

BlueLine Cables for Shipbuilding



www.sab-worldwide.com



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■ Applications

Our halogen-free SABIX® BlueLine cables are appropriate for flexible use below deck as well as on deck of ships with protected laying without being in permanent contact with oils and fuels. The flexible construction and small diameter enables a comfortable laying even in narrow spaces.

Our type BlueLine TA 180 C is appropriate for use under extreme ambient conditions. It is applied in machine rooms on ships for example as connection cable for the control of ships diesel engines. It shows a very good resistance against high temperatures as well as against oils and chemicals.

The Company



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 EN 16001:2009. 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 EN16001:2009

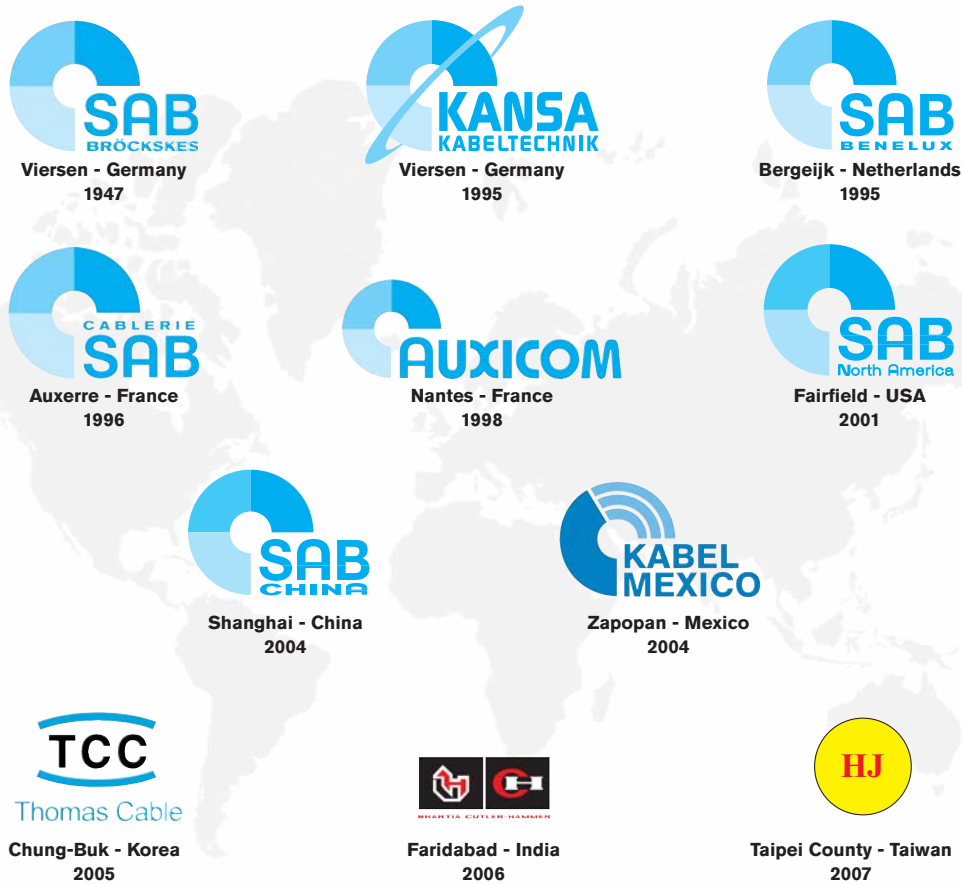


**MIL, VDE, HAR, IEC, GL, DNV, BV, KR,
ABS, NK, RINA, LR, CE**

SAB - Worldwide



From our central stock in Viersen-Süchteln or our external 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.



Our strengths



PROBLEM SOLUTIONS

- you need assistance - we act fast and competently
- our expertise - your solution

SERVICE AROUND THE CLOCK

- optimal support at any hour
- your direct wire to our service team
- for emergencies outside of our office hours contact us under: 0173 / 28 68 408



FLEXIBILITY

- productions starting from a length of 100 m
- cable development customized to your request

SPEED


- from the development to the distribution in maximum speed




HIGH QUALITY

- highest quality by quality management system acc. to ISO 9001:2008
- environmental management system acc. to DIN EN 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


Selection table

► **Germanischer Lloyd** 

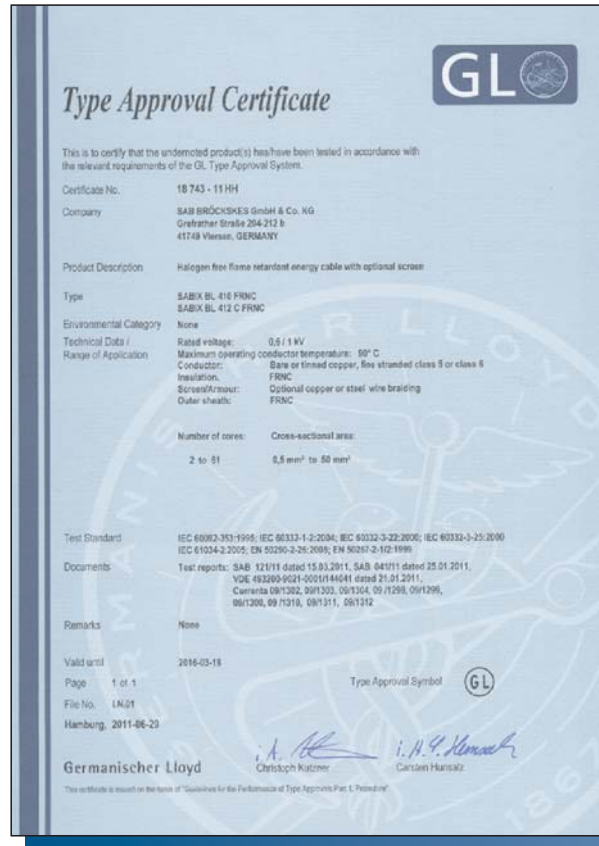
| | |
|-------------------------|-------------|
| SABIX® BlueLine Data | 18745-11 HH |
| SABIX® BlueLine Control | 18744-11 HH |
| SABIX® BlueLine Power | 18743-11 HH |
| BlueLine TA 180 C | 2498205 HH |

► **Lloyd's Register** 

| | |
|-------------------------|----------|
| SABIX® BlueLine Data | 11/20026 |
| SABIX® BlueLine Control | 11/20024 |
| SABIX® BlueLine Power | 11/20027 |

► **American Bureau of Shipping** 

| | |
|-------------------------|------------------|
| SABIX® BlueLine Data | 11-HG747543-PDA |
| SABIX® BlueLine Control | 11-HG747543A-PDA |
| SABIX® BlueLine Power | 11-HG747543B-PDA |



Selection table

| | | Cable type | SABIX® BL 405 FRNC | SABIX® BL 415 C FRNC | SABIX® BL 445 C FRNC TP | SABIX® BL 400 FRNC | SABIX® BL 438 C FRNC | SABIX® BL 410 FRNC | SABIX® BL 412 C FRNC | BlueLine TA 180 C |
|---------------------------------|---|------------|--------------------|----------------------|-------------------------|--------------------|----------------------|--------------------|----------------------|-------------------|
| Construction | data cable | | x | x | x | | | | | |
| | control cable | | | | | x | x | | | x |
| | power cable | | | | | | | x | x | |
| | screened | | | x | x | | x | | x | x |
| | twisted pairs | | | | x | | | | | |
| Temperature range fixed laying* | + 180 °C | | | | | | | | | |
| | + 90 °C | | | | | | | | | |
| | - 40 °C | | | | | | | | | |
| | - 55 °C | | | | | | | | | |
| Voltage range | peak operating voltage max. 350 V | | x | x | x | | | | | |
| | nominal voltage Uo/U 300/500 V | | | | | x | x | | | x |
| | nominal voltage Uo/U 600/1000 V | | | | | | | x | x | |
| Standards | halogen-free acc. to IEC 60754-1 + EN 60332-1-2 | | x | x | x | x | x | x | x | |
| | flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2 | | x | x | x | x | x | x | x | x |
| | no flame propagation acc. to IEC 60332 -3-22 + DIN EN 60332-3-22 | | x | x | x | x | x | x | x | x |
| | smoke density acc. to IEC 61034 + EN 61034 | | x | x | x | x | x | x | x | |
| | corrosiveness of conflagration gases IEC 60754-2 + DIN EN 50267-2-2 | | x | x | x | x | x | x | x | |
| Type approvals | Germanischer Lloyd | | x | x | x | x | x | x | x | x |
| | Lloyd's Register | | x | x | x | x | x | x | x | |
| | American Bureau of Shipping | | x | x | x | x | x | x | x | |
| Characteristics | flexible conductor stranding | | x | x | x | x | x | x | x | x |
| | extended cross section range | | x | x | x | | | | | |
| | oil resistance | | | | | | | | | x |
| | chemical resistance | | | | | | | | | x |

 from
to

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



SABIX® BL 405 FRNC halogen-free flexible data cable

BL = BlueLine

Data Cable 16 x 0,5 mm² **ABS** Assessed · Lloyd's Register



Marking for SABIX BL 405 FRNC 64051650:

SAB BRÖCKSKES · D-VIERSEN · SABIX BL 405 FRNC · Data Cable 16 x 0,5 mm² **ABS** Assessed · Lloyd's Register



Construction:

| | |
|-------------------------|---|
| Conductor: | tinned copper strands acc. to DIN VDE 0812 resp. IEC 60228, EN 60228, VDE 0295, class 5 |
| Insulation: | SABIX® FRNC |
| Colour code: | with reference to DIN 47100 |
| Stranding: | in layers |
| Sheath material: | SABIX® FRNC |
| Sheath colour: | pigeon blue (RAL 5014) |

Outstanding features:

- halogen-free
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- approvals:
Germanischer Lloyds
Lloyd's Register
American Bureau of Shipping

Technical data:

| | |
|--|--|
| Peak operating voltage: | max. 350 V |
| Testing voltage: | 1500 V |
| Min. bending radius | |
| fixed laying: | 5 x d |
| flexible application: | 10 x d |
| Temperature range | |
| fixed laying: | -40/+90 °C |
| flexible application: | -30/+90 °C |
| Halogen-free: | acc. to EN 50267-2-1 + IEC 60754-1 |
| Fire performance: | no flame propagation acc. to IEC 60332-3-22 + DIN EN 60332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + DIN EN 60332-1-2 |
| Corrosiveness of conflagration gases: | in compliance with IEC 60754-2 + DIN EN 50267-2-2 - no development of corrosive conflagration gases |
| Smoke density: | acc. to IEC 61034 + EN 61034 |
| Flexibility: | very good |
| Absence of harmful substances: | acc. to RoHS directive of the European Union |

Possible on request:



- bare copper strands
- alternative colour code and sheath colour

for an improved uv resistance we recommend a black outer sheath

| item no. | no. of cores x cross section n x mm ² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64050214 | 2 x 0,14 | 3,6 | 2,7 | 18 |
| 64050314 | 3 x 0,14 | 3,8 | 4,0 | 21 |
| 64050414 | 4 x 0,14 | 4,1 | 5,4 | 24 |
| 64050514 | 5 x 0,14 | 4,5 | 6,7 | 29 |
| 64050614 | 6 x 0,14 | 4,8 | 8,1 | 33 |
| 64050714 | 7 x 0,14 | 4,8 | 9,4 | 35 |
| 64050814 | 8 x 0,14 | 5,5 | 10,8 | 42 |
| 64051214 | 12 x 0,14 | 6,3 | 16,1 | 56 |
| 64051614 | 16 x 0,14 | 7,0 | 21,5 | 70 |
| 64050225 | 2 x 0,25 | 3,9 | 4,8 | 22 |
| 64050325 | 3 x 0,25 | 4,1 | 7,2 | 26 |
| 64050425 | 4 x 0,25 | 4,5 | 9,6 | 31 |
| 64050525 | 5 x 0,25 | 4,9 | 12,0 | 37 |
| 64050625 | 6 x 0,25 | 5,3 | 14,4 | 43 |
| 64050725 | 7 x 0,25 | 5,3 | 16,8 | 46 |
| 64050825 | 8 x 0,25 | 6,2 | 19,2 | 57 |
| 64051225 | 12 x 0,25 | 7,0 | 28,8 | 74 |
| 64051625 | 16 x 0,25 | 7,7 | 38,4 | 93 |
| 64050234 | 2 x 0,34 | 4,3 | 6,5 | 28 |
| 64050334 | 3 x 0,34 | 4,6 | 9,8 | 33 |
| 64050434 | 4 x 0,34 | 5,0 | 13,1 | 39 |
| 64050534 | 5 x 0,34 | 5,4 | 16,3 | 47 |
| 64050634 | 6 x 0,34 | 6,1 | 19,6 | 58 |

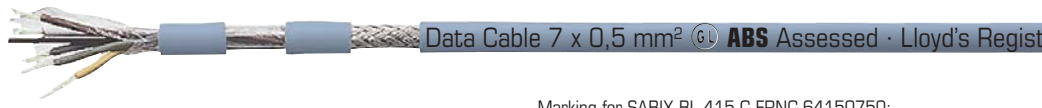
| item no. | no. of cores x cross section n x mm ² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64050734 | 7 x 0,34 | 6,1 | 22,8 | 61 |
| 64050834 | 8 x 0,34 | 7,0 | 26,1 | 73 |
| 64051234 | 12 x 0,34 | 7,8 | 39,2 | 95 |
| 64051634 | 16 x 0,34 | 9,0 | 52,5 | 129 |
| 64050250 | 2 x 0,50 | 4,7 | 9,6 | 35 |
| 64050350 | 3 x 0,50 | 5,0 | 14,4 | 42 |
| 64050450 | 4 x 0,50 | 5,4 | 19,2 | 50 |
| 64050550 | 5 x 0,50 | 6,1 | 24,0 | 64 |
| 64050650 | 6 x 0,50 | 6,7 | 28,8 | 74 |
| 64050750 | 7 x 0,50 | 6,7 | 33,6 | 79 |
| 64050850 | 8 x 0,50 | 7,7 | 38,4 | 95 |
| 64051250 | 12 x 0,50 | 9,0 | 57,6 | 133 |
| 64051650 | 16 x 0,50 | 10,0 | 76,8 | 169 |
| 64050275 | 2 x 0,75 | 5,2 | 14,4 | 43 |
| 64050375 | 3 x 0,75 | 5,5 | 21,6 | 52 |
| 64050475 | 4 x 0,75 | 6,2 | 28,8 | 66 |
| 64050575 | 5 x 0,75 | 6,8 | 36,0 | 79 |
| 64050675 | 6 x 0,75 | 7,4 | 43,2 | 92 |
| 64050775 | 7 x 0,75 | 7,4 | 50,4 | 99 |
| 64050875 | 8 x 0,75 | 8,8 | 57,6 | 126 |
| 64051275 | 12 x 0,75 | 10,1 | 86,4 | 166 |
| 64051675 | 16 x 0,75 | 11,1 | 115,2 | 212 |

Other dimensions and colours are possible on request.



SABIX® BL 415 C FRNC halogen-free flexible data cable with overall copper screen

BL = BlueLine



Marking for SABIX BL 415 C FRNC 64150750:

SAB BRÖCKSKES · D-VIERSEN · SABIX BL 415 C FRNC · Data Cable 7 x 0,5 mm² **ABS** Assessed · Lloyd's Register



Construction:

| | |
|-------------------------|---|
| Conductor: | tinned copper strands acc. to DIN VDE 0812 resp. IEC 60228, EN 60228, VDE 0295, class 5 |
| Insulation: | SABIX® FRNC |
| Colour code: | with reference to DIN 47100 |
| Stranding: | in layers |
| Wrapping: | PETP foil |
| Screen: | tinned copper braiding |
| Sheath material: | SABIX® FRNC |
| Sheath colour: | pigeon blue (RAL 5014) |

Outstanding features:

- halogen-free
- good EMC characteristics*
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- approvals:
Germanischer Lloyds
Lloyd's Register
American Bureau of Shipping

* Copper braiding should be connected circularly to optimize the EMC characteristics

Technical data:

| | |
|--|--|
| Peak operating voltage: | max. 350 V |
| Testing voltage: | 1500 V |
| Min. bending radius | |
| <i>fixed laying:</i> | 5 x d |
| <i>flexible application:</i> | 10 x d |
| Temperature range | |
| <i>fixed laying:</i> | -40/+90 °C |
| <i>flexible application:</i> | -30/+90 °C |
| Halogen-free: | acc. to EN 50267-2-1 + IEC 60754-1 |
| Fire performance: | no flame propagation acc. to IEC 60332-3-22 + DIN EN 60332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + DIN EN 60332-1-2 |
| Corrosiveness of conflagration gases: | in compliance with IEC 60754-2 + DIN EN 50267-2-2 - no development of corrosive conflagration gases |
| Smoke density: | acc. to IEC 61034 + EN 61034 |
| Flexibility: | very good |
| Absence of harmful substances: | acc. to RoHS directive of the European Union |

Possible on request:



- bare copper strands
- alternative colour code and sheath colour

for an improved uv resistance we recommend a black outer sheath

| item no. | no. of cores x cross section n x mm² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64150214 | 2 x 0,14 | 4,1 | 13,0 | 25 |
| 64150314 | 3 x 0,14 | 4,3 | 14,4 | 29 |
| 64150414 | 4 x 0,14 | 4,6 | 19,3 | 35 |
| 64150514 | 5 x 0,14 | 5,0 | 20,7 | 40 |
| 64150614 | 6 x 0,14 | 5,3 | 22,2 | 43 |
| 64150714 | 7 x 0,14 | 5,3 | 23,5 | 45 |
| 64150814 | 8 x 0,14 | 6,2 | 28,4 | 57 |
| 64151214 | 12 x 0,14 | 6,8 | 35,8 | 70 |
| 64151614 | 16 x 0,14 | 7,5 | 43,0 | 85 |
| 64150225 | 2 x 0,25 | 4,4 | 18,6 | 32 |
| 64150325 | 3 x 0,25 | 4,6 | 21,1 | 36 |
| 64150425 | 4 x 0,25 | 5,0 | 23,6 | 41 |
| 64150525 | 5 x 0,25 | 5,4 | 27,9 | 49 |
| 64150625 | 6 x 0,25 | 5,8 | 30,5 | 54 |
| 64150725 | 7 x 0,25 | 5,8 | 32,9 | 57 |
| 64150825 | 8 x 0,25 | 6,7 | 38,8 | 71 |
| 64151225 | 12 x 0,25 | 7,5 | 50,3 | 89 |
| 64151625 | 16 x 0,25 | 8,6 | 62,2 | 118 |
| 64150234 | 2 x 0,34 | 4,8 | 20,5 | 37 |
| 64150334 | 3 x 0,34 | 5,1 | 23,8 | 42 |
| 64150434 | 4 x 0,34 | 5,5 | 29,0 | 50 |
| 64150534 | 5 x 0,34 | 6,1 | 32,4 | 61 |
| 64150634 | 6 x 0,34 | 6,6 | 39,1 | 71 |

| item no. | no. of cores x cross section n x mm² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64150734 | 7 x 0,34 | 6,6 | 42,4 | 75 |
| 64150834 | 8 x 0,34 | 7,5 | 47,6 | 88 |
| 64151234 | 12 x 0,34 | 8,7 | 65,3 | 121 |
| 64151634 | 16 x 0,34 | 9,5 | 81,2 | 149 |
| 64150250 | 2 x 0,50 | 5,2 | 23,7 | 43 |
| 64150350 | 3 x 0,50 | 5,5 | 30,3 | 52 |
| 64150450 | 4 x 0,50 | 6,1 | 35,3 | 64 |
| 64150550 | 5 x 0,50 | 6,6 | 43,5 | 77 |
| 64150650 | 6 x 0,50 | 7,2 | 50,1 | 85 |
| 64150750 | 7 x 0,50 | 7,2 | 54,9 | 90 |
| 64150850 | 8 x 0,50 | 8,6 | 62,2 | 116 |
| 64151250 | 12 x 0,50 | 9,5 | 86,6 | 152 |
| 64151650 | 16 x 0,50 | 10,7 | 124,5 | 201 |
| 64150275 | 2 x 0,75 | 5,7 | 30,4 | 52 |
| 64150375 | 3 x 0,75 | 6,2 | 39,2 | 65 |
| 64150475 | 4 x 0,75 | 6,7 | 48,4 | 78 |
| 64150575 | 5 x 0,75 | 7,3 | 57,4 | 93 |
| 64150675 | 6 x 0,75 | 7,9 | 66,9 | 106 |
| 64150775 | 7 x 0,75 | 7,9 | 74,1 | 114 |
| 64150875 | 8 x 0,75 | 9,3 | 83,9 | 142 |
| 64151275 | 12 x 0,75 | 10,8 | 134,2 | 194 |
| 64151675 | 16 x 0,75 | 11,8 | 169,6 | 247 |

Other dimensions and colours are possible on request.

SABIX® BL 445 C FRNC TP halogen-free flexible paired data cable with overall copper screen

BL = BlueLine



Marking for SABIX BL 445 C FRNC TP 64450325:

SAB BRÖCKSKES · D-VIERSEN · SABIX BL 445 C FRNC TP · Data Cable 3 x 2 x 0,25 mm² GL ABS Assessed · Lloyd's Register CE



Construction:

| | |
|-------------------------|---|
| Conductor: | tinned copper strands acc. to DIN VDE 0812 resp. IEC 60228, EN 60228, VDE 0295, class 5 |
| Insulation: | SABIX® FRNC |
| Colour code: | with reference to DIN 47100 |
| Stranding: | pairwise, pairs in layers |
| Wrapping: | PETP foil |
| Screen: | tinned copper braiding |
| Sheath material: | SABIX® FRNC |
| Sheath colour: | pigeon blue (RAL 5014) |

Outstanding features:

- halogen-free
- good EMC characteristics*
- good transmission rates and crosstalk attenuation
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- approvals:
Germanischer Lloyds
Lloyd's Register
American Bureau of Shipping

* Copper braiding should be connected circularly to optimize the EMC characteristics

Technical data:

| | |
|--|--|
| Peak operating voltage: | max. 350 V |
| Testing voltage: | 1500 V |
| Min. bending radius | |
| fixed laying: | 5 x d |
| flexible application: | 10 x d |
| Temperature range | |
| fixed laying: | -40/+90 °C |
| flexible application: | -30/+90 °C |
| Halogen-free: | acc. to EN 50267-2-1 + IEC 60754-1 |
| Fire performance: | no flame propagation acc. to IEC 60332-3-22 + DIN EN 60332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + DIN EN 60332-1-2 |
| Corrosiveness of conflagration gases: | in compliance with IEC 60754-2 + DIN EN 50267-2-2 - no development of corrosive conflagration gases |
| Smoke density: | acc. to IEC 61034 + EN 61034 |
| Flexibility: | very good |
| Absence of harmful substances: | acc. to RoHS directive of the European Union |

Possible on request:

- bare copper strands
- alternative colour code and sheath colour

for an improved uv resistance we recommend a black outer sheath

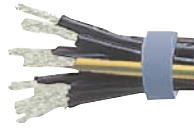
| item no. | no. of pairs x cross section n x 2 x mm ² | outer-ø ± 10% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|------------------------|---------------------------|----------------------------|
| 64450214 | 2 x 2 x 0,14 | 5,3 | 19,5 | 37 |
| 64450314 | 3 x 2 x 0,14 | 5,8 | 21,4 | 44 |
| 64450414 | 4 x 2 x 0,14 | 6,8 | 30,4 | 58 |
| 64450514 | 5 x 2 x 0,14 | 7,4 | 34,9 | 68 |
| 64450614 | 6 x 2 x 0,14 | 7,6 | 39,8 | 76 |
| 64450814 | 8 x 2 x 0,14 | 8,7 | 47,6 | 98 |
| 64451014 | 10 x 2 x 0,14 | 9,5 | 55,9 | 114 |
| 64451214 | 12 x 2 x 0,14 | 10,6 | 79,9 | 142 |
| 64451814 | 18 x 2 x 0,14 | 12,4 | 102,9 | 200 |
| 64450225 | 2 x 2 x 0,25 | 5,8 | 25,7 | 44 |
| 64450325 | 3 x 2 x 0,25 | 6,5 | 32,1 | 57 |
| 64450425 | 4 x 2 x 0,25 | 7,4 | 40,6 | 71 |
| 64450525 | 5 x 2 x 0,25 | 8,7 | 50,1 | 96 |
| 64450625 | 6 x 2 x 0,25 | 8,7 | 54,9 | 104 |
| 64450825 | 8 x 2 x 0,25 | 9,1 | 67,4 | 121 |
| 64451025 | 10 x 2 x 0,25 | 10,6 | 95,7 | 156 |
| 64451225 | 12 x 2 x 0,25 | 11,6 | 111,9 | 180 |
| 64451825 | 18 x 2 x 0,25 | 13,8 | 171,9 | 272 |
| 64450234 | 2 x 2 x 0,34 | 6,4 | 30,7 | 56 |
| 64450334 | 3 x 2 x 0,34 | 7,2 | 40,9 | 71 |
| 64450434 | 4 x 2 x 0,34 | 8,7 | 52,3 | 97 |
| 64450534 | 5 x 2 x 0,34 | 9,4 | 61,6 | 115 |
| 64450634 | 6 x 2 x 0,34 | 9,6 | 68,2 | 128 |

| item no. | no. of pairs x cross section n x 2 x mm ² | outer-ø ± 10% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|------------------------|---------------------------|----------------------------|
| 64450834 | 8 x 2 x 0,34 | 10,8 | 100,0 | 164 |
| 64451034 | 10 x 2 x 0,34 | 11,8 | 119,7 | 194 |
| 64451234 | 12 x 2 x 0,34 | 13,4 | 138,2 | 238 |
| 64451834 | 18 x 2 x 0,34 | 15,8 | 215,3 | 357 |
| 64450250 | 2 x 2 x 0,50 | 7,2 | 40,5 | 70 |
| 64450350 | 3 x 2 x 0,50 | 7,9 | 52,5 | 88 |
| 64450450 | 4 x 2 x 0,50 | 9,5 | 67,4 | 120 |
| 64450550 | 5 x 2 x 0,50 | 10,5 | 95,6 | 154 |
| 64450650 | 6 x 2 x 0,50 | 10,8 | 105,4 | 171 |
| 64450850 | 8 x 2 x 0,50 | 11,9 | 131,3 | 207 |
| 64451050 | 10 x 2 x 0,50 | 13,4 | 155,9 | 259 |
| 64451250 | 12 x 2 x 0,50 | 15,0 | 212,6 | 322 |
| 64451850 | 18 x 2 x 0,50 | 17,4 | 283,5 | 451 |
| 64450275 | 2 x 2 x 0,75 | 7,9 | 52,5 | 87 |
| 64450375 | 3 x 2 x 0,75 | 9,2 | 69,5 | 115 |
| 64450475 | 4 x 2 x 0,75 | 10,7 | 105,3 | 156 |
| 64450575 | 5 x 2 x 0,75 | 11,6 | 126,3 | 186 |
| 64450675 | 6 x 2 x 0,75 | 12,4 | 141,0 | 221 |
| 64450875 | 8 x 2 x 0,75 | 13,8 | 200,7 | 284 |
| 64451075 | 10 x 2 x 0,75 | 15,2 | 241,6 | 338 |
| 64451275 | 12 x 2 x 0,75 | 17,2 | 283,2 | 411 |
| 64451875 | 18 x 2 x 0,75 | 19,4 | 384,0 | 553 |

Other dimensions and colours are possible on request.

SABIX® BL 400 FRNC halogen-free flexible control cable 300/500 V

BL = BlueLine



FRNC · Control Cable 12 x 1,5 mm² **ABS** Assessed · Lloyd's Register

Marking for SABIX BL 400 FRNC 64001215:

SAB BRÖCKSKES · D-VIERSEN · SABIX BL 400 FRNC · Control Cable 12 x 1,5 mm² **ABS** Assessed · Lloyd's Register



Construction:

| | |
|------------------------|---|
| Conductor: | tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5 |
| Insulation: | SABIX® FRNC |
| Colour code: | black conductors with consecutive numbers acc. to EN 50334 green-yellow earth wire from 3 conductors |
| Stranding: | in layers |
| Sheathmaterial: | SABIX® FRNC |
| Sheath colour: | pigeon blue (RAL 5014) |

Outstanding features:

- halogen-free
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- approvals:
Germanischer Lloyds
Lloyd's Register
American Bureau of Shipping

Technical data:

| | |
|--|--|
| Nominal voltage: | U ₀ /U 300/500 V |
| Testing voltage U: | 2000 V acc. to DIN VDE 0281 part 2 + HD 21.2 |
| Min. bending radius | |
| <i>fixed laying:</i> | 5 x d |
| <i>flexible application:</i> | 10 x d |
| Temperature range | |
| <i>fixed laying:</i> | -40/+90°C |
| <i>flexible application:</i> | -30/+90°C |
| Halogen-free: | acc. to EN 50267-2-1 + IEC 60754-1 |
| Fire performance: | no flame propagation acc. to IEC 60332-3-22 + DIN EN 60332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + DIN EN 60332-1-2 |
| Corrosiveness of conflagration gases: | in compliance with IEC 60754-2 + DIN EN 50267-2-2 - no development of corrosive conflagration gases |
| Smoke density: | acc. to IEC 61034 + EN 61034 |
| Flexibility: | very good |
| Absence of harmful substances: | acc. to RoHS directive of the European Union |

Possible on request:



- bare copper strands
- alternative colour code and sheath colour

for an improved uv resistance we recommend a black outer sheath

| item no. | no. of cores x cross section n x mm ² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64000205 | 2 x 0,50 | 5,3 | 9,6 | 42 |
| 64000305 | 3 x 0,50 | 5,6 | 14,4 | 49 |
| 64000405 | 4 x 0,50 | 6,0 | 19,2 | 59 |
| 64000505 | 5 x 0,50 | 6,6 | 24,0 | 72 |
| 64000705 | 7 x 0,50 | 7,3 | 33,6 | 90 |
| 64001205 | 12 x 0,50 | 9,6 | 57,6 | 147 |
| 64001805 | 18 x 0,75 | 11,4 | 86,4 | 212 |
| 64000207 | 2 x 0,75 | 5,8 | 14,4 | 51 |
| 64000307 | 3 x 0,75 | 6,1 | 21,6 | 60 |
| 64000407 | 4 x 0,75 | 6,7 | 28,8 | 74 |
| 64000507 | 5 x 0,75 | 7,4 | 36,0 | 91 |
| 64000707 | 7 x 0,75 | 8,1 | 50,4 | 113 |
| 64001207 | 12 x 0,75 | 10,9 | 86,4 | 187 |
| 64001807 | 18 x 0,75 | 12,8 | 129,6 | 269 |
| 64000210 | 2 x 1,00 | 6,0 | 19,2 | 57 |
| 64000310 | 3 x 1,00 | 6,3 | 28,8 | 68 |
| 64000410 | 4 x 1,00 | 7,0 | 38,4 | 84 |
| 64000510 | 5 x 1,00 | 7,8 | 48,0 | 105 |

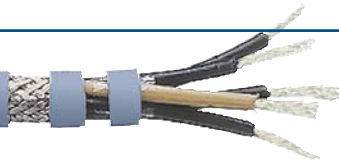
| item no. | no. of cores x cross section n x mm ² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64000710 | 7 x 1,00 | 8,4 | 67,2 | 131 |
| 64001210 | 12 x 1,00 | 11,3 | 115,2 | 216 |
| 64001810 | 18 x 1,00 | 13,5 | 172,8 | 318 |
| 64000215 | 2 x 1,50 | 6,7 | 28,8 | 73 |
| 64000315 | 3 x 1,50 | 7,0 | 43,2 | 89 |
| 64000415 | 4 x 1,50 | 7,9 | 57,6 | 112 |
| 64000515 | 5 x 1,50 | 8,6 | 72,0 | 136 |
| 64000715 | 7 x 1,50 | 9,5 | 100,8 | 174 |
| 64001215 | 12 x 1,50 | 12,7 | 172,8 | 287 |
| 64001815 | 18 x 1,50 | 15,3 | 259,2 | 426 |
| 64000225 | 2 x 2,50 | 8,1 | 48,0 | 111 |
| 64000325 | 3 x 2,50 | 8,6 | 72,0 | 137 |
| 64000425 | 4 x 2,50 | 9,5 | 96,0 | 171 |
| 64000525 | 5 x 2,50 | 10,6 | 120,0 | 212 |
| 64000725 | 7 x 2,50 | 11,7 | 168,0 | 272 |
| 64001225 | 12 x 2,50 | 15,7 | 288,0 | 452 |
| 64001825 | 18 x 2,50 | 18,9 | 432,0 | 670 |

Other dimensions and colours are possible on request.

SABIX® BL 438 C FRNC halogen-free flexible control cable with overall copper screen 300/500 V

BL = BlueLine

Control Cable 5 x 1,5 mm² GL ABS Assessed · Lloyd's Register CE



Marking for SABIX BL 438 C FRNC 64380515:

SAB BRÖCKSKES · D-VIERSEN · SABIX BL 438 C FRNC · Control Cable 5 x 1,5 mm² GL ABS Assessed · Lloyd's Register CE



Construction:

| | |
|-----------------------|---|
| Conductor: | tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5 |
| Insulation: | SABIX® FRNC |
| Colour code | black conductors with consecutive numbers acc. to EN 50334 green-yellow earth wire from 3 conductors |
| Stranding: | in layers |
| Wrapping: | PETP foil |
| Screen: | tinned copper braiding |
| Sheath: | SABIX® FRNC |
| Sheath colour: | pigeon blue (RAL 5014) |

Outstanding features:

- halogen-free
- good EMC characteristics*
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- approvals:
Germanischer Lloyds
Lloyd's Register
American Bureau of Shipping

*Copper braiding should be connected circularly to optimize the EMC characteristics

Technical data:

| | |
|--|--|
| Nominal voltage: | U ₀ /U 300/500 V |
| Testing voltage U: | 2000 V acc. to DIN VDE 0281 part 2 + HD 21.2, conductor/screen 2000 V |
| Min. bending radius | |
| fixed laying: | 5 x d |
| flexible application: | 10 x d |
| Temperature range | |
| fixed laying: | -40/+90 °C |
| flexible application: | -30/+90 °C |
| Halogen-free: | acc. to EN 50267-2-1 + IEC 60754-1 |
| Fire performance: | no flame propagation acc. to IEC 60332-3-22 + DIN EN 60332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + DIN EN 60332-1-2 |
| Corrosiveness of conflagration gases: | in compliance with IEC 60754-2 + DIN EN 50267-2-2 - no development of corrosive conflagration gases |
| Smoke density: | acc. to IEC 61034 + EN 61034 |
| Flexibility: | very good |
| Absence of harmful substances: | acc. to RoHS directive of the European Union |

Possible on request:

- bare copper strands
- alternative colour code and sheath colour

for an improved uv resistance we recommend a black outer sheath



| item no. | no. of cores x cross section n x mm ² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64380205 | 2 x 0,50 | 5,8 | 25,5 | 50 |
| 64380305 | 3 x 0,50 | 6,1 | 30,4 | 57 |
| 64380405 | 4 x 0,50 | 6,6 | 36,9 | 69 |
| 64380505 | 5 x 0,50 | 7,1 | 43,6 | 82 |
| 64380705 | 7 x 0,50 | 7,9 | 55,0 | 104 |
| 64381205 | 12 x 0,50 | 10,2 | 86,7 | 165 |
| 64381805 | 18 x 0,75 | 12,3 | 140,7 | 251 |
| 64380207 | 2 x 0,75 | 6,4 | 30,5 | 58 |
| 64380307 | 3 x 0,75 | 6,7 | 39,3 | 69 |
| 64380407 | 4 x 0,75 | 7,3 | 48,5 | 84 |
| 64380507 | 5 x 0,75 | 8,0 | 57,5 | 102 |
| 64380707 | 7 x 0,75 | 8,7 | 74,2 | 126 |
| 64381207 | 12 x 0,75 | 11,7 | 140,4 | 221 |
| 64381807 | 18 x 0,75 | 13,7 | 189,4 | 311 |
| 64380210 | 2 x 1,00 | 6,6 | 36,9 | 65 |
| 64380310 | 3 x 1,00 | 6,9 | 48,3 | 77 |
| 64380410 | 4 x 1,00 | 7,5 | 59,7 | 93 |
| 64380510 | 5 x 1,00 | 8,4 | 71,7 | 118 |

| item no. | no. of cores x cross section n x mm ² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64380710 | 7 x 1,00 | 9,0 | 93,4 | 145 |
| 64381210 | 12 x 1,00 | 12,1 | 169,4 | 250 |
| 64381810 | 18 x 1,00 | 14,6 | 258,5 | 378 |
| 64380215 | 2 x 1,50 | 7,3 | 48,5 | 80 |
| 64380315 | 3 x 1,50 | 7,6 | 64,5 | 97 |
| 64380415 | 4 x 1,50 | 8,4 | 81,3 | 120 |
| 64380515 | 5 x 1,50 | 9,3 | 98,2 | 150 |
| 64380715 | 7 x 1,50 | 10,1 | 129,9 | 188 |
| 64381215 | 12 x 1,50 | 13,5 | 232,5 | 323 |
| 64381815 | 18 x 1,50 | 16,3 | 357,1 | 488 |
| 64380225 | 2 x 2,50 | 8,7 | 71,8 | 115 |
| 64380325 | 3 x 2,50 | 9,3 | 98,2 | 145 |
| 64380425 | 4 x 2,50 | 10,1 | 125,1 | 180 |
| 64380525 | 5 x 2,50 | 11,5 | 167,9 | 237 |
| 64380725 | 7 x 2,50 | 12,5 | 222,4 | 299 |
| 64381225 | 12 x 2,50 | 16,8 | 386,4 | 513 |
| 64381825 | 18 x 2,50 | 20,1 | 556,3 | 753 |

Other dimensions and colours are possible on request.

SABIX® BL 410 FRNC halogen-free flexible power cable 0,6/1 kV

BL = BlueLine



Power Cable 0,6/1 kV 12 x 1,5 mm² (GL) ABS Assessed · Lloyd's Register

Marking for SABIX BL 410 FRNC 64101215:

SAB BRÖCKSKES · D-VIERSEN · SABIX BL 410 FRNC · Power Cable 0,6/1 kV 12 x 1,5 mm² (GL) ABS Assessed · Lloyd's Register CE



Construction:

| | |
|-----------------------|---|
| Conductor: | tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5 |
| Insulation: | SABIX® FRNC |
| Colour code | black conductors with consecutive numbers acc. to EN 50334 green-yellow earth wire from 3 conductors |
| Stranding: | in layers |
| Sheath: | SABIX® FRNC |
| Sheath colour: | black (RAL 9005) |

Outstanding features:

- halogen-free
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- approvals:
Germanischer Lloyds
Lloyd's Register
American Bureau of Shipping

Technical data:

| | |
|--|--|
| Nominal voltage: | U ₀ /U 0,6/1 kV |
| Testing voltage U: | 4000 V acc. to DIN VDE 0281 part 2 + HD 21.2 |
| Min. bending radius | |
| fixed laying: | 5 x d |
| flexible application: | 10 x d |
| Temperature range | |
| fixed laying: | -40/+90 °C |
| flexible application: | -30/+90 °C |
| Halogen-free: | acc. to EN 50267-2-1 + IEC 60754-1 |
| Fire performance: | no flame propagation acc. to IEC 60332-3-22 + DIN EN 60332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + DIN EN 60332-1-2 |
| Corrosiveness of conflagration gases: | in compliance with IEC 60754-2 + DIN EN 50267-2-2 - no development of corrosive conflagration gases |
| Smoke density: | acc. to IEC 61034 + EN 61034 |
| Flexibility: | very good |
| Absence of harmful substances: | acc. to RoHS directive of the European Union |

Possible on request:



- bare copper strands
- alternative colour code and sheath colour

for an improved uv resistance we recommend a black outer sheath

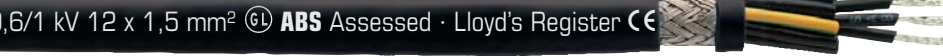
| item no. | no. of cores x cross section n x mm² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64100215 | 2 x 1,50 | 8,9 | 28,8 | 120 |
| 64100315 | 3 x 1,50 | 9,4 | 43,2 | 137 |
| 64100415 | 4 x 1,50 | 10,6 | 57,6 | 174 |
| 64100515 | 5 x 1,50 | 11,6 | 72,0 | 210 |
| 64100715 | 7 x 1,50 | 12,6 | 100,8 | 257 |
| 64101015 | 10 x 1,50 | 16,3 | 144,0 | 366 |
| 64101215 | 12 x 1,50 | 16,8 | 172,8 | 415 |
| 64101415 | 14 x 1,50 | 17,6 | 201,3 | 468 |
| 64101815 | 18 x 1,50 | 19,9 | 259,2 | 609 |
| 64100225 | 2 x 2,50 | 9,7 | 48,0 | 151 |
| 64100325 | 3 x 2,50 | 10,7 | 72,0 | 187 |
| 64100425 | 4 x 2,50 | 11,6 | 96,0 | 224 |
| 64100525 | 5 x 2,50 | 12,7 | 120,0 | 272 |
| 64100725 | 7 x 2,50 | 13,8 | 168,0 | 337 |
| 64101025 | 10 x 2,50 | 17,9 | 240,0 | 480 |
| 64101225 | 12 x 2,50 | 18,4 | 288,0 | 549 |
| 64101425 | 14 x 2,50 | 19,3 | 336,0 | 622 |
| 64101825 | 18 x 2,50 | 21,9 | 432,0 | 808 |
| 64100240 | 2 x 4,00 | 12,1 | 76,8 | 236 |
| 64100340 | 3 x 4,00 | 12,8 | 115,2 | 276 |
| 64100440 | 4 x 4,00 | 14,0 | 153,6 | 334 |

| item no. | no. of cores x cross section n x mm² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64100540 | 5 x 4,00 | 15,4 | 192,0 | 410 |
| 64100740 | 7 x 4,00 | 17,2 | 268,8 | 529 |
| 64100260 | 2 x 6,00 | 13,1 | 115,2 | 293 |
| 64100360 | 3 x 6,00 | 13,9 | 172,8 | 349 |
| 64100460 | 4 x 6,00 | 15,2 | 230,4 | 427 |
| 64100560 | 5 x 6,00 | 17,2 | 288,0 | 543 |
| 64100760 | 7 x 6,00 | 18,7 | 403,2 | 683 |
| 64100361 | 3 x 10,0 | 17,0 | 288,0 | 544 |
| 64100461 | 4 x 10,0 | 18,6 | 384,0 | 669 |
| 64100561 | 5 x 10,0 | 20,5 | 480,0 | 825 |
| 64100362 | 3 x 16,0 | 20,0 | 460,8 | 778 |
| 64100462 | 4 x 16,0 | 22,3 | 614,4 | 985 |
| 64100562 | 5 x 16,0 | 24,7 | 768,0 | 1218 |
| 64100363 | 3 x 25,0 | 24,3 | 720,0 | 1171 |
| 64100463 | 4 x 25,0 | 27,1 | 960,0 | 1480 |
| 64100563 | 5 x 25,0 | 29,9 | 1200,0 | 1828 |
| 64100364 | 3 x 35,0 | 27,7 | 1008,0 | 1581 |
| 64100464 | 4 x 35,0 | 30,4 | 1344,0 | 1967 |
| 64100365 | 3 x 50,0 | 31,5 | 1440,0 | 2207 |
| 64100465 | 4 x 50,0 | 34,5 | 1920,0 | 2760 |

Other dimensions and colours are possible on request.

SABIX® BL 412 C FRNC halogen-free flexible power cable with overall copper screen 0,6/1 kV

BL = BlueLine



Marking for SABIX BL 412 C FRNC 64121215:

SAB BRÖCKSKES · D-VIERSEN · SABIX BL 412 C FRNC · Power Cable 0,6/1 kV 12 x 1,5 mm² © ABS Assessed · Lloyd's Register CE



Construction:

| | |
|-----------------------|---|
| Conductor: | tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5 |
| Insulation: | SABIX® FRNC |
| Colour code: | black conductors with consecutive numbers acc. to EN 50334 green-yellow earth wire from 3 conductors |
| Stranding: | in layers |
| Screen: | tinned copper braiding |
| Sheath: | SABIX® FRNC |
| Sheath colour: | black (RAL 9005) |

Outstanding features:

- halogen-free
- good EMC characteristics*
- no flame propagation
- flame retardant and self-extinguishing
- flexible
- approvals:
Germanischer Lloyds
Lloyd's Register
American Bureau of Shipping

*Copper braiding should be connected circularly to optimize the EMC characteristics

Technical data:

| | |
|---|--|
| Nominal voltage: | U ₀ /U 0,6/1 kV |
| Testing voltage U: | 4000 V acc. to DIN VDE 0281 part 2 + HD 21.2 conductor/screen 2000 V |
| Min. bending radius <i>fixed laying</i> | 5 x d |
| <i>flexible application:</i> | 10 x d |
| Temperature range <i>fixed laying</i> | -40/+90 °C |
| <i>flexible application:</i> | -30/+90 °C |
| Halogen-free: | acc. to EN 50267-2-1 + IEC 60754-1 |
| Fire performance: | no flame propagation acc. to IEC 60332-3-22 + DIN EN 60332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + DIN EN 60332-1-2 |
| Corrosiveness of conflagration gases: | in compliance with IEC 60754-2 + DIN EN 50267-2-2 - no development of corrosive conflagration gases |
| Smoke density: | acc. to IEC 61034 + EN 61034 |
| Flexibility: | very good |
| Absence of harmful substances: | acc. to RoHS directive of the European Union |

Possible on request:

- bare copper strands
- alternative colour code and sheath colour

for an improved uv resistance we recommend a black outer sheath



| item no. | no. of cores x cross section n x mm ² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64120215 | 2 x 1,50 | 9,4 | 55,0 | 126 |
| 64120315 | 3 x 1,50 | 9,9 | 72,2 | 150 |
| 64120415 | 4 x 1,50 | 11,3 | 105,2 | 202 |
| 64120515 | 5 x 1,50 | 12,3 | 126,2 | 243 |
| 64120715 | 7 x 1,50 | 13,3 | 160,4 | 292 |
| 64121015 | 10 x 1,50 | 17,2 | 253,8 | 437 |
| 64121215 | 12 x 1,50 | 17,7 | 283,2 | 486 |
| 64121415 | 14 x 1,50 | 18,5 | 313,1 | 539 |
| 64121815 | 18 x 1,50 | 20,8 | 384,8 | 690 |
| 64120225 | 2 x 2,50 | 10,2 | 77,1 | 139 |
| 64120325 | 3 x 2,50 | 11,4 | 119,6 | 212 |
| 64120425 | 4 x 2,50 | 12,3 | 150,2 | 242 |
| 64120525 | 5 x 2,50 | 13,4 | 179,6 | 306 |
| 64120725 | 7 x 2,50 | 15,1 | 253,9 | 405 |
| 64121025 | 10 x 2,50 | 18,8 | 351,9 | 550 |
| 64121225 | 12 x 2,50 | 19,7 | 411,8 | 646 |
| 64121425 | 14 x 2,50 | 20,6 | 461,2 | 721 |
| 64121825 | 18 x 2,50 | 22,8 | 572,7 | 895 |
| 64120240 | 2 x 4,00 | 12,8 | 131,3 | 253 |
| 64120340 | 3 x 4,00 | 13,5 | 174,9 | 282 |
| 64120440 | 4 x 4,00 | 14,9 | 239,6 | 380 |

| item no. | no. of cores x cross section n x mm ² | outer-ø ± 5% mm | copper figure kg/km | cable weight ≈ kg/km |
|----------|--|-----------------------|---------------------------|----------------------------|
| 64120540 | 5 x 4,00 | 16,7 | 290,3 | 481 |
| 64120740 | 7 x 4,00 | 18,1 | 379,7 | 591 |
| 64120260 | 2 x 6,00 | 13,8 | 175,0 | 309 |
| 64120360 | 3 x 6,00 | 15,2 | 258,8 | 406 |
| 64120460 | 4 x 6,00 | 16,5 | 328,4 | 440 |
| 64120560 | 5 x 6,00 | 18,1 | 398,9 | 602 |
| 64120760 | 7 x 6,00 | 20,0 | 527,5 | 770 |
| 64120361 | 3 x 10,0 | 17,9 | 398,7 | 589 |
| 64120461 | 4 x 10,0 | 19,5 | 508,1 | 724 |
| 64120561 | 5 x 10,0 | 21,8 | 618,8 | 913 |
| 64120362 | 3 x 16,0 | 21,3 | 598,7 | 847 |
| 64120462 | 4 x 16,0 | 23,2 | 755,9 | 1037 |
| 64120562 | 5 x 16,0 | 26,0 | 938,8 | 1315 |
| 64120363 | 3 x 25,0 | 25,6 | 889,8 | 1238 |
| 64120463 | 4 x 25,0 | 28,0 | 1135,9 | 1528 |
| 64120563 | 5 x 25,0 | 31,2 | 1400,7 | 1923 |
| 64120364 | 3 x 35,0 | 28,6 | 1185,4 | 1602 |
| 64120464 | 4 x 35,0 | 31,7 | 1546,6 | 2041 |
| 64120365 | 3 x 50,0 | 32,4 | 1645,3 | 2213 |
| 64120465 | 4 x 50,0 | 35,4 | 2149,1 | 2786 |

Other dimensions and colours are possible on request.

BlueLine TA 180 C

flexible FEP-Connection cables with overall copper screen



BRÖCKSKES · D-VIERSEN · BL TA 180 C 7 x 1,5 mm² C

Marking for BlueLine TA 180 C 37530715:
SAB BRÖCKSKES · D-VIERSEN · BL TA 180 C 7 x 1,5 mm² GL C 37/11

Construction:

| | |
|----------------|---|
| Conductor: | tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5 |
| Insulation: | FEP |
| Colour code: | black conductors with consecutive numbers acc. to EN 50334, without green-yellow earth wire |
| Stranding: | in layers |
| Inner sheath: | Besilen* |
| Screen: | tinned copper braiding |
| Sheath: | FEP |
| Sheath colour: | black (RAL 9005) |

Technical data:

| | |
|-----------------------------------|--|
| Nominal voltage: | U ₀ /U 300/500 V |
| Testing voltage: | 2000 V (AC) |
| Min. bending radius fixed laying: | 5 x d |
| flexible application: | 10 x d |
| Radiation resistance: | 1 x 10 ⁻⁷ Cj/kg |
| Temperature range fixed laying: | -55/+180 °C |
| flexible application: | -55/+180 °C |
| Fire performance: | no flame propagation acc. to IEC 60332-3-22 + DIN EN 60332-3-22 cat. A. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + DIN EN 60332-1-2 |
| Oil and fuel resistance: | very good |
| Flexibility: | good |
| Halogen-free: | not fulfilled |
| Absence of harmful substances: | acc. to RoHS directive of the European Union |

Outstanding features:

- 100% no flame propagation
- 100% flame retardant and self-extinguishing
- 100% good EMC characteristics*
- 100% oil and fuel resistant
- 100% good chemical resistance
- 100% high cold and heat resistance
- 100% approval: Germanischer Lloyd

*Copper braiding should be connected circularly to optimize the EMC characteristics

Possible on request:

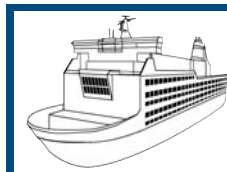
- 100% without overall copper screen
- 100% alternative colour code and sheath colour

for an improved uv resistance we recommend a black outer sheath

| item no. | no. of conductors incl. ground | nominal outer-Ø inch | outer-Ø mm | cable weight ≈ lbs/mft |
|---|--------------------------------|----------------------|------------|------------------------|
| * 19 AWG (≈ 23/32) • 0.75 mm ² | | | | |
| 37530207 | 2 | 0.217 | 5.5 | 39 |
| 37530307 | 3 | 0.228 | 5.8 | 46 |
| 37530507 | 5 | 0.272 | 6.9 | 67 |
| 37530607 | 6 | 0.295 | 7.5 | 78 |
| 37530707 | 7 | 0.295 | 7.5 | 82 |
| 37530807 | 8 | 0.319 | 8.1 | 93 |
| 37531207 | 12 | 0.394 | 10.0 | 136 |
| 37531607 | 16 | 0.441 | 11.2 | 176 |
| 37532007 | 20 | 0.496 | 12.6 | 224 |

| item no. | no. of conductors incl. ground | nominal outer-Ø inch | outer-Ø mm | cable weight ≈ lbs/mft |
|--|--------------------------------|----------------------|------------|------------------------|
| * 18 AWG (≈ 30/32) • 1.00 mm ² | | | | |
| 37530210 | 2 | 0.224 | 5.7 | 43 |
| * 16 AWG (≈ 27-29/30) • 1.50 mm ² | | | | |
| 37530215 | 2 | 0.252 | 6.4 | 54 |
| 37530315 | 3 | 0.264 | 6.7 | 65 |
| 37530515 | 5 | 0.315 | 8.0 | 97 |
| 37530615 | 6 | 0.346 | 8.8 | 115 |
| 37530715 | 7 | 0.346 | 8.8 | 122 |
| 37531215 | 12 | 0.465 | 11.8 | 208 |

Other dimensions and colors are possible on request.



especially for use in shipbuilding industry



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