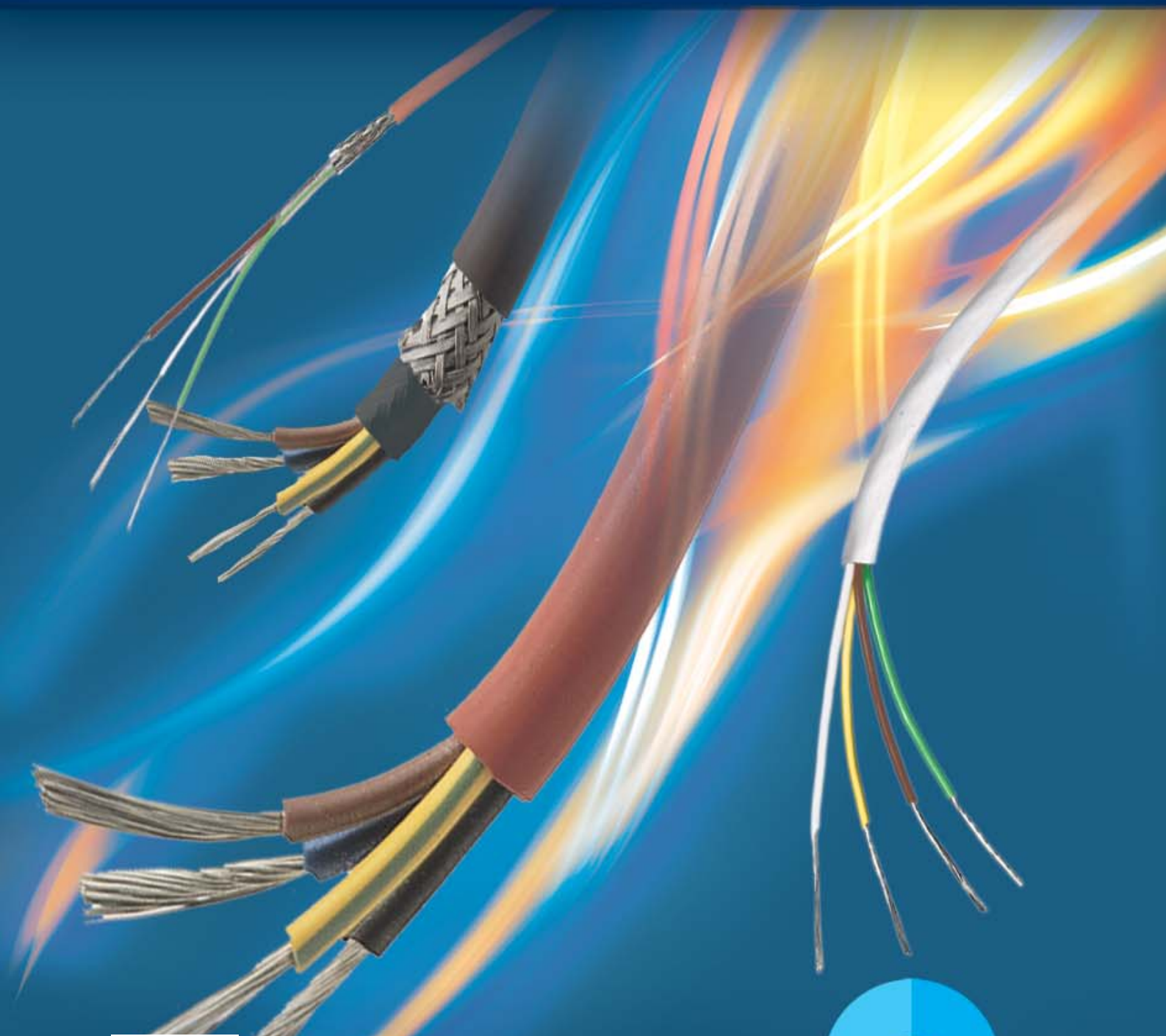
Heat resistant Cables



www.sab-worldwide.com

SAB BRÖCKSKES

CONTENT

DIN EN ISO 9001

More than 60 years of experience in temperature measurement and control technique as well as in cable production have made a one man business a company with nearly 500 staff members. Our strength is not only the production of standard products but also the development and manufacturing of special products acc. to customers' specifications. Every year we manufacture more than 1500 special products on our customer's request. Every single product is a challenge for our technical team.

We at SAB Bröckskes see ourselves as manufacturer and service provider - in the sense of real partnership and customer oriented work. The quality of our products is known in more than 40 countries of the world. Our customers have tested our products intensively and confirm that they have a longer service life than others. In all product ranges we are certified acc. to ISO 9001:2008. Besides we established an environmental management system for our company acc. to ISO 14001:2004, an occupational health and safety management acc. to NLF/ILO-OSH 2001 and OHSAS 18001:2007 as well as an energy management system acc. to DIN EN16001:2009. And our future slogan is: **We go forward!**

founded:
- 1947 by Peter Bröckskes sen.
- an independent, middle sized company

CEO:
- Peter Bröckskes

plant/location:
- in Viersen (lower Rhine) 110.000 m² company site
- manufacturing from copper conductor to outer sheath,
- own VDE proofed burnchamber and laboratory

employees/workers:
- approx. 420 at the plant in Viersen, 500 worldwide

yearly sales:
- approx. 95 Mio. € worldwide

products:
- Special Cables
- Temperature Measurement
- Cable Harnessing

certificates and approvals:
- quality management system acc. to ISO 9001:2008 for every manufacturing field
- environmental management system acc. to ISO 14001:2004
- occupational health and safety management acc. to NLF/ILO-OSH 2001 and OHSAS 18001:2007
- energy management system acc. to DIN EN 16001:2009

MIL, VDE, HAR, IEC, GL, DNV, BV, KR, ABS, NK, RINA, LR, CE

temperature resistant up to + 220°C

SABIX® A 100 HT Single conductor with nickel-plated strands
SABIX® A 101 HT Single conductor with silver-plated strands

RoHS

Marking for SABIX A 100 HT 71000150:
SAB BRÖCKSKES · D-VIERSEN · SABIX A 100 HT · 220°C · CE

Construction:

Conductor:	**SABIX® A 100 HT:** nickel-plated copper strands **SABIX® A 101 HT:** silver-plated copper strands fine wires acc. to IEC 60228, EN 60228, VDE 0295, class 5
Insulation:	SABIX®
Colour code:	coloured

Outstanding features:

- **halogen-free**
- **high temperature resistant**
- **flexible**
- **VDE-Reg.-No. 7088**
- **SABIX® A 101 HT: good solderability**

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage:	2000 V
Min. bending radius: **For one single bend:**	7.5 x d 5 x d
Temperature range *fixed laying:* *flexible application:*	 -40/+220 °C -25/+220 °C
Halogen-free:	acc. to DIN VDE 0472 part 815 and IEC 60754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Corrosiveness of conflagration gases:	in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

SABIX® A 100 HT

item no.	nominal cross-section mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
7100 .. 25*	0,25	0,16	2,3	2,4	7
7100 .. 34*	0,34	0,16	2,4	3,3	8
7100 .. 50*	0,50	0,21	2,5	4,8	10
7100 .. 75*	0,75	0,21	2,8	7,2	13
7100 .. 80*	1,00	0,21	2,9	9,6	15
7100 .. 82*	1,50	0,26	3,4	14,4	21
7100 .. 84*	2,50	0,26	4,0	24,0	32
7100 .. 86*	4,00	0,31	4,6	38,4	48
7100 .. 87*	6,00	0,31	5,1	57,6	67
7100 .. 88*	10,0	0,41	7,4	96,0	121
7100 .. 89*	16,0	0,41	8,4	153,6	176
7100 .. 90*	25,0	0,41	10,3	240,0	283
7100 .. 91*	35,0	0,41	11,5	336,0	385
7100 .. 92*	50,0	0,41	14,2	480,0	549
7100 .. 93*	70,0	0,41	15,2	672,0	736
7100 .. 94*	95,0	0,51	18,6	912,0	1009
7100 .. 95*	120,0	0,51	20,1	1152,0	1214
7100 .. 96*	150,0	0,51	22,2	1440,0	1511
7100 .. 97*	185,0	0,51	23,6	1776,0	1827
7100 .. 98*	240,0	0,51	27,3	2304,0	2457
7100 .. 99*	300,0	0,51	30,4	2880,0	3062

Other dimensions and colours are possible on request.

SABIX® A 101 HT

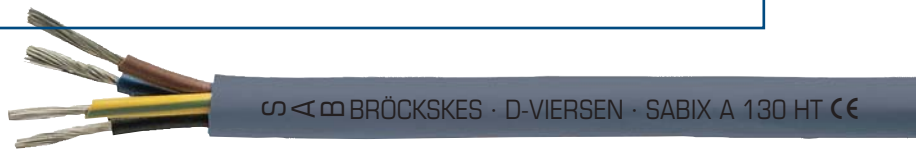
item no.	nominal cross-section mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
7101 .. 25*	0,25	0,16	2,3	2,4	7
7101 .. 34*	0,34	0,16	2,4	3,3	8
7101 .. 50*	0,50	0,21	2,5	4,8	10
7101 .. 75*	0,75	0,21	2,8	7,2	13
7101 .. 80*	1,00	0,21	2,9	9,6	15
7101 .. 82*	1,50	0,26	3,4	14,4	21
7101 .. 84*	2,50	0,26	4,0	24,0	32
7101 .. 86*	4,00	0,31	4,6	38,4	48
7101 .. 87*	6,00	0,31	5,1	57,6	67
7101 .. 88*	10,0	0,41	7,4	96,0	121
7101 .. 89*	16,0	0,41	8,4	153,6	176
7101 .. 90*	25,0	0,41	10,3	240,0	283
7101 .. 91*	35,0	0,41	11,5	336,0	385
7101 .. 92*	50,0	0,41	14,2	480,0	549
7101 .. 93*	70,0	0,41	15,2	672,0	736
7101 .. 94*	95,0	0,51	18,6	912,0	1009
7101 .. 95*	120,0	0,51	20,1	1152,0	1214
7101 .. 96*	150,0	0,51	22,2	1440,0	1511
7101 .. 97*	185,0	0,51	23,6	1776,0	1827
7101 .. 98*	240,0	0,51	27,3	2304,0	2457
7101 .. 99*	300,0	0,51	30,4	2880,0	3062

Other dimensions and colours are possible on request.

temperature resistant up to + 220°C

SABIX® A 130 HT High temperature resistant control cable with numbered or coloured cores

RoHS



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

Construction:

Conductor:	silver-plated copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
Insulation:	SABIX®
Colour code:	coloured acc. to HD 308 (VDE 0293 part 308); from 3 cores a green-yellow earth wire; from 6 cores black insulation with consecutive numbers acc. to EN 50334 and a green-yellow earth wire
Stranding:	in layers
Sheath material:	SABIX®
Sheath colour:	grey (RAL 7015)

Outstanding features:

- **halogen-free**
- **high temperature resistant**
- **flexible**

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage U:	2000 V acc. to DIN VDE 0281 part 2 + HD 21.2
Min. bending radius	
fixed laying:	4 x d
flexible application:	6 x d
Temperature range	
fixed laying:	-40/+220 °C
flexible application:	-25/+220 °C
Halogen-free:	acc. to DIN VDE 0472 part 815 and IEC 60754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Corrosiveness of conflagration gases:	in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

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
71300205	2 x 0,50	0,21	5,0	9,6	30
71300305	3 x 0,50	0,21	5,3	14,4	36
71300405	4 x 0,50	0,21	5,7	19,2	44
71300505	5 x 0,50	0,21	6,3	24,0	54
71300705	7 x 0,50	0,21	6,8	33,6	67
71301005	10 x 0,50	0,21	8,8	48,0	95
71301205	12 x 0,50	0,21	9,1	57,6	109
71301805	18 x 0,50	0,21	10,8	86,4	161
71300207	2 x 0,75	0,21	5,6	14,4	39
71300307	3 x 0,75	0,21	5,9	21,6	48
71300407	4 x 0,75	0,21	6,4	28,8	58
71300507	5 x 0,75	0,21	7,1	36,0	73
71300707	7 x 0,75	0,21	7,9	50,4	93
71301007	10 x 0,75	0,21	10,2	72,0	132
71301207	12 x 0,75	0,21	10,5	86,4	152
71301807	18 x 0,75	0,21	12,5	129,6	225
71300210	2 x 1,00	0,21	5,8	19,2	45
71300310	3 x 1,00	0,21	6,1	28,8	55
71300410	4 x 1,00	0,21	6,7	38,4	68
71300510	5 x 1,00	0,21	7,3	48,0	85
71300710	7 x 1,00	0,21	8,2	67,2	110
71301010	10 x 1,00	0,21	10,6	96,0	162
71301210	12 x 1,00	0,21	10,9	115,2	180
71301810	18 x 1,00	0,21	13,0	172,8	267
71302510	25 x 1,00	0,21	15,7	240,0	358
71300215	2 x 1,50	0,26	6,7	28,8	61
71300315	3 x 1,50	0,26	7,1	43,2	76
71300415	4 x 1,50	0,26	7,9	57,6	96
71300515	5 x 1,50	0,26	8,8	72,0	123
71300715	7 x 1,50	0,26	9,6	100,8	155
71301015	10 x 1,50	0,26	12,6	144,0	223
71301215	12 x 1,50	0,26	13,0	172,8	258
71301815	18 x 1,50	0,26	15,6	259,2	386
71302515	25 x 1,50	0,26	18,8	360,0	523
71300225	2 x 2,50	0,26	8,2	48,0	95
71300325	3 x 2,50	0,26	8,7	72,0	120
71300425	4 x 2,50	0,26	9,5	96,0	149
71300525	5 x 2,50	0,26	10,8	120,0	192
71300725	7 x 2,50	0,26	11,8	168,0	245
71301025	10 x 2,50	0,26	15,4	240,0	350
71301225	12 x 2,50	0,26	15,9	288,0	406
71301825	18 x 2,50	0,26	18,8	432,0	598
71300340	3 x 4,00	0,31	10,4	115,2	181
71300440	4 x 4,00	0,31	11,3	153,6	225
71300540	5 x 4,00	0,31	12,7	192,0	285
71300740	7 x 4,00	0,31	13,8	268,8	365
71300360	3 x 6,00	0,31	11,6	172,8	249
71300460	4 x 6,00	0,31	12,7	230,4	312
71300560	5 x 6,00	0,31	14,0	288,0	389
71300760	7 x 6,00	0,31	15,7	403,2	515
71300461	4 x 10,0	0,41	18,8	384,0	595
71300561	5 x 10,0	0,41	20,8	480,0	743
71300761	7 x 10,0	0,41	23,2	672,0	995
71300462	4 x 16,0	0,41	21,6	614,4	904
71300562	5 x 16,0	0,41	24,3	768,0	1146
71300762	7 x 16,0	0,41	26,6	1075,2	1486
71300263	2 x 25,0	0,41	22,4	480,0	833
71300463	4 x 25,0	0,41	26,6	960,0	1384
71300563	5 x 25,0	0,41	29,5	1200,0	1726
71300364	3 x 35,0	0,41	26,8	1008,0	1436
71300464	4 x 35,0	0,41	29,5	1344,0	1819

Other dimensions and colours are possible on request.

BiAF Besilen®-insulated strands

RoHS

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
Insulation:	Besilen® EI2 acc. to DIN VDE 0282 part 1 and HD 22.1

Outstanding features:

- **halogen-free**
- **flexible at low temperatures**
- **heat resistant**

Technical data:

Nominal voltage:	Uo/U 300/300 V
Testing voltage:	2000 V
Min. bending radius:	7.5 x d
Radiation resistance:	2 x 10^7 cJ/kg
Temperature range *fixed laying:* *flexible application:* *short-time use:*	 -40/+180 °C -25/+180 °C +250 °C
Halogen-free:	acc. to DIN VDE 0472 part 815 and IEC 60754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Corrosiveness of conflagration gases:	IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2 – no development of corrosive conflagration gases
Chem. resistance:	see page 27
Weather resistance:	very good
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

item no.	nominal cross section mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
0113002…*	0,25	0,16	1,7	2,4	5
0113003…*	0,34	0,26	1,8	3,3	6
0113005…*	0,50	0,21	1,9	4,8	8
0113007…*	0,75	0,21	2,2	7,2	10
0113010…*	1,00	0,21	2,3	9,6	13
0113015…*	1,50	0,26	2,8	14,4	18
0113025…*	2,50	0,26	3,4	24,0	29
0113040…*	4,00	0,31	4,0	38,4	44
0113060…*	6,00	0,31	4,5	57,6	62
0113100…*	10,00	0,41	6,1	96,0	107
0113160…*	16,00	0,41	7,5	153,6	167

item no.	nominal cross section mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
0113250…*	25,00	0,41	9,3	240,0	271
0113350…*	35,00	0,41	10,7	336,0	376
0113500…*	50,00	0,41	12,3	480,0	523
0113700…*	70,00	0,41	14,6	672,0	713
0113950…*	95,00	0,51	17,5	912,0	961
0113120…*	120,00	0,51	19,0	1152,0	1177
0113150…*	150,00	0,51	20,9	1440,0	1462
0113185…*	185,00	0,51	23,0	1776,0	1785
0113240…*	240,00	0,51	26,9	2304,0	2404
0113300…*	300,00	0,51	30,0	2880,0	2998

Other dimensions and colours are possible on request.

*** Colour code for single conductors:**

…0 = green-yellow
…1 = blue
…2 = black
…3 = brown
…4 = grey
…5 = white
…6 = reddish brown
…7 = red

Application:

for the wiring in the steel industry, plastic processing, cooling, heating and air conditioning technology, in lamp and lightning industry or in sauna construction!

also possible with extremely notch resistant sheath

BiHF-J Besilen®-insulated strands with Besilen® outer sheath

RoHS

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
Insulation:	Besilen® EI2 acc. to DIN VDE 0282 part 1 and HD 22.1
Colour code:	up to 5 cores coloured acc. to HD 308 (VDE 0293 part 308); from 6 cores black cores with consecutive numbers acc. to EN 50334; from 3 cores a green-yellow earth wire
Stranding:	in layers
Sheath material:	Besilen® EM9 acc. to DIN VDE 0282 part 1 + HD 22.1
Sheath colour:	reddish brown (similar RAL 3016)

Outstanding features:

- **halogen-free**
- **flexible at low temperatures**
- **heat resistant**

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage:	2000 V
Min. bending radius	
fixed laying:	4 x d
flexible application:	6 x d
Radiation resistance:	2 x 10^7 cJ/kg
Temperature range	
fixed laying:	-40/+180 °C
flexible application:	-25/+180 °C
short-time use:	+250 °C
Halogen-free:	acc. to DIN VDE 0472 part 815 and IEC 60754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Corrosiveness of conflagration gases:	IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2 – no development of corrosive conflagration gases
Chem. resistance:	see page 27
Weather resistance:	very good
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

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
01410202	2 x 0,25	0,15	4,3	4,8	23
01410402	4 x 0,25	0,15	4,9	9,6	32
01410205	2 x 0,50	0,20	4,8	9,6	31
01410305	3 x 0,50	0,20	5,1	14,4	37
01410405	4 x 0,50	0,20	5,5	19,2	45
01410505	5 x 0,50	0,20	6,1	24,0	53
01410705	7 x 0,50	0,20	6,6	33,6	69
01411205	12 x 0,50	0,20	8,9	57,6	113
01411805	18 x 0,50	0,20	10,6	86,4	164
01412505	25 x 0,50	0,20	12,9	120,0	225
01410207	2 x 0,75	0,20	5,4	14,4	41
01410307	3 x 0,75	0,20	5,7	21,6	49
01410407	4 x 0,75	0,20	6,2	28,8	60
01410507	5 x 0,75	0,20	6,9	36,0	72
01410607	6 x 0,75	0,20	7,7	43,2	86
01410707	7 x 0,75	0,20	7,7	50,4	96
01411007	10 x 0,75	0,20	10,0	57,6	136
01411207	12 x 0,75	0,20	10,3	86,4	157
01411607	16 x 0,75	0,20	11,5	115,2	201
01411807	18 x 0,75	0,20	13,2	129,6	228
01412507	25 x 0,75	0,20	14,9	180,0	314
01410210	2 x 1,00	0,20	5,6	19,2	46
01410310	3 x 1,00	0,20	5,9	28,8	57
01410410	4 x 1,00	0,20	6,5	38,4	70
01410510	5 x 1,00	0,20	7,1	48,0	84
01410610	6 x 1,00	0,20	8,0	57,6	101
01410710	7 x 1,00	0,20	8,0	67,2	113
01410810	8 x 1,00	0,20	9,3	76,8	129
01411010	10 x 1,00	0,20	10,4	96,0	160
01411210	12 x 1,00	0,20	10,7	115,2	185
01411410	14 x 1,00	0,20	11,3	134,4	211
01411610	16 x 1,00	0,20	11,9	153,6	242
01411810	18 x 1,00	0,20	12,8	172,8	270
01412010	20 x 1,00	0,20	13,5	192,0	296
01412510	25 x 1,00	0,20	15,5	240,0	369
01410215	2 x 1,50	0,25	6,6	28,8	62

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
01410315	3 x 1,50	0,25	7,0	43,2	80
01410415	4 x 1,50	0,25	7,8	57,6	102
01410515	5 x 1,50	0,25	8,6	72,0	121
01410615	6 x 1,50	0,25	9,4	86,4	142
01410715	7 x 1,50	0,25	9,4	100,8	158
01410815	8 x 1,50	0,25	11,2	115,2	187
01411215	12 x 1,50	0,25	12,8	172,8	265
01411615	16 x 1,50	0,25	14,6	230,4	352
01411815	18 x 1,50	0,25	15,4	259,2	391
01412015	20 x 1,50	0,25	16,2	288,0	429
01412415	24 x 1,50	0,25	18,2	345,6	520
01412515	25 x 1,50	0,25	18,6	360,0	539
01410225	2 x 2,50	0,25	8,0	48,0	99
01410325	3 x 2,50	0,25	8,5	72,0	123
01410425	4 x 2,50	0,25	9,3	96,0	153
01410525	5 x 2,50	0,25	10,6	120,0	192
01410625	6 x 2,50	0,25	11,6	144,0	224
01410725	7 x 2,50	0,25	11,6	168,0	251
01410925	9 x 2,50	0,25	15,2	216,0	333
01411225	12 x 2,50	0,25	15,7	288,0	417
01412425	24 x 2,50	0,25	22,4	576,0	813
01410240	2 x 4,00	0,31	9,6	76,8	148
01410340	3 x 4,00	0,31	10,2	115,2	186
01410440	4 x 4,00	0,31	11,1	153,6	230
01410540	5 x 4,00	0,31	12,5	192,0	282
01410740	7 x 4,00	0,31	13,6	230,4	371
01410260	2 x 6,00	0,31	10,8	115,2	201
01410360	3 x 6,00	0,31	11,4	172,8	254
01410460	4 x 6,00	0,31	12,5	230,4	317
01410560	5 x 6,00	0,31	13,8	288,0	383
01410461	4 x 10,0	0,41	16,8	384,0	556
01410561	5 x 10,0	0,41	18,7	480,0	679
01410462	4 x 16,0	0,41	20,3	614,4	820
01410463	4 x 25,0	0,41	25,4	960,0	1330
01410464	4 x 35,0	0,41	28,8	1344,0	1800

Other dimensions and colours are possible on request.

Application:

for the wiring in the steel industry, plastic processing, cooling, heating and air conditioning technology, in lamp and lightning industry or in sauna construction!

also possible with extremely notch resistant sheath

BiHF/Cu/Bi-J BiHF with overall copper screen and Besilen® outer sheath

RoHS

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
Insulation:	Besilen® EI2 acc. to DIN VDE 0282 part 1 and HD 22.1
Colour code:	up to 5 cores coloured acc. to HD 308 (VDE 0293 part 308); from 6 cores black cores with consecutive numbers acc. to EN 50334; from 3 cores a green-yellow earth wire
Stranding:	in layers
Inner sheath:	Besilen® EM9 acc. to DIN VDE 0282 part 1 + HD 22.1
Screen:	tinned copper braiding
Sheath material:	Besilen® EM9 acc. to DIN VDE 0282 part 1 + HD 22.1
Sheath colour:	reddish brown (similar RAL 3016)

Outstanding features:

- **good EMC characteristics**
- **halogen-free**
- **flexible at low temperatures**
- **heat resistant**
- **increased mechanical protection**

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage U:	2000 V core/screen 1000 V
Min. bending radius *fixed laying:* *flexible application:*	 5 x d 10 x d
Radiation resistance:	2 x 10^7 cJ/kg
Temperature range *fixed laying:* *flexible application:* *short-time use:*	 -40/+180 °C -25/+180 °C +250 °C
Halogen-free:	acc. to DIN VDE 0472 part 815 and IEC 60754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Corrosiveness of conflagration gases:	IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2 – no development of corrosive conflagration gases
Chem. resistance:	see page 27
Weather resistance:	very good
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

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
01900205	2 x 0,50	0,21	7,6	29,9	83
01900305	3 x 0,50	0,21	7,9	35,0	90
01900405	4 x 0,50	0,21	8,3	41,9	100
01900505	5 x 0,50	0,21	8,9	50,1	115
01900705	7 x 0,50	0,21	9,4	60,1	132
01901005	10 x 0,50	0,21	11,6	100,3	190
01901205	12 x 0,50	0,21	11,9	110,4	211
01901605	16 x 0,50	0,21	13,5	138,2	266
01901805	18 x 0,50	0,21	14,0	148,7	291
01900207	2 x 0,75	0,21	8,2	37,0	99
01900307	3 x 0,75	0,21	8,5	44,4	108
01900407	4 x 0,75	0,21	9,0	55,0	123
01900507	5 x 0,75	0,21	9,7	62,9	139
01900707	7 x 0,75	0,21	10,7	97,1	181
01901007	10 x 0,75	0,21	13,4	133,2	254
01901207	12 x 0,75	0,21	13,7	148,1	281
01901607	16 x 0,75	0,21	14,9	183,2	334
01901807	18 x 0,75	0,21	16,3	228,8	401
01900210	2 x 1,00	0,21	8,4	42,0	107
01900310	3 x 1,00	0,21	8,7	54,7	119
01900410	4 x 1,00	0,21	9,3	64,8	135

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
01900510	5 x 1,00	0,21	10,1	93,8	158
01900710	7 x 1,00	0,21	11,0	114,3	201
01901010	10 x 1,00	0,21	14,0	157,9	283
01901210	12 x 1,00	0,21	14,1	177,6	310
01901610	16 x 1,00	0,21	16,1	252,3	404
01901810	18 x 1,00	0,21	16,8	273,3	448
01900215	2 x 1,50	0,26	9,4	55,3	137
01900315	3 x 1,50	0,26	10,1	88,8	165
01900415	4 x 1,50	0,26	10,8	104,4	191
01900515	5 x 1,50	0,26	11,6	124,3	219
01900715	7 x 1,50	0,26	12,8	154,3	271
01901015	10 x 1,50	0,26	16,4	243,5	406
01901215	12 x 1,50	0,26	16,8	273,3	446
01901615	16 x 1,50	0,26	18,6	344,5	539
01901815	18 x 1,50	0,26	19,4	375,5	601
01900225	2 x 2,50	0,26	11,0	95,1	200
01900325	3 x 2,50	0,26	11,5	124,2	226
01900425	4 x 2,50	0,26	12,7	156,0	274
01900525	5 x 2,50	0,26	14,0	182,3	327
01900725	7 x 2,50	0,26	15,0	236,2	392

Other dimensions and colours are possible on request.

Application:

for the wiring in the steel industry, plastic processing, cooling, heating and air conditioning technology, in lamp and lightning industry or in sauna construction!

Temperature range up to +200°C

SC 600 C HDTR SABIX® 772 insulated strands with overall copper screen and Besilen® outer sheath

RoHS

Marking for SC 600 C HDTR 01240410:
SAB BRÖCKSKES · D-VIERSEN · SC 600 C HDTR AWM Style 4511 200°C 600V c AWM I/II A/B 200°C 600V FT1 FT2 CE

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
Insulation:	SABIX® 722
Colour code:	up to 5 cores coloured acc. to HD 308 (VDE 0293 part 308); from 6 cores black cores with consecutive numbers acc. to EN 50334; from 3 cores a green-yellow earth wire
Stranding:	in layers
Inner sheath:	Besilen® EM9 acc. to DIN VDE 0282 part 1 + HD 22.1
Screen:	tinned copper braiding
Sheath material:	Besilen® better than EM9 acc. to DIN VDE 0282 part 1 + HD 22.1
Sheath colour:	black (similar RAL 9011)

Outstanding features:

- **good EMC characteristics**
- **halogen-free**
- **flexible at low temperatures**
- **heat resistant**
- **protection against mechanical damage**

Technical data:

Voltage:	UL + cUL: 600 V
Nominal voltage:	DIN VDE: Uo/U 300/500 V
Testing voltage:	2000 V acc. to DIN VDE 0282 part 2 + HD 22.2 core/screen 2000 V
Min. bending radius *fixed laying:* *flexible application:*	 5 x d 10 x d
Radiation resistance:	2 x 10^7 cJ/kg
Temperature range *fixed laying:* *flexible application:* *short-time use:*	**UL:** up to +200 °C **cUL:** up to +200 °C **DIN VDE:** -40/+180 °C -25/+180 °C +250 °C
Halogen-free:	acc. to DIN VDE 0472 part 815 + IEC 60754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2, cUL FT1 and FT2
Corrosiveness of conflagration gases:	IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2 – no development of corrosive conflagration gases
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

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
01240207	2 x 0,75	0,21	8,2	37,0	93
01240307	3 x 0,75	0,21	8,5	44,4	101
01240407	4 x 0,75	0,21	9,0	55,0	123
01240507	5 x 0,75	0,21	9,7	62,9	139
01240210	2 x 1,00	0,21	8,4	42,0	101
01240310	3 x 1,00	0,21	8,7	54,7	120
01240410	4 x 1,00	0,21	9,3	64,8	136
01240510	5 x 1,00	0,21	10,1	93,8	167
01240710	7 x 1,00	0,21	11,0	114,3	202
01240215	2 x 1,50	0,26	9,4	55,3	129
01240315	3 x 1,50	0,26	10,0	88,8	164
01240415	4 x 1,50	0,26	10,8	104,4	192

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
01240515	5 x 1,50	0,26	11,6	125,5	235
01240715	7 x 1,50	0,26	12,8	161,0	277
01240225	2 x 2,50	0,26	11,2	99,8	210
01240325	3 x 2,50	0,26	11,7	124,5	233
01240425	4 x 2,50	0,26	12,9	156,3	282
01240525	5 x 2,50	0,26	14,3	187,0	336
01240340	3 x 4,00	0,31	13,8	177,1	329
01240440	4 x 4,00	0,31	14,8	221,5	384
01240540	5 x 4,00	0,31	16,7	292,3	481
01240360	3 x 6,00	0,31	15,1	241,2	396
01240460	4 x 6,00	0,31	16,8	330,9	524
01240560	5 x 6,00	0,31	18,1	400,8	581

Other dimensions and colours are possible on request.

Application:

with UL recognition for the use on the North American market!

H05SJ-K Besilen® insulated strands with glass fibre braiding acc. to DIN VDE 0282

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
Insulation:	Besilen® EI2 acc. to DIN VDE 0282 part 1 and HD 22.1
Standard colour:	nature
Braiding:	glass fibre
Impregnation:	impregnating lacquer

Outstanding features:

- **flexible**
- **halogen-free**
- **flexible at low temperatures**
- **heat resistant**
- **harmonized**

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage U:	2000 V
Min. bending radius:	7.5 x d
Radiation resistance:	2 x 10^7 cJ/kg
Temperature range *fixed laying:* *flexible application:* *short-time use:*	 -40/+180 °C -25/+180 °C +250 °C
Halogen-free:	acc. to DIN VDE 0472 part 815 and IEC 60754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Corrosiveness of conflagration gases:	IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2 – no development of corrosive conflagration gases
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

item no.	nominal cross section mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
01550059	0,50	0,21	2,7	4,8	14
01550079	0,75	0,21	3,0	7,2	17
01550109	1,00	0,21	3,1	9,6	19
01550159	1,50	0,26	3,5	14,4	25
01550259	2,50	0,26	4,2	24,0	35
01550409	4,00	0,31	4,8	38,4	50
01550609	6,00	0,31	5,3	57,6	60
01551009	10,00	0,41	6,4	96,0	120
01551609	16,00	0,41	8,3	153,6	178
01552509	25,00	0,41	10,1	240,0	281
01553509	35,00	0,41	11,5	336,0	388
01555009	50,00	0,41	13,1	480,0	537
01557009	70,00	0,41	15,4	672,0	721
01559509	95,00	0,51	18,0	912,0	963

Other dimensions and colours are possible on request.

Application:
for the wiring of lamps, devices, switchboards and distributors at high ambient temperatures!

+180 °C

S 180 HT / S 180 C HT

Continuously flexible high temperature control cable with numbered cores and Besilen® outer sheath - with or without overall copper screen

RoHS

Marking for S 180 HT 31800440:
SAB BRÖCKSKES · D-VIERSEN · S 180 HT CE

Marking for S 180 C HT 31850440:
SAB BRÖCKSKES · D-VIERSEN · S 180 C HT CE

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6
Insulation:	FEP
Colour code:	black cores with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 cores
Stranding:	specially adjusted layering with non-woven tape over each layer
Wrapping:	tape
S 180 C HT Screen:	tinned copper braiding
Sheath material:	special Besilen®
Sheath colour:	grey (similar RAL 7000)

Technical data:

Nominal voltage:	Uo/U 0,6/1 kV
Testing voltage U:	4000 V acc. to EN 50264
Min. bending radius *continuously flexible:*	15 x d
Temperature range *fixed laying:* *flexible application:* *short-time use:*	-25/+180 °C -25/+180 °C +200 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Flexibility:	very good
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

Outstanding features:

- **extreme temperature resistance**
- **high notch resistance**
- **very good flexibility**
- **very good EMC characteristics (S 180 C HT)**

S 180 HT

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
31800315	3 x 1,50	0,16	7,7	43,2	94
31800415	4 x 1,50	0,16	8,3	57,6	116
31800515	5 x 1,50	0,16	9,2	72,0	147
31800715	7 x 1,50	0,16	10,6	100,8	200
31800325	3 x 2,50	0,16	9,4	72,0	144
31800425	4 x 2,50	0,16	10,1	96,0	177
31800525	5 x 2,50	0,16	11,5	120,0	228
31800725	7 x 2,50	0,16	13,5	168,0	320
31800440	4 x 4,00	0,16	12,1	153,6	265
31800540	5 x 4,00	0,16	13,4	192,0	333
31800740	7 x 4,00	0,16	15,9	268,8	469
31800460	4 x 6,00	0,21	14,6	230,4	408
31800560	5 x 6,00	0,21	16,4	288,0	495
31800760	7 x 6,00	0,21	19,4	403,2	697
31800461	4 x 10,0	0,21	17,0	384,0	609
31800561	5 x 10,0	0,21	18,9	480,0	745
31800462	4 x 16,0	0,21	20,7	614,4	912
31800562	5 x 16,0	0,21	23,2	768,0	1146
31800463	4 x 25,0	0,21	24,0	960,0	1312
31800464	4 x 35,0	0,21	28,2	1344,0	1800

Other dimensions and colours are possible on request.

S 180 C HT

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
31850315	3 x 1,50	0,15	8,1	63,8	110
31850415	4 x 1,50	0,15	8,9	80,4	137
31850515	5 x 1,50	0,15	9,6	98,3	166
31850715	7 x 1,50	0,15	11,4	147,6	240
31850325	3 x 2,50	0,15	9,8	98,5	163
31850425	4 x 2,50	0,15	11,1	142,1	221
31850525	5 x 2,50	0,15	12,1	171,9	268
31850725	7 x 2,50	0,15	14,0	229,2	364
31850440	4 x 4,00	0,15	12,7	206,4	304
31850540	5 x 4,00	0,15	14,0	253,2	378
31850740	7 x 4,00	0,15	16,7	368,0	541
31850460	4 x 6,00	0,20	15,2	297,9	457
31850560	5 x 6,00	0,20	17,2	388,0	568
31850760	7 x 6,00	0,20	20,2	519,5	780
31850461	4 x 10,0	0,20	17,8	485,6	683
31850561	5 x 10,0	0,20	19,7	594,9	828
31850462	4 x 16,0	0,20	21,5	747,7	1007
31850562	5 x 16,0	0,20	24,0	922,4	1256
31850463	4 x 25,0	0,20	25,2	1117,5	1444
31850464	4 x 35,0	0,20	29,0	1532,5	1934

Other dimensions and colours are possible on request.

Application:

e.g. for use in cable tracks with extreme ambient temperatures!

S GE 696 HT CAT 6 Gigabit Ethernet cable, high temperature, continuously flexible

RoHS

Marking for S GE 696 HT:
SAB BRÖCKSKES · D-VIERSEN · S GE 696 HT CAT6 Gigabit Ethernet Cable 4 x 2 x 26 AWG CE

Construction:	S GE 696 HT
Dimension:	4 x 2 x 26 AWG
Conductor:	tinned copper strands, extra fine wires
Core insulation:	PFA
Colour code:	white cores with consecutive numbers 1 - 4 (+ blue, orange, green, brown)
Stranding:	cores twisted to pairs
Wrapping:	twisted to pairs with alu foil + overall PTFE foil
Screen:	alu foil + tinned copper braiding
Outer sheath:	special Besilen®
Sheath colour:	green (similar RAL 6018)

Technical data:	S GE 696 HT
Item number:	3696-2604
Peak operating voltage VDE:	max. 350 V
Testing voltage:	core/core 1500 V, core/screen 1200 V
Temperature range VDE fixed laying: flexible application: short time use:	 - 40°C / + 180°C - 25°C / + 180°C - 25°C / + 250°C
Min. bending radius fixed laying: flexible application: continuously flexible:	 7,5 x d 10 x d 15 x d
Characteristic impedance (1-250 MHz):	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-5-2
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

item no.	type	no. of pairs	cross section AWG	max. core-ø mm	outer-ø approx. mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max.Ω/km
3696-2604	S GE 696 HT	4	26	1,50	9,4	40,4	105	145

Other dimensions and colours are possible on request.

Application:
e.g. for use in cable tracks with extreme ambient temperatures!

S PB 634 HT Profibus-DP cable for the high temperature range, continuously flexible

S PB 634 HT Hybrid combined Profibus-DP cable with supply cores for the high temperature, continuously flexible

RoHS

Marking for S PB 634 HT 36341000:
SAB BRÖCKSKES · D-VIERSEN · S PB 634 HT 2 x 0,34 mm² CE

Construction:	S PB 634 HT	S PB 634 HT Hybrid
Dimension:	2 x 0,34 mm²	2 x 0,34 mm² + supply cores
Conductor:	tinned copper strands, extra fine wires	
Core insulation:	PFA	
Colour code:	red, green	0,34 mm² red, green supply cores acc. to HD 308
Stranding:	pairs 0,34 mm²	
Wrapping:	PTFE foil	
Inner sheath:	special Besilen®	
Screen 0,34 mm²:	tinned copper braiding	
Inner sheath:	FEP	
Stranding:	---	element 0,34 mm² together with supply cores
Wrapping:	---	PTFE foil
Outer sheath:	special Besilen®	
Sheath colour:	blue lilac (similar RAL 4005)	

Technical data:	S PB 634 HT	S PB 634 HT Hybrid
Item number:	3634-1000	siehe Tabelle unten
Nominal voltage Uo/U:	---	300/500 V (supply cores)
Peak operating voltage:	max. 350 V (0,34 mm²)	
Testing voltage:	core/core 0,34 mm²: 1500 V / supply cores: 2000 V core/screen 0,34 mm²: 1200 V / supply cores: 2000 V	
Temperature range fixed laying: flexible application: short time use:	 - 40°C / + 180°C - 25°C / + 180°C + 250°C	
Min. bending radius fixed laying: flexible application: continuously flexible:	 5 x d 10 x d 15 x d	
Characteristic impedance PB element (3-20 MHz):	150Ω ± 10%	
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2	
Flexibility:	very good	
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27	

Outstanding features:

- extreme temperature resistance
- high notch resistance
- very good flexibility

item no.	type	dimension	outer-ø approx. mm	copper figure kg/km	cable weight ≈kg/km
3634-1000	S PB 634 HT	2 x 0,34 mm²	9,4	33,3	120
3634-1307	S PB 634 HT Hybrid	2 x 0,34 mm² + 3 x 0,75 mm²	12,0	54,9	190
3634-1407	S PB 634 HT Hybrid	2 x 0,34 mm² + 4 x 0,75 mm²	12,0	62,1	191
3634-1510	S PB 634 HT Hybrid	2 x 0,34 mm² + 5 x 1,00 mm²	12,2	81,3	229
3634-1315	S PB 634 HT Hybrid	2 x 0,34 mm² + 3 x 1,50 mm²	12,6	76,5	215
3634-1415	S PB 634 HT Hybrid	2 x 0,34 mm² + 4 x 1,50 mm²	12,6	90,9	235

Other dimensions and colours are possible on request.

Application:
e.g. for use in cable tracks with extreme ambient temperatures!

450/750 V

(N)7YAbl · (N)7YAvz · (N)7YAvs · (N)7YAvn

ETFE insulated wires with extended temperature range

RoHS

Construction:

Conductor:	bare, tinned, silver-plated or nickel-plated copper wire acc. to IEC 60228, EN 60228, VDE 0295 class 1 < 0.50 mm² acc. to DIN VDE 0250 part 106
Insulation:	ETFE, 7YI1 acc. to VDE 0207 part 6
Colour code:	coloured

Outstanding features:

- **high resistance against chemicals and solvents**
- **low and high temperature resistance**
- **good electrical insulating characteristics with low, nearly frequency-independent dielectric characteristics**

Technical data:

Nominal voltage Uo/U:	450/750 V
Testing voltage:	2500 V
Min. bending radius:	7.5 x d
Radiation resistance:	2 x 10^8 cJ/kg
Temperature range	
fixed laying:	-55/+135 °C
flexible application:	-55/+135 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Chem. resistance:	very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

ETFE (7Y) bare copper **item no.**	ETFE (7Y) tinned copper **item no.**	dim. mm²	nominal single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
3374 .. 25	3375 .. 25	0,25	0,57	1,42	2,4	4,6
3374 .. 50	3375 .. 50	0,50	0,80	1,65	4,8	7,4
3374 .. 75	3375 .. 75	0,75	0,98	1,83	7,2	10,0
3374 .. 80	3375 .. 80	1,00	1,13	1,98	9,6	13,0
3374 .. 82	3375 .. 82	1,50	1,38	2,43	14,4	19,0
3374 .. 84	3375 .. 84	2,50	1,78	3,03	24,0	31,0
3374 .. 86	3375 .. 86	4,00	2,26	3,51	38,4	47,0
3374 .. 87	3375 .. 87	6,00	2,76	4,01	57,6	67,0

ETFE (7Y) silver-plated copper **item no.**	ETFE (7Y) nickel-plated copper **item no.**	dim. mm²	nominal single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
3376 .. 25	3377 .. 25	0,25	0,57	1,42	2,4	4,6
3376 .. 50	3377 .. 50	0,50	0,80	1,65	4,8	7,4
3376 .. 75	3377 .. 75	0,75	0,98	1,83	7,2	10,0
3376 .. 80	3377 .. 80	1,00	1,13	1,98	9,6	13,0
3376 .. 82	3377 .. 82	1,50	1,38	2,43	14,4	19,0
3376 .. 84	3377 .. 84	2,50	1,78	3,03	24,0	31,0
3376 .. 86	3377 .. 86	4,00	2,26	3,51	38,4	47,0
3376 .. 87	3377 .. 87	6,00	2,76	4,01	57,6	67,0

Other dimensions and colours are possible on request.

ETFE, FEP, PFA colour code, figures 5 and 6 of item no.:

01 = black	05 = yellow	09 = orange
02 = blue	06 = green	11 = red
03 = brown	07 = violet	15 = nature
04 = grey	08 = white	

Application:

for the wiring with high ambient temperatures and chemical resistance at the same time!

SAB BRÖCKSKES

+180 °C

TD 801 F FEP data cable with extended temperature range

RoHS

Construction:

Conductor:	tinned copper strands acc. to ASTM B 286
Insulation:	FEP, 6YI1 acc. to VDE 0207 part 6
Colour code:	with reference to DIN VDE 47100
Stranding:	in layers
Sheath material:	FEP, 6YM1 acc. to VDE 0207 part 6
Sheath colour:	white (RAL 1013)

Technical data:

Peak operating voltage:	max. 375 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x d
Radiation resistance:	1 x 10^7 cJ/kg
Temperature range *fixed laying:* *flexible application:* *limited time of use:*	 -90/+180 °C -55/+180 °C +200 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Chem. resistance:	very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

Outstanding features:

- **excellent resistance against chemicals and solvents**
- **excellent temperature resistance and flexibility at low temperatures**
- **excellent electrical insulating characteristics with low, nearly frequency-independent dielectric characteristics**

item no.	dimension	nominal single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38010228	2 x AWG 28/7	0,127	2,10	1,7	6,4
38010226	2 x AWG 26/7	0,160	2,30	2,7	8,0
38010224	2 x AWG 24/7	0,203	2,65	4,4	10,0
38010222	2 x AWG 22/7	0,254	2,95	6,9	14,0
38010220	2 x AWG 20/7	0,320	3,40	10,8	19,0
38010328	3 x AWG 28/7	0,127	2,20	2,6	8,1
38010326	3 x AWG 26/7	0,160	2,50	4,0	10,0
38010324	3 x AWG 24/7	0,203	2,75	6,6	14,0
38010322	3 x AWG 22/7	0,254	3,10	10,4	18,0
38010320	3 x AWG 20/7	0,320	3,55	16,1	26,0
38010428	4 x AWG 28/7	0,127	2,45	3,5	9,9
38010426	4 x AWG 26/7	0,160	2,70	5,4	13,0
38010424	4 x AWG 24/7	0,203	3,00	8,8	17,0
38010422	4 x AWG 22/7	0,254	3,40	13,8	23,0
38010420	4 x AWG 20/7	0,320	3,90	21,5	33,0
38010528	5 x AWG 28/7	0,127	2,65	4,3	13,0
38010526	5 x AWG 26/7	0,160	2,95	6,7	16,0
38010524	5 x AWG 24/7	0,203	3,35	11,0	22,0

item no.	dimension	nominal single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38010522	5 x AWG 22/7	0,254	3,75	17,3	30,0
38010520	5 x AWG 20/7	0,320	4,45	26,9	43,0
38010728	7 x AWG 28/7	0,127	2,90	6,0	15,0
38010726	7 x AWG 26/7	0,160	3,20	9,4	20,0
38010724	7 x AWG 24/7	0,203	3,60	15,5	27,0
38010722	7 x AWG 22/7	0,254	4,15	24,2	39,0
38010720	7 x AWG 20/7	0,320	4,80	37,6	56,0
38011028	10 x AWG 28/7	0,127	3,65	8,6	21,0
38011026	10 x AWG 26/7	0,160	4,15	13,4	29,0
38011024	10 x AWG 24/7	0,203	4,70	22,1	40,0
38011022	10 x AWG 22/7	0,254	5,45	34,6	56,0
38011020	10 x AWG 20/7	0,320	6,25	53,8	80,0
38011228	12 x AWG 28/7	0,127	3,75	10,4	24,0
38011226	12 x AWG 26/7	0,160	4,25	16,1	33,0
38011224	12 x AWG 24/7	0,203	4,85	26,5	46,0
38011222	12 x AWG 22/7	0,254	5,60	41,5	66,0
38011220	12 x AWG 20/7	0,320	6,50	64,5	94,0

Other dimensions and colours are possible on request.

Application:

as data cable with very good dielectric characteristics with very high ambient temperatures and outstanding chemical resistance!

+135 °C

TD 832 CE ETFE data cable with extended temperature range and overall copper screen

RoHS

Construction:

Conductor:	tinned copper strands acc. to ASTM B 286
Insulation:	ETFE, 7YI1 acc. to VDE 0207 part 6
Colour code:	with reference to DIN VDE 47100
Stranding:	in layers
Wrapping:	PETP foil
Screen:	tinned copper braiding
Sheath material:	ETFE, 7YM1 acc. to VDE 0207 part 6
Sheath colour:	white (RAL 1013)

Technical data:

Peak operating voltage:	max. 375 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x d
Radiation resistance:	2 x 10^8 cJ/kg
Temperature range *fixed laying:* *flexible application:* *limited time of use:*	 -90/+135 °C -55/+135 °C +150 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Chem. resistance:	very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

Outstanding features:

- **high resistance against chemicals and solvents**
- **low and high temperature resistance**
- **good electrical insulating characteristics with low, nearly frequency-independent dielectric characteristics**

item no.	dimension	nominal single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38320228	2 x AWG 28/7	0,127	2,65	10,2	12,0
38320226	2 x AWG 26/7	0,160	2,85	11,2	14,0
38320224	2 x AWG 24/7	0,203	3,15	13,0	16,0
38320222	2 x AWG 22/7	0,254	3,50	17,2	20,0
38320220	2 x AWG 20/7	0,320	3,90	21,1	25,0
38320328	3 x AWG 28/7	0,127	2,80	11,1	14,0
38320326	3 x AWG 26/7	0,160	3,00	12,6	16,0
38320324	3 x AWG 24/7	0,203	3,30	15,2	19,0
38320322	3 x AWG 22/7	0,254	3,65	20,7	25,0
38320320	3 x AWG 20/7	0,320	4,15	28,2	34,0
38320428	4 x AWG 28/7	0,127	2,95	12,0	15,0
38320426	4 x AWG 26/7	0,160	3,20	13,9	18,0
38320424	4 x AWG 24/7	0,203	3,55	19,1	23,0
38320422	4 x AWG 22/7	0,254	3,90	25,9	30,0
38320420	4 x AWG 20/7	0,320	4,55	33,7	41,0
38320528	5 x AWG 28/7	0,127	3,15	12,9	18,0
38320526	5 x AWG 26/7	0,160	3,50	17,0	22,0
38320524	5 x AWG 24/7	0,203	3,85	21,4	28,0

item no.	dimension	nominal single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38320522	5 x AWG 22/7	0,254	4,40	29,4	38,0
38320520	5 x AWG 20/7	0,320	4,95	40,9	51,0
38320728	7 x AWG 28/7	0,127	3,45	16,3	21,0
38320726	7 x AWG 26/7	0,160	3,75	19,8	26,0
38320724	7 x AWG 24/7	0,203	4,20	27,6	35,0
38320722	7 x AWG 22/7	0,254	4,70	38,2	46,0
38320720	7 x AWG 20/7	0,320	5,45	53,6	65,0
38321028	10 x AWG 28/7	0,127	4,25	20,8	29,0
38321026	10 x AWG 26/7	0,160	4,70	25,7	35,0
38321024	10 x AWG 24/7	0,203	5,30	38,0	49,0
38321022	10 x AWG 22/7	0,254	5,95	52,2	65,0
38321020	10 x AWG 20/7	0,320	6,80	73,5	89,0
38321228	12 x AWG 28/7	0,127	4,40	22,5	32,0
38321226	12 x AWG 26/7	0,160	4,80	30,1	40,0
38321224	12 x AWG 24/7	0,203	5,50	42,4	55,0
38321222	12 x AWG 22/7	0,254	6,10	59,1	74,0
38321220	12 x AWG 20/7	0,320	7,00	86,1	103,0

Other dimensions and colours are possible on request.

Application:

as data cable with very good dielectric characteristics with very high ambient temperatures and outstanding chemical resistance!

+250 °C

TD 834 CP PFA data cable with extended temperature range and overall copper screen

RoHS

Construction:

Conductor:	nickel-plated copper strands acc. to ASTM B 286
Insulation:	PFA
Colour code:	with reference to DIN VDE 47100
Stranding:	in layers
Wrapping:	PTFE foil
Screen:	nickel-plated copper braiding
Sheath material:	PFA
Sheath colour:	white (RAL 1013)

Technical data:

Peak operating voltage:	max. 375 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x d
Radiation resistance:	5 x 10^6 cJ/kg
Temperature range *fixed laying:* *flexible application:* *limited time of use:*	 -90/+250 °C -55/+250 °C +260 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Chem. resistance:	very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

Outstanding features:

- **excellent resistance against chemicals and solvents**
- **excellent temperature resistance and flexibility at low temperatures**
- **excellent electrical insulating characteristics with low, nearly frequency-independent dielectric characteristics**

item no.	dimension	nominal single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38340228	2 x AWG 28/7	0,127	2,65	10,2	14,0
38340226	2 x AWG 26/7	0,160	2,85	11,2	15,0
38340224	2 x AWG 24/7	0,203	3,15	13,0	18,0
38340222	2 x AWG 22/7	0,254	3,50	17,2	23,0
38340220	2 x AWG 20/7	0,320	3,90	21,1	28,0
38340328	3 x AWG 28/7	0,127	2,80	11,1	16,0
38340326	3 x AWG 26/7	0,160	3,00	12,6	18,0
38340324	3 x AWG 24/7	0,203	3,30	15,2	21,0
38340322	3 x AWG 22/7	0,254	3,65	20,7	28,0
38340320	3 x AWG 20/7	0,320	4,15	28,2	38,0
38340428	4 x AWG 28/7	0,127	2,95	12,0	17,0
38340426	4 x AWG 26/7	0,160	3,20	13,9	21,0
38340424	4 x AWG 24/7	0,203	3,55	19,1	26,0
38340422	4 x AWG 22/7	0,254	3,90	25,9	34,0
38340420	4 x AWG 20/7	0,320	4,55	33,7	45,0
38340528	5 x AWG 28/7	0,127	3,15	12,9	20,0
38340526	5 x AWG 26/7	0,160	3,50	17,0	25,0
38340524	5 x AWG 24/7	0,203	3,85	21,4	31,0

item no.	dimension	nominal single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38340522	5 x AWG 22/7	0,254	4,40	29,4	42,0
38340520	5 x AWG 20/7	0,320	4,95	40,9	55,0
38340728	7 x AWG 28/7	0,127	3,45	16,3	24,0
38340726	7 x AWG 26/7	0,160	3,75	19,8	29,0
38340724	7 x AWG 24/7	0,203	4,20	27,6	39,0
38340722	7 x AWG 22/7	0,254	4,70	38,2	51,0
38340720	7 x AWG 20/7	0,320	5,45	53,6	71,0
38341028	10 x AWG 28/7	0,127	4,25	20,8	33,0
38341026	10 x AWG 26/7	0,160	4,70	25,7	40,0
38341024	10 x AWG 24/7	0,203	5,30	38,0	55,0
38341022	10 x AWG 22/7	0,254	5,95	52,2	72,0
38341020	10 x AWG 20/7	0,320	6,80	73,5	97,0
38341228	12 x AWG 28/7	0,127	4,40	22,5	36,0
38341226	12 x AWG 26/7	0,160	4,80	30,1	46,0
38341224	12 x AWG 24/7	0,203	5,50	42,4	62,0
38341222	12 x AWG 22/7	0,254	6,10	59,1	81,0
38341220	12 x AWG 20/7	0,320	7,00	86,1	112,0

Other dimensions and colours are possible on request.

Application:

as data cable with excellent dielectric characteristics with extreme ambient temperatures and outstanding chemical resistance!

+180 °C

TD 845 DS

double shielded FEP connection cable with extended temperature range, coloured cores, overall copper screen and alu foil wrapping

RoHS

AuMarking for TD 845 DS 38450320:
SAB BRÖCKSKES · D-VIERSEN · TD 845 DS 20/7 AWG/3c AWM Style 20229 150°C 300V

Construction:

Conductor:	tinned copper strands acc. to ASTM B 286
Insulation:	FEP, 6YI1 acc. to VDE 0207 part 6
Color code:	with reference to US 4
Stranding:	in layers
Wrapping:	PETP foil
Drain wire:	tinned copper strands acc. to ASTM B 286
Wrapping:	AL/P/AL-foil coated on both sides
Screen:	tinned copper braiding
Slitting cord:	Aramid-thread 1580 dtex under the jacket
Sheath material:	FEP, 6YM1 acc. to VDE 0207 part 6
Sheath color:	brown (RAL 8003)

Outstanding features:

- **high resistance against chemicals and solvents**
- **low and high temperature resistance**
- **good electrical insulating characteristics with low, nearly frequency-independent dielectric characteristics**

Technical data:

Voltage UL:	300 V
Peak operating voltage:	max. 900 V
Testing voltage:	core/core 2000 V core/screen 1000 V core/screen 600 V (ST)
Min. bending radius *fixed laying:* *flexible application:*	 5 x d 10 x d
Temperature range *fixed laying:* *flexible application:*	**DIN VDE:** **UL:** up to +150 °C -90/+180 °C -55/+180 °C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2 + UL VW1
Oil resistance:	acc. to UL standard 758, at 80 °C after 80 days
Chem. resistance:	very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

tem no.	dimensions	largest single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38450224	2 x AWG 24/7	0,20	4,4	17,0	34,4
38450222	2 x AWG 22/7	0,25	4,7	20,8	40,0
38450220	2 x AWG 20/7	0,32	5,1	28,4	49,6
38450218	2 x AWG 18/7	0,40	5,7	40,1	64,1
38450216	2 x AWG 16/7	0,29	6,0	51,5	76,7
38450324	3 x AWG 24/7	0,20	4,7	19,3	39,6
38450322	3 x AWG 22/7	0,25	5,0	26,1	47,8
38450320	3 x AWG 20/7	0,32	5,5	35,6	60,3
38450318	3 x AWG 18/7	0,40	6,1	50,7	78,3
38450316	3 x AWG 16/7	0,29	6,5	63,6	93,7
38450424	4 x AWG 24/7	0,20	5,0	23,3	47,2
38450422	4 x AWG 22/7	0,25	5,4	29,6	56,4
38450420	4 x AWG 20/7	0,32	5,9	41,2	71,7
38450418	4 x AWG 18/7	0,40	6,6	61,0	95,0
38450416	4 x AWG 16/7	0,29	7,1	78,8	116,1

item no.	dimensions	largest single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38450524	5 x AWG 24/7	0,20	5,3	25,6	53,3
38450522	5 x AWG 22/7	0,25	5,8	35,0	65,8
38450520	5 x AWG 20/7	0,32	6,4	50,0	85,1
38450518	5 x AWG 18/7	0,40	7,1	71,6	111,8
38450516	5 x AWG 16/7	0,29	7,7	92,8	136,7
38450624	6 x AWG 24/7	0,20	5,7	29,7	61,2
38450622	6 x AWG 22/7	0,25	6,2	40,4	75,6
38450620	6 x AWG 20/7	0,32	6,9	55,6	97,1
38450618	6 x AWG 18/7	0,40	7,7	82,4	129,5
38450616	6 x AWG 16/7	0,29	8,3	106,6	158,3
38450824	8 x AWG 24/7	0,20	6,4	37,6	77,3
38450822	8 x AWG 22/7	0,25	7,1	50,9	96,4
38450820	8 x AWG 20/7	0,32	7,7	70,3	123,5
38450818	8 x AWG 18/7	0,40	8,7	104,5	165,9
38450816	8 x AWG 16/7	0,29	9,4	132,8	202,5

Continued on next page

Application:

with UL recognition for the use on the North American market!

+180 °C

TD 845 DS

double shielded FEP connection cable with extended temperature range, coloured cores, overall copper screen and alu foil wrapping

RoHS

Marking for TD 845 DS 38450320:
SAB BRÖCKSKES · D-VIERSEN · TD 845 DS 20/7 AWG/3c AWM Style 20229 150°C 300V CE

item no.	dimensions	largest single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38451024	10 x AWG 24/7	0,20	6,7	42,1	80,2
38451022	10 x AWG 22/7	0,25	7,3	59,7	101,5
38451020	10 x AWG 20/7	0,32	8,1	82,0	131,7
38451018	10 x AWG 18/7	0,40	9,2	121,5	177,3
38451016	10 x AWG 16/7	0,29	9,9	159,2	220,1
38451224	12 x AWG 24/7	0,20	7,0	48,5	90,4
38451222	12 x AWG 22/7	0,25	7,6	66,8	113,4
38451220	12 x AWG 20/7	0,32	8,5	93,9	148,6
38451218	12 x AWG 18/7	0,40	9,6	141,5	203,4
38451216	12 x AWG 16/7	0,29	10,4	138,0	251,5
38451424	14 x AWG 24/7	0,20	7,3	54,8	101,8
38451422	14 x AWG 22/7	0,25	8,0	73,9	127,3
38451420	14 x AWG 20/7	0,32	9,0	107,0	169,5
38451418	14 x AWG 18/7	0,40	10,1	159,0	230,2
38451416	14 x AWG 16/7	0,29	11,0	225,4	298,4
38451624	16 x AWG 24/7	0,20	7,7	59,5	112,2
38451622	16 x AWG 22/7	0,25	8,4	85,4	143,6
38451620	16 x AWG 20/7	0,32	9,4	117,9	187,6
38451618	16 x AWG 18/7	0,40	10,9	195,0	270,5
38451616	16 x AWG 16/7	0,29	11,8	255,4	337,2
38451824	18 x AWG 24/7	0,20	8,0	64,0	122,1
38451822	18 x AWG 22/7	0,25	8,8	92,0	157,0
38451820	18 x AWG 20/7	0,32	9,9	131,5	209,1
38451818	18 x AWG 18/7	0,40	11,4	212,5	297,4
38451816	18 x AWG 16/7	0,29	12,6	279,4	382,7

item no.	dimensions	largest single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38452024	20 x AWG 24/7	0,20	8,3	68,6	13,2
38452022	20 x AWG 22/7	0,25	9,2	99,0	171,1
38452020	20 x AWG 20/7	0,32	10,3	142,4	228,0
38452018	20 x AWG 18/7	0,40	11,9	236,2	329,0
38452016	20 x AWG 16/7	0,29	13,2	308,0	422,1
38452524	25 x AWG 24/7	0,20	9,0	83,8	152,7
38452522	25 x AWG 22/7	0,25	9,9	119,2	197,1
38452520	25 x AWG 20/7	0,32	11,3	188,1	275,6
38452518	25 x AWG 18/7	0,40	13,2	284,7	394,7
38452516	25 x AWG 16/7	0,29	14,3	373,8	493,6
38453024	30 x AWG 24/7	0,20	9,6	97,7	177,7
38453022	30 x AWG 22/7	0,25	10,8	155,2	241,1
38453020	30 x AWG 20/7	0,32	12,5	221,6	334,6
38453018	30 x AWG 18/7	0,40	14,1	328,5	457,4
38453016	30 x AWG 16/7	0,29	15,4	433,7	576,3
38453624	36 x AWG 24/7	0,20	10,0	111,1	200,7
38453622	36 x AWG 22/7	0,25	11,4	176,1	273,6
38453620	36 x AWG 20/7	0,32	12,9	254,2	379,9
38453618	36 x AWG 18/7	0,40	14,7	386,8	530,0
38453616	36 x AWG 16/7	0,29	16,1	535,9	684,8
38454224	42 x AWG 24/7	0,20	11,3	143,3	241,8
38454222	42 x AWG 22/7	0,25	12,8	203,8	325,9
38454220	42 x AWG 20/7	0,32	14,4	298,1	442,0
38454218	42 x AWG 18/7	0,40	16,6	471,1	628,7
38454216	42 x AWG 16/7	0,29	17,6	620,3	789,4

Other dimensions and colours are possible on request.

Application:
with UL recognition for the use on the North American market!

+180 °C

TA 866 F FEP connection cable with extended temperature range

RoHS

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5 <0,50 mm² with reference DIN VDE 0250 part 106
Insulation:	FEP, 6YI1 acc. to VDE 0207 part 6
Colour code:	up to 5 cores coloured acc to. HD 308. green-yellow earth wire from 3 cores
Stranding:	in layers
Sheath material:	FEP, 6YM1 acc to. VDE 0207 part 6
Sheath colour:	black (RAL 9005)

Technical data:

Nominal voltage:	Uo/U 300/500 V
Testing voltage:	2000 V
Min. bending radius:	7.5 x d
Radiation resistance:	1 x 10^7 cJ/kg
Temperature range	
fixed laying:	-55/+180 °C
flexible application:	-55/+180 °C
Firre performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Chem. resistance:	very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

Outstanding features:

- **excellent resistance against chemicals and solvents**
- **excellent temperature resistance and flexibility at low temperatures**
- **excellent electrical insulating characteristics with low, nearly frequency-independent dielectric characteristics**

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38660205	2 x 0,50	0,21	3,8	9,6	21,0
38660207	2 x 0,75	0,21	4,6	14,4	29,0
38660210	2 x 1,00	0,21	4,8	19,2	34,0
38660215	2 x 1,50	0,26	5,4	28,8	46,0
38660225	2 x 2,50	0,26	6,6	48,0	70,0
38660240	2 x 4,00	0,31	8,1	76,8	107,0
38660260	2 x 6,00	0,31	9,2	115,2	147,0
38660305	3 x 0,50	0,21	4,2	14,4	30,0
38660307	3 x 0,75	0,21	4,9	21,6	40,0
38660310	3 x 1,00	0,21	5,1	28,8	47,0
38660315	3 x 1,50	0,26	5,8	43,2	63,0
38660325	3 x 2,50	0,26	7,0	72,0	97,0
38660340	3 x 4,00	0,31	8,7	115,2	152,0
38660360	3 x 6,00	0,31	9,8	172,8	210,0
38660405	4 x 0,50	0,21	4,6	19,2	38,0
38660407	4 x 0,75	0,21	5,5	28,8	53,0
38660410	4 x 1,00	0,21	5,7	38,4	63,0
38660415	4 x 1,50	0,26	6,4	57,6	80,0
38660425	4 x 2,50	0,26	7,8	96,0	129,0
38660440	4 x 4,00	0,31	9,6	153,6	197,0

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
38660460	4 x 6,00	0,31	10,9	230,4	274,0
38660505	5 x 0,50	0,21	5,1	24,0	48,0
38660507	5 x 0,75	0,21	6,0	36,0	67,0
38660510	5 x 1,00	0,21	6,3	48,0	79,0
38660515	5 x 1,50	0,26	7,1	72,0	102,0
38660525	5 x 2,50	0,26	8,7	120,0	163,0
38660540	5 x 4,00	0,31	10,7	192,0	250,0
38660560	5 x 6,00	0,31	12,1	288,0	348,0
38660705	7 x 0,50	0,21	5,7	33,6	63,0
38660707	7 x 0,75	0,21	6,7	50,4	86,0
38660710	7 x 1,00	0,21	7,0	67,2	102,0
38660715	7 x 1,50	0,26	7,8	100,8	135,0
38660725	7 x 2,50	0,26	9,7	168,0	217,0
38660740	7 x 4,00	0,31	12,0	268,8	339,0
38660760	7 x 6,00	0,31	13,6	403,2	473,0
38661205	12 x 0,50	0,21	7,6	57,6	105,0
38661207	12 x 0,75	0,21	9,0	89,4	144,0
38661210	12 x 1,00	0,21	9,4	115,2	172,0
38661215	12 x 1,50	0,26	10,5	172,8	228,0
38661225	12 x 2,50	0,26	13,1	288,0	366,0

Other dimensions and colours are possible on request.

Application:

control cable 300/500 V with outstanding chemical resistance with very high ambient temperatures!

+400 °C

excellent temperature resistance

Special single conductor

glass fibre insulated strands with excellent temperature resistance

RoHS

Construction

Conductor:	nickel-plated copper strands
Wrapping:	multiple wrapping with mica tape
Braiding:	glass fibre
Impregnation:	PTFE impregnating lacquer
Identification:	red tracer thread in external screen

Outstanding features:

- **halogen - free**
- **excellent heat resistance**
- **flame resistant**

Technical Data:

Nominal voltage Uo/U:	300/500 V
Testing voltage:	2200 V
Min. bending radius:	5 x d
Temperature range *fixed laying:* *flexible application:*	 max. +400°C max. +400°C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	approx. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
32869035	1 x 185,00	0,40	23,7	1776,0	1893

Other dimensions and colours are possible on request

Application:

e.g. in metallurgy and rolling mill technology!

Single conductor in other dimensions on request!

+400 °C

excellent temperature resistance

Special connection cable connection cable with excellent temperature resistance

RoHS

Construction:

Conductor:	nickel-plated copper strands
Insulation:	glass fibre
Impregnation:	PU-lacquer
Colour code:	brown, black, grey, green-yellow tracer in external glass fibre braiding
Stranding:	cores together
Braiding:	glass fibre
Armouring:	stainless steel wire armouring (VA)

Technical Data:

Nominal voltage Uo/U:	300/500 V
Testing voltage:	2500 V
Min. bending radius:	
fixed laying:	5 x d
flexible application:	10 x d
Temperature range	
fixed laying:	max. +400°C
flexible application:	max. +400°C
Fire performance	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

Outstanding features:

- **halogen - free**
- **excellent heat resistance**
- **flame resistant**

item no.	no. of cores x cross section n x mm²	largest single wire ø mm	max. outer-ø mm	copper figure kg/km	cable weight ≈ kg/km
32869039	4 x 2,50	0,25	11,6	96,0	229
32869040	4 x 4,00	0,30	12,8	153,6	285

Other dimensions and colours are possible on request

Application:
e.g. in metallurgy and rolling mill technology!

Other dimensions on request!

SAB BRÖCKSKES

+250 °C

Special connection cable with Silicone impregnated fibre-glass braiding

RoHS

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
Wrapping:	non-woven tape
Insulation:	special silicone
Colour code **450/750 V:** **3,8/6,6 kV:** **8,0/13,8 kV:**	 white grey black
Braiding:	fibre-glass
Impregnation:	special silicon

Outstanding features:

- **halogen-free**
- **flexible at low temperatures**
- **heat resistant**
- **good mechanical characteristics**
- **fibre-glass braiding up to +400°C**

Technical data:

Nominal voltag Uo/U:	450/750 V 3,8/6,6 kV 8,0/13,8 kV
Testing voltage:	450/750 V = 2500 V 3,8/6,6 kV = 15000 V 8,0/13,8 kV = 30000 V
Min. bending radius:	7.5 x d
Radiation resistance:	2 x 10^7 cJ/kg
Temperature range *fixed laying:* *flexible application:* *short-time use:*	 -40/+180 °C -25/+180 °C +250 °C
Halogen-free:	acc. to DIN VDE 0472 part 815 and IEC 60754-1
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Corrosiveness of conflagration gases:	IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2 – no development of corrosive conflagration gases
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

Example of use:

- **For the wiring of motors /generators / transformers. Suitable for the potting with impregnating materials for example with epoxy resin. Residues can be easily removed from the silicone impregnated surfaces.**

450/750 V

item no.	nominal cross section mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
	6,00	0,31	5,3	57,6	71
	10,00	0,41	6,9	96,0	125
item group 0123	16,00	0,41	7,9	153,6	179
	25,00	0,41	10,1	240,0	279
	35,00	0,41	11,5	336,0	381
item no. on request	50,00	0,41	13,1	480,0	548
	70,00	0,41	15,4	672,0	722
	95,00	0,51	18,3	912,0	1004
	120,00	0,51	20,2	1152,0	1221

Other dimensions and colours are possible on request.

3,8/6,6 kV

item no.	nominal cross section mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
	16,00	0,41	10,3	153,6	224
item group 0123	25,00	0,41	12,1	240,0	325
	35,00	0,41	13,5	336,0	434
	50,00	0,41	15,1	480,0	596
item no. on request	70,00	0,41	17,4	672,0	798
	95,00	0,51	19,5	912,0	1032
	120,00	0,51	21,4	1152,0	1250

Other dimensions and colours are possible on request.

8,0/13,8 kV

item no.	nominal cross section mm²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
	10,00	0,41	11,9	96,0	224
item group 0123	16,00	0,41	12,9	153,6	286
	25,00	0,41	14,7	240,0	386
	50,00	0,41	17,3	480,0	663
item no. on request	70,00	0,41	19,6	672,0	870
	95,00	0,51	21,7	912,0	1109

Other dimensions and colours are possible on request.

Festoon Cable

Besilen® insulated connection cable with glass fibre braiding, inner sheath and overall copper screen

RoHS

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, DIN VDE 0295, class 5
Insulation:	Besilen® EI2 acc. to DIN VDE 0282 part 1 and HD 22.1
Colour code:	up to 5 cores coloured acc. to HD 308 (VDE 0293 part 308); from 6 cores black cores with consecutive numbers acc. to EN 50334; from 3 cores a green-yellow earth wire
Wrapping:	cores together with mica tape
Braiding:	cores together with glass fibre
Stranding:	in layers
Braiding:	glass fibre
Wrapping:	mica tape
Geflecht:	glass fibre
Inner sheath:	Besilen® EI2 acc. to DIN VDE 0282 part 1 and HD 22.1
Sheath colour:	reddish brown (similar RAL 3016)
Screen:	tinned copper braiding

Technical Data:

Nominal voltage Uo/U:	300/500 V
Testing voltage:	core/core 2000 V core/screen 2000V
Min. bending radius:	15 x d
Radiation resistance:	2 x 10^7 cJ/kg
Temperature range: *fixed laying* *flexible application*	 -40/+180 °C -25/+180 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

Outstanding features:

- **halogen-free**
- **flexible at low temperatures**
- **heat resistant**
- **good EMC characteristic**

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
07479011	4 x 1,00	0,21	13,2	139,5	254
07479017	5 x 1,00	0,21	14,7	159,7	284
07479018	8 x 1,00	0,21	17,0	207,9	413
07479002	3 x 1,50	0,26	13,0	139,2	243
07479012	4 x 1,50	0,26	14,4	163,5	285
07479010	5 x 1,50	0,26	15,8	200,5	337
07479005	8 x 1,50	0,26	19,6	256,0	545
07479006	12 x 1,50	0,26	21,8	349,7	651
07479008	24 x 1,50	0,26	30,0	704,9	1197
07479016	25 x 1,50	0,26	30,0	584,5	1131
07479003	3 x 2,50	0,26	14,7	196,7	302
07479004	4 x 2,50	0,26	15,8	225,8	365
07479015	5 x 2,50	0,26	17,2	251,1	432
07479007	4 x 4,00	0,31	17,3	288,4	443
07479014	4 x 6,00	0,31	15,1	230,4	367

Other dimensions and colours are possible on request

Application:

for festoon suspension e.g. in crane systems with very high ambient temperatures!

Smeltery Cable

Besilen® insulated connection cable with glass fibre braiding and overall copper screen

RoHS

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, DIN VDE 0295, class 5
Insulation:	Besilen® EI2 acc. to DIN VDE 0282 part 1 and HD 22.1
Colour code:	up to 5 cores coloured acc. to HD 308 (VDE 0293 part 308); from 6 cores black cores with consecutive numbers acc. to EN 50334; from 3 cores a green-yellow earth wire
Wrapping:	cores together with mica tape
Braiding:	glass fibre
Stranding:	in layers
Braiding:	glass fibre
Wrapping:	mica tape
Braiding:	glass fibre
Screen:	tinned copper braiding

Technical Data:

Nominal voltage Uo/U:	300/500 V
Testing voltage:	core/core 2000 V core/screen 2000V
Min. bending radius:	15 x d
Radiation resistance:	2 x 10^7 cJ/kg
Temperature range: *fixed laying:* *flexible application:*	 -40/+180 °C -25/+180 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Absence of harmful substances:	acc. to RoHS directive of the European Union see page 27

Outstanding features:

- **halogen-free**
- **flexible at low temperatures**
- **heat resistant**
- **good EMC characteristic**

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
07470210	2 x 1,00	0,21	9,2	79,9	109
07470310	3 x 1,00	0,21	9,7	103,0	144
07470410	4 x 1,00	0,21	10,6	115,1	173
07470510	5 x 1,00	0,21	11,7	110,1	210
07470710	7 x 1,00	0,21	12,7	162,5	256
07470810	8 x 1,00	0,21	14,8	202,1	335
07471210	12 x 1,00	0,21	16,7	246,8	393
07470315	3 x 1,50	0,26	10,8	120,4	173
07470415	4 x 1,50	0,26	11,8	151,8	209
07470515	5 x 1,50	0,26	13,0	175,2	262
07470815	8 x 1,50	0,26	16,6	246,3	415

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
07471215	12 x 1,500	0,26	18,8	311,5	498
07471915	19 x 1,50	0,26	22,2	437,4	709
07472415	24 x 1,50	0,26	26,2	540,9	884
07470325	3 x 2,50	0,26	12,1	166,2	213
07470425	4 x 2,50	0,26	13,2	192,4	266
07470525	5 x 2,50	0,26	14,6	230,9	322
07470440	4 x 4,00	0,31	14,7	237,1	350
07470461	4 x 10,00	0,41	19,7	494,9	687
07470462	4 x 16,00	0,41	22,7	800,1	954
07470463	4 x 25,00	0,41	27,2	1347,0	1332
07470464	4 x 35,00	0,41	30,5	1579,6	1814

Other dimensions and colours are possible on request.

Application:

as connecting cable in steel processing industry!

From our central stock in Viersen-Süchteln or our extrernal stocks we supply standard lengths as well as special dimensions, often within 24 hours. It is our strength to be at different places at the same time. This shows also our wide product range. Being always ready to deliver our products of constant quality is one of the premises at SAB BRÖCKSKES. Challenge, obligation - but also guarantee at the same time. This is your advantage - we are present whenever you need our assistance.

Viersen - Germany
1947

Viersen - Germany
1995

Bergeijk - Netherlands
1995

Auxerre - France
1996

Nantes - France
1998

Fairfield - USA
2001

Shanghai - China
2004

Zapopan - Mexico
2004

Chung-Buk - Korea
2005

Faridabad - India
2006

Taipei County - Taiwan
2007

Yekaterinburg - Russia
2012

Substance	Concentr. %	Temp. degree °C	PVC	SABIX® 322 + 336	SABIX® 231	SABIX® 722	PUR	PE	Besilen®	FEP	PFA	ETFE
Acetone		20	–	+	–	o	–	+	o	+	+	+
Äthylenchlorid		50	–	n.e.	–	o	–	+	o	+	+	+
Äthylenglykol		100	o	+	–	+	–	n.e.	+	+	+	+
Alum		20	+	+	n.e.	–	+	+	–	+	+	+
Ammonia	25	20	+	+	n.e.	+	o	+	+	+	+	+
Aniline		50	–	+	–	+	–	+	+	+	+	+
Benzine		20	–	–	o	o	+	–	o	+	+	+
Benzol	100	50	–	+	–	–	–	–	–	+	+	+
Boric acid	sat.	20	+	+	n.e.	+	+	+	+	+	+	+
Break fluid		100	o	o	–	+	–	n.e.	+	+	+	+
Butter		50	+	o	o	+	o	+	+	+	+	+
Chlorobenzine		30	–	n.e.	–	–	–	o	–	+	+	+
Diethyl ether		20	o	+	o	–	+	+	–	+	+	+
Diethylene glycol		50	+	+	o	+	+	+	+	+	+	+
Pure acetic acid	concentr.	50	–	+	–	+	–	+	+	n.e.	n.e.	n.e.
Freon		20	–	n.e.	o	–	+	o	–	+	+	+
Gear oil		100	+	o	–	o	o	–	o	+	+	+
Glycerine	all	50	+	+	o	+	+	+	+	+	+	+
Hydraulic oil		20	+	+	+	–	+	–	–	+	+	+
Potassium chloride	sat.	20	+	+	+	+	n.e.	+	+	+	n.e.	n.e.
Potassium nitrate		20	+	+	+	+	o	+	+	+	+	+
Copper salt		20	+	+	+	+	+	+	+	+	+	+
Machine oil		20	–	o	+	+	+	–	+	+	+	+
Methanol		50	+	+	o	+	–	+	+	+	+	+
Dichlormethane	100	20	–	n.e.	–	–	–	+	–	+	+	+
Motor oil		120	–	o	–	+	–	–	+	+	+	+
Sodium chloride	50	20	+	+	+	+	+	+	+	+	+	+
Caustic soda	50	50	+	+	o	–	+	+	–	+	+	+
Nitrobenzene	100	50	–	+	–	+	–	+	+	+	+	+
Olive oil		50	+	+	–	+	+	+	+	+	+	+
Mercury salt		20	–	+	+	+	–	+	+	+	+	+
Nitric acid		20	–	+	+	–	–	+	–	+	+	+
Hydrochloric acid	concentr.	20	–	+	+	–	–	+	–	+	+	+
Sulphuric acid	50	50	+	+	–	–	–	+	–	+	+	+
Silver salts		20	+	+	+	+	+	+	+	+	+	+
Phenol from tar (Tectal)		20	+	+	o	–	–	n.e.	–	+	+	+
Carbon tetrachloride	100	20	+	–	–	–	–	–	–	+	+	+
Trichlorethylene	100	50	–	–	–	+	–	–	+	+	+	+
Detergent lye	2	100	–	+	o	–	–	n.e.	–	+	+	+
Destilled water		100	o	+	o	–	o	+	–	+	+	+
Destilled water		20	+	+	+	+	+	+	+	+	+	+
Tartaric acid	sat.	20	+	+	+	+	n.e.	+	+	+	+	+
Citric acid		20	+	+	+	+	o	+	+	+	+	+

Reference:

This information is the result of our many years of experience and has been compiled to the best of our knowledge. However, we would like to point out that they are not binding and a final assessment can only be made under normal working conditions.

– = poor resistance o = average resistance + = good resistance n.e. = not existing

Absence of harmful substances acc. to RoHS directive 2002/95/EG as well as the recast of RoHS directive 2011/65/EU and GefStoffV appendix IV-no. 24

The materials that are to be found in the indicated items are free of harmful substances according to directive 2002/95/EG as well as the recast of directive 2011/65/EU and according to the dangerous material regulation (GefStoffV) appendix IV no. 24 medium of flame protection. This means that for the following substances based on the guidelines as well as on the customers' requirements of SAB Bröckskes GmbH & Co. KG, the following quantity and content limits were specified, below which a declaration can be dropped:

RoHS

- lead < 0,1 %
- mercury < 0,1 %
- cadmium < 0,01 %
- hexavalent chromium < 0,1 %
- polybrominated biphenyl (PBB) < 0,1 %
- polybrominated diphenyl ether (PBDE) < 0,1 %
- decabromo diphenyl ether (DecaBDE) < 0,1 %
- pentabrominated diphenyl ether < 0,1 %
- octabrominated diphenyl ether < 0,1 %

FLEXIBLE CABLES

- Halogen-free cables
- Cable track cables
- Servo motor cables
- ETFE, FEP, PFA cables
- Bus cables
- Torsion cables
- Hybrid and special cables
- Control and connection cables
- Data cables
- Besilen® (Silicone) cables
- Compensating and extension cables
- Tray cables

TEMPERATURE MEASUREMENT

- Protecting armatures and gauge slides
- Mineral insulated thermocouples and Mineral insulated resistance thermometers
- Temperature measurement in plastic processing industry/Hot runner technique
- Diesel thermocouples
- Probe with stainless steel sleeve
- Temperature measurement in test vehicles
- Measurement techniques

CABLE HARNESSING

- Harnessed cables acc. to customer's specification
- Harnessed cable track cables
- Helix cables
- Cable harnesses
- Harnessed motor and transmission cables for Siemens and Indramat drives

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