HYBRID AND SPECIAL CABLES

SPECIAL CABLES
SAB BRÖCKSKES

www.sab-cable.com

Content

Applications

Technical problems often arise that can not be solved properly by standard cables. Being a customer of SAB Bröckskes, you have the right to get the best solution. Therefore, we are pleased being your specialist for special cables. No matter whether a cable of our standard range is to be modified or a completely new cable is to be constructed: we will work together with you intensively in order to realise your requests and needs. Anyway, you will profit from our variedness and flexibility, that besides our wide standard product range of cables count among the special strengths of our company.

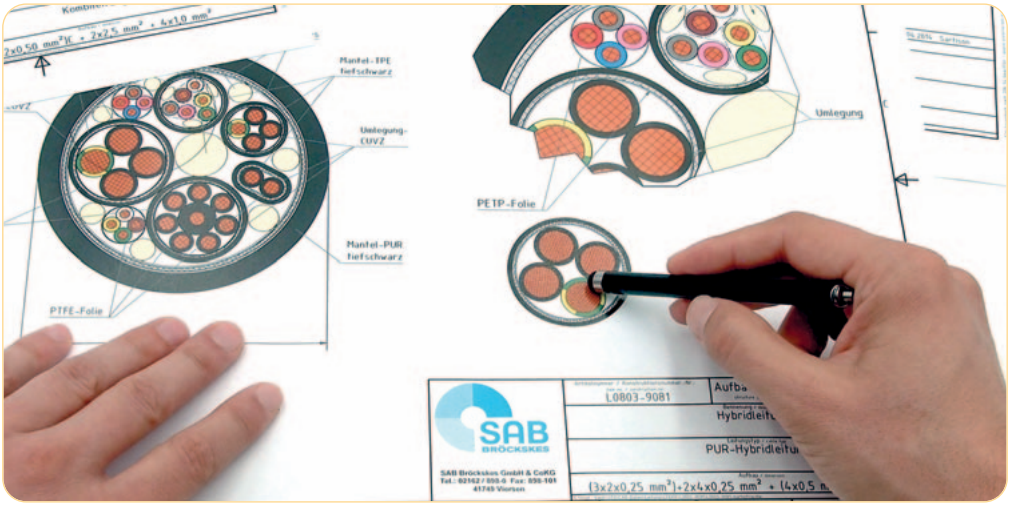
We produce nearly every type of special cable for you already with minimum quantities of 500 m, in certain dimensions already 100 m - exactly according to your individual construction demands. Please give us your requested details, such as:

- conductor material
- number of cores
- cross sections
- colours
- outer diameter
- flexibility
- low and high temperature resistance
- materials
- types of screening
- combined cables
- technical specifications
- optical waveguide
- number of fibres
- POF (polymeric optical fibres)

Of course, we also fulfil other parameters than the above-mentioned. Your requests are always most important and our highly motivated team will meet them applying our comprehensive know-how. By this means you will be able to improve the efficiency of your machines.

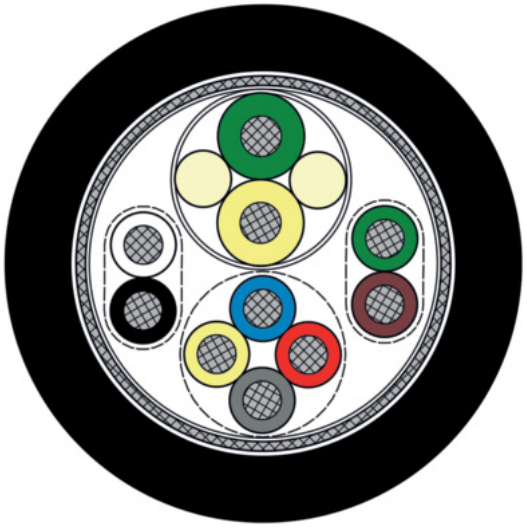
Are you interested in a special solution? You only need to note the requested parameters in the forms shown on pages G/31 and G/34. Or you contact directly our sales team that is supported by sales representatives in many parts of Europe.

You will find further information about the safe application of cables in chapter N



Example: CAN-Bus cable

halogen-free combined cable with overall copper screen



Construction:

Conductor:	tinned copper strands, fine wires with reference to VDE 0812
Insulation:	SABIX® thermoplastic material and 02YI1 acc. to EN 50290-2-23 + VDE 0819-103 (for 2 x 0.50 mm²)
Stranding:	pairs and quads twisted together in layers
Screen:	tinned copper braiding, optical coverage ≥ 85%
Sheath material:	SABIX® thermoplastic material
Sheath colour:	black (RAL 9005)
Marking:	SAB BRÖCKSKES · D-VIERSEN · SO. SABIX® CAN-BUS-LEITUNG

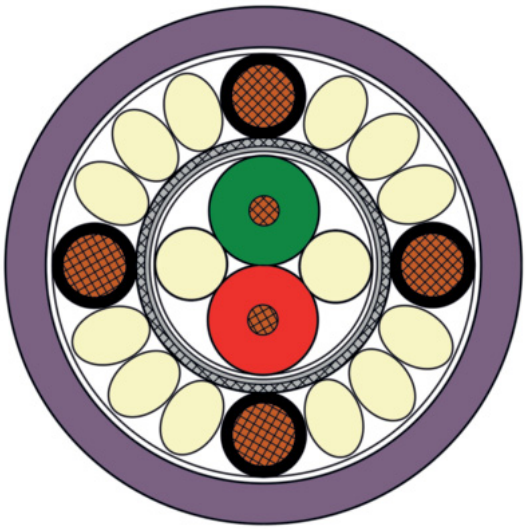
Technical Data:

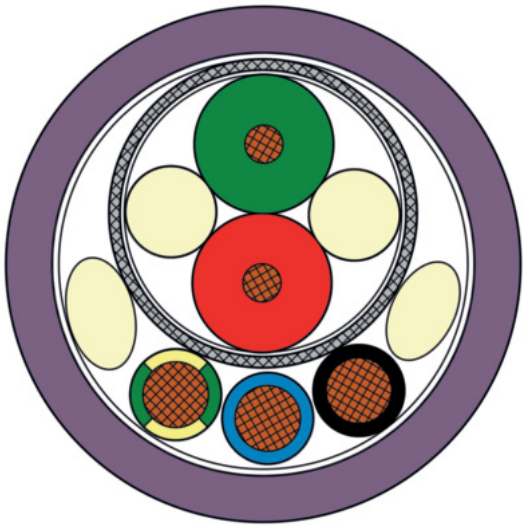
Peak operating voltage:	max. 450 V
Testing voltage:	core/core 1000 V (DC) core/screen 1500 V (DC)
Min. bending radius *flexible application:*	10 x d
Temperature range *fixed laying:* *flexible application:*	 -40/+70 °C -30/+70 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Fire performance:	no flame propagation nach IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 cat. C resp. D, see chapter N „Technical data“. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Characteristic impedance:	acc. to EN 50289-1-11 nom. 120 Ω (CAN-Bus)
Oil resistance:	acc. to EN 60811-507 section 10 + VDE 0473-811-507 section 10
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

item no.	dimension	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
63359002	2 x 2 x 0,50 mm² + 4 x 0,50 mm² + 2 x 0,50 mm²	11,0	79,6	160

Example: Profibus-DP cable

halogen-free Profibus-DP cable with valve control for use in cable tracks resp.
halogen-free Profibus-DP cable with seperate current supply for use in cable tracks





Construction:

Conductor:	bare copper strands, fine wires
Insulation:	0,34 mm²: cellular PE 1,00 mm²/1,50 mm²: TPE
Stranding:	Profibus twisted pairwise, pairs and conductors twisted in layers
Screen Profibus:	tinned copper braiding
Sheath material:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	redlilac (RAL 4001)
Marking **item no. 06349010:**	SAB BRÖCKSKES · D-VIERSEN · S PB 634 2 x 0,34 mm² + 4 x 1,5 mm² CE
Marking **item no. 06349015:**	SAB BRÖCKSKES · D-VIERSEN · S PB 634 2 x 0,34 mm² + 3 x 1,0 mm² CE

Technical Data:

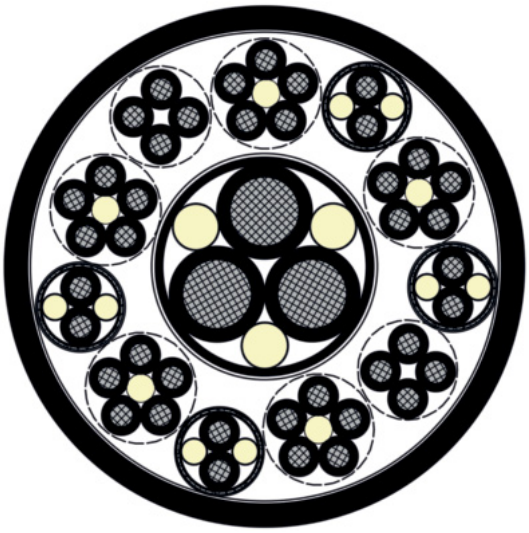
Peak operating voltage:	**item no. 06349010:** 100 Veff. **item no. 06349015:** max. 350 V
Testing voltage:	core/core 1500 V core/screen 1000 V
Min. bending radius *flexible application:*	12 x d
Temperature range *fixed laying:* *flexible application:*	 -40/+80 °C -40/+80 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Characteristic impedance:	acc. to EN 50289-1-11 at 3-20 MHz: 150 Ω ± 15 Ω
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

item no.	no. of conductors	nominal cross-section mm²	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20 °C max. Ω/km
06349010	2 4	0,34 1,50	12,0	78,8	165	55,0 13,3

item no.	no. of conductors	nominal cross-section mm²	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20 °C max. Ω/km
06349015	2 3	0,34 1,00	10,6	48,1	102	55,0 19,5

Example: Coupling cable T 790

torsion able connecting cable



Construction:

Conductor:	special copper, fine wires
Insulation:	TPE
Screen:	special copper braiding, optical coverage ≥ 85%
Sheath material:	special PUR
Sheath colour:	black (RAL 9005)

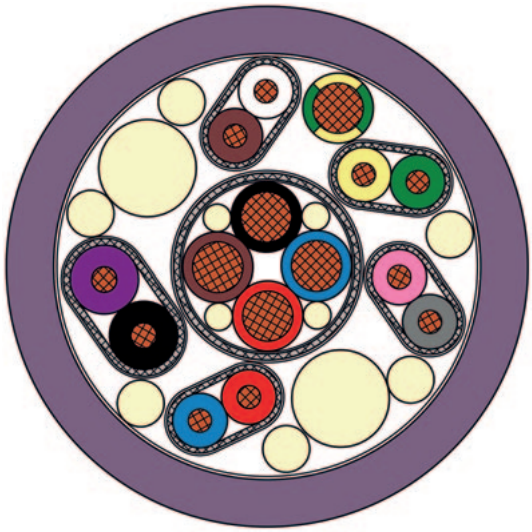
Technical data:

Nominal voltage:	1,50 mm²: Uo/U 0,6/1,0 kV 10,0 mm²: Uo/U 1,8/3,0 kV
Testing voltage:	core/core 1,50 mm²: 4000 V, 10,0 mm²: 12000 V core/screen 1,50 mm²: 2000 V, 10,0 mm²: 6000 V
Min. bending radius *flexible application:*	10 x d
Temperature range *fixed laying:* *flexible application:*	 -50/+90 °C -40/+90 °C
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

item no.	dimension	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07909008	33 x 1,5 mm² + 3 x 10,0 mm² + 4 x (2 x 1,5) mm²	42,0	1136,2	2070

Example: Interbus Hybrid cable for the automotive industry

PUR interbus hybrid cable pairwise with copper wrapping for flexible application



Construction:

Conductor:	bare copper strands, fine wires
Insulation:	0,25 mm²: PE 1,00 mm²: TPE
Colour code:	0,25 mm²: coloured with reference to DIN 47100 1,00 mm²: black, blue, red, brown, green/yellow
Screen:	pairs wrapped with tinned copper braiding, optical coverage min. 90%
Sheath material:	special PUR
Sheath colour:	redlilac (RAL 4001
Marking:	SAB BRÖCKSKES · D-VIERSEN · Hybridleitung 0367-9048 CE

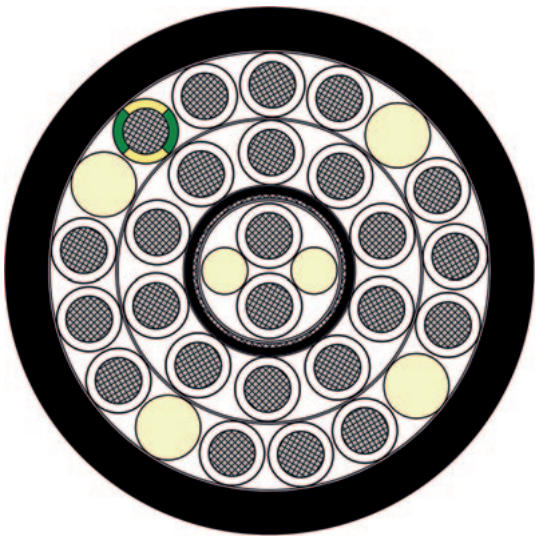
Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	core/core 1700 V (AC) core/screen 1000 V (AC) core/core 2500 V (DC) core/screen 1500 V (DC)
Min. bending radius:	7.5 x d
Temperature range *fixed laying:* *flexible application:*	 -40/+70 °C -40/+70 °C
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

item no.	dimension	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
03679048	4 x 1,0 mm² + 5 x 2 x 0,25 mm² + 1 x 1,0 mm²	13,2	130,8	209

Example: Control cable for the automotive industry

special PUR connection cable with numbered cores and overall copper screen



Construction:

Conductor:	tinned copper strands
Insulation:	TPE
Colour code:	white cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
Screen:	wrapped with tinned copper braiding
Inner sheath:	TPE
Sheath colour:	black (RAL 9005)
Sheath material:	special PUR
Sheath colour:	black (RAL 9005)
Marking item no. 07649079:	SAB BRÖCKSKES · D-VIERSEN · 16x1,0mm² + (2x1,0mm²) D
Marking item no. 07649065:	SAB BRÖCKSKES · D-VIERSEN · 23x1,0mm² + (2x1,0mm²) D

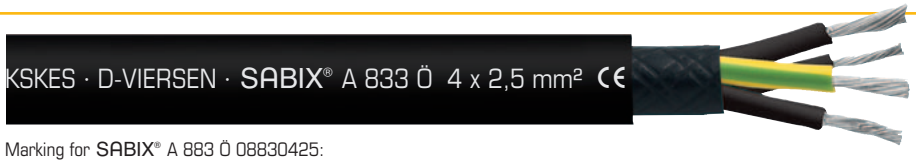
Technische Daten:

Operating voltage:	Ub max. 600 V DC core-core
Testing voltage:	core/core 2500 V DC core/screen 1250 V DC
Min. bending radius *flexible application:*	10 x d
Temperature range *fixed laying:* *flexible application:*	 -50/+90 °C -40/+90 °C
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

item no.	dimension	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07649079	16 x 1,0 mm² + (2 x 1,0 mm²) D	13,4	184,6	278
07649065	23 x 1,0 mm² + (2 x 1,0 mm²) D	13,5	251,8	344

SABIX® A 883 Ö

twisting and torsion connection cable



Marking for SABIX® A 883 Ö 08830425:
SAB BRÖCKSKES · D-VIERSEN · SABIX® A 833 Ö 4 x 2,5 mm²

Application: For the use in rail vehicles, e. g. bogies and boxes.

Construction:

Conductor:	tinned copper strands, acc. to IEC 60228, VDE 0295, class 6
Insulation:	TPE
Colour code:	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, green-yellow earth wire from 3 cores
Stranding:	in layers
Inner sheath:	SABIX®
Sheath material:	PUR, TMPU 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
Min. bending radius	
fixed laying:	4 x d
flexible application:	6 x d
Temperature range	
fixed laying:	-50/+85 °C
flexible application:	-40/+85 °C
Torsion angle:	± 15°
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 - PUR, TMPU acc. to EN 50363-10-2 + DIN VDE 0207-363-10-2
UV resistance:	good
Ozone resistance:	good
Weather resistance:	good
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
08830215	2 x 1,50	0,16	8,1	28,8	92
08830315	3 x 1,50	0,16	8,4	43,2	107
08830415	4 x 1,50	0,16	9,0	57,6	128
08830715	7 x 1,50	0,16	10,4	100,8	189
08831815	18 x 1,50	0,16	15,2	259,2	417
08830325	3 x 2,50	0,16	9,7	75,5	158
08830425	4 x 2,50	0,16	10,5	100,6	192
08830525	5 x 2,50	0,16	11,5	125,8	233
08830725	7 x 2,50	0,16	12,2	176,1	291
08830540	5 x 4,00	0,16	13,6	192,0	335

Other dimensions and colours are possible on request.

Also possible without earth wire!

with improved fire performance

SAB Control

SABIX® Lift

Lift control cable with sisal cord as suspension unit

CE EAC RoHS

Marking for SABIX® Lift 53902410:
SAB BRÖCKSKES · D-VIERSEN · SABIX® Lift 24 x 1,0 mm² CE

Application: Our halogen-free lift cables are used whenever there are highest safety requirements, especially in public buildings and institutions as for example department stores, hospitals, railway and airport institutions, etc.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	special SABIX®
Colour code:	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
Strain relief:	sisal cord
Stranding:	sisal cord as core, optimized twisting of the conductors in layers
Wrapping:	non-woven tape on each layer with overlap wrapping
Torsion protecting:	special braid
Sheath material:	thermoplastic special elastomer
Sheath colour:	black (RAL 9005)

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage:	core/core 2000 V
Min. bending radius:	15 x d
Temperature range *fixed laying:* *flexible application:*	 -40/+90 °C -30/+90 °C
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, see chapter N „Technical Data“
Suspended height:	up to 60 m
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical Data“

Outstanding features:

- **halogen-free**
- **long service life**
- **elevated economic efficiency**
- **flame retardant and self-extinguishing**

G
10

item no.	no. of cores x cross section n x mm²	medium outer-ø ø mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20 °C max. Ω/km
53900710	5 x 1,00	10,7	48,0	132	19,5
53900710	7 x 1,00	11,2	67,2	160	19,5
53900910	9 x 1,00	12,4	86,4	199	19,5
53901210	12 x 1,00	14,4	115,2	261	19,5
53901810	18 x 1,00	19,9	172,8	421	19,5
53902410	24 x 1,00	19,9	230,4	491	19,5
53903010	30 x 1,00	20,9	288,0	581	19,5

Other dimensions and colours are possible on request.

Possible on request:

- **with total copper braiding**
- **with different conductor and sheath colours**

- **Please pay attention to the installation instructions in chapter N „Technical Data“**
- **You will find a life cycle test SABIX® Lift in chapter N „Technical Data“**

highest hanging lengths

SAB Control

SABIX® Lift ST

Lift control cable with steel center as suspension unit

CE EAC RoHS

Marking for SABIX® Lift ST 53912410:
SAB BRÖCKSKES · D-VIERSEN · SABIX® Lift ST 24 x 1,0 mm² CE

Application: Our halogen-free lift cables are used whenever there are highest safety requirements, especially in public buildings and institutions as for example department stores, hospitals, railway and airport institutions, etc.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	special SABIX®
Colour code:	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
Strain relief:	steel rope in the center
Stranding:	steel rope as core, optimized twisting of conductors in layers
Wrapping:	non-woven tape on each layer with overlap wrapping
Torsion protecting:	special braid
Sheath material:	thermoplastic special elastomer
Sheath colour:	black (RAL 9005)

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage:	core/core 2000 V
Min. bending radius:	15 x d
Temperature range *fixed laying:* *flexible application:*	 -40/+90 °C -30/+90 °C
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, see chapter N „Technical Data“
Suspended height:	up to 200 m
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical Data“

Outstanding features:

- **halogen-free**
- **highest hanging lengths**
- **long service life**
- **elevated economic efficiency**
- **flame retardant and self-extinguishing**

item no.	no. of cores x cross section n x mm²	medium outer-ø ø mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20 °C max. Ω/km
53912410	5 x 1,00	8,7	48,0	115	19,5
53910710	7 x 1,00	9,8	67,2	153	19,5
53910910	9 x 1,00	11,5	86,4	246	19,5
53911210	12 x 1,00	14,0	115,2	338	19,5
53911810	18 x 1,00	16,6	172,8	415	19,5
53912410	24 x 1,00	16,8	230,4	494	19,5
53913010	30 x 1,00	19,8	288,0	673	19,5

Other dimensions and colours are possible on request.

Possible on request:

- **with total copper braiding**
- **with different conductor and sheath colours**

- **Please pay attention to the installation instructions in chapter N „Technical Data“**
- **You will find a life cycle test SABIX® Lift in chapter N „Technical Data“**

H05VVH6-F

Marking for PVC Flat cable 02142407:
SAB BRÖCKSKES · D-VIERSEN · ⊲VDE⊳ ⊲HAR⊳ H05VVH6-F 24G0,75 mm²

Application: for example in elevators up to 35 m freely suspended or in fitted vehicles for cranes and hoisting systems with one levei bending.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	PVC
Colour code:	black with white numbers and green-yellow earth wire
Stranding:	cores parallel side by side in groups
Sheath material:	PVC
Sheath colour:	black (RAL 9005)

Technical data:

Nominal voltage:	Uo/U 300/500 V
Min. bending radius:	10 x high
Temperature range *fixed laying:* *flexible application:*	 -40/+70 °C 0/+70 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Oil resistance:	acc. to our internal standard, see chapter N „Technical Data“
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical Data“

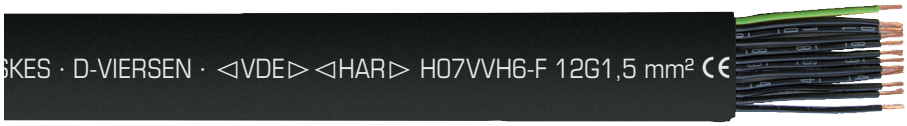
Outstanding features:

smaller bending radius
in contrast to round cables

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	dimension width x height approx. mm	copper figure kg/km	cable weight ≈ kg/km
02140607	6 x 0,75	0,21	17,8 x 4,2	43,2	137
02140907	9 x 0,75	0,21	25,8 x 4,2	64,8	200
02141207	12 x 0,75	0,21	39,1 x 4,2	86,4	260
02141607	16 x 0,75	0,21	43,5 x 4,2	115,2	342
02141807	18 x 0,75	0,21	48,4 x 4,2	129,6	382
02142007	20 x 0,75	0,21	53,9 x 4,2	144,0	425
02142407	24 x 0,75	0,21	64,3 x 4,2	172,8	509
02140410	4 x 1,00	0,21	12,7 x 4,3	38,4	105
02140510	5 x 1,00	0,21	15,3 x 4,3	48,0	129
02140610	6 x 1,00	0,21	18,4 x 4,3	57,6	154
02140910	9 x 1,00	0,21	26,7 x 4,3	86,4	225
02141210	12 x 1,00	0,21	34,3 x 4,3	115,2	292
02141610	16 x 1,00	0,21	45,1 x 4,3	153,6	386
02141810	18 x 1,00	0,21	50,2 x 4,3	172,8	430
02142010	20 x 1,00	0,21	55,9 x 4,3	192,0	479
02142410	24 x 1,00	0,21	66,7 x 4,3	230,4	572

Other dimensions and colours are possible on request.

H07VVH6-F



Marking for PVC Flat cable 02491215:
SAB BRÖCKSKES · D-VIERSEN · ◁VDE▷ ◁HAR▷ H07VVH6-F 12G1,5 mm²

Application: for example in elevators up to 35 m freely suspended or in fitted vehicles for cranes and hoisting systems with one levei bending.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	PVC
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:	cores parallel side by side in groups
Sheath material:	PVC
Sheath colour:	black (RAL 9005)

Technical data:

Nominal voltage:	Uo/U 450/750 V
Min. bending radius:	10 x high
Temperature range *fixed laying:* *flexible application:*	 -40/+70 °C 0/+70 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Oil resistance:	acc. to our internal standard, see chapter N „Technical Data“
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical Data“

Outstanding features:

smaller bending radius
in contrast to round cables

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	dimension width x height approx. mm	copper figure kg/km	cable weight ≈ kg/km
02490415	4 x 1,50	0,26	15,3 x 5,2	57,6	145
02490715	7 x 1,50	0,26	25,6 x 5,2	100,8	250
02490815	8 x 1,50	0,26	28,6 x 5,2	115,2	283
02491215	12 x 1,50	0,26	41,9 x 5,2	172,8	421
02490425	4 x 2,50	0,26	18,3 x 5,8	96,0	206
02491225	12 x 2,50	0,26	50,7 x 5,8	288,0	604
02491240	12 x 4,00	0,31	57,4 x 6,8	460,8	858
02490460	4 x 6,00	0,31	22,7 x 7,3	230,4	377
02490560	5 x 6,00	0,31	27,5 x 7,3	288,0	439
02490570	5 x 10,0	0,41	35,7 x 9,3	480,0	807
02490490	4 x 25,0	0,41	42,5 x 12,9	960,0	1407

Other dimensions and colours are possible on request.

DR 717 P Highflex

Marking for DR 717 P Highflex 07170425:
SAB BRÖCKSKES · D-VIERSEN · DR 717 P Highflex 4 G 2,5 mm²

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, *DMX-bus:* white/brown, green/yellow *IE Cat 5:* white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
Stranding:	specially adjusted layering around central suspension unit
Inner sheath:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TMPU 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 volatge:	**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, see chapter N „Technical Data“
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**
with installation:			0/+50 °C
fixed laying:	-50/+90 °C	-40/+70 °C	-20/+60 °C
flexible application:	-40/+90 °C	-40/+70 °C	-20/+60 °C

Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	very good - TMPU 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, see chapter N „Technical Data“

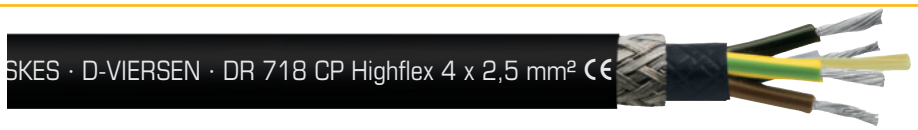
item no.	no. of cores x cross section n x mm²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength max. N	min breaking load of suspension unit N
07170425	4 G 2,50	9,7	96,0	157	150	1345
07170440	4 G 4,00	11,7	153,6	239	240	1690
07171440	14 G 4,00	20,9	537,6	739	840	3200
07172040	20 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 in chapter N „Technical Data“

DR 718 CP Highflex

with overall copper screen



Marking for DR 718 CP Highflex 07180425:
SAB BRÖCKSKES · D-VIERSEN · DR 718 CP Highflex 4 x 2,5 mm²

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, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Screen:	tinned copper braiding
Sheath material:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Outstanding features:

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

Also possible without inner sheath!

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, see chapter N „Technical Data“
Min. bending radius *for laying and installation (fixed laying):* *for repeated winding action (flexible):* *guided on pulleys (flexible):*	 5 x d 7,5 x d 10 x d
Temperature range *fixed laying:* *flexible application:*	 -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 - TMPU 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, see chapter N „Technical Data“

item no.	no. of cores x cross section n x mm²	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

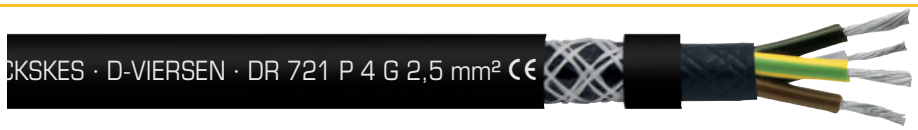
item no.	no. of cores x cross section n x mm²	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	tensile strength max. N	min breaking load of suspension unit N
07183625	36 x 2,50	26,1	1035,8	1280	1350	5000
07184825	48 x 2,50	30,7	1353,0	1726	1800	6500
07185625	56 x 2,50	32,6	1547,8	1909	2100	7900
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 in chapter N „Technical Data“

DR 721 P



Marking for DR 721 P 07210425:
SAB BRÖCKSKES · D-VIERSEN · DR 721 P 4 G 2,5 mm²

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, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TMPU 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:	Uo/U 0,6/1 kV
Testing voltage:	core/core 4000 V
Current-carrying capacity:	acc. to VDE 0298-4, see chapter N „Technical data“
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 + VDE 0482-332-1-2
Oil resistance:	very good - TMPU 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, see chapter N „Technical data“

item no.	no. of cores x cross section n x mm²	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 mm²	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 in chapter N „Technical data“

DR 720 P Highflex

Marking for DR 720 P Highflex 07200425:
SAB BRÖCKSKES · D-VIERSEN · DR 720 P Highflex 4 G 2,5 mm²

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, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TMPU 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:	Uo/U 0,6/1 kV
Testing voltage:	core/core 4000 V
Current-carrying capacity:	acc. to VDE 0298-4, see chapter N „Technical data“
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 *fixed laying:* *flexible application:*	 -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 - TMPU 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, see chapter N „Technical data“

item no.	no. of cores x cross section n x mm²	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
07202415	24 G 1,50	19,5	345,6	575	2700
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 mm²	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 in chapter N „Technical data“

DR 730 P Highflex

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 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, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

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**

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, see chapter N „Technical Data“
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 *fixed laying:* *flexible application:*	**DIN VDE** **UL/cUL:** up to +80°C -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, cUL FT1 FT2
Oil resistance:	very good - TMPU 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, see chapter N „Technical Data“

item no.	no. of cores x cross section n x mm²	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 mm²	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 in chapter N „Technical Data“**

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, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Supporting screen:	high-tech yarn
Sheath material:	PUR, TMPU 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:	Uo/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 - TMPU 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, see chapter N „Technical data“

item no.	no. of cores x cross section n x mm²	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

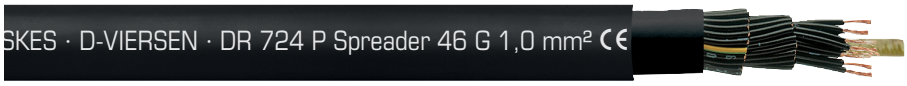
Other dimensions and colours are possible on request.

Please mention the required winding length when placing the order.

Please pay attention to the installation instructions in chapter N „Technical data“

DR 724 P Spreader

PUR Reeling cable for spreader application



Marking for DR 724 P Spreader 07244610:
SAB BRÖCKSKES · D-VIERSEN · DR 724 P Spreader 46 G 1,0 mm²

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, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Torsion protecting net:	Aramid
Sheath material:	PUR, TMPU 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 *for laying and installation (fixed laying):* *for repeated winding action (flexible):* *guided on pulleys (flexible):*	 5 x d 7,5 x d 10 x d
Temperature range *fixed laying:* *flexible application:*	 -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 - TMPU 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, see chapter N „Technical Data“

item no.	no. of cores x cross section n x mm²	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 in chapter N „Technical Data“

Spreader 722

Control cable hoisting cages in crane systems

Marking for Spreader 722 07224225:
SAB BRÖCKSKES · D-VIERSEN · Spreader 722 42 G 2,5 mm²

Application: Cable for carriers for example spreaders with high mechanical stress and vertical cage operation.

Construction:

Conductor:	bare copper strands
Insulation:	PVC
Colour code:	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
Suspension unit:	Armid braided with lead, 50 m of the suspended cable are supported by a 5 times safety calculation
Stranding:	cores are twisted to bundles with lead cord in the centre
Wrapping:	overlapping non-woven tape
Stranding:	bundle and lead cords twisted, suspension unit in the centre
Wrapping:	overlapping non-woven tape
Sheath material:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Outstanding features:

- **for hoisting cage applications**
- **high breaking load of supporting unit**
- **oil resistant**
- **weather resistant**

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage:	core/core 2000 V
Temperature range	
fixed laying:	-20/+60 °C
flexible application:	-20/+60 °C
max. allowed operating temperature at conductor:	+70 °C
short circuit temperature at cocductor:	+150 °C
Tensile strength:	max. 15 N/mm² x sum of all cable sections
Recommended cage dimensions:	cage diameter min. 30 x d, cage height approx. 45 x d
Travel speed hoisting gear:	max. 160 m/min.
Oil resistance:	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Weather resistance:	appropriate for applications in dry, damp and wet rooms as well as in the open-air with a very good resistance against ozone, UV radiation and humidity
	Due to the lead cord this cable isn't free of harmful substances acc. to RoHS directive of the European Union

item no.	no. of cores x cross section n x mm²	outer-ø ± 10% mm	copper figure kg/km	cable weight ≈ kg/km
07224810	48 G 1,00	32,1	460,8	1951
07222425	24 G 2,50	29,7	576,0	1660
07223025	30 G 2,50	32,9	720,0	2016
07223625	36 G 2,50	36,2	864,0	2567
07224225	42 G 2,50	39,2	1008,0	3177
07224825	48 G 2,50	41,9	1152,0	3556
07222035	20 G 3,50	30,9	633,6	1722
07222435	24 G 3,50	33,2	760,3	2073
07223035	30 G 3,50	37,0	950,4	2565
07223635	36 G 3,50	40,2	1140,5	3218

Other dimensions and colours are possible on request.

Festoon 715 P

PUR cable for flexible application in festoon systems

Marking for Festoon 715 P 07150162:
SAB BRÖCKSKES · D-VIERSEN · Festoon 715 P 1x16.0 mm² *and current meter marking*

Marking for Festoon 715 P 07151825:
SAB BRÖCKSKES · D-VIERSEN · Festoon 715 P 18 G 2,5 mm² *and current meter marking*

Application: The Festoon 715 P cable is applied for high mechanical stress. It is particulary suitable for use in cable roller assemblies.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	TPE
Colour code:	single core black, from 2 conductors 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 with a suspension unit (single core cables without a suspension unit)
Wrapping:	non-woven tape
Sheath material:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Technical data:

Nominal voltage:	Uo/U 0,6/1 kV
Testing voltage:	core/core 4000 V
Min. bending radius:	6 x d
Continuous tensile strength:	max. 15 N/mm² acc. to DIN VDE 0298 part 3 section 7.1
Temperature range *fixed laying:* *flexible application:*	 -50/+90 °C -40/+90 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chem. resistance:	good against acids, alkalines, solvents, hydraulic liquids etc.
Continuous flexibility:	very good
Weather resistance:	very good
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical Data“

Outstanding features:

- **path feet rate in cable roller assemblies up to 240 m/min.**
- **very abrasion resistant**
- **halogen-free**
- **small outer diameter**
- **simple reeling operation permitted**

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07150315	3 G 1,50	0,26	7,3	43,2	76
07150415	4 G 1,50	0,26	7,9	57,6	94
07150515	5 G 1,50	0,26	8,8	72,0	117
07150715	7 G 1,50	0,26	10,4	100,8	167
07151215	12 G 1,50	0,26	12,5	172,8	245
07151815	18 G 1,50	0,26	15,1	259,2	367
07152415	24 G 1,50	0,26	17,5	345,6	510
07153015	30 G 1,50	0,26	18,7	432,0	593
07150325	3 G 2,50	0,26	8,1	72,0	106
07150425	4 G 2,50	0,26	8,8	96,0	134
07150525	5 G 2,50	0,26	10,1	120,0	170
07150725	7 G 2,50	0,26	12,0	168,0	243
07151225	12 G 2,50	0,26	14,5	288,0	368
07151825	18 G 2,50	0,26	17,3	432,0	543
07152425	24 G 2,50	0,26	20,2	576,0	798
07153025	30 G 2,50	0,26	21,4	720,0	862
07150440	4 G 4,00	0,31	10,7	153,6	206
07150460	4 G 6,00	0,31	12,1	230,4	287
07150361	3 G 10,00	0,41	14,3	288,0	381
07150461	4 G 10,00	0,41	15,8	384,0	492

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07150561	5 G 10,00	0,41	17,3	480,0	604
07150162	1 x 16,00	0,41	8,7	153,6	179
07150362	3 G 16,00	0,41	17,5	460,8	564
07150462	4 G 16,00	0,41	19,1	614,4	754
07150562	5 G 16,00	0,41	21,8	768,0	942
07150163	1 x 25,00	0,41	10,1	240,0	264
07150463	4 G 25,00	0,41	23,7	960,0	1136
07150563	5 G 25,00	0,41	26,3	1200,0	1418
07150164	1 x 35,00	0,41	12,1	226,0	377
07150464	4 G 35,00	0,41	27,7	1344,0	1591
07150165	1 x 50,00	0,41	13,5	480,0	533
07150465	4 G 50,00	0,41	31,5	1920,0	2262
07150166	1 x 70,00	0,41	16,0	672,0	717
07150167	1 x 95,00	0,51	18,9	912,0	990
07150168	1 x 120,00	0,51	20,8	1152,0	1203
07150169	1 x 150,00	0,51	22,7	1440,0	1500
07150170	1 x 185,00	0,51	24,8	1776,0	1819
07150171	1 x 240,00	0,51	28,5	2304,0	2433
0715	3 x 50,00 + 3 G 10,00	0,41	28,0	1728,0	1971

Other dimensions and colours are possible on request.

Festoon 716 CP

PUR cable with overall copper screen for flexible application in festoon systems

Marking for Festoon 716 CP 07160162:
SAB BRÖCKSKES · D-VIERSEN · Festoon 716 CP 1x25.0 mm² *and current meter marking*

Marking for Festoon 716 CP 07161825:
SAB BRÖCKSKES · D-VIERSEN · Festoon 716 CP 18 G 2,5 mm² *and current meter marking*

Application: The Festoon 716 CP cable is applied for high mechanical stress. It is particulary suitable for use in cable roller assemblies.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	TPE
Colour code:	single core black, from 2 conductors 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 with a suspension unit (single core cables without a suspension unit)
Wrapping:	non-woven tape
Screen:	tinned copper braiding
Wrapping:	non-woven tape
Sheath material:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Technical data:

Nominal voltage:	Uo/U 0,6/1 kV
Testing voltage:	core/core 4000 V core/screen 4000 V
Min. bending radius:	7,5 x d
Continuous tensile strength:	max. 15 N/mm² acc. to DIN VDE 0298 part 3 section 7.1
Temperature range *fixed laying:* *flexible application:*	 -50/+90 °C -40/+90 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chem. resistance:	good against acids, alkalines, solvents, hydraulic liquids etc.
Continuous flexibility:	very good
Weather resistance:	very good
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical Data“

Outstanding features:

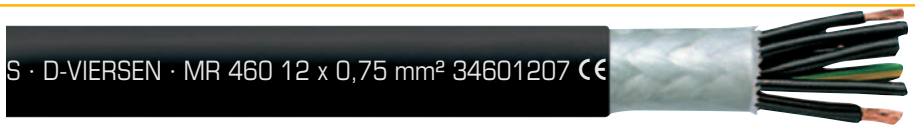
- **path feet rate in cable roller assemblies up to 240 m/min.**
- **very good EMC characteristics**
- **very abrasion resistant**
- **halogen-free**
- **small outer diameter**
- **simple reeling operation permitted**

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07160215	2 x 1,50	0,26	7,5	49,1	81
07160715	7 G 1,50	0,26	11,2	152,5	202
07161215	12 G 1,50	0,26	13,3	234,0	286
07161815	18 G 1,50	0,26	16,3	358,2	443
07160425	4 G 2,50	0,26	10,2	141,8	177
07160525	5 G 2,50	0,26	11,1	167,1	206
07161225	12 G 2,50	0,26	15,7	356,9	424
07161825	18 G 2,50	0,26	19,0	546,4	643
07160440	4 G 4,00	0,31	12,1	206,2	259
07160460	4 G 6,00	0,31	14,2	292,5	366
07160461	4 G 10,00	0,41	17,7	494,9	600
07160462	4 G 16,00	0,41	22,0	749,7	903
07160163	1 x 25,00	0,41	11,0	294,0	306
07160463	4 G 25,00	0,41	25,8	1121,8	1302
07160464	4 G 35,00	0,41	29,8	1537,5	1790
07160165	1 x 50,00	0,41	14,6	577,2	607
07160465	4 G 50,00	0,41	33,4	2129,6	2460
07160166	1 x 70,00	0,41	17,1	783,1	802
07160167	1 x 95,00	0,51	20,0	1049,9	1095
07160168	1 x 120,00	0,51	21,9	1293,1	1311

Other dimensions and colours are possible on request.

MR 460

Control cable with numbered cores and fibre-reinforced PUR sheath



Marking for MR 460 34601207:
SAB BRÖCKSKES · D-VIERSEN · MR 460 12 x 0,75 mm² 34601207 CE

Application: For unprotected usage with high mechanical stress e.g. in the forest and agriculture industry.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	TPE
Colour code:	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 cores a green-yellow earth wire
Stranding:	specially adjusted layering
Wrapping:	non-woven tape
Supporting screen:	high-tech yarn
Sheath material:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (similar RAL 9005)

Outstanding features:

- **reinforced outer sheath for high mechanical stress**
- **halogen-free**
- **notch resistant abrasion resistant**
- **good flexibility also at low temperatures**
- **weather resistant**
- **oil resistant**
- **chemical resistant**
- **sunlight resistant**

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage:	core/core 2000 V
Min. bending radius *fixed laying:* *flexible application:*	 5 x d 10 x d
Temperature range *fixed laying:* *flexible application:*	 -50/+90 °C -40/+90 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
UV resistance:	very good - enhanced due to black sheath colour
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 - high transverse stregth
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
34600305	3 x 0,50	0,16	6,4	14,4	50
34600405	4 x 0,50	0,16	6,7	19,2	57
34600505	5 x 0,50	0,16	7,3	24,0	66
34600705	7 x 0,50	0,16	8,2	33,6	88
34601205	12 x 0,50	0,16	9,8	57,6	128
34601805	18 x 0,50	0,16	11,2	86,4	175
34602505	25 x 0,50	0,16	13,2	120,0	233
34600307	3 x 0,75	0,16	7,0	21,6	62
34600407	4 x 0,75	0,16	7,4	28,8	72
34600507	5 x 0,75	0,16	8,0	36,0	88
34600707	7 x 0,75	0,16	9,0	50,4	110
34601207	12 x 0,75	0,16	10,9	86,4	158
34601807	18 x 0,75	0,16	12,9	129,6	237
34602507	25 x 0,75	0,16	15,2	180,0	323
34600310	3 x 1,00	0,16	7,4	28,8	72
34600410	4 x 1,00	0,16	7,9	38,4	89
34600510	5 x 1,00	0,16	8,5	48,0	104
34600710	7 x 1,00	0,16	9,9	67,2	137

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
34601210	12 x 1,00	0,16	11,9	115,2	210
34601810	18 x 1,00	0,16	13,6	172,8	283
34602510	25 x 1,00	0,16	16,6	240,0	407
34600315	3 x 1,50	0,16	8,0	43,2	96
34600415	4 x 1,50	0,16	8,6	57,6	113
34600515	5 x 1,50	0,16	9,3	72,0	133
34600715	7 x 1,50	0,16	10,9	100,8	206
34601215	12 x 1,50	0,16	13,1	172,8	277
34601815	18 x 1,50	0,16	15,5	259,2	403
34602515	25 x 1,50	0,16	18,4	360,0	541
34600325	3 x 2,50	0,16	9,8	72,0	140
34600425	4 x 2,50	0,16	10,5	96,0	170
34600525	5 x 2,50	0,16	11,5	120,0	205
34600725	7 x 2,50	0,16	13,5	168,0	274
34601225	12 x 2,50	0,16	16,7	288,0	447
34601825	18 x 2,50	0,16	19,4	432,0	660
34602525	25 x 2,50	0,16	23,4	600,0	868

Other dimensions and colours are possible on request.

SAB 755 - Exploration

robust and highly flexible control and power supply cable

Marking for SAB 755 - Exploration 07550715:
SAB BRÖCKSKES · D-VIERSEN · SAB 755-Exploration 7x1,5mm² cULus AWM Style 21233 80°C 1000V AWM I/II A/B 80°C 1000V FT1 FT2 0755-0715 CE

Application: Halogen-free, screened connection and control cable applied for drilling equipment, compressors or pumps in especially rough and wet environments of machine tools and production lines.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	SABIX®
Colour code:	coloured acc. to HD 308 (VDE 0293-308), from 5 cores black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
Screen:	tinned copper braiding
Supporting screen:	high-tech yarn
Sheath material:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Outstanding features:

- **UL/cUL recognized**
- **extremely large temperature range**
- **small outer diameter**
- **small cable weight**
- **application in Topside Drilling-Loop**

Hybrid cable on request!

Technical data:

Nominal voltage:	Uo/U 0,6/1 kV
Voltage UL/cUL:	1000 V
Testing voltage:	core/core 4000 V core/screen 4000 V
Current-carrying capacity:	acc. to VDE 0298-4
Min. bending radius *fixed laying:* *flexible application:*	 6 x d 15 x d
Temperature range *fixed laying:* *flexible application*:*	**DIN VDE** **UL/cUL:** up to +80°C -50/+90 °C -45/+90 °C
Cold resistance:	-50°C acc. to DIN EN 60811-506
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 - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
MUD resistance:	very good - acc. to IEC 60092-360, IEC 61892-4, NEK TS 606
Tensile strength:	max. 20 N/mm²
Sunlight resistance:	acc. to HD 605
Ozone resistance:	acc. to DIN EN 50396
Salt water resistance:	acc. to UL 1309
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

*protected installation in tubes with slow, occasional movements

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07550715	7 x 1,50	0,26	11,3	149,0	208
07551215	12 x 1,50	0,26	13,2	232,5	288
07551515	15 x 1,50	0,26	15,2	313,0	387
07551815	18 x 1,50	0,26	15,9	356,9	436
07552515	25 x 1,50	0,26	19,0	472,0	575
07550525	5 x 2,50	0,26	11,0	179,5	221
07550725	7 x 2,50	0,26	13,0	228,9	295
07551225	12 x 2,50	0,26	15,8	396,5	452
07550340	3 x 4,00	0,31	11,1	136,5	203
07550440	4 x 4,00	0,31	12,2	207,6	271
07550540	5 x 4,00	0,31	13,3	245,6	321
07550360	3 x 6,00	0,31	13,2	221,2	305
07550460	4 x 6,00	0,31	14,3	278,3	387
07550560	5 x 6,00	0,31	15,7	374,3	471
07550361	3 x 10,0	0,41	16,0	374,6	480
07550461	4 x 10,0	0,41	16,6	471,9	561
07550561	5 x 10,0	0,41	19,1	569,7	714
07550362	3 x 16,0	0,41	19,5	551,0	694
07550462	4 x 16,0	0,41	21,2	706,6	859

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07550562	5 x 16,0	0,41	23,4	863,0	1061
07550363	3 x 25,0	0,41	22,9	813,8	1016
07550463	4 x 25,0	0,41	25,0	1056,6	1275
07550563	5 x 25,0	0,41	27,6	1300,3	1569
07550364	3 x 35,0	0,41	26,3	1106,4	1426
07550464	4 x 35,0	0,41	28,8	1455,1	1764
07550564	5 x 35,0	0,41	31,3	1797,8	2160
07550365	3 x 50,0	0,41	29,3	1551,3	1934
07550465	4 x 50,0	0,41	32,2	2037,3	2443
07550565	5 x 50,0	0,41	35,5	2531,9	3007
07550164	1 x 35,0	0,41	15,5	421,8	467
07550165	1 x 50,0	0,41	17,3	577,9	646
07550166	1 x 70,0	0,41	19,8	784,0	862
07550167	1 x 95,0	0,51	23,1	1051,5	1179
07550168	1 x 120,0	0,51	24,6	1318,2	1420
07550169	1 x 150,0	0,51	27,0	1611,0	1748
07550170	1 x 185,0	0,51	29,0	1952,1	2077
07550171	1 x 240,0	0,51	34,3	2493,2	2805
07550172	1 x 300,0	0,51	37,5	3077,6	3445

Other dimensions and colours are possible on request.

SAB S 745 - Exploration

continuously flexible control cable, robust and oil resistant

Marking for SAB S 745 - Exploration 07451815:
SAB BRÖCKSKES · D-VIERSEN · SAB S 745 - Exploration 18x1,5mm² cULus AWM Style 21233 80°C 1000V AWM I/II A/B 80°C 1000V FT1 FT2 0745-0715 CE

Application: Halogen-free, screened control cable for continuous flexible use in cable chains in rough environments for example drilling equipment or wet areas of machine tools and production lines. Appropriate for outdoor and indoor areas.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	SABIX®
Colour code:	black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green-yellow earth wire
Inner sheath:	SABIX® (only for multi-core cables)
Screen:	tinned copper braiding
Sheath material:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Outstanding features:

- **UL/cUL recognized**
- **extremely large temperature range**
- **small outer diameter**
- **small cable weight**
- **long travels possible**
- **very good EMC characteristics**

Hybrid cable on request!

Technical data:

Nominal voltage:	Uo/U 300/500 V
Voltage UL/cUL:	600 V
Testing voltage:	core/core 2000 V core/screen 2000 V
Min. bending radius *continuously flexible:*	10 x d
Temperature range *fixed laying:* *flexible application*:*	**DIN VDE** **UL/cUL:** up to +80°C -50/+90 °C -45/+90 °C
Cold resistance:	-50°C acc. to DIN EN 60811-506
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 - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
MUD resistance:	very good - acc. to IEC 60092-360, IEC 61892-4, NEK TS 606
Sunlight resistance:	acc. to HD 605
Ozone resistance:	acc. to DIN EN 50396
Salt water resistance:	acc. to UL 1309
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

*protected installation

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
07450315	3 x 1,50	0,16	7,8	66,8	97
07450515	5 x 1,50	0,16	9,1	96,1	136
07451815	18 x 1,50	0,16	15,5	287,9	402
07452515	25 x 1,50	0,16	19,0	469,8	608
07450325	3 x 2,50	0,16	10,1	102,3	157
07450525	5 x 2,50	0,16	11,3	171,0	233
07451825	18 x 2,50	0,16	26,2	542,7	702
07452525	25 x 2,50	0,16	24,9	744,7	989
07450440	4 x 4,00	0,16	12,5	202,3	271
07450160	1 x 6,00	0,21	6,4	75,2	88
07450460	4 x 6,00	0,21	15,3	327,9	423
07450161	1 x 10,0	0,21	7,4	117,3	135
07450162	1 x 16,0	0,21	8,6	179,8	198
07450462	4 x 16,0	0,21	22,3	743,0	977
07450163	1 x 25,0	0,21	10,6	287,6	304
07450165	1 x 50,0	0,31	14,7	576,9	605

Other dimensions and colours are possible on request.

SL 851 C - Exploration

Motor connection cable with overall copper screen 0.6/1 kV

0.6/1 kV

Marking for SL 851 C - Exploration 08510425:
SAB BRÖCKSKES · D-VIERSEN · SL 851 C - Exploration 4x2,5mm² AWM Style 21223 80°C 1000V cULus AWM I/II A/B 80°C 1000V FT1 FT2

Application: Motor connection cable for the electrical hook-up of drilling equipment, compressors, generators as well as pumps in rough environments.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	SABIX®
Colour code:	coloured acc. to HD 308 (VDE 0293-308) and a green-yellow earth wire
Screen:	alu foil and tinned copper braiding
Wrapping:	non-woven tape
Sheath material:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Sheath colour:	black (RAL 9005)

Outstanding features:

- **UL/cUL recognized**
- **extremely large temperature range**
- **low surface transfer impedance**
- **low mutual capacitance**
- **very good EMC characteristics**

Technical data:

Nominal voltage:	Uo/U 0,6/1 kV
Voltage UL/cUL:	1000 V
Maximum operating voltage:	*in three-phase current and single phase current operation:* Uo/U 0,7/1,2 kV *in D.C. current operation:* Uo/U 0,9/1,8 kV *peak value of alterning current:* U^ 1,7 kV
Testing voltage:	core/core 4000 V core/screen 4000 V
Min. bending radius *fixed laying:* *flexible application:*	≤ 12 mm: 5 x d; 10 x d > 12 mm up to ≤ 20 mm: 7.5 x d; 15 x d > 20 mm: 10 x d; 20 x d
Temperature range *fixed laying:* *flexible application*:*	**DIN VDE** **UL/cUL:** up to +80°C -50/+90 °C -45/+90 °C
Cold resistance:	-50°C acc. to DIN EN 60811-506
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 - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
MUD resistance:	very good - acc. to IEC 60092-360, IEC 61892-4, NEK TS 606
Sunlight resistance:	acc. to HD 605
Ozone resistance:	acc. to DIN EN 50396
Salt water resistance:	acc. to UL 1309
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

*protected installation

item no.	no. of cores x cross section n x mm²	AWG	largest single wire ø mm	outer-ø ± 10% mm	copper figure kg/km	cable weight ≈ kg/km
08510425	4 x 2,50	14 / 4c	0,26	10,0	124,5	168
08510440	4 x 4,00	12 / 4c	0,31	12,3	206,6	265
08510460	4 x 6,00	10 / 4c	0,31	14,0	315,9	386
08510470	4 x 10,00	8 / 4c	0,41	17,0	494,6	633
08510480	4 x 16,00	6 / 4c	0,41	22,1	753,6	931
08510490	4 x 25,00	4 / 4c	0,41	25,9	410,3	705
08510495	4 x 35,00	2 / 4c	0,41	29,8	1522,8	1810
08510496	4 x 50,00	1 / 4c	0,41	33,3	2110,1	2486
08510498	4 x 70,00	2/0 / 4c	0,41	39,7	2897,9	3452

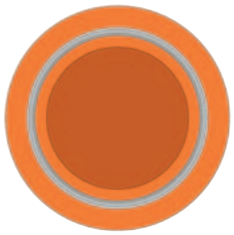
Other dimensions and colours are possible on request.

for DNC motors
on frequency converters
U^ 1,7 kV

HV 1000 C - SC

robust, flexible high-voltage single conductor with overall copper screen

CE RoHS



Marking for HV 1000 C SC 39100163:
SAB BRÖCKSKES · D-VIERSEN · HV 1000 C - SC 1x25mm² 3910-0163 CE

Application: These high-voltage cables can be used in high-voltage applications e.g. in the fields of agricultural vehicles, construction vehicles and special vehicles. The HV 1000 C - SC is used e.g. between inverters and electric motors.

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	TPFP
Colour code:	orange
Screen:	alu foil and tinned copper braiding
Wrapping:	non-woven tape
Sheath material:	TPE-U
Sheath colour:	orange (RAL 2003)

Outstanding features:

- **extremely high mechanical strength**
- **high protection against environmental influences**
- **100% oil resistance acc. to standard**
- **application range from -50°C to +125°C**

Technical Data:

Nominal voltage:	Uo/U max. 0,6/1 kV AC/DC
Testing voltage:	core/core 5000 V
Min. bending radius *fixed laying:* *flexible application:*	 5 x d 10 x d
Temperature range *fixed laying:* *flexible application:* *limited time of use:*	 -50/+90 °C -40/+90 °C +125 °C (2000 h)
Low temperature resistance:	-50°C acc. to DIN EN 60811-506
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Oil resistance:	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
MUD resistance:	very good - acc. to IEC 60092-360, IEC 61892-4, NEK TS 606
UV resistance:	acc. to HD 605
Ozone resistance:	acc. to EN 50396
Saltwater resistance:	acc. to UL 1309
Mechanical characteristics:	the main mechanical characteristics accomplished by the outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance - high shear strength
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

item no.	nominal cross-section mm²	largest single wire ø mm	outer-ø max. mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20°C max. Ω/km
39100160	6,00	0,21	6,5	77,0	93	3,30
39100161	10,00	0,21	8,8	134,5	168	1,91
39100162	16,00	0,21	10,2	201,0	246	1,21
39100163	25,00	0,21	12,2	317,2	363	0,78
39100164	35,00	0,21	14,4	427,4	506	0,554
39100165	50,00	0,21	15,8	559,9	656	0,386
39100166	70,00	0,21	18,2	796,7	900	0,227
39100167	95,00	0,31	20,9	1056,6	1182	0,206

Other dimensions and colours are possible on request.

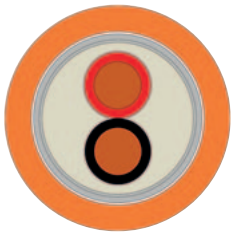
Construction, materials and tests with reference to:

- **DIN EN 60228**
- **DIN EN 50525**
- **DIN EN 50290-2-30**
- **DIN EN 50620**
- **DIN EN 60811**

In individual cases, the specific application must be agreed with SAB Bröckskes.

HV 1000 C - MC

robust, flexible high-voltage multi-core cable with overall copper screen



Marking for HV 1000 C MC 39100240:
SAB BRÖCKSKES · D-VIERSEN · HV 1000 C - MC 2x4,0mm² 3910-0240 CE

Application: These high-voltage cables can be used in high-voltage applications e.g. in the fields of agricultural vehicles, construction vehicles and special vehicles. The HV 1000 C - MC is used as a connection cable e.g. for cabin heating, the electric compressor, the high-voltage heat pump in electric and hybrid vehicles.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	TPFP
Colour code:	red, black, from 3 cores acc. to HD 308 or acc. to customer request
Stranding:	together
Inner sheath:	Besilen®
Screen:	alu foil and tinned copper braiding
Wrapping:	non-woven tape
Sheath material:	TPE-U
Sheath colour:	orange (RAL 2003)

Outstanding features:

- **extremely high mechanical strength**
- **high protection against environmental influences**
- **100% oil resistance acc. to standard**
- **application range from -50°C to +125°C**

Technical Data:

Nominal voltage:	Uo/U max. 0,6/1 kV AC/DC
Testing voltage:	core/core 5000 V core/screen 5000 V
Min. bending radius *fixed laying:* *flexible application:*	 5 x d 10 x d
Temperature range *fixed laying:* *flexible application:* *limited time of use:*	 -50/+90 °C -40/+90 °C +125 °C (2000 h)
Low temperature resistance:	-50°C acc. to DIN EN 60811-506
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Oil resistance:	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
MUD resistance:	very good - acc. to IEC 60092-360, IEC 61892-4, NEK TS 606
UV resistance:	acc. to HD 605
Ozone resistance:	acc. to EN 50396
Saltwater resistance:	acc. to UL 1309
Mechanical characteristics:	the main mechanical characteristics accomplished by the outer sheath are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance - high shear strength
Absence of harmful substances:	acc. to RoHS directive of the European Union, see chapter N „Technical data“

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	outer-ø max. mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20°C max. Ω/km
39100225	2 x 2,50	0,26	9,6	86,0	139	7,98
39100325	3 x 2,50	0,26	10,2	116,0	175	7,98
39100240	2 x 4,00	0,31	10,7	124,5	186	4,95
39100340	3 x 4,00	0,31	11,7	167,7	240	4,95
39100260	2 x 6,00	0,31	12,5	175,4	247	3,10
39100360	3 x 6,00	0,31	13,6	248,7	340	3,10
39100460	4 x 6,00	0,31	14,6	318,5	418	3,10
39100560	5 x 6,00	0,31	15,9	389,1	505	3,10

Other dimensions and colours are possible on request.

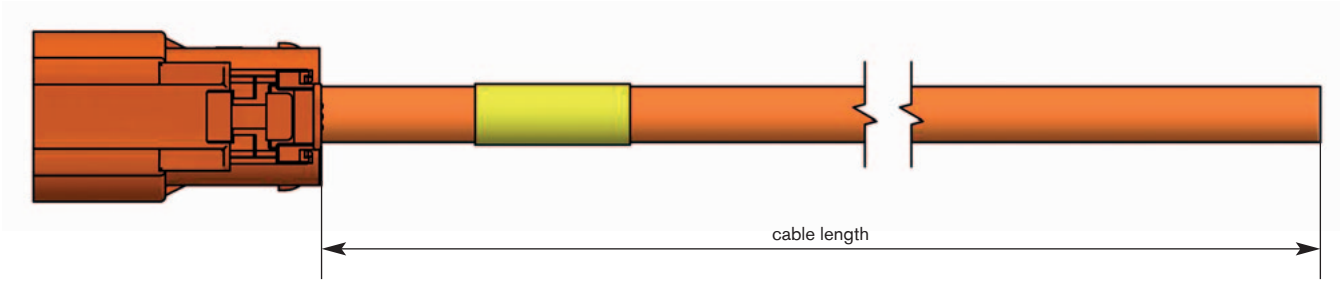
Construction, materials and tests with reference to:

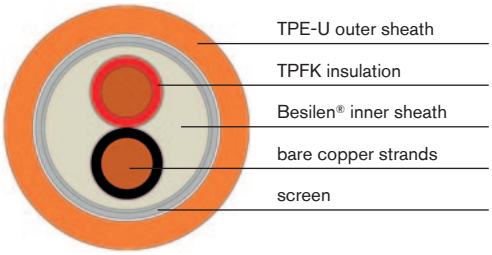
- **DIN EN 60228**
- **DIN EN 50525**
- **DIN EN 50290-2-30**
- **DIN EN 50620**
- **DIN EN 60811**

In individual cases, the specific application must be agreed with SAB Bröckskes.

HV 1000 C - MC

robust, flexible high-voltage multi-core cable with overall copper screen (as cable harness)





Application range:

e.g. in the fields of agricultural, construction and special vehicles

Connection end:

Outer sheath:	TPE-U
Connection end 1:	thermo connector
Connection end 2:	cut smoothly
Screen:	cut smoothly

Cable data:

Connection cable:	bare copper strands, screened
Core insulation:	TPFP
Inner sheath:	Besilen®
Screen:	alu foil and tinned copper braiding
Sheath material:	TPE-U
Sheath colour:	orange
Outer diameter:	see table on page G/29
Nominal voltage:	Uo/U max. 0,6/1 kV AC/DC
Temperature range	
fixed laying:	-50/+90 °C
flexible application:	-40/+90 °C
limited time of use:	+125 °C (2000 h)

CONFIGURATION EXAMPLES

item no.	connector	connection cable length	stripping	cross section
S3910-4001-00200	HVA 280, B-coded	2000 m	cut smoothly	4,00 mm²
S3910-4003-00200	HVA 280, E-coded	2000 m	cut smoothly	4,00 mm²

Total cable and channel lengths can be realised on customer's request.

SAB identification:
item number, batch number

Enquiry for special cable

to SAB BRÖCKSKES GmbH & Co. KG
Fax: +49 / 21 62 / 898 -101 · Phone: +49 / 21 62 / 898-0

Company/Name: _____

_____

Please calculate a non-binding offer based on the following data:

We need a cable for the following application: _____

_____

_____

_____

Dimension: _____

Quantity: _____ **Requested delivery time:** _____

Construction: _____

_____

_____

Technical data: _____

_____

_____

Temperature range: _____ **fixed laying:** **flexible application:**

Special ambient influences: _____

_____

_____

SAB BRÖCKSKES GmbH & Co. KG
Grefrather Straße 204 - 212 b · 41749 Viersen · GERMANY
info@sab-broeckskes.de

Cable harnessing

Due to the good co-operation with our customers we get continuously new ideas. Therefore, SAB BRÖCKSKES has enlarged the product range by the field of cable and wire harnessing.

No matter whether you need cable looms, assembled single conductors or cables - SAB offers a wide range of products, especially adjusted to your demands and specifications.

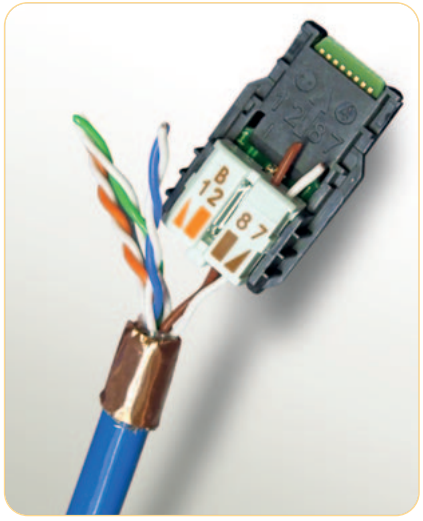
There are many possibilities in use of assembled cables. Some of these applications are in the car manufacturing industry, machine and industrial plant construction, control engineering, manufacturing of house hold appliances.

Connection possibilities of the large variety of connectors and sling parts offer efficient and cost saving solutions. The variety of possible uses of materials that are processed by SAB BRÖCKSKES at present:

- PUR (polyurethane)
- TPE
- Besilen® (silicone)
- PVC (polyvinyl chloride)
- SABIX® (halogen-free)
- ETFE, FEP, PFA
- rubber
- special materials (fibre-glass, Pi-foil, SABtex etc.)

… also offer a wide range of applications in industry.

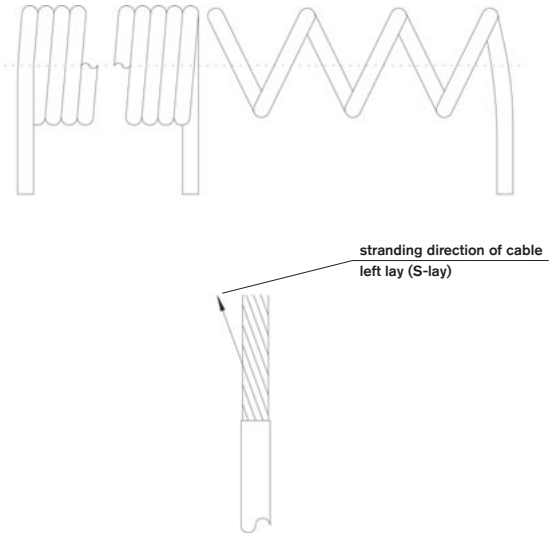
- **Please do not hesitate to contact our specialists, who will help you with an individual advice fitting to your application.**



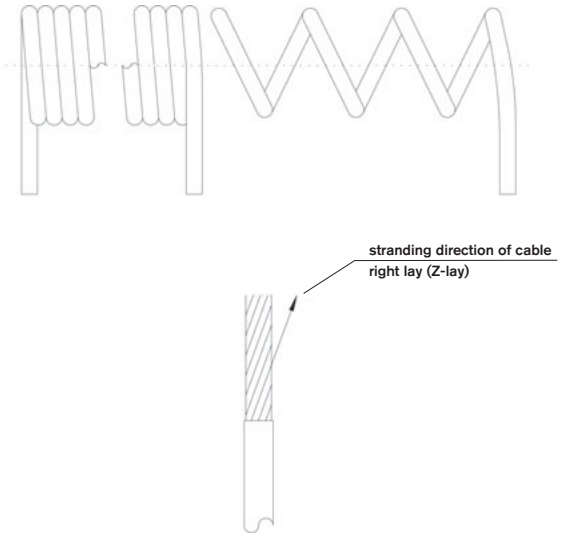
SAB helix cables

- By a special method cables can be transferred from their straight form to a curling form. According to the application the cable can be adjusted to your demands and specifications.
- It is possible to make helix cables of both, PVC as well as PUR sheathed cables. You can also buy screened helix cables from us.
- PVC helix cables can be used as extension or connection cables. These cost saving cables are used if there is no continuous restoring force demanded, e.g. for lamps or electrical appliances …
- PUR helix cables are used for very high requests on the quality of the cable. The pull-off length of these cables is approximately 4:1 and they have a good restoring force as well. For this reason these cables are used e.g. material handling appliances, in machines, on gates …
- The helical direction is dependent on the stranding direction of a cable.

Helical direction ⇨ left (counter-clockwirse)



Helical direction ⇨ right (clockwise)



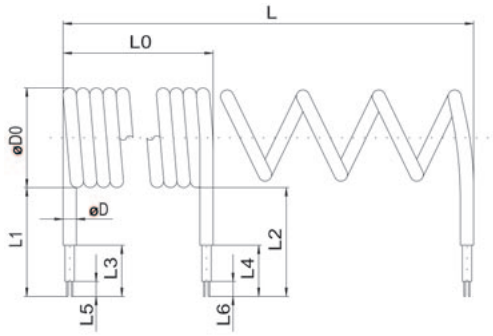
- You can send us an inquiry for helix cables using the form shown on the next page.

Construction details for helix cables

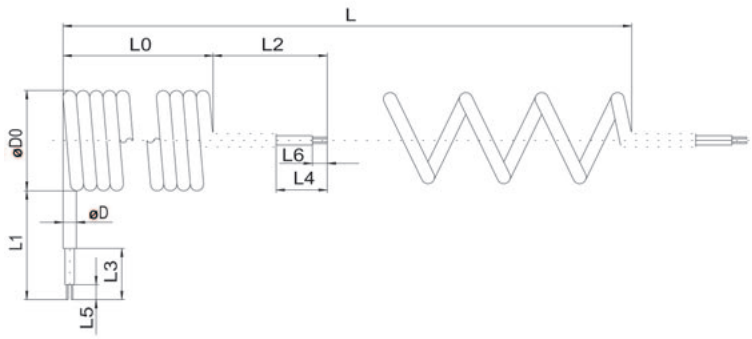
to SAB BRÖCKSKES GmbH & Co. KG
Fax: +49 / 21 62 / 898 -101 · Phone: +49 / 21 62 / 898-0

Company/Name: _____

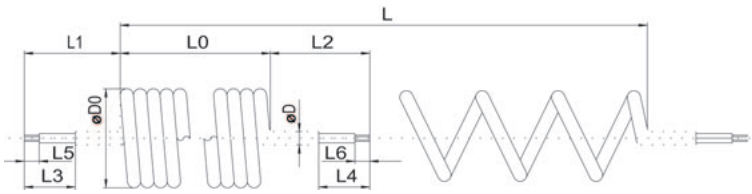
Please calculate a non-binding offer based on the following data:



■ Cable ends: radial



■ Cable ends: radial and axial



■ Cable ends: axial

L = _____ mm
L0 = _____ mm
øD = _____ mm
øD0 = _____ mm
L1 = _____ mm
L2 = _____ mm
L3 = _____ mm
L4 = _____ mm
L5 = _____ mm
L6 = _____ mm

Quantity: _____

Application
(type of installation): _____

Helical direction: _____

Standard cable
(item no.): _____

Insulation material
(core): _____

Screening: ○ yes ○ no

Insulation material
(sheath): _____

No. of cores: _____

Cross section: _____

Notes: _____