

REELING CABLES



SAB Drum

www.sab-cable.com

SPECIAL
CABLES
SAB
BRÖCKSKES





TRADITIONAL
FAMILY BUSINESS
SINCE 1947

Who we are

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- DR 717 P Highflex
- DR 718 CP Highflex
- DR 721 P
- DR 720 P Highflex
- DR 730 P Highflex
- DR 750 P Offshore
- DR 724 P Spreader

Reeling cables

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Applications



■ Applications of reeling cables

SAB Bröckskes offers reeling cables for different application fields. It doesn't matter if you are looking for cables with or without total copper screening, for spring and motor cable reels, lifting appliances, transport systems, agricultural machines with medium or elevated mechanical stress or as control cable for crane arms, at SAB Bröckskes you will find a broad product range. If you have not yet found the appropriate solution for your special case of application, please contact us. We are always prepared to develop together with you the optimum solution for your special application.

Family business in the third generation

75 years of experience in cable and wire manufacturing as well as in temperature measurement technology turned a one-man business into a company with more than 550 employees. We prove our strength every year with more than 1500 special products according to customers' requirements. Each product is a new challenge for our creative technical team. We at **SAB** see ourselves as a manufacturer and a service provider – in the sense of true partnership and the greatest possible customer orientation.

Today, the quality of our products is known and appreciated in more than 100 countries around the world. In all product ranges, we are certified according to DIN EN ISO 9001. Furthermore, we have implemented an environmental management system for our company according to DIN EN ISO 14001, an occupational health and safety management system according to NLF/ILO-OSH and DIN ISO 45001, and an energy management system according to DIN EN ISO 50001.

And also for the future, our slogan is: **"WE CONTINUE!"**

FOUNDED:	1947 by Peter Bröckskes sen. an independent, medium-sized company.
CEO:	Peter Bröckskes and Sabine Bröckskes-Wetten
PLANT/LOCATION:	In Viersen (Lower Rhine) 110.000 m ² company site. Own manufacturing from copper conductor to outer sheath. VDE proved burnchamber and laboratory within the company.
EMPLOYEES/WORKERS:	Approx. 430 at the plant in Viersen, 550 worldwide
YEARLY SALES:	Approx. 134 Mio. € worldwide
PRODUCTS:	Special Cables Measurement Technology Cable Harnessing
CERTIFICATES AND APPROVALS:	Quality management system acc. to DIN EN ISO 9001 for every manufacturing field Environmental management system acc. to DIN EN ISO 14001 Occupational health and safety management acc. to NLF/ILO-OSH and DIN ISO 45001 Energy management system acc. to DIN EN ISO 50001



Reeling cables

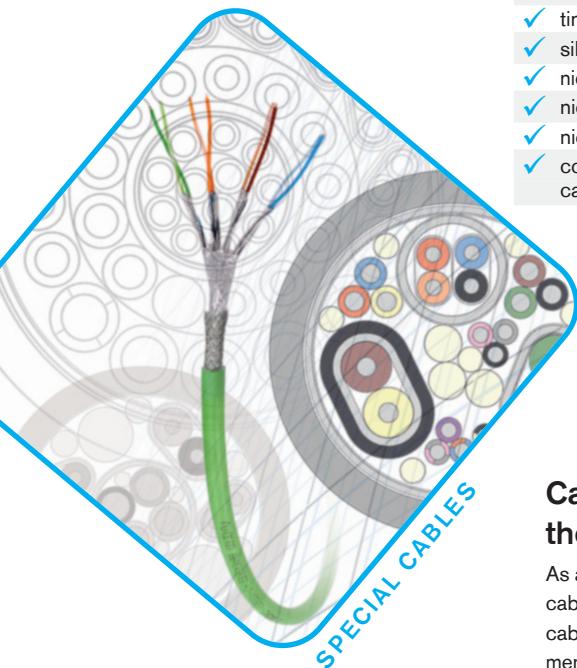
Production possibilities

Flexible cables and wires “Made in Germany”

As a leading manufacturer we develop and produce cables for industrial purposes.

Our wide range of materials offers a lot of possibilities for your individual product requirement.

The following survey shows an extract of our production possibilities:



Conductor Materials:

- ✓ bare copper
- ✓ tinned copper
- ✓ silver plated copper
- ✓ nickel plated copper
- ✓ nickel
- ✓ nickel pure
- ✓ compensating cable alloys

Insulation and Jacketing Materials:

- ✓ PVC
- ✓ Polyethylene
- ✓ Polypropylene
- ✓ Polyurethane
- ✓ TPE
- ✓ SABIX® (zero halogen)
- ✓ Besilen® - Silicone
- ✓ FEP, ETFE, PFA, PTFE
- ✓ PI foil
- ✓ Fibreglass

Temperature Ranges:

- Thermoplastic Elastomers
 - ✓ -50°C up to +145°C
- SABIX®
 - ✓ -50°C up to +220°C
- Besilen® - Silicone
 - ✓ -40°C up to +220°C
- FEP, ETFE, PFA
 - ✓ -90°C up to +260°C
- Fibreglass
 - ✓ up to +600°C

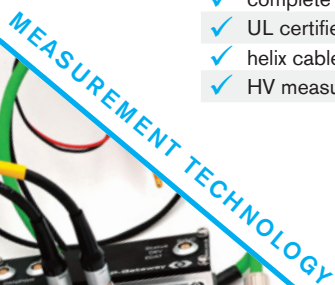
Conductors:

- ✓ cross sections 0,055 - 300 mm²
- ✓ unshielded and shielded over 100 conductors

Cable harnessing directly from the manufacturer SAB:

As a full service partner we are able to offer besides cable design and production the manufacturing of cable harnessing products according to customer's request. Please trust on our experience for decades in the treatment of cables and connectors.

- ✓ cable harness according to customer's demands
- ✓ complete cable harness
- ✓ UL certified assemblies
- ✓ helix cables
- ✓ HV measuring harness



Measuring technology for industrial applications

Manufacturer of temperature sensors for industrial applications with 75 years of experience!

- ✓ mineral insulated thermocouples
- ✓ mineral insulated resistance thermometers
- ✓ temperature sensors
- ✓ mobile high voltage measuring technology
- ✓ temperature sensors for vehicle testing

-VIERSEN · DR 717 P Highflex 4 G 2,5 mm² CE



Marking for DR 717 P Highflex 07170425:

SAB BRÜCKSKES · D-VIERSEN · DR 717 P Highflex 4 G 2,5 mm² CE

Application: The DR 717 P Highflex is used for spring cables reels on stages and theatres.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	special polymer
Colour code:	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire, <i>DMX-bus</i> : white/brown, green/yellow <i>IE Cat 5</i> : white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
Stranding:	specially adjusted layering around central suspension unit
Inner sheath:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Outstanding features:



- reeling length up to 60 m
- extrem highly winding and unwinding strength
- corresponds to low voltage guideline 73/23/EWG CE
- small outer diameter
- small cable weight

Technical data:

Peak operating voltage:	item no. 07179001: max. 500 V (DMX-bus) item no. 07179002: max. 125 V (IE Cat 5)		
Nominal voltage:	Uo/U 300/500 V (supply conductors)		
Testing voltage:	core/core 2000 V		
Current-carrying capacity:	acc. to VDE 0298-4		
Min. bending radius for laying and installation (fixed laying): for repeated winding action (flexible): guided on pulleys (flexible):	≤ 12 mm 3 x d / > 12 mm 4 x d 6 x d 7,5 x d		
Temperature range		item no. 07179001	item no. 07179002
<i>with installation:</i>			0/+50 °C
<i>fixed laying:</i>	-50/+90 °C	-40/+70 °C	-20/+60 °C
<i>flexible application:</i>	-40/+90 °C	-40/+70 °C	-20/+60 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1		
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2		
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.		
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2		
Sunlight resistance:	very good - enhanced due to black sheath colour		
Tensile strength:	with reference to VDE 0298-3 section 7.1		
Mechanical characteristics:	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance		
Absence of harmful substances:	acc. to RoHS directive of the European Union		

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength max. N	min breaking load of suspension unit N
07170425	4 G 2,50	9,7	96,0	157	150	1345
07170440	4 G 4,00	11,7	153,6	239	240	1690
07171440	14 G 4,00	20,9	537,6	739	840	3200
07172040	20 G 4,00	23,3	768,0	1021	1200	3700
07172540	25 G 4,00	28,3	960,0	1318	1500	4200
07170460	4 G 6,00	13,4	230,4	333	360	1860
07171360	13 G 6,00	24,3	748,8	1013	1170	3400
07171860	18 G 6,00	25,7	1036,8	1306	1620	6000
07170470	4 G 10,0	17,1	384,0	559	600	2300
07170480	4 G 16,0	21,3	614,4	864	960	2800
07179001	14 G 4,00 + 2 x (2 x 0,25)C	22,4	575,4	794	840	2500
07179002	5 G 16,0 + 4 x 2 x 0,14	26,4	791,6	1163	1200	3000
07179013	25 G 4,00	min. 25,0 max. 28,0	960,0	1290	1500	2600

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

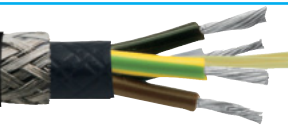
● Please pay attention
to the installation instructions
on page 15!

DR 718 CP Highflex

with overall copper screen



BKES · D-VIERSEN · DR 718 CP Highflex 4 x 2,5 mm² CE



Marking for DR 718 CP Highflex 07180425:

SAB BRÖCKSKES · D-VIERSEN · DR 718 CP Highflex 4 x 2,5 mm² CE

Application: The DR 718 CP Highflex is used for spring cable reels on stages for example in theatres as well as control cable in crane arms.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	special polymer
Colour code:	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
Stranding:	specially adjusted layering around central suspension unit
Inner sheath:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Screen:	tinned copper braiding
Sheath material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage:	core/core 2000 V core/screen 2000 V
Current-carrying capacity:	acc. to VDE 0298-4
Min. bending radius for laying and installation (fixed laying):	5 x d
for repeated winding action (flexible):	7,5 x d
guided on pulleys (flexible):	10 x d
Temperature range fixed laying:	-50/+90 °C
flexible application:	-40/+90 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Sunlight resistance:	very good - enhanced due to black sheath colour
Tensile strength:	with reference to VDE 0298-3 section 7.1
Mechanical characteristics:	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance
Absence of harmful substances:	acc. to RoHS directive of the European Union

Outstanding features:



- extrem highly winding and unwinding strength
- small cable weight
- good EMC characteristics



**Also possible
without inner sheath!**

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength max. N	min breaking load of suspension unit N
07182005	20 x 0,50	12,8	161,4	258	150	1600
07182505	25 x 0,50	14,9	192,7	331	187	1700
07182507	25 x 0,75	16,9	281,2	442	281	2000
07180410	4 x 1,00	8,0	62,2	103	60	1100
07181210	12 x 1,00	15,0	188,2	317	180	2000
07181810	18 x 1,00	14,5	237,2	348	270	2200
07182510	25 x 1,00	17,8	355,8	522	375	2400
07182610	26 x 1,00	17,8	365,4	533	390	2400
07180415	4 x 1,50	8,9	86,3	133	90	1340
07180515	5 x 1,50	10,2	120,8	175	112	1690
07180715	7 x 1,50	11,9	157,3	237	157	2150
07181215	12 x 1,50	16,9	274,0	419	270	2600
07181415	14 x 1,50	16,3	301,7	439	315	2600
07181615	16 x 1,50	16,3	330,5	451	360	2600
07181815	18 x 1,50	16,4	359,7	484	405	2600
07182415	24 x 1,50	18,2	463,3	618	540	2800
07183015	30 x 1,50	23,4	586,4	841	675	2900
07183715	37 x 1,50	22,2	681,1	893	832	3200
07180425	4 x 2,50	10,8	144,7	201	150	1345
07180525	5 x 2,50	11,9	176,5	248	187	2100
07180725	7 x 2,50	13,7	232,5	332	262	2500
07181225	12 x 2,50	19,9	418,0	610	450	2900
07181825	18 x 2,50	19,5	561,7	709	675	3450
07182425	24 x 2,50	23,6	730,4	950	900	2600
07183025	30 x 2,50	26,8	892,0	1187	1125	4200

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength max. N	min breaking load of suspension unit N
07183625	36 x 2,50	26,1	1035,8	1280	1350	5000
07184825	48 x 2,50	30,7	1353,0	1726	1800	6500
07185625	56 x 2,50	32,6	1547,8	1909	2100	7900
07180440	4 x 4,00	12,3	210,3	284	240	1690
07180540	5 x 4,00	13,7	256,5	346	300	2200
07180740	7 x 4,00	16,3	372,9	500	420	2600
07180460	4 x 6,00	13,7	302,9	388	360	1860
07180560	5 x 6,00	15,7	389,1	492	450	2300
07180760	7 x 6,00	18,9	518,7	690	630	2600
07180470	4 x 10,0	18,1	499,7	656	600	2900
07180570	5 x 10,0	20,3	609,5	808	750	3000
07180480	4 x 16,0	22,3	757,7	985	960	2800
07180580	5 x 16,0	24,9	926,6	1207	1200	3000
07180490	4 x 25,0	27,0	1131,6	1447	1500	3300
07180495	4 x 35,0	30,8	1542,9	1970	2100	3300
07180496	4 x 50,0	35,3	2147,7	2761	3000	3800

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

**Please pay attention
to the installation instructions
on page 15!**

BRÜCKSKES · D-VIERSEN · DR 721 P 4 G 2,5 mm² CE



Marking for DR 721 P 07210425:

SAB BRÜCKSKES · D-VIERSEN · DR 721 P 4 G 2,5 mm² CE

Application: The DR 721 P is used for spring cable and motor cable reels, hoists, transport systems and farm vehicles with medium mechanical stress.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	special polymer
Colour code:	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
Stranding:	specially adjusted layering
Inner sheath:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Outstanding features:



- high winding and unwinding strength
- corresponds to low voltage guideline 73/23/EWG CE
- small outer diameter
- small cable weight

Technical data:

Nominal voltage:	U ₀ /U 0,6/1 kV
Testing voltage:	core/core 4000 V
Current-carrying capacity:	acc. to VDE 0298-4
Min. bending radius for laying and installation (fixed laying): for repeated winding action (flexible): guided on pulleys (flexible):	6 x d 10 x d 12 x d
Temperature range fixed laying: flexible:	-50/+90 °C -40/+90 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 und EN 60332-1-2
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	very good against acids, alkaline solutions, solvents and hydraulic liquids, etc.
Weather resistance:	very good
Sunlight resistance:	very good - enhanced due to black sheath colour
Tensile strength:	acc. to VDE 0298-3 section 7.1
Mechanical characteristics:	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance
Absence of harmful substances:	acc. to RoHS directive of the European Union

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07210415	4 G 1,50	8,8	57,6	116
07210515	5 G 1,50	9,6	72,0	140
07210715	7 G 1,50	11,7	100,8	203
07211215	12 G 1,50	16,4	172,8	339
07211815	18 G 1,50	16,3	259,2	427
07212415	24 G 1,50	19,6	345,6	571
07213615	36 G 1,50	22,1	518,4	798
07210425	4 G 2,50	10,2	96,0	168
07210525	5 G 2,50	11,2	120,0	205
07210725	7 G 2,50	13,6	168,0	297
07211225	12 G 2,50	19,4	288,0	507
07211825	18 G 2,50	19,4	432,0	634
07212425	24 G 2,50	23,6	576,0	854

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07213625	36 G 2,50	26,4	864,0	1196
07210440	4 G 4,00	12,4	153,6	256
07210460	4 G 6,00	14,4	230,4	363
07210560	5 G 6,00	15,6	288,0	438
07210470	4 G 10,0	17,9	384,0	585
07210480	4 G 16,0	22,4	614,4	905
07210580	5 G 16,0	25,0	768,0	1131
07210390	3 x 25,0 + 3 G 6,00	24,2	892,8	1178
07210395	3 x 35,0 + 3 G 6,00	28,0	1180,8	1568
07210396	3 x 50,0 + 3 G 10,0	31,8	1728,0	2249

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

● Please pay attention
to the installation instructions
on page 15!

-VIERSEN · DR 720 P Highflex 4 G 2,5 mm² CE



Marking for DR 720 P Highflex 07200425:

SAB BRÜCKSKES · D-VIERSEN · DR 720 P Highflex 4 G 2,5 mm² CE

Application: The DR 720 P Highflex is used for heavy appliances as for example motor cable reels hoists, transport systems, movable motors and farm vehicles with high mechanical stress.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	special polymer
Colour code:	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
Stranding:	specially adjusted layering around central suspension unit
Inner sheath:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Outstanding features:



- path feed rate up to 120 m/min.
- extrem highly winding and unwinding strength
- corresponds to low voltage guideline 73/23/EWG CE
- small outer diameter
- small cable weight

Technical data:

Nominal voltage:	U ₀ /U 0,6/1 kV
Testing voltage:	core/core 4000 V
Current-carrying capacity:	acc. to VDE 0298-4
Min. bending radius <i>for laying and installation</i> <i>(fixed laying):</i> <i>for repeated winding action</i> <i>(flexible):</i> <i>guided on pulleys</i> <i>(flexible):</i>	≤ 12 mm 3 x d / >12 mm 4 x d 6 x d 7,5 x d
Temperature range <i>fixed laying:</i> <i>flexible application:</i>	-50/+90 °C -40/+90 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Weather resistance:	very good
Sunlight resistance:	very good - enhanced due to black sheath colour
Tensile strength:	acc. to VDE 0298-3 section 7.1
Mechanical characteristics:	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance
Absence of harmful substances:	acc. to RoHS directive of the European Union

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07200415	4 G 1,50	9,0	57,6	119	1340
07200515	5 G 1,50	9,8	72,0	142	1690
07200715	7 G 1,50	11,8	100,8	204	2150
07201215	12 G 1,50	16,6	172,8	359	2600
07201815	18 G 1,50	16,4	259,2	430	2600
07200425	4 G 2,50	10,4	96,0	170	1345
07200525	5 G 2,50	11,6	120,0	213	2100
07200725	7 G 2,50	13,8	168,0	299	2500
07201225	12 G 2,50	19,6	288,0	531	2900
07201825	18 G 2,50	19,7	432,0	641	3450
07202425	24 G 2,50	23,8	576,0	879	2700
07203025	30 G 2,50	26,6	720,0	1099	4200
07203625	36 G 2,50	26,7	864,0	1208	4750
07205025	50 G 2,50	32,4	1200,0	1739	6750

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07200440	4 G 4,00	12,4	153,6	255	1690
07201240	12 G 4,00	24,0	460,8	835	5000
07200460	4 G 6,00	14,8	230,4	369	1860
07200470	4 G 10,0	18,2	384,0	592	2300
07200480	4 G 16,0	22,7	614,4	915	2800
07200390	3 x 25,0				
	+ 3 G 6,00	24,3	892,8	1188	3300
07200490	4 G 25,0	26,9	960,0	1351	3300
07200395	3 x 35,0				
	+ 3 G 6,00	28,1	1180,8	1577	3300
07200495	4 G 35,0	31,5	1344,0	1893	3300
07200396	3 x 50,0				
	+ 3 G 10,0	31,9	1728,0	2264	3800

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

● Please pay attention
to the installation instructions
on page 15!



Marking for DR 730 P Highflex 07300425:

SAB BRÖCKSKES · D-VIERSEN · DR 730 P Highflex 4 G 2,5 mm² AWM Style 21897 80°C AWM I/II A/B 80°C 600V FT1 FT2 CE

Application: The DR 730 P Highflex is used for heavy appliances as for example motor cable reels hoists, transport systems, movable motors and farm vehicles with high mechanical stress.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	special polymer
Colour code:	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
Stranding:	specially adjusted layering around central suspension unit
Inner sheath:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Technical data:

Nominal voltage DIN VDE:	Uo/U 0,6/1 kV
Voltage UL:	1000 V
Voltage cUL:	600 V
Testing voltage:	core/core 4000 V
Current-carrying capacity:	acc. to VDE 0298-4
Min. bending radius for laying and installation (fixed laying):	≤ 12 mm 3 x d / > 12 mm 4 x d
for repeated winding action (flexible):	6 x d
guided on pulleys (flexible):	7,5 x d
Temperature range fixed laying:	DIN VDE -50/+90 °C
flexible application:	UL/cUL: up to +80°C -40/+90 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, cUL FT1 FT2
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Weather resistance:	very good
Sunlight resistance:	very good - enhanced due to black sheath colour
Tensile strength:	acc. to VDE 0298-3 section 7.1
Mechanical characteristics:	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance
Absence of harmful substances:	acc. to RoHS directive of the European Union

Outstanding features:



- UL recognized - Style 21897
- cUL recognized
- path feed rate up to 120 m/min.
- extrem highly winding and unwinding strength
- corresponds to low voltage guideline 73/23/EWG CE
- small outer diameter
- small cable weight

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07300415	4 G 1,50	10,2	57,6	146	1340
07300515	5 G 1,50	11,0	72,0	169	1690
07300715	7 G 1,50	12,5	100,8	224	2150
07301215	12 G 1,50	16,9	172,8	381	2600
07301815	18 G 1,50	17,1	259,2	455	2600
07300425	4 G 2,50	11,3	96,0	194	1345
07300525	5 G 2,50	12,3	120,0	229	2100
07300725	7 G 2,50	14,0	168,0	308	2500
07301225	12 G 2,50	19,6	288,0	547	2900
07301825	18 G 2,50	19,6	432,0	650	3450
07302425	24 G 2,50	23,9	576,0	892	2700
07303625	36 G 2,50	26,9	864,0	1224	4200

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07300440	4 G 4,00	12,9	153,6	270	1690
07301240	12 G 4,00	24,0	460,8	835	5000
07300460	4 G 6,00	14,7	230,4	371	1860
07300470	4 G 10,0	18,0	384,0	608	2300
07300480	4 G 16,0	23,6	614,4	984	2800
07300390	3 x 25,0				
	+ 3 G 6,00	25,0	892,8	1244	3300
07300395	3 x 35,0				
	+ 3 G 6,00	28,3	1180,8	1620	3300
07300495	4 G 35,0	31,5	1344,0	1893	3300

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

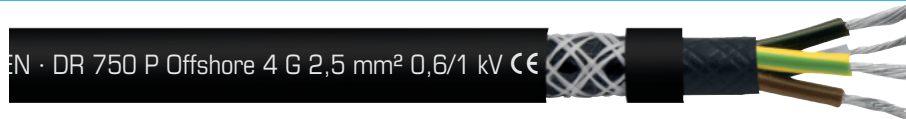
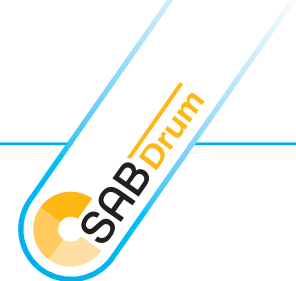


**Hybrid cable
on request!**

**Please pay attention
to the installation instructions
on page 15!**

DR 750 P Offshore

PUR reeling cable for offshore applications



Marking for DR 750 P Offshore 07500425:

SAB BRÖCKSKES · D-VIERSEN · DR 750 P Offshore 4 G 2,5 mm² 0,6/1 kV CE

Application: The DR 750 P Offshore is used as reeling cable in offshore areas, for spring and motor cable reels in lifting and handling equipment on offshore platforms or ships.

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	special polymer
Colour code:	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
Stranding:	specially adjusted layering
Inner sheath:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005) mat

Outstanding features:



- suitable for offshore applications
- extrem highly winding and unwinding strength
- small outer diameter
- small cable weight
- flame retardant and self-extinguishing
- asbestos-free

Technical data:

Nominal voltage:	U ₀ /U 0,6/1 kV
Testing voltage:	core/core 4000 V
Min. bending radius	
fixed laying:	5 x d
flexible:	10 x d
for repeated winding action (flexible):	10 x d
guided on pulleys (flexible):	15 x d
Temperature range	
flexible:	-40/+90 °C lower temperatures on request SAB
Halogen and fluorine content:	acc. to IEC 60754-1 + EN 60754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
MUD resistance:	very good - acc. to IEC 60092-350, IEC 61892-4, NEK TS 606
Chemical resistance:	very good against acids, alkaline solutions, solvents and hydraulic liquids, etc.
Weather resistance:	very good
Sunlight resistance:	very good - enhanced due to black sheath colour
Absence of harmful substances:	acc. to RoHS directive of the European Union

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	min breaking load of suspension unit N
07500210	2 x 1,00	10,3	19,2	118	500
07500410	4 G 1,00	10,9	38,4	140	1100
07501210	12 G 1,00	18,6	115,2	410	2000
07500315	3 G 1,50	10,9	43,2	144	1000
07500415	4 G 1,50	11,6	57,6	167	1340
07500715	7 G 1,50	14,7	100,8	273	2150
07501215	12 G 1,50	20,0	172,8	510	2600
07501815	18 G 1,50	20,0	259,2	523	3375
07500325	3 G 2,50	11,7	72,0	181	1200
07500425	4 G 2,50	13,0	96,0	220	1345
07500440	4 G 4,00	14,4	153,6	296	2000
07500460	4 G 6,00	15,8	230,4	390	3000
07500461	4 G 10,0	19,0	384,0	611	5000
07500462	4 G 16,0	22,9	614,4	907	8000
07500463	4 G 25,0	27,0	960,0	1362	12500
07500464	4 G 35,0	30,8	1344,0	1804	17500
07500465	4 G 50,0	34,6	1920,0	2548	25000
07500466	4 G 70,0	41,2	2688,0	3449	35000

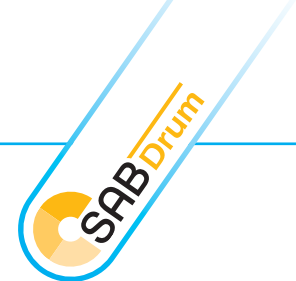
Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

● Please pay attention
to the installation instructions
on page 15!

DR 724 P Spreader

PUR Reeling cable for spreader application



BRÖCKSKES · D-VIERSEN · DR 724 P Spreader 46 G 1,0 mm² CE



Marking for DR 724 P Spreader 07244610:

SAB BRÖCKSKES · D-VIERSEN · DR 724 P Spreader 46 G 1,0 mm² CE

Application: The DR 724 P Spreader is for use in reeling applications with heavy duty mechanical stress e.g. in motor driven drums in container cranes.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	special polymer
Colour code:	coloured acc. to HD 308 (VDE 0293-308), from 6 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
Stranding:	specially adjusted layering around central Aramid suspension unit
Inner sheath:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Torsion protecting net:	Aramid
Sheath material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Outstanding features:



- path feed rate up to 240 m/min..
- extrem highly winding and unwinding strength
- for high mechanical stress in reeling processes
- small outer diameter
- small cable weight
- flame retardant and self-extinguishing

Technical data:

Nominal voltage:	Uo/U 0.6/1 kV
Testing voltage:	core/core 4000 V
Min. bending radius <i>for laying and installation (fixed laying):</i>	5 x d
<i>for repeated winding action (flexible):</i>	7,5 x d
<i>guided on pulleys (flexible):</i>	10 x d
Temperature range <i>fixed laying:</i>	-50/+90 °C
<i>flexible application:</i>	-40/+90 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Weather resistance:	very good
Sunlight resistance:	very good - enhanced due to black sheath colour
Tensile strength:	acc. to VDE 0298-3 section 7.1
Mechanical characteristics:	the main mechanical characteristics accomplished by the PUR outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance
Absence of harmful substances:	acc. to RoHS directive of the European Union

item no.	no. of cores x cross section n x mm ²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength central suspension unit max. kN
07244610	46 G 1,00	28,2	441,6	992	25
07244910	49 G 1,00	30,7	470,4	1130	25
07242425	24 G 2,50	24,3	576,0	908	25
07243025	30 G 2,50	28,1	720,0	1199	25
07243625	36 G 2,50	32,5	864,0	1473	25
07244225	42 G 2,50	35,8	1008,0	1770	25
07244425	44 G 2,50	37,0	1056,0	1877	25
07245625	56 G 2,50	45,7	1344,0	2665	25

Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

● Please pay attention to the installation instructions on page 15!

Industrial Ethernet Cables

DR PN 689 P Highflex reeling Profinet cable / CAT 5 cable

DR CB 689 P Highflex reeling CAN-Bus cable



S · D-VIERSEN · DR PN 689 P Highflex 2x2x22AWG CE



Marking for DR PN 689 P Highflex 06892202:

SAB BRÜCKSKES · D-VIERSEN · DR PN 689 P Highflex 2x2x22AWG CE

Construction:	DR PN 689 P Highflex reeling Profinet cable	DR PN 689 P Highflex reeling CAT 5 cable	DR CB 689 P Highflex reeling CAN-Bus cable
Dimension:	2 x 2 x 22 AWG	4 x 2 x 26 AWG	2 x 2 x 0,50 mm ²
Conductor:	tinned copper strands, fine wires		bare copper strands
Insulation:	SABIX®		PE
Colour code:	blue, yellow, white, orange	blue, orange, green, brown + 4 white cores with consecutive numbers	acc. to DIN 47100
Stranding:	in layers	twisted to pairs and pairs together	
Wrapping:	PETP foil		non-woven tape
Inner sheath:	SABIX®		---
Screen:	alu foil and tinned copper braiding		tinned copper braiding
Wrapping:	non-woven tape		---
Sheath material:	PUR / supporting braid / PUR		
Sheath colour:	green (similar RAL 6018)	black (similar RAL 9005)	

Technical data:	DR PN 689 P Highflex reeling Profinet cable	DR PN 689 P Highflex reeling CAT 5 cable	DR CB 689 P Highflex reeling CAN-Bus cable
Item number:	0689-2202	0689-9001	0689-9005
Peak operating voltage VDE:	max. 350 V		
Testing voltage core/core: core/screen:	1500 V 1200 V		
Min. bending radius	for laying and installation (fixed laying): for repeated winding action (flexible application): guided on pulleys (flexible application):	5 x d 10 x d 12 x d	for laying and installation (fixed laying): for repeated winding action (flexible application): guided on pulleys (flexible application):
Temperature range VDE fixed laying: flexible application:	-40/+90 °C -30/+90 °C		-40/+70 °C -40/+70 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1		
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2		
Characteristic impedance:	100Ω ± 10Ω, fulfils the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 + VDE 0819-2-2 (CAT 5 acc. to EN 50173-1)		120Ω (95 - 140Ω)
Absence of harmful substances:	acc. to RoHS directive of the European Union		

item no.	type	dimension	outer-ø approx. mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km	tensile strength max. N	characteristic impedance
06892202	DR PN 689 P Highflex	2 x 2 x 22 AWG	8,2	36,2	83	58,8	200	100Ω
06899001	DR PN 689 P Highflex	4 x 2 x 26 AWG	8,7	34,3	85	139	200	100Ω
06899005	DR CB 689 P Highflex	2 x 2 x 0,50 mm ²	12,8	48,8	175	39,0	200	120Ω

Other dimensions and colours are possible on request.

Also possible
as harnessed cable
with M12 or RJ 45 plug!

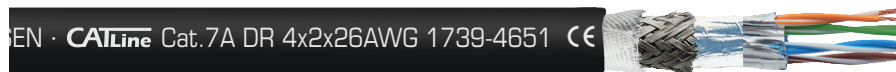


Industrial Ethernet Cables

CATLine CAT 5e DR reeling CAT 5e Industrial Ethernet cable

CATLine CAT 6A DR reeling CAT 6A Gigabit Ethernet cable

CATLine CAT 7A DR reeling CAT 7A Gigabit Ethernet cable



Marking for CATLine CAT 7A DR 17394651:

SAB BRÖCKSKES · D-VIERSEN · **CATLine** Cat.7A DR 4x2x26AWG 1739-4651 CE

Construction:	CATLine CAT 5e DR reeling Ethernet cable	CATLine CAT 6A DR reeling Ethernet cable	CATLine CAT 7A DR reeling Ethernet cable
Dimension:	4 x 2 x 26 AWG		
Conductor:	bare copper strands, fine wires		
Insulation:	special polymer		
Colour code:	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown		
Stranding:	cores twisted to pairs, pairs together		cores twisted to pairs, pairs screened with foil, pairs together
Wrapping:	non-woven tape		---
Screen:	alu foil and tinned copper braiding		aluminized non-woven tape and tinned copper braiding
Wrapping:	non-woven tape		
Sheath material:	PUR / supporting braid / PUR		
Sheath colour:	black (RAL 9005)		

Technical data:	CATLine CAT 5e DR reeling Ethernet cable	CATLine CAT 6A DR reeling Ethernet cable	CATLine CAT 7A DR reeling Ethernet cable
Item number:	1539-4651	1639-4651	1739-4651
Peak operating voltage:	max. 90 V		
Testing voltage core/core: core/screen:	750 V 750 V		
Min. bending radius	for laying and installation (fixed laying): for repeated winding action (flexible application): guided on pulleys (flexible application):		5 x d 10 x d 12 x d
Temperature range VDE fixed laying: flexible application:	-50/+90 °C -40/+90 °C		
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1		
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2		
Characteristic impedance (100 MHz):	100Ω ± 10Ω, fulfils the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 / CAT 5	100Ω ± 10Ω, fulfils the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A	100Ω ± 10Ω, fulfils the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 / CAT 7A
Weather resistance:	very good		
Absence of harmful substances:	acc. to RoHS directive of the European Union		

item no.	type	dimension	max. core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km	tensile strength max. N
15394651	CATLine CAT 5e DR	4 x 2 x 26 AWG	1,05	8,5	32,0	79	200
16394651	CATLine CAT 6A DR	4 x 2 x 26 AWG	1,05	8,5	32,0	81	200
17394651	CATLine CAT 7A DR	4 x 2 x 26 AWG	1,60	10,5	38,5	117	200

Other dimensions and colours are possible on request.

Also possible
as harnessed cable
with M12 or RJ 45 plug!



Installation instructions of reeling cables

■ The trouble-free and long service life of reeling cables requires the adherence to certain installation guidelines

The cable shall be wound directly from the supplied drum to the reeling drum. The complete unwinding of the cable isn't necessary. A straight torsion-free guiding has to be observed. Equally the cable has to be fixed and connected torsion-free. The indicated min. bending radius has to be adhered to.

In case of complete extension of the cable at least 2 windings shall remain on the reeling drum. For fixing the other cable end Kellerm grips or large surface clamp connections can be used.

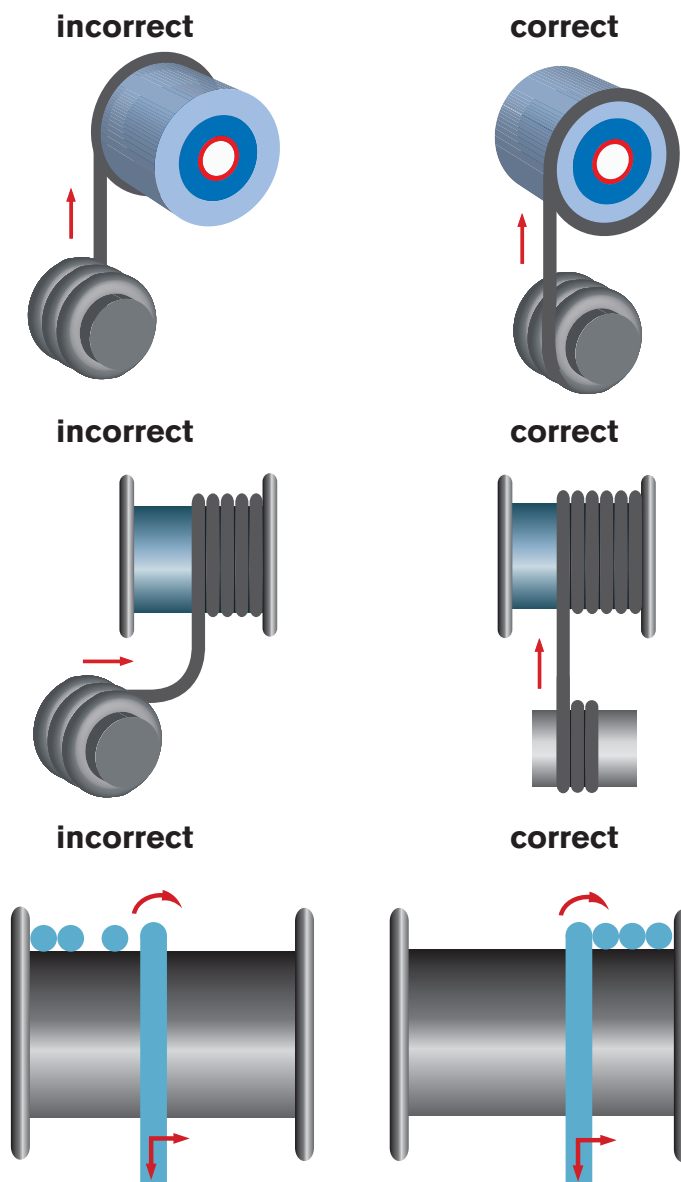
The installation of reeling cables has to be done carefully. They have to be protected against external damage during installation and operation.

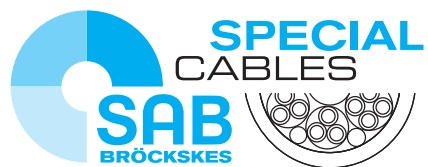
The start of winding of reeling cables on cylinder drums shall be made in stranding direction. Cables with right stranding direction (Z-lay) shall be operated to the right side and vice versa. If the stranding direction isn't known, please contact our technical support for any information.

Without special notice in our catalogue, the tensile stress of the copper conductors shall not exceed 15 N/mm² (DIN VDE 0298 part 3). In case of higher tensile stress, we recommend to contact our technical support to align the cable construction to the requirements. The max. allowed limit deviations of the tensile stress are to be understood as the sum of the static and dynamic stress.

Reeling cables are generally not appropriate for torsion stress. During operation, however, torsion stress can't be avoided. As a consequence the exceeding of the limit values (generally $> \pm 25^\circ/\text{m}$) lead to a considerable reduction of service life.

In case of undercutting the smallest allowed min. bending radius, the service life of the cable is reduced.





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