.374     | 9.5     | 102          |
| 64151650  | 16                | 0.421     | 10.7    | 135          |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                   |           |         |              |
| 64150275  | 2                 | 0.224     | 5.7     | 35           |
| 64150375  | 3                 | 0.244     | 6.2     | 44           |
| 64150475  | 4                 | 0.264     | 6.7     | 52           |
| 64150575  | 5                 | 0.287     | 7.3     | 62           |
| 64150675  | 6                 | 0.311     | 7.9     | 71           |
| 64150775  | 7                 | 0.311     | 7.9     | 77           |
| 64150875  | 8                 | 0.366     | 9.3     | 95           |
| 64151275  | 12                | 0.425     | 10.8    | 130          |
| 64151675  | 16                | 0.465     | 11.8    | 166          |

Other dimensions and colors are available on request

#### DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown



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# Halogen-free Cables

## SABIX® BL 443 C FRNC TT

SABIX® BL - Twisted triad flexible data cable, twisted triad with overall copper shield



TT 7 x 3 x 0.34 mm<sup>2</sup> - IEC 60332-3-22 - 300V DNV CE



Marking for SABIX® BL 443 C FRNC TT 64430734:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 443 C FRNC TT 7 x 3 x 0.34 mm<sup>2</sup> - IEC 60332-3-22 - 300V DNV CE and current meter marking

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5   |
| <b>Insulation:</b>      | special SABIX®  |
| <b>Color code:</b>      | ≤ 0.25 mm <sup>2</sup> = DIN 47100, see below<br>≥ 0.34 mm <sup>2</sup> = white, blue, red<br>with printed triad number |
| <b>Stranding:</b>       | conductors white, blue, red twisted to triads,<br>triads twisted in layers  |
| <b>Wrapping:</b>        | foil  |
| <b>Shielding:</b>       | tinned copper braiding  |
| <b>Jacket material:</b> | special SABIX®<br>SHF 1 compound acc. to IEC 60092-360  |
| <b>Jacket color:</b>    | pigeon blue (RAL 5014)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
  - asbestos-free
  - good EMC characteristics\*
  - no flame propagation
  - flame retardant and self-extinguishing
  - flexible
  - for applications  
acc. to Hong Kong Convention
- ingredients tested acc. to the requirements  
of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

\*copper braiding should be connected circularly to  
optimize the EMC characteristics

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Peak operating voltage:</b>        | max. 300 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>free movement:</i> 10 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation acc. to<br>IEC 60332-3-22 + VDE 0482-332-3-22 cat. A.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | very good  |
| <b>Approvals:</b>                     | DNV, CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of triads | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable weight<br>≈lbs/mft |
|---|---------------|-------------------------|-----------------------|--------------------------|
| <b>▶ 24 AWG (≈ 14/34) ▪ 0.25 mm<sup>2</sup></b> |               |                         |                       |                          |
| 64430225  | 2             | 0.283                   | 7.2                   | 46                       |
| 64430425  | 4             | 0.346                   | 8.8                   | 69                       |
| 64430725  | 7             | 0.417                   | 10.6                  | 108                      |
| 64431025  | 10            | 0.528                   | 13.4                  | 158                      |
| <b>▶ 22 AWG (≈ 7/30) ▪ 0.34 mm<sup>2</sup></b>  |               |                         |                       |                          |
| 64430234  | 2             | 0.315                   | 8.0                   | 55                       |
| 64430434  | 4             | 0.386                   | 9.8                   | 85                       |
| 64430734  | 7             | 0.469                   | 11.9                  | 136                      |
| 64431034  | 10            | 0.598                   | 15.2                  | 210                      |

| item no.  | no. of triads | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable weight<br>≈lbs/mft |
|---|---------------|-------------------------|-----------------------|--------------------------|
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |               |                         |                       |                          |
| 64430250  | 2             | 0.354                   | 9.0                   | 71                       |
| 64430450  | 4             | 0.421                   | 10.7                  | 108                      |
| 64430750  | 7             | 0.520                   | 13.2                  | 171                      |
| 64431050  | 10            | 0.665                   | 16.9                  | 263                      |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |               |                         |                       |                          |
| 64430275  | 2             | 0.409                   | 10.4                  | 97                       |
| 64430475  | 4             | 0.496                   | 12.6                  | 150                      |
| 64430775  | 7             | 0.598                   | 15.2                  | 235                      |
| 64431075  | 10            | 0.760                   | 19.3                  | 339                      |

Other dimensions and colors are available on request

#### DIN 47100 color code: 24 AWG

- #1- white/brown/green, #2- yellow/gray/pink, #3- blue/red/black,  
#4- violet/gray-pink/red-blue, #5- white-green/brown-green/white-yellow,  
#6- yellow-brown/white-gray/gray-brown, #7- white-pink/pink-brown/white-blue,  
#8- brown-blue/white-red/brown-red, #9- white-black/brown-black/gray-green,  
#10- yellow-gray/pink-green/yellow-pink



#### Possible on request:

- bare copper strands
- alternative color code and jacket color

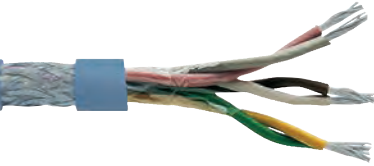
# Halogen-free Cables

## SABIX® BL 445 C FRNC TP

SABIX® BL - Flexible paired data cable with overall tinned copper shield



25mm<sup>2</sup> IEC 60332-3-22 - 350V DNV CE



Marking for SABIX® BL 445 C FRNC TP 64450325:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 445 C FRNC TP 3 x 2 x 0.25 mm<sup>2</sup> - IEC 60332-3-22 - 350V DNV CE

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | tinned copper strands with reference to VDE 0812 resp. IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b>      | special SABIX®  |
| <b>Color code:</b>      | DIN 47100, see below  |
| <b>Stranding:</b>       | pairwise, pairs in layers   |
| <b>Wrapping:</b>        | foil  |
| <b>Shielding:</b>       | tinned copper braiding  |
| <b>Jacket material:</b> | special SABIX® SHF 1 compound acc. to IEC 60092-360                                 |
| <b>Jacket color:</b>    | pigeon blue (RAL 5014)  |

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Peak operating voltage:</b>        | max. 350 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V  |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>free movement:</i> 10 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C  |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>       | no flame propagation acc. to IEC 60332-3-22 + VDE 0482-332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility:</b>                   | very good   |
| <b>Approvals:</b>                     | DNV, CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union see page O/30  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- good EMC characteristics\*
- good transmission rates and crosstalk attenuation
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications acc. to Hong Kong Convention ingredients tested acc. to the requirements of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

\*copper braiding should be connected circularly to optimize the EMC characteristics



### Possible on request:

- bare copper strands
- alternative color code and jacket color

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| item no.  | no. of pairs | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable weight<br>≈lbs/mft |
|---|--------------|-------------------------|-----------------------|--------------------------|
| <b>▶ 26 AWG (≈ 18/38) • 0.14 mm<sup>2</sup></b> |              |                         |                       |                          |
| 64450214  | 2            | 0.209                   | 5.3                   | 25                       |
| 64450314  | 3            | 0.228                   | 5.8                   | 30                       |
| 64450414  | 4            | 0.268                   | 6.8                   | 39                       |
| 64450514  | 5            | 0.291                   | 7.4                   | 46                       |
| 64450614  | 6            | 0.299                   | 7.6                   | 51                       |
| 64450814  | 8            | 0.343                   | 8.7                   | 66                       |
| 64451014  | 10           | 0.374                   | 9.5                   | 77                       |
| 64451214  | 12           | 0.417                   | 10.6                  | 95                       |
| 64451814  | 18           | 0.488                   | 12.4                  | 134                      |
| <b>▶ 24 AWG (≈ 14/34) • 0.25 mm<sup>2</sup></b> |              |                         |                       |                          |
| 64450225  | 2            | 0.228                   | 5.8                   | 30                       |
| 64450325  | 3            | 0.256                   | 6.5                   | 38                       |
| 64450425  | 4            | 0.291                   | 7.4                   | 48                       |
| 64450525  | 5            | 0.343                   | 8.7                   | 65                       |
| 64450625  | 6            | 0.343                   | 8.7                   | 70                       |
| 64450825  | 8            | 0.358                   | 9.1                   | 81                       |
| 64451025  | 10           | 0.417                   | 10.6                  | 105                      |
| 64451225  | 12           | 0.457                   | 11.6                  | 121                      |
| 64451825  | 18           | 0.543                   | 13.8                  | 183                      |
| 64452625  | 26           | 0.642                   | 16.3                  | 247                      |

| item no.  | no. of pairs | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable weight<br>≈lbs/mft |
|---|--------------|-------------------------|-----------------------|--------------------------|
| <b>▶ 22 AWG (≈ 7/30) • 0.34 mm<sup>2</sup></b>  |              |                         |                       |                          |
| 64450234  | 2            | 0.252                   | 6.4                   | 38                       |
| 64450334  | 3            | 0.283                   | 7.2                   | 48                       |
| 64450434  | 4            | 0.343                   | 8.7                   | 65                       |
| 64450534  | 5            | 0.370                   | 9.4                   | 77                       |
| 64450634  | 6            | 0.378                   | 9.6                   | 86                       |
| 64450734  | 7            | 0.398                   | 10.1                  | 101                      |
| 64450834  | 8            | 0.425                   | 10.8                  | 110                      |
| 64451034  | 10           | 0.465                   | 11.8                  | 130                      |
| 64451234  | 12           | 0.528                   | 13.4                  | 160                      |
| 64451834  | 18           | 0.622                   | 15.8                  | 240                      |
| 64451934  | 19           | 0.622                   | 15.8                  | 247                      |
| 64452734  | 27           | 0.717                   | 18.2                  | 321                      |
| <b>▶ 20 AWG (≈ 16/32) • 0.50 mm<sup>2</sup></b> |              |                         |                       |                          |
| 64450250  | 2            | 0.283                   | 7.2                   | 47                       |
| 64450350  | 3            | 0.311                   | 7.9                   | 59                       |
| 64450450  | 4            | 0.374                   | 9.5                   | 81                       |
| 64450550  | 5            | 0.413                   | 10.5                  | 103                      |
| 64450650  | 6            | 0.425                   | 10.8                  | 115                      |
| 64450850  | 8            | 0.469                   | 11.9                  | 139                      |
| 64451050  | 10           | 0.528                   | 13.4                  | 174                      |
| 64451250  | 12           | 0.591                   | 15.0                  | 216                      |
| 64451850  | 18           | 0.685                   | 17.4                  | 303                      |

| item no.  | no. of pairs | outer-ø<br>±10%<br>inch | outer-ø<br>±10%<br>mm | cable weight<br>≈lbs/mft |
|---|--------------|-------------------------|-----------------------|--------------------------|
| <b>▶ 19 AWG (≈ 23/32) • 0.75 mm<sup>2</sup></b> |              |                         |                       |                          |
| 64450275  | 2            | 0.311                   | 7.9                   | 58                       |
| 64450375  | 3            | 0.362                   | 9.2                   | 77                       |
| 64450475  | 4            | 0.421                   | 10.7                  | 105                      |
| 64450575  | 5            | 0.457                   | 11.6                  | 125                      |
| 64450675  | 6            | 0.488                   | 12.4                  | 148                      |
| 64450875  | 8            | 0.543                   | 13.8                  | 191                      |
| 64451075  | 10           | 0.598                   | 15.2                  | 227                      |
| 64451275  | 12           | 0.677                   | 17.2                  | 276                      |
| 64451875  | 18           | 0.764                   | 19.4                  | 372                      |

Other dimensions and colors are available on request

#### DIN 47100 color code:

- #1- white/brown, #2- green/yellow, #3- gray/pink,
- #4- blue/red, #5- black/purple, #6- gray-pink/red-blue,
- #7- white-green/brown-green, #8- white-yellow/yellow-brown,
- #9- white-gray/gray-brown, #10- white-pink/pink-brown,
- #11- white-blue/brown-blue, #12- white-red/brown-red,
- #13- white-black/brown-black, #14- gray-green/yellow-gray,
- #15- pink-green/yellow-pink, #16- green-blue/yellow-blue,
- #17- green-red/yellow-red, #18- green-black/yellow-black,
- #19- gray-blue/pink-blue, #20- gray-red/pink-red,
- #21- gray-black/pink-black, #22- blue-black, red-black,
- #23- white/brown, #24- green/yellow, #25- gray/pink,
- #26- blue/red, #27- black/purple



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# Halogen-free Cables

## SABIX® BL 446 C FRNC TP

SABIX® BL - Flexible paired data cable with aluminum pair shield and overall copper shield



Marking for SABIX® BL 446 C FRNC FTP 64462475:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 446 C FRNC FTP 24 x (2 x 0.75 mm²)ST - IEC 60332-3-22 - 300V DNV CE

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5                             |
| <b>Insulation:</b>      | special SABIX®  |
| <b>Color code:</b>      | ≤ 0.25 mm² = DIN 47100, see below<br>≥ 0.34 mm² = white, blue<br>with printed pair number |
| <b>Stranding:</b>       | white conductors, blue twisted to pairs   |
| <b>Pair screen:</b>     | alu foil  |
| <b>Stranding:</b>       | pairs together in layers  |
| <b>Wrapping:</b>        | foil  |
| <b>Shielding:</b>       | tinned copper braiding  |
| <b>Wrapping:</b>        | foil  |
| <b>Jacket material:</b> | special SABIX®<br>SHF 1 compound acc. to IEC 60092-360                                    |
| <b>Jacket color:</b>    | pigeon blue (RAL 5014)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- good EMC characteristics\*
- good transmission rates and crosstalk attenuation
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications acc. to Hong Kong Convention ingredients tested acc. to the requirements of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Peak operating voltage:</b>        | max. 300 V  |
| <b>Testing voltage:</b>               | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V  |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>free movement:</i> 10 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C  |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>       | no flame propagation acc. to IEC 60332-3-22 + VDE 0482-332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility:</b>                   | very good   |
| <b>Approvals:</b>                     | DNV, CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union see page O/30  |



### Possible on request:

- bare copper strands
- alternative color code and jacket color

| item no.                             | no. of pairs | outer-ø   |         | cable weight ≈lbs/mft |
|--------------------------------------|--------------|-----------|---------|-----------------------|
|                                      |              | ±10% inch | ±10% mm |                       |
| <b>▶ 24 AWG (≈ 14/34) ▪ 0.25 mm²</b> |              |           |         |                       |
| 64460225                             | 2            | 0.244     | 6.2     | 36                    |
| 64460825                             | 8            | 0.398     | 10.1    | 101                   |
| 64461225                             | 12           | 0.500     | 12.7    | 159                   |
| <b>▶ 22 AWG (≈ 7/30) ▪ 0.34 mm²</b>  |              |           |         |                       |
| 64460234                             | 2            | 0.303     | 7.7     | 49                    |
| 64460434                             | 4            | 0.362     | 9.2     | 82                    |
| 64460834                             | 8            | 0.449     | 11.4    | 132                   |
| 64461234                             | 12           | 0.587     | 14.9    | 204                   |

| item no.                             | no. of pairs | outer-ø   |         | cable weight ≈lbs/mft |
|--------------------------------------|--------------|-----------|---------|-----------------------|
|                                      |              | ±10% inch | ±10% mm |                       |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm²</b> |              |           |         |                       |
| 64460475                             | 4            | 0.445     | 11.3    | 122                   |
| 64462475                             | 24           | 0.933     | 23.7    | 574                   |
| <b>▶ 16 AWG (≈ 28/30) ▪ 1.50 mm²</b> |              |           |         |                       |
| 64461980                             | 19           | 0.988     | 25.1    | 693                   |

Other dimensions and colors are available on request

### DIN 47100 color code: 24 AWG

#1- white/brown, #2- green/yellow, #3- gray/pink, #4- blue/red, #5- black/purple, #6- gray-pink/red-blue, #7- white-green/brown-green, #8- white-yellow/yellow-brown, #9- white-gray/gray-brown, #10- white-pink/pink-brown, #11- white-blue/brown-blue, #12- white-red/brown-red

# Halogen-free Cables

## SABIX® BL 400 FRNC

SABIX® BL - Flexible control cable 300/500 V



Marking for SABIX® BL 400 FRNC 64001215:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 400 FRNC 12 x 1.5 mm² - IEC 60332-3-22 - 300/500V DNV CE and current meter marking

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Jacket material:</b> | special SABIX®<br>SHF 1 compound acc. to IEC 60092-360   |
| <b>Jacket color:</b>    | pigeon blue (RAL 5014)   |

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 2000 V  |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 4 x O.D.<br><i>free movement</i> 6 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation acc. to<br>IEC 60332-3-22 + VDE 0482-332-22 cat. A.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | very good  |
| <b>Approvals:</b>                     | DNV, CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications  
acc. to Hong Kong Convention  
ingredients tested acc. to the requirements  
of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

| item no.                             | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 20 AWG (≈ 16/32) • 0.50 mm²</b> |                                |                   |                 |                       |
| 64000205                             | 2                              | 0.209             | 5.3             | 28                    |
| 64000305                             | 3                              | 0.220             | 5.6             | 33                    |
| 64000405                             | 4                              | 0.236             | 6.0             | 40                    |
| 64000505                             | 5                              | 0.260             | 6.6             | 48                    |
| 64000705                             | 7                              | 0.287             | 7.3             | 60                    |
| 64001205                             | 12                             | 0.378             | 9.6             | 99                    |
| 64001805                             | 18                             | 0.449             | 11.4            | 142                   |
| <b>▶ 19 AWG (≈ 23/32) • 0.75 mm²</b> |                                |                   |                 |                       |
| 64000207                             | 2                              | 0.228             | 5.8             | 34                    |
| 64000307                             | 3                              | 0.240             | 6.1             | 40                    |
| 64000407                             | 4                              | 0.264             | 6.7             | 50                    |
| 64000507                             | 5                              | 0.291             | 7.4             | 61                    |
| 64000707                             | 7                              | 0.319             | 8.1             | 76                    |
| 64001207                             | 12                             | 0.429             | 10.9            | 126                   |
| 64001807                             | 18                             | 0.504             | 12.8            | 181                   |

| item no.                                | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 18 AWG (≈ 30/32) • 1.00 mm²</b>    |                                |                   |                 |                       |
| 64000210                                | 2                              | 0.236             | 6.0             | 38                    |
| 64000310                                | 3                              | 0.248             | 6.3             | 46                    |
| 64000410                                | 4                              | 0.276             | 7.0             | 56                    |
| 64000510                                | 5                              | 0.307             | 7.8             | 71                    |
| 64000710                                | 7                              | 0.331             | 8.4             | 88                    |
| 64001210                                | 12                             | 0.445             | 11.3            | 145                   |
| 64001810                                | 18                             | 0.531             | 13.5            | 214                   |
| <b>▶ 16 AWG (≈ 27-29/30) • 1.50 mm²</b> |                                |                   |                 |                       |
| 64000215                                | 2                              | 0.264             | 6.7             | 49                    |
| 64000315                                | 3                              | 0.276             | 7.0             | 60                    |
| 64000415                                | 4                              | 0.311             | 7.9             | 75                    |
| 64000515                                | 5                              | 0.339             | 8.6             | 91                    |
| 64000715                                | 7                              | 0.374             | 9.5             | 117                   |
| 64001215                                | 12                             | 0.500             | 12.7            | 193                   |
| 64001815                                | 18                             | 0.602             | 15.3            | 286                   |

| item no.                             | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 14 AWG (≈ 46/30) • 2.50 mm²</b> |                                |                   |                 |                       |
| 64000225                             | 2                              | 0.319             | 8.1             | 75                    |
| 64000325                             | 3                              | 0.339             | 8.6             | 92                    |
| 64000425                             | 4                              | 0.374             | 9.5             | 115                   |
| 64000525                             | 5                              | 0.417             | 10.6            | 142                   |
| 64000725                             | 7                              | 0.461             | 11.7            | 183                   |
| 64001225                             | 12                             | 0.618             | 15.7            | 304                   |
| 64001825                             | 18                             | 0.744             | 18.9            | 450                   |

Other dimensions and colors are available on request



#### Possible on request:

- bare copper strands
- alternative color code and jacket color

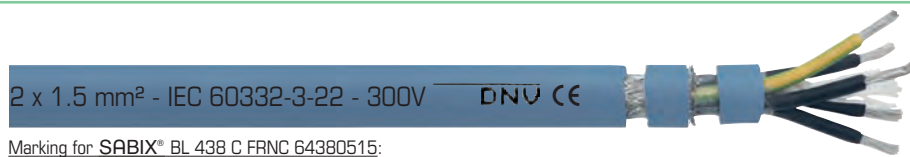
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# Halogen-free Cables

## SABIX® BL 438 C FRNC

SABIX® BL - Flexible control cable with overall tinned copper shield 300/500 V



Marking for SABIX® BL 438 C FRNC 64380515:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 438 C FRNC 5 x 1.5 mm² - IEC 60332-3-22 - 300/500V DNV CE and current meter marking

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Wrapping:</b>        | foil   |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | special SABIX®<br>SHF 1 compound acc. to IEC 60092-360   |
| <b>Jacket color:</b>    | pigeon blue (RAL 5014)   |

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 300/500 V   |
| <b>Testing voltage:</b>               | conductor/conductor: 2000 V<br>conductor/shielding: 2000 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 5 x O.D.<br><i>free movement:</i> 10 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation acc. to<br>IEC 60332-3-22 + VDE 0482-332-3-22 cat. A.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | very good  |
| <b>Approvals:</b>                     | DNV, CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications acc. to Hong Kong Convention ingredients tested acc. to the requirements of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

\*copper braiding should be connected circularly to optimize the EMC characteristics

| item no.                             | no. of conductors incl. ground | outer-ø   |         | cable weight |
|--------------------------------------|--------------------------------|-----------|---------|--------------|
|                                      |                                | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm²</b> |                                |           |         |              |
| 64380205                             | 2                              | 0.228     | 5.8     | 34           |
| 64380305                             | 3                              | 0.240     | 6.1     | 38           |
| 64380405                             | 4                              | 0.260     | 6.6     | 46           |
| 64380505                             | 5                              | 0.280     | 7.1     | 55           |
| 64380705                             | 7                              | 0.311     | 7.9     | 70           |
| 64381205                             | 12                             | 0.402     | 10.2    | 111          |
| 64381805                             | 18                             | 0.484     | 12.3    | 169          |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm²</b> |                                |           |         |              |
| 64380207                             | 2                              | 0.252     | 6.4     | 39           |
| 64380307                             | 3                              | 0.264     | 6.7     | 44           |
| 64380407                             | 4                              | 0.287     | 7.3     | 56           |
| 64380507                             | 5                              | 0.315     | 8.0     | 69           |
| 64380707                             | 7                              | 0.343     | 8.7     | 85           |
| 64381207                             | 12                             | 0.461     | 11.7    | 148          |
| 64381807                             | 18                             | 0.539     | 13.7    | 209          |

| item no.                                | no. of conductors incl. ground | outer-ø   |         | cable weight |
|---|--------------------------------|-----------|---------|--------------|
|   |                                | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm²</b>    |                                |           |         |              |
| 64380210                                | 2                              | 0.260     | 6.6     | 44           |
| 64380310                                | 3                              | 0.272     | 6.9     | 52           |
| 64380410                                | 4                              | 0.295     | 7.5     | 62           |
| 64380510                                | 5                              | 0.331     | 8.4     | 79           |
| 64380710                                | 7                              | 0.354     | 9.0     | 97           |
| 64381210                                | 12                             | 0.476     | 12.1    | 168          |
| 64381810                                | 18                             | 0.575     | 14.6    | 254          |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm²</b> |                                |           |         |              |
| 64380215                                | 2                              | 0.287     | 7.3     | 54           |
| 64380315                                | 3                              | 0.299     | 7.6     | 65           |
| 64380415                                | 4                              | 0.331     | 8.4     | 81           |
| 64380515                                | 5                              | 0.366     | 9.3     | 101          |
| 64380715                                | 7                              | 0.398     | 10.1    | 126          |
| 64381215                                | 12                             | 0.531     | 13.5    | 217          |
| 64381815                                | 18                             | 0.642     | 16.3    | 328          |

| item no.                             | no. of conductors incl. ground | outer-ø   |         | cable weight |
|--------------------------------------|--------------------------------|-----------|---------|--------------|
|                                      |                                | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm²</b> |                                |           |         |              |
| 64380225                             | 2                              | 0.343     | 8.7     | 77           |
| 64380325                             | 3                              | 0.366     | 9.3     | 97           |
| 64380425                             | 4                              | 0.398     | 10.1    | 121          |
| 64380525                             | 5                              | 0.453     | 11.5    | 159          |
| 64380725                             | 7                              | 0.492     | 12.5    | 201          |
| 64381225                             | 12                             | 0.661     | 16.8    | 345          |
| 64381825                             | 18                             | 0.791     | 20.1    | 506          |

Other dimensions and colors are available on request



#### Possible on request:

- bare copper strands
- alternative color code and jacket color



# Halogen-free Cables

## SABIX® BL 402 FRNC

SABIX® BL - Halogen-free flexible wiring cable 0.6/1 kV

0.6/1 kV



® BL 402 FRNC 1.5 mm<sup>2</sup> - IEC 60332-3-22 - 0.1kV DNV CE 



Marking for SABIX® BL 402 FRNC 64020182:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 402 FRNC 1.5 mm<sup>2</sup> - IEC 60332-3-22 - 0.6/1kV DNV CE and current meter marking

### Construction:

|                    |   |
|--------------------|---|
| <b>Conductor:</b>  | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b> | SABIX®  |
| <b>Color code:</b> | black (RAL 9005)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications acc. to Hong Kong Convention  
ingredients tested acc. to the requirements of the Hong Kong Convention (2009) of the IMO
- Approvals: DNV

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Nominal voltage:</b>               | Uo/U 0.6/1 kV   |
| <b>Testing voltage:</b>               | conductor/conductor: 4000 V   |
| <b>Min. bending radius:</b>           |   |
| <i>fixed installation:</i>            | 4 x O.D.  |
| <i>free movement:</i>                 | 6 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b>  |
| <i>static:</i>                        | -40/+90°C   |
| <i>flexible:</i>                      | -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>       | no flame propagation acc. to IEC 60332-3-22 + VDE 0482-332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility</b>                    | very good   |
| <b>Approvals:</b>                     | DNV, CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union see page O/30  |

| item no.   | mm <sup>2</sup> | AWG<br>MCM | outer-ø      |            | cable weight<br>≈ lbs/mft |      |
|------------|-----------------|------------|--------------|------------|---------------------------|------|
|            |                 |            | ±10%<br>inch | ±10%<br>mm |                           |      |
| ▶ 64020180 | 1.00            | 18         | (≈ 30/32)    | 0.118      | 3.0                       | 11   |
| ▶ 64020182 | 1.50            | 16         | (≈ 28/30)    | 0.130      | 3.3                       | 15   |
| ▶ 64020184 | 2.50            | 14         | (≈ 46/30)    | 0.146      | 3.7                       | 22   |
| ▶ 64020186 | 4.00            | 12         | (≈ 52/28)    | 0.185      | 4.7                       | 35   |
| ▶ 64020187 | 6.00            | 10         | (≈ 78/28)    | 0.205      | 5.2                       | 48   |
| ▶ 64020188 | 10.00           | 8          | (≈ 77/26)    | 0.252      | 6.4                       | 81   |
| ▶ 64020189 | 16.00           | 6          | (≈ 122/26)   | 0.307      | 7.8                       | 121  |
| ▶ 64020190 | 25.00           | 4          | (≈ 190/26)   | 0.378      | 9.6                       | 185  |
| ▶ 64020191 | 35.00           | 2          | (≈ 272/26)   | 0.433      | 11.0                      | 255  |
| ▶ 64020192 | 50.00           | 1          | (≈ 400/26)   | 0.496      | 12.6                      | 360  |
| ▶ 64020193 | 70.00           | 2/0        | (≈ 543/26)   | 0.587      | 14.9                      | 486  |
| ▶ 64020194 | 95.00           | 3/0        | (≈ 484/24)   | 0.685      | 17.4                      | 662  |
| ▶ 64020195 | 120.00          | 4/0        | (≈ 589/24)   | 0.760      | 19.3                      | 819  |
| ▶ 64020196 | 150.00          | 250        | (≈ 740/24)   | 0.835      | 21.2                      | 1008 |
| ▶ 64020197 | 180.00          | 350        | (≈ 902/24)   | 0.917      | 23.3                      | 1242 |
| ▶ 64020198 | 240.00          | 450        | (≈ 1220/24)  | 1.063      | 27.0                      | 1644 |

Other dimensions and colors are available on request



### Possible on request:

- bare copper strands
- alternative color code and jacket color

# Halogen-free Cables

## SABIX® BL 408 FRNC

SABIX® BL - Flexible power cable 0.6/1 kV

0.6/1 kV



FRNC 1.5 mm<sup>2</sup> - IEC 60332-3-22 - 0.6/1kV

DNV CE



Marking for SABIX® BL 408 FRNC 64080182:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 408 FRNC 1.5 mm<sup>2</sup> - IEC 60332-3-22 - 0.6/1kV DNV CE and current meter marking

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b>      | special SABIX®  |
| <b>Color code:</b>      | black (RAL 9005)  |
| <b>Jacket material:</b> | special SABIX®<br>SHF 1 compound acc. to IEC 60092-360        |
| <b>Jacket color:</b>    | black (RAL 9005)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications  
acc. to Hong Kong Convention  
ingredients tested acc. to the requirements  
of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | U <sub>0</sub> /U 0.6/1 kV   |
| <b>Testing voltage:</b>               | conductor/conductor: 4000 V  |
| <b>Min. bending radius</b>            |  |
| fixed installation:                   | 4 x O.D.   |
| free movement:                        | 6 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b>   |
| static:                               | -40/+90°C  |
| flexible:                             | -30/+90°C  |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation acc. to<br>IEC 60332-3-22 + VDE 0482-332-3-22 cat. A.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | very good  |
| <b>Approvals:</b>                     | DNV, CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.   | mm <sup>2</sup> | AWG |             | outer-ø      |            | cable weight<br>≈ lbs/mft |
|------------|-----------------|-----|-------------|--------------|------------|---------------------------|
|            |                 | MCM | (≈)         | ±10%<br>inch | ±10%<br>mm |                           |
| ▶ 64080180 | 1.00            | 18  | (≈ 30/32)   | 0.213        | 5.4        | 29                        |
| ▶ 64080182 | 1.50            | 16  | (≈ 28/30)   | 0.224        | 5.7        | 34                        |
| ▶ 64080184 | 2.50            | 14  | (≈ 46/30)   | 0.240        | 6.1        | 42                        |
| ▶ 64080186 | 4.00            | 12  | (≈ 52/28)   | 0.280        | 7.1        | 59                        |
| ▶ 64080187 | 6.00            | 10  | (≈ 78/28)   | 0.299        | 7.6        | 74                        |
| ▶ 64080188 | 10.00           | 8   | (≈ 77/26)   | 0.346        | 8.8        | 113                       |
| ▶ 64080189 | 16.00           | 6   | (≈ 122/26)  | 0.402        | 10.2       | 159                       |
| ▶ 64080190 | 25.00           | 4   | (≈ 190/26)  | 0.472        | 12.0       | 232                       |
| ▶ 64080191 | 35.00           | 2   | (≈ 272/26)  | 0.539        | 13.7       | 315                       |
| ▶ 64080192 | 50.00           | 1   | (≈ 400/26)  | 0.606        | 15.4       | 431                       |
| ▶ 64080193 | 70.00           | 2/0 | (≈ 543/26)  | 0.705        | 17.9       | 571                       |
| ▶ 64080194 | 95.00           | 3/0 | (≈ 484/24)  | 0.811        | 20.6       | 764                       |
| ▶ 64080195 | 120.00          | 4/0 | (≈ 589/24)  | 0.894        | 22.7       | 937                       |
| ▶ 64080196 | 150.00          | 250 | (≈ 740/24)  | 0.972        | 24.7       | 1148                      |
| ▶ 64080197 | 185.00          | 350 | (≈ 902/24)  | 1.063        | 27.0       | 1389                      |
| ▶ 64080198 | 240.00          | 450 | (≈ 1220/24) | 1.220        | 31.0       | 1845                      |

Other dimensions and colors are available on request



### Possible on request:

- bare copper strands
- alternative color code and jacket color

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# Halogen-free Cables

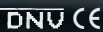
## SABIX® BL 409 C FRNC

SABIX® BL - Flexible power cable with overall copper shield 0.6/1 kV

0.6/1 kV



NC 4.0 mm<sup>2</sup> - IEC 60332-3-22 - 0.6/1kV



Marking for SABIX® BL 409 C FRNC 64090186:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 409 C FRNC 4,0 mm<sup>2</sup> - IEC 60332-3-22 - 0.6/1kV — DNV CE and current meter marking

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5 |
| <b>Insulation:</b>      | special SABIX®  |
| <b>Color code:</b>      | black (RAL 9005)  |
| <b>Shielding:</b>       | tinned copper braiding  |
| <b>Jacket material:</b> | special SABIX®<br>SHF 1 compound acc. to IEC 60092-360        |
| <b>Jacket color:</b>    | black (RAL 9005)  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications acc. to Hong Kong Convention  
ingredients tested acc. to the requirements of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Nominal voltage:</b>               | U <sub>0</sub> /U 0.6/1 kV  |
| <b>Testing voltage:</b>               | conductor/conductor: 4000 V   |
| <b>Min. bending radius:</b>           |   |
| <i>fixed installation:</i>            | 5 x O.D.  |
| <i>free movement:</i>                 | 10 x O.D.   |
| <b>Temperature range:</b>             | <b>DIN VDE</b>  |
| <i>static:</i>                        | -40/+90°C   |
| <i>flexible:</i>                      | -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>       | no flame propagation acc. to IEC 60332-3-22 + VDE 0482-332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility</b>                    | very good   |
| <b>Approvals:</b>                     | DNV, CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union see page O/30  |

| item no.   | mm <sup>2</sup> | AWG<br>MCM | outer-ø      |            | cable weight<br>≈lbs/mft |      |
|------------|-----------------|------------|--------------|------------|--------------------------|------|
|            |                 |            | ±10%<br>inch | ±10%<br>mm |                          |      |
| ▶ 64090180 | 1.00            | 18         | (≈ 30/32)    | 0.228      | 5.8                      | 37   |
| ▶ 64090182 | 1.50            | 16         | (≈ 28/30)    | 0.240      | 6.1                      | 42   |
| ▶ 64090184 | 2.50            | 14         | (≈ 46/30)    | 0.256      | 6.5                      | 51   |
| ▶ 64090186 | 4.00            | 12         | (≈ 52/28)    | 0.295      | 7.5                      | 70   |
| ▶ 64090187 | 6.00            | 10         | (≈ 78/28)    | 0.315      | 8.0                      | 85   |
| ▶ 64090188 | 10.00           | 8          | (≈ 77/26)    | 0.362      | 9.2                      | 123  |
| ▶ 64090189 | 16.00           | 6          | (≈ 122/26)   | 0.417      | 10.6                     | 169  |
| ▶ 64090190 | 25.00           | 4          | (≈ 190/26)   | 0.496      | 12.6                     | 259  |
| ▶ 64090191 | 35.00           | 2          | (≈ 272/26)   | 0.575      | 14.6                     | 360  |
| ▶ 64090192 | 50.00           | 1          | (≈ 400/26)   | 0.642      | 16.3                     | 481  |
| ▶ 64090193 | 70.00           | 2/0        | (≈ 543/26)   | 0.740      | 18.8                     | 628  |
| ▶ 64090194 | 95.00           | 3/0        | (≈ 484/24)   | 0.846      | 21.5                     | 834  |
| ▶ 64090195 | 120.00          | 4/0        | (≈ 589/24)   | 0.925      | 23.5                     | 1016 |
| ▶ 64090196 | 150.00          | 250        | (≈ 740/24)   | 1.008      | 25.6                     | 1233 |
| ▶ 64090197 | 185.00          | 350        | (≈ 902/24)   | 1.098      | 27.9                     | 1478 |
| ▶ 64090198 | 240.00          | 450        | (≈ 1220/24)  | 1.256      | 31.9                     | 1948 |

Other dimensions and colors are available on request



#### Possible on request:

- bare copper strands
- alternative color code and jacket color

K  
60



# Halogen-free Cables

## SABIX® BL 410 FRNC

SABIX® BL - Flexible power cable 0.6/1 kV

0.6/1 kV



2 x 1.5 mm<sup>2</sup> - IEC 60332-3-22 - 300/500V — DNV CE



Marking for SABIX® BL 410 FRNC 64101215:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 410 FRNC 12 x 1.5 mm<sup>2</sup> - IEC 60332-3-22 - 300/500V — DNV CE and current meter marking

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Jacket material:</b> | special SABIX®<br>SHF 1 compound acc. to IEC 60092-360   |
| <b>Jacket color:</b>    | black (RAL 9005)   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications acc. to Hong Kong Convention  
ingredients tested acc. to the requirements of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

### Technical data:

|                                       |   |
|---------------------------------------|---|
| <b>Nominal voltage:</b>               | Uo/U 0.6/1 kV   |
| <b>Testing voltage:</b>               | conductor/conductor: 4000 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i><br>4 x O.D.<br><i>free movement</i><br>6 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i><br>-40/+90°C<br><i>flexible:</i><br>-30/+90°C  |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1  |
| <b>Burning characteristics:</b>       | no flame propagation acc. to IEC 60332-3-22 + VDE 0482-332-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases   |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034   |
| <b>Flexibility:</b>                   | very good   |
| <b>Approvals:</b>                     | DNV, CE, RoHS   |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union see page O/30  |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 64100215   | 2                              | 0.350             | 8.9             | 81                    |
| 64100315   | 3                              | 0.370             | 9.4             | 92                    |
| 64100415   | 4                              | 0.402             | 10.2            | 110                   |
| 64100515   | 5                              | 0.449             | 11.4            | 138                   |
| 64100715   | 7                              | 0.488             | 12.4            | 168                   |
| 64101015   | 10                             | 0.626             | 15.9            | 234                   |
| 64101215   | 12                             | 0.654             | 16.6            | 273                   |
| 64101415   | 14                             | 0.685             | 17.4            | 308                   |
| 64101815   | 18                             | 0.768             | 19.5            | 396                   |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 64100225   | 2                              | 0.382             | 9.7             | 101                   |
| 64100325   | 3                              | 0.406             | 10.3            | 118                   |
| 64100425   | 4                              | 0.449             | 11.4            | 147                   |
| 64100525   | 5                              | 0.492             | 12.5            | 179                   |
| 64100725   | 7                              | 0.543             | 13.8            | 226                   |
| 64101025   | 10                             | 0.697             | 17.7            | 316                   |
| 64101225   | 12                             | 0.717             | 18.2            | 363                   |
| 64101425   | 14                             | 0.760             | 19.3            | 418                   |
| 64101825   | 18                             | 0.854             | 21.7            | 536                   |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 64100240  | 2                              | 0.469             | 11.9            | 155                   |
| 64100340  | 3                              | 0.496             | 12.6            | 181                   |
| 64100440  | 4                              | 0.551             | 14.0            | 224                   |
| 64100540  | 5                              | 0.606             | 15.4            | 275                   |
| 64100740  | 7                              | 0.669             | 17.0            | 349                   |
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 64100260  | 2                              | 0.508             | 12.9            | 193                   |
| 64100360  | 3                              | 0.547             | 13.9            | 234                   |
| 64100460  | 4                              | 0.598             | 15.2            | 287                   |
| 64100560  | 5                              | 0.669             | 17.0            | 359                   |
| 64100760  | 7                              | 0.728             | 18.5            | 453                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 64100361  | 3                              | 0.661             | 16.8            | 359                   |
| 64100461  | 4                              | 0.724             | 18.4            | 443                   |
| 64100561  | 5                              | 0.807             | 20.5            | 554                   |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 64100362   | 3                              | 0.787             | 20.0            | 523                   |
| 64100462   | 4                              | 0.870             | 22.1            | 654                   |
| 64100562   | 5                              | 0.972             | 24.7            | 818                   |
| <b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 64100363   | 3                              | 0.949             | 24.1            | 778                   |
| 64100463   | 4                              | 1.051             | 26.7            | 976                   |
| 64100563   | 5                              | 1.177             | 29.9            | 1228                  |
| <b>▶ 2 AWG (≈ 272/26) ▪ 35.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 64100364   | 3                              | 1.083             | 27.5            | 1053                  |
| 64100464   | 4                              | 1.197             | 30.4            | 1322                  |
| <b>▶ 1 AWG (≈ 400/26) ▪ 50.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 64100365   | 3                              | 1.224             | 31.1            | 1459                  |
| 64100465   | 4                              | 1.350             | 34.3            | 1840                  |

Other dimensions and colors are available on request



### Possible on request:

- bare copper strands
- alternative color code and jacket color



# Halogen-free Cables

## SABIX® BL 412 C FRNC

SABIX® BL - Flexible power cable with overall tinned copper shield 0.6/1 kV

0.6/1 kV



x 1.5 mm<sup>2</sup> - IEC 60332-3-22 - 300/500V — DNV CE



Marking for SABIX® BL 412 C FRNC 64120415:

SAB BRÖCKSKES · D-VIERSEN · SABIX® BL 412 C FRNC 5 x 1.5mm<sup>2</sup> - IEC 60332-3-22 - 0.6/1kV — DNV CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | tinned copper strands<br>acc. to IEC 60228, VDE 0295, class 5  |
| <b>Insulation:</b>      | special SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Shielding:</b>       | tinned copper braiding   |
| <b>Jacket material:</b> | special SABIX®<br>SHF 1 compound acc. to IEC 60092-360   |
| <b>Jacket color:</b>    | black (RAL 9005)   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- asbestos-free
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- for applications  
acc. to Hong Kong Convention  
ingredients tested acc. to the requirements  
of the Hong Kong Convention (2009) of the IMO
- approvals: DNV

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                       |  |
|---------------------------------------|--|
| <b>Nominal voltage:</b>               | Uo/U 0.6/1 kV  |
| <b>Testing voltage:</b>               | conductor/conductor: 4000 V<br>conductor/shielding: 4000 V   |
| <b>Min. bending radius:</b>           | <i>fixed installation:</i> 4 x O.D.<br><i>free movement:</i> 6 x O.D.  |
| <b>Temperature range:</b>             | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                  | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>       | no flame propagation acc. to<br>IEC 60332-3-22 + VDE 0482-332-3-22 cat. A.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 |
| <b>Corrosivity:</b>                   | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                 | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Flexibility:</b>                   | very good  |
| <b>Approvals:</b>                     | DNV, CE, RoHS  |
| <b>Absence of harmful substances:</b> | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 64120215   | 2                              | 0.370     | 9.4     | 83                    |
| 64120315   | 3                              | 0.390     | 9.9     | 94                    |
| 64120415   | 4                              | 0.429     | 10.9    | 122                   |
| 64120515   | 5                              | 0.476     | 12.1    | 152                   |
| 64120715   | 7                              | 0.516     | 13.1    | 185                   |
| 64121015   | 10                             | 0.669     | 17.0    | 280                   |
| 64121215   | 12                             | 0.689     | 17.5    | 312                   |
| 64121415   | 14                             | 0.720     | 18.3    | 347                   |
| 64121815   | 18                             | 0.803     | 20.4    | 439                   |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>    |                                |           |         |                       |
| 64120225   | 2                              | 0.402     | 10.2    | 104                   |
| 64120325   | 3                              | 0.433     | 11.0    | 128                   |
| 64120425   | 4                              | 0.476     | 12.1    | 159                   |
| 64120525   | 5                              | 0.520     | 13.2    | 192                   |
| 64120725   | 7                              | 0.579     | 14.7    | 253                   |
| 64121025   | 10                             | 0.732     | 18.6    | 353                   |
| 64121225   | 12                             | 0.752     | 19.1    | 403                   |
| 64121425   | 14                             | 0.795     | 20.2    | 459                   |
| 64121825   | 18                             | 0.890     | 22.6    | 581                   |

| item no.  | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|---|--------------------------------|-----------|---------|-----------------------|
|   |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 64120240  | 2                              | 0.496     | 12.6    | 160                   |
| 64120340  | 3                              | 0.524     | 13.3    | 186                   |
| 64120440  | 4                              | 0.587     | 14.9    | 243                   |
| 64120540  | 5                              | 0.642     | 16.3    | 298                   |
| 64120740  | 7                              | 0.705     | 17.9    | 380                   |
| <b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 64120260  | 2                              | 0.543     | 13.8    | 204                   |
| 64120360  | 3                              | 0.583     | 14.8    | 247                   |
| 64120460  | 4                              | 0.634     | 16.1    | 313                   |
| 64120560  | 5                              | 0.705     | 17.9    | 381                   |
| 64120760  | 7                              | 0.772     | 19.6    | 486                   |
| <b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 64120361  | 3                              | 0.697     | 17.7    | 364                   |
| 64120461  | 4                              | 0.768     | 19.5    | 492                   |
| 64120561  | 5                              | 0.843     | 21.4    | 573                   |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 64120362   | 3                              | 0.823     | 20.9    | 516                   |
| 64120462   | 4                              | 0.906     | 23.0    | 667                   |
| 64120562   | 5                              | 1.008     | 25.6    | 827                   |
| <b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 64120363   | 3                              | 0.992     | 25.2    | 757                   |
| 64120463   | 4                              | 1.094     | 27.8    | 984                   |
| 64120563   | 5                              | 1.213     | 30.8    | 1213                  |
| <b>▶ 2 AWG (≈ 272/26) ▪ 35.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 64120364   | 3                              | 1.118     | 28.4    | 1013                  |
| 64120464   | 4                              | 1.232     | 31.3    | 1329                  |
| <b>▶ 1 AWG (≈ 400/26) ▪ 50.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 64120365   | 3                              | 1.260     | 32.0    | 1370                  |
| 64120465   | 4                              | 1.386     | 35.2    | 1799                  |

Other dimensions and colors are available on request



#### Possible on request:

- bare copper strands
- alternative color code and jacket color

# Halogen-free Cables

## SABIX® SD 705 FRNC C1

Continuous flex halogen-free data cable with extended temperature range and higher fire protection



ERSEN · SABIX® SD 705 FRNC C1 12 x 0.25 mm<sup>2</sup> CE



Marking for SABIX® SD 705 FRNC C1 67051225:

SAB BRÖCKSKES · D-VIERSEN · SABIX® SD 705 FRNC C1 12 x 0.25 mm<sup>2</sup> CE

### Construction:

|                         |                                       |
|-------------------------|---------------------------------------|
| <b>Conductor:</b>       | bare copper strands, extra fine wires |
| <b>Insulation:</b>      | SABIX®                                |
| <b>Color code:</b>      | DIN 47100, see below                  |
| <b>Stranding:</b>       | in layers                             |
| <b>Wrapping:</b>        | non-woven tape                        |
| <b>Jacket material:</b> | SABIX®                                |
| <b>Jacket color:</b>    | black (RAL 9005)                      |

### Outstanding features:

- low smoke halogen-free (LSHF)
- continuous flex
- no flame propagation
- flame retardant and self-extinguishing
- oil and fuel resistant
- good acid and alkalines resistance
- NF C 32-070 C1
- UV resistant jacket

### Technical data:

|  |  |
|--|--|
| <b>Peak operating voltage:</b>           | < 24 AWG = max. 350 V<br>≥ 24 AWG = max. 500 V   |
| <b>Testing voltage:</b>                  | conductor/conductor: 1500 V  |
| <b>Min. bending radius:</b>              | <i>fixed installation:</i> 4 x O.D.<br><i>flexible application:</i> 6 x O.D.<br><i>continuously flexible:</i> 15 x O.D.  |
| <b>Radiation resistance:</b>             | 1 x 10 <sup>7</sup> cJ/kg (100 kGy)  |
| <b>Temperature range:</b>                | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                     | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>          | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 +<br>NF C 32-070 C1 |
| <b>Corrosivity:</b>                      | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                    | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Toxicity:</b>                         | acc. to EN 50305   |
| <b>Oil and fuel resistance:</b>          | acc. to EN 50264-1 + VDE 0260-264-1  |
| <b>UV, ozone and weather resistance:</b> | good   |
| <b>Mycological resistance:</b>           | good   |
| <b>Approvals:</b>                        | CE, RoHS   |
| <b>Absence of harmful substances:</b>    | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 26 AWG (≈ 18/38) • 0.14 mm<sup>2</sup></b> |                   |           |         |              |
| 67050214  | 2                 | 0.126     | 3.2     | 9            |
| 67050314  | 3                 | 0.134     | 3.4     | 11           |
| 67050514  | 5                 | 0.154     | 3.9     | 16           |
| 67050714  | 7                 | 0.177     | 4.5     | 22           |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 24 AWG (≈ 32/38) • 0.25 mm<sup>2</sup></b> |                   |           |         |              |
| 67050225  | 2                 | 0.138     | 3.5     | 12           |
| 67050325  | 3                 | 0.146     | 3.7     | 14           |
| 67050425  | 4                 | 0.157     | 4.0     | 17           |
| 67051025  | 10                | 0.240     | 6.1     | 40           |
| 67051225  | 12                | 0.248     | 6.3     | 43           |
| 67051425  | 14                | 0.260     | 6.6     | 48           |
| 67051825  | 18                | 0.287     | 7.3     | 60           |
| 67052525  | 25                | 0.343     | 8.7     | 79           |

| item no.  | no. of conductor | outer-ø   |         | cable weight |
|---|------------------|-----------|---------|--------------|
|   |                  | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 22 AWG (≈ 42/38) • 0.34 mm<sup>2</sup></b> |                  |           |         |              |
| 67050234  | 2                | 0.161     | 4.1     | 16           |
| 67050534  | 5                | 0.209     | 5.3     | 29           |
| 67050734  | 7                | 0.248     | 6.3     | 42           |
| 67051034  | 10               | 0.287     | 7.3     | 51           |
| 67052534  | 25               | 0.437     | 11.1    | 121          |

Other dimensions and colors are available on request

#### DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown, #17- white-gray, #18- gray-brown, #19- white-pink, #20- pink-brown, #21- white-blue, #22- brown-blue, #23- white-red, #24- brown-red, #25- white-black

# Halogen-free Cables

## SABIX® S 710 FRNC C1

Continuous flex halogen-free control cable with extended temperature range and higher fire protection



Marking for SABIX® S 710 FRNC C1 67101215:

SAB BRÖCKSKES · D-VIERSEN · SABIX® S 710 FRNC C1 12 x 1.5 mm² CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 6  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Wrapping:</b>        | non-woven tape   |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | black (RAL 9005)   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- continuous flex
- no flame propagation
- flame retardant and self-extinguishing
- oil and fuel resistant
- good acid and alkalines resistance
- NF C 32-070 C1
- UV resistant jacket

### Technical data:

|  |  |
|--|--|
| <b>Nominal voltage:</b>                  | Uo/U 0.6/1 kV  |
| <b>Testing voltage:</b>                  | conductor/conductor: 4000 V  |
| <b>Min. bending radius:</b>              |  |
| <i>fixed installation:</i>               | 4 x O.D.   |
| <i>flexible application:</i>             | 6 x O.D.   |
| <i>continuous flex:</i>                  | 15 x O.D.  |
| <b>Radiation resistance:</b>             | 1 x 10 <sup>7</sup> cJ/kg (100 kGy)  |
| <b>Temperature range:</b>                | <b>DIN VDE</b>   |
| <i>static:</i>                           | -40/+90°C  |
| <i>flexible:</i>                         | -30/+90°C  |
| <b>Halogen-free:</b>                     | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>          | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 +<br>NF C 32-070 C1 |
| <b>Corrosivity:</b>                      | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                    | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Toxicity:</b>                         | acc. to EN 50305   |
| <b>Oil and fuel resistance:</b>          | acc. to EN 50264-1 + VDE 0260-264-1  |
| <b>UV, ozone and weather resistance:</b> | good   |
| <b>Mycological resistance:</b>           | good   |
| <b>Approvals:</b>                        | CE, RoHS   |
| <b>Absence of harmful substances:</b>    | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|---|--------------------------------|-----------|---------|-----------------------|
|   |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 67100205  | 2                              | 0.252     | 6.4     | 42                    |
| 67100505  | 5                              | 0.323     | 8.2     | 65                    |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |                                |           |         |                       |
| 67100507  | 5                              | 0.354     | 9.0     | 81                    |
| 67100707  | 7                              | 0.421     | 10.7    | 114                   |
| <b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 67100310  | 3                              | 0.311     | 7.9     | 62                    |
| 67100510  | 5                              | 0.366     | 9.3     | 92                    |
| 67100710  | 7                              | 0.437     | 11.1    | 130                   |
| 67101210  | 12                             | 0.535     | 13.6    | 191                   |
| 67101810  | 18                             | 0.634     | 16.1    | 273                   |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                                |           |         |                       |
| 67100215   | 2                              | 0.339     | 8.6     | 75                    |
| 67100315   | 3                              | 0.362     | 9.2     | 85                    |
| 67100415   | 4                              | 0.382     | 9.7     | 101                   |
| 67100515   | 5                              | 0.429     | 10.9    | 127                   |
| 67100715   | 7                              | 0.516     | 13.1    | 185                   |
| 67101215   | 12                             | 0.622     | 15.8    | 262                   |
| 67101815   | 18                             | 0.736     | 18.7    | 378                   |
| 67102415   | 24                             | 0.858     | 21.8    | 484                   |
| 67102515   | 25                             | 0.870     | 22.1    | 494                   |
| <b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>    |                                |           |         |                       |
| 67100325   | 3                              | 0.425     | 10.8    | 123                   |
| 67100425   | 4                              | 0.476     | 12.1    | 161                   |
| 67100525   | 5                              | 0.531     | 13.5    | 198                   |
| 67100725   | 7                              | 0.622     | 15.8    | 274                   |
| 67101225   | 12                             | 0.756     | 19.2    | 392                   |

| item no.   | no. of conductors incl. ground | outer-ø   |         | cable weight ≈lbs/mft |
|--|--------------------------------|-----------|---------|-----------------------|
|  |                                | ±10% inch | ±10% mm |                       |
| <b>▶ 12 AWG (≈ 224/34) ▪ 4.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 67100440   | 4                              | 0.531     | 13.5    | 216                   |
| <b>▶ 10 AWG (≈ 183/32) ▪ 6.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 67100460   | 4                              | 0.606     | 15.4    | 287                   |
| <b>▶ 8 AWG (≈ 320/32) ▪ 10.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 67100461   | 4                              | 0.756     | 19.2    | 517                   |
| <b>▶ 6 AWG (≈ 504/32) ▪ 16.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 67100462   | 4                              | 0.870     | 22.1    | 675                   |
| <b>▶ 1 AWG (≈ 703/28) ▪ 50.00 mm<sup>2</sup></b> |                                |           |         |                       |
| 67100465   | 4                              | 1.413     | 35.9    | 1846                  |

Other dimensions and colors are available on request



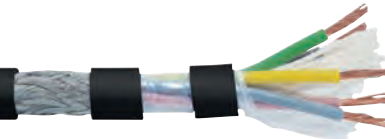
# Halogen-free Cables

## SABIX® SD 715 C FRNC C1

Continuous flex halogen-free shielded data cable with extended temperature range and higher fire protection



SABIX® SD 715 C FRNC C1 7 x 0.25 mm<sup>2</sup> CE



Marking for SABIX® SD 715 C FRNC C1 67150725:

SAB BRÖCKSKES · D-VIERSEN · SABIX® SD 715 C FRNC C1 7 x 0.25 mm<sup>2</sup> CE

### Construction:

|                  |   |
|------------------|---|
| Conductor:       | bare copper strands, extra fine wires             |
| Insulation:      | SABIX®  |
| Color code:      | DIN 47100, see below                              |
| Stranding:       | in layers   |
| Wrapping:        | non-woven tape                                    |
| Shielding:       | tinned copper braiding,<br>optical coverage ≥ 85% |
| Wrapping:        | non-woven tape                                    |
| Jacket material: | SABIX®  |
| Jacket color:    | black (RAL 9005)                                  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- continuous flex
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- oil and fuel resistant
- good acid and alkalines resistance
- NF C 32-070 C1
- UV resistant jacket

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|                                   |   |
|-----------------------------------|---|
| Nominal voltage:                  | < 24 AWG = max. 350 V<br>≥ 24 AWG = max. 500 V  |
| Testing voltage:                  | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V  |
| Min. bending radius:              | fixed installation: 4 x O.D.<br>flexible application: 6 x O.D.<br>continuous flex: 15 x O.D.  |
| Radiation resistance:             | 1 x 10 <sup>7</sup> cJ/kg (100 kGy)   |
| Temperature range:                | DIN VDE<br>static: -40/+90°C<br>flexible: -30/+90°C   |
| Halogen-free:                     | acc. to IEC 60754-1 + VDE 0482-754-1  |
| Burning characteristics:          | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D.<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 +<br>NF C 32-070 C1 |
| Corrosivity:                      | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases   |
| Smoke density:                    | acc. to IEC 61034 + VDE 0482-1034   |
| Toxicity:                         | acc. to EN 50305  |
| Oil and fuel resistance:          | acc. to EN 50264-1 + VDE 0260-264-1   |
| UV, ozone and weather resistance: | good  |
| Mycological resistance:           | good  |
| Approvals:                        | CE, RoHS  |
| Absence of harmful substances:    | acc. to RoHS directive of the European Union<br>see page O/30   |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b> |                   |           |         |              |
| 67150214  | 2                 | 0.146     | 3.7     | 15           |
| 67150314  | 3                 | 0.154     | 3.9     | 17           |
| 67151214  | 12                | 0.272     | 6.9     | 46           |
| 67151814  | 18                | 0.291     | 7.4     | 59           |
| 67152514  | 25                | 0.350     | 8.9     | 80           |
| <b>▶ 24 AWG (≈ 32/38) ▪ 0.25 mm<sup>2</sup></b> |                   |           |         |              |
| 67150225  | 2                 | 0.157     | 4.0     | 17           |
| 67150425  | 4                 | 0.177     | 4.5     | 24           |
| 67150525  | 5                 | 0.205     | 5.2     | 31           |
| 67150625  | 6                 | 0.244     | 6.2     | 42           |
| 67150725  | 7                 | 0.260     | 6.6     | 48           |
| 67150825  | 8                 | 0.280     | 7.1     | 54           |
| 67151225  | 12                | 0.307     | 7.8     | 65           |
| 67151825  | 18                | 0.378     | 9.6     | 103          |
| 67152525  | 25                | 0.390     | 9.9     | 123          |

| item no.  | no. of conductors | outer-ø   |         | cable weight |
|---|-------------------|-----------|---------|--------------|
|   |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 22 AWG (≈ 42/38) ▪ 0.34 mm<sup>2</sup></b> |                   |           |         |              |
| 67150434  | 4                 | 0.213     | 5.4     | 32           |
| 67150534  | 5                 | 0.244     | 6.2     | 42           |
| 67150734  | 7                 | 0.276     | 7.0     | 54           |
| 67151234  | 12                | 0.335     | 8.5     | 79           |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |                   |           |         |              |
| 67150250  | 2                 | 0.205     | 5.2     | 29           |
| 67150350  | 3                 | 0.213     | 5.4     | 33           |
| 67150450  | 4                 | 0.240     | 6.1     | 42           |
| 67150550  | 5                 | 0.260     | 6.6     | 50           |

| item no.   | no. of conductors | outer-ø   |         | cable weight |
|--|-------------------|-----------|---------|--------------|
|  |                   | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b>    |                   |           |         |              |
| 67150475   | 4                 | 0.268     | 6.8     | 53           |
| 67150575   | 5                 | 0.291     | 7.4     | 63           |
| 67150775   | 7                 | 0.362     | 9.2     | 95           |
| <b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b> |                   |           |         |              |
| 67150785   | 7                 | 0.417     | 10.6    | 146          |

Other dimensions and colors are available on request

#### DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown, #17- white-gray, #18- gray-brown, #19- white-pink, #20- pink-brown, #21- white-blue, #22- brown-blue, #23- white-red, #24- brown-red, #25- white-black

# Halogen-free Cables

## SABIX® S 712 C FRNC C1

Continuous flex halogen-free shielded control cable with extended temperature range and higher fire protection



Marking for SABIX® S 712 C FRNC C1 67121215:

SAB BRÖCKSKES · D-VIERSEN · SABIX® S 712 C FRNC C1 12 x 1.5 mm² CE

### Construction:

|                         |  |
|-------------------------|--|
| <b>Conductor:</b>       | bare copper strands<br>acc. to IEC 60228, VDE 0295, class 6  |
| <b>Insulation:</b>      | SABIX®   |
| <b>Color code:</b>      | black conductors with consecutive numbers<br>acc. to EN 50334 + VDE 0293-334,<br>green/yellow ground from 3 conductors |
| <b>Stranding:</b>       | in layers  |
| <b>Wrapping:</b>        | non-woven tape   |
| <b>Shielding:</b>       | tinned copper braiding<br>optical coverage ≥ 85%   |
| <b>Wrapping:</b>        | non-woven tape   |
| <b>Jacket material:</b> | SABIX®   |
| <b>Jacket color:</b>    | black (RAL 9005)   |

### Outstanding features:

- low smoke halogen-free (LSHF)
- continuous flex
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- oil and fuel resistant
- good acid and alkalines resistance
- NF C 32-070 C1
- UV resistant jacket

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|  |  |
|--|--|
| <b>Nominal voltage:</b>                  | Uo/U 0.6/1 kV  |
| <b>Testing voltage:</b>                  | conductor/conductor: 4000 V<br>conductor/shielding: 4000 V   |
| <b>Min. bending radius:</b>              | <i>fixed installation:</i> 4 x O.D.<br><i>flexible application:</i> 6 x O.D.<br><i>continuous flex:</i> 15 x O.D.  |
| <b>Radiation resistance:</b>             | 1 x 10 <sup>7</sup> cJ/kg (100 kGy)  |
| <b>Temperature range:</b>                | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                     | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>          | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 +<br>NF C 32-070 C1 |
| <b>Corrosivity:</b>                      | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                    | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Toxicity:</b>                         | acc. to EN 50305   |
| <b>Oil and fuel resistance:</b>          | acc. to EN 50264-1 + VDE 0260-264-1  |
| <b>UV, ozone and weather resistance:</b> | good   |
| <b>Mycological resistance:</b>           | good   |
| <b>Approvals:</b>                        | CE, RoHS   |
| <b>Absence of harmful substances:</b>    | acc. to RoHS directive of the European Union<br>see page O/30  |

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| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 20 AWG (≈ 16/32) • 0.50 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 67120205   | 2                              | 0.280             | 7.1             | 54                    |
| 67120505   | 5                              | 0.346             | 8.8             | 81                    |
| <b>▶ 19 AWG (≈ 23/32) • 0.75 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 67120507   | 5                              | 0.378             | 9.6             | 99                    |
| 67120707   | 7                              | 0.449             | 11.4            | 142                   |
| <b>▶ 18 AWG (≈ 30/32) • 1.00 mm<sup>2</sup></b>    |                                |                   |                 |                       |
| 67120510   | 5                              | 0.386             | 9.8             | 109                   |
| 67120710   | 7                              | 0.480             | 12.2            | 168                   |
| 67121210   | 12                             | 0.563             | 14.3            | 226                   |
| 67121810   | 18                             | 0.669             | 17.0            | 330                   |
| <b>▶ 16 AWG (≈ 27-29/30) • 1.50 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 67120215   | 2                              | 0.350             | 8.9             | 88                    |
| 67120315   | 3                              | 0.374             | 9.5             | 100                   |
| 67120415   | 4                              | 0.413             | 10.5            | 129                   |
| 67120515   | 5                              | 0.472             | 12.0            | 165                   |
| 67121215   | 12                             | 0.657             | 16.7            | 319                   |
| 67121815   | 18                             | 0.772             | 19.6            | 444                   |
| 67122515   | 25                             | 0.909             | 23.1            | 581                   |

| item no.   | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|--|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 14 AWG (≈ 46/30) • 2.50 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 67120225   | 2                              | 0.429             | 10.9            | 135                   |
| 67120325   | 3                              | 0.453             | 11.5            | 153                   |
| 67120425   | 4                              | 0.504             | 12.8            | 193                   |
| 67120525   | 5                              | 0.559             | 14.2            | 233                   |
| 67121225   | 12                             | 0.795             | 20.2            | 468                   |
| <b>▶ 12 AWG (≈ 224/34) • 4.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 67120340   | 3                              | 0.531             | 13.5            | 204                   |
| 67120440   | 4                              | 0.559             | 14.2            | 251                   |
| 67120540   | 5                              | 0.634             | 16.1            | 323                   |
| 67120740   | 7                              | 0.744             | 18.9            | 438                   |
| <b>▶ 10 AWG (≈ 183/32) • 6.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 67120260   | 2                              | 0.551             | 14.0            | 228                   |
| 67120360   | 3                              | 0.583             | 14.8            | 259                   |
| 67120460   | 4                              | 0.654             | 16.6            | 345                   |

| item no.  | no. of conductors incl. ground | outer-ø ±10% inch | outer-ø ±10% mm | cable weight ≈lbs/mft |
|---|--------------------------------|-------------------|-----------------|-----------------------|
| <b>▶ 6 AWG (≈ 504/32) • 16.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 67120462  | 4                              | 0.909             | 23.1            | 760                   |
| <b>▶ 4 AWG (≈ 760/32) • 25.00 mm<sup>2</sup></b>  |                                |                   |                 |                       |
| 67120463  | 4                              | 1.071             | 27.2            | 1085                  |
| <b>▶ 2 AWG (≈ 1083/32) • 35.00 mm<sup>2</sup></b> |                                |                   |                 |                       |
| 67120464  | 4                              | 1.217             | 30.9            | 1459                  |

Other dimensions and colors are available on request

# Halogen-free Cables

## SABIX® SD 745 C FRNC C1 TP

Continuous flex halogen-free shielded twisted pairs data cable with extended temperature range and higher fire protection



Marking for SABIX® SD 745 C FRNC C1 TP 67450350:

SAB BRÖCKSKES · D-VIERSEN · SABIX® SD 745 C FRNC C1 TP 3 x 2 x 0.50 mm² CE

### Construction:

|                         |   |
|-------------------------|---|
| <b>Conductor:</b>       | bare copper strands, extra fine wires             |
| <b>Insulation:</b>      | SABIX®  |
| <b>Color code:</b>      | DIN 47100, see below                              |
| <b>Stranding:</b>       | pairwise, pairs in layers                         |
| <b>Wrapping:</b>        | non-woven tape                                    |
| <b>Shielding:</b>       | tinned copper braiding,<br>optical coverage ≥ 85% |
| <b>Wrapping:</b>        | non-woven tape                                    |
| <b>Jacket material:</b> | SABIX®  |
| <b>Jacket color:</b>    | black (RAL 9005)                                  |

### Outstanding features:

- low smoke halogen-free (LSHF)
- continuous flex
- good EMC characteristics\*
- no flame propagation
- flame retardant and self-extinguishing
- oil and fuel resistant
- good acid and alkalines resistance
- NF C 32-070 C1
- UV resistant jacket

\*copper braiding should be connected circularly to optimize the EMC characteristics

### Technical data:

|  |  |
|--|--|
| <b>Nominal voltage:</b>                  | < 24 AWG = max. 350 V<br>≥ 24 AWG = max. 500 V   |
| <b>Testing voltage:</b>                  | conductor/conductor: 1500 V<br>conductor/shielding: 1200 V   |
| <b>Min. bending radius:</b>              | <i>fixed installation</i> 4 x O.D.<br><i>flexible application:</i> 6 x O.D.<br><i>continuous flex:</i> 15 x O.D.   |
| <b>Radiation resistance:</b>             | 1 x 10 <sup>7</sup> cJ/kg (100 kGy)  |
| <b>Temperature range:</b>                | <b>DIN VDE</b><br><i>static:</i> -40/+90°C<br><i>flexible:</i> -30/+90°C   |
| <b>Halogen-free:</b>                     | acc. to IEC 60754-1 + VDE 0482-754-1   |
| <b>Burning characteristics:</b>          | no flame propagation<br>acc. to IEC 60332-3-24 + VDE 0482-332-3-24<br>resp. IEC 60332-3-25 + VDE 0482-332-3-25<br>cat. C resp. D<br>Flame retardant and self-extinguishing<br>acc. to IEC 60332-1-2 + VDE 0482-332-1-2 +<br>NF C 32-070 C1 |
| <b>Corrosivity:</b>                      | in compliance with<br>IEC 60754-2 + VDE 0482-754-2 -<br>no development of corrosive conflagration gases  |
| <b>Smoke density:</b>                    | acc. to IEC 61034 + VDE 0482-1034  |
| <b>Toxicity:</b>                         | acc. to EN 50305   |
| <b>Oil and fuel resistance:</b>          | acc. to EN 50264-1 + VDE 0260-264-1  |
| <b>UV, ozone and weather resistance:</b> | good   |
| <b>Mycological resistance:</b>           | good   |
| <b>Approvals:</b>                        | CE, RoHS   |
| <b>Absence of harmful substances:</b>    | acc. to RoHS directive of the European Union<br>see page O/30  |

| item no.  | no. of pairs | outer-ø   |         | cable weight |
|---|--------------|-----------|---------|--------------|
|   |              | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b> |              |           |         |              |
| 67450214  | 2            | 0.193     | 4.9     | 24           |
| 67450414  | 4            | 0.244     | 6.2     | 37           |
| 67450514  | 5            | 0.264     | 6.7     | 44           |
| 67450614  | 6            | 0.272     | 6.9     | 46           |
| 67451014  | 10           | 0.343     | 8.7     | 69           |
| 67451414  | 14           | 0.402     | 10.2    | 96           |
| <b>▶ 24 AWG (≈ 32/38) ▪ 0.25 mm<sup>2</sup></b> |              |           |         |              |
| 67450225  | 2            | 0.213     | 5.4     | 29           |
| 67450425  | 4            | 0.272     | 6.9     | 44           |
| 67450625  | 6            | 0.299     | 7.6     | 58           |
| 67450725  | 7            | 0.362     | 9.2     | 77           |
| 67450825  | 8            | 0.378     | 9.6     | 88           |
| 67451025  | 10           | 0.386     | 9.8     | 96           |
| 67451225  | 12           | 0.421     | 10.7    | 112          |
| 67451425  | 14           | 0.445     | 11.3    | 124          |
| 67451625  | 16           | 0.461     | 11.7    | 134          |

| item no.  | no. of pairs | outer-ø   |         | cable weight |
|---|--------------|-----------|---------|--------------|
|   |              | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 22 AWG (≈ 42/38) ▪ 0.34 mm<sup>2</sup></b> |              |           |         |              |
| 67450234  | 2            | 0.256     | 6.5     | 41           |
| 67450634  | 6            | 0.370     | 9.4     | 84           |
| 67450734  | 7            | 0.394     | 10.0    | 103          |
| 67451034  | 10           | 0.457     | 11.6    | 128          |
| 67451834  | 18           | 0.587     | 14.9    | 211          |
| 67451934  | 19           | 0.587     | 14.9    | 221          |
| 67452734  | 27           | 0.705     | 17.9    | 310          |
| <b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b> |              |           |         |              |
| 67450250  | 2            | 0.280     | 7.1     | 48           |
| 67450350  | 3            | 0.307     | 7.8     | 59           |
| 67450450  | 4            | 0.366     | 9.3     | 77           |
| 67451050  | 10           | 0.524     | 13.3    | 171          |
| 67451850  | 18           | 0.673     | 17.1    | 300          |
| 67452550  | 25           | 0.764     | 19.4    | 382          |

| item no.  | no. of pairs | outer-ø   |         | cable weight |
|---|--------------|-----------|---------|--------------|
|   |              | ±10% inch | ±10% mm | ≈lbs/mft     |
| <b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b> |              |           |         |              |
| 67450275  | 2            | 0.315     | 8.0     | 62           |
| 67450475  | 4            | 0.425     | 10.8    | 112          |
| 67450875  | 8            | 0.638     | 16.2    | 239          |
| 67451075  | 10           | 0.602     | 15.3    | 237          |

Other dimensions and colors are available on request

#### DIN 47100 color code:

#1- white/brown, #2- green/yellow, #3- gray/pink, #4- blue/red, #5- black/purple, #6- gray-pink/red-blue, #7- white-green/brown-green, #8- white-yellow/yellow-brown, #9- white-gray/gray-brown, #10- white-pink/pink-brown, #11- white-blue/brown-blue, #12- white-red/brown-red, #13- white-black/brown-black, #14- gray-green/yellow-gray, #15- pink-green/yellow-pink, #16- green-blue/yellow-blue, #17- green-red/yellow-red, #18- green-black/yellow-black, #19- gray-blue/pink-blue, #20- gray-red/pink-red, #21- gray-black/pink-black, #22- blue-black, red-black, #23- white/brown, #24- green/yellow, #25- gray/pink, #26- blue/red, #27- black/purple