

# HALOGEN-FREE CABLES

## Applications

### ■ Application 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, being halogen-free.

#### Exemplary applications:

<b>SABIX® A 146 FRNC</b> <b>SABIX® A 156 FRNC</b> <b>SABIX® A 170 TW</b> <b>SABIX® A 166 FRNC</b> <b>SABIX® A 147 FRNC</b> <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> <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 overall copper screen 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> <b>SABIX® A 205 FRNC</b> <b>SABIX® A 224 FRNC C1</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> <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> <b>SABIX® CC 625 SH FRNC M</b>	Transporting systems, construction of industrial plants, automation technologies

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## 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, being halogen-free.

#### Exemplary applications:

<b>SABIX® D 305 FRNC</b>	Communication technologies
<b>SABIX® D 315 FRNC</b> <b>SABIX® D 320 FRNC C1</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
<b>SABIX® A 871 TW</b> <b>SABIX® A 872 C TW</b> <b>SABIX® A 876 C TW TP</b>	Cables for internal wiring of rail vehicles acc. to EN 50306, data transmission, information systems

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		Cable type	SABIX® A 146 FRNC	SABIX® A 156 FRNC	SABIX® A 170 TW	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
Basic construction	Single conductors		x	x	x	x	x	x	x	x					
	Numbered conductors										x		x	x	x
	Colored conductors											x			
	Screened													x	
	Inner sheath														
	Twisted pairs														
Temperature range static*	+ 220 °C														
	+ 105 °C														
	+ 90 °C														
	+ 85 °C														
	- 30 °C														
	- 40 °C														
	- 50 °C														
Voltage	Nominal voltage 600 V (UL)							x							
	Nominal voltage 1000 V (UL)								x						
	Nominal voltage U <sub>0</sub> 300 V				x										
	Nominal voltage U <sub>0</sub> /U 300/500 V		x				x		x	x	x			x	x
	Nominal voltage U <sub>0</sub> /U 450/750 V			x				x					x		
	Nominal voltage U <sub>0</sub> /U 0,6/1 kV					x									
	Data cable peak operating voltage max. 350 V or max. 500 V														
	Testing voltage 800 V or 1200 V														
	Testing voltage 2000 V		x						x	x					
	Testing voltage 2500 V			x											
	Testing voltage 3000 V					x					x	x	x	x	x
	Testing voltage 4000 V				x										
Standards	Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2		x	x		x	x	x	x	x	x	x	x	x	
	No flame propagation acc. to IEC 60332 and EN 50266 cat. C resp. D		x	x		x	x	x			x	x	x	x	
	acc. to NF C32-070 C1												x		
	Fire protection class 1 - 4 acc. to DIN 5510 part 1														
	Smoke density acc. to IEC 61034 + EN 61034		x	x		x	x	x			x	x	x	x	
UL acc. to AWM Style															
Special features	Thin-wall/small outer diameter				x										
	Very good oil resistance acc. to DIN VDE														x
	Oil resistant acc. to EN 50306				x										
	Good chemical resistance														x
	Ozone resistant acc. to VDE 0282 part 2														
	Flexibility		x	x		x	x	x	x	x	x	x		x	x
	Weather resistance		x	x		x	x	x			x	x		x	x
Valid for all herein mentioned cables: halogen-free acc. to DIN VDE 0472 part 815 and IEC 60754-1 · Corrosiveness of conflagration gases acc. to IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases															

Temperature range:



\*The temperature range for flexing is mentioned on the particular catalog page

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## Selection index

		Cable type	SABIX® CC 625 FRNC M	SABIX® CC 625 S FRNC M	SABIX® CC 625 SH FRNC M	SABIX® A 130 HT	SABIX® A 810 FRNC	SABIX® A 812 C FRNC	SABIX® D 305 FRNC	SABIX® D 315 FRNC	SABIX® D 320 FRNC C1	SABIX® D 345 FRNC TP	SABIX® A 871 TW	SABIX® A 872 C TW	SABIX® A 876 C TW TP	
Basic construction	Single conductors															
	Numbered conductors	x	x	x	x	x	x						x	x	x	
	Colored conductors				x				x	x	x	x				
	Screened		x	x				x						x	x	
	Inner sheath				x			x								
	Twisted pairs												x			x
Temperature range static	+ 220 °C															
	+ 105 °C															
	+ 90 °C															
	+ 85 °C															
	- 30 °C															
	- 40 °C															
	- 50 °C															
Voltage	Nominal voltage 600 V (UL)	x	x	x												
	Nominal voltage 1000 V (UL)															
	Nominal voltage U <sub>0</sub> 300 V															
	Nominal voltage U <sub>0</sub> /U 300/500 V	x	x	x	x								x	x	x	
	Nominal voltage U <sub>0</sub> /U 450/750 V															
	Nominal voltage U <sub>0</sub> /U 0,6/1 kV						x	x								
	Data cable peak operating voltage max. 350 V or max. 500 V								x	x	x	x				
	Testing voltage 800 V or 1200 V								x	x	x	x				
	Testing voltage 2000 V					x							x	x	x	
	Testing voltage 2500 V															
	Testing voltage 3000 V	x	x	x												
Testing voltage 4000 V						x	x									
Standards	Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	No flame propagation acc. to IEC 60332 and EN 50266 cat. C resp. D	x	x	x		x	x	x	x	x	x	x	x	x	x	
	acc. to NF C32-070 C1										x					
	Fire protection class 1 - 4 acc. to DIN 5510 part 1												x	x	x	
	Smoke density acc. to IEC 61034 + EN 61034	x	x	x		x	x	x	x	x	x	x	x	x	x	
UL acc. to AWM Style	x	x	x													
Special features	Thin-wall/small outer diameter												x	x	x	
	Very good oil resistance acc. to DIN VDE															
	Oil resistant acc. to EN 50306												x	x	x	
	Good chemical resistance															
	Ozone resistant acc. to VDE 0282 part 2												x	x	x	
	Flexibility	x	x	x	x	x	x	x	x			x	x	x	x	
	Weather resistance						x	x								
Valid for all herein mentioned cables: halogen-free acc. to DIN VDE 0472 part 815 and IEC 60754-1 · Corrosiveness of conflagration gases acc. to IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases																

Temperature range:



\*The temperature range for flexing is mentioned on the particular catalog page