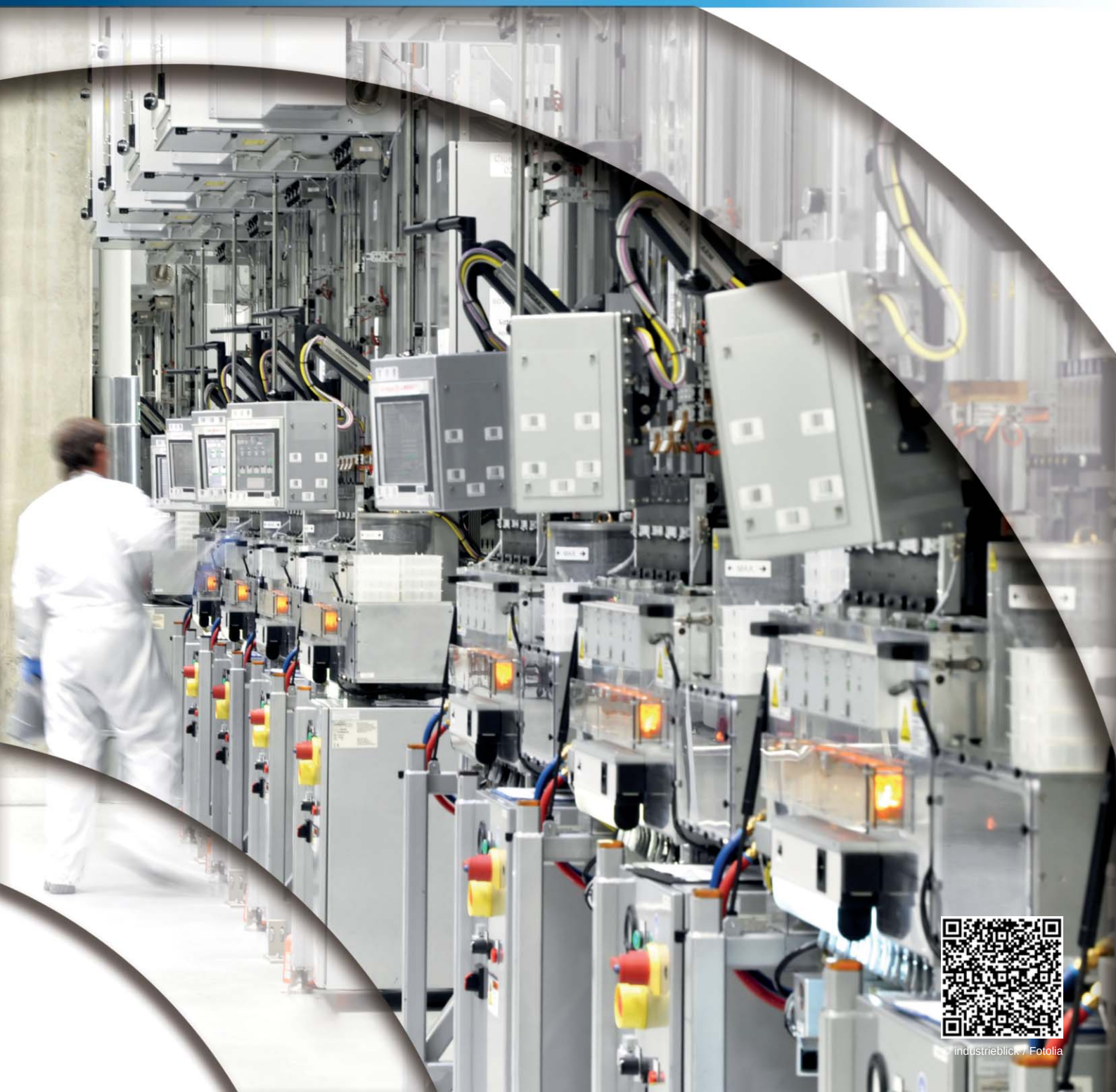


CABLES

FOR CLEAN ROOM TECHNOLOGY



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NEW



TRADITIONAL
FAMILY BUSINESS
SINCE **1947**

WHO WE ARE

A SURVEY

70 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 customers' 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 worldwide. 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 ISO 50001:2011. And our future slogan is:

WE GO FORWARD!

FOUNDED:	1947 by Peter Bröckskes sen. an independent, medium-sized company.
CEO:	Peter Bröckskes and Sabine Bröckskes-Wetten
PLANT/LOCATION:	In Viersen (Lower Rhine) 110.000 m ² company site. Own manufacturing from copper conductor to outer sheath. VDE proved burnchamber and laboratory within the company.
EMPLOYEES/WORKERS:	Approx. 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 ISO 50001:2011



The guideline VDI 2083 sheet 8 treats the suitability of equipment for cleanrooms with respect to planning, production, maintenance, recovering and proof. The examination of our **SAB^{clean}** cables by the Fraunhofer Institut showed that our **SAB^{clean}** cables met all quality requirements

Thus **SAB BRÖCKSKES** is able to present its „**Tested Device Certificate**“ by the Fraunhofer Institute.

Classification of air cleanliness acc. to ISO 14644-1

maximum particles/m ³						
class	0,1 µm	0,2 µm	0,3 µm	0,5 µm	1,0 µm	5,0 µm
ISO 1	10	2				
ISO 2	100	24	10	4		
ISO 3	1.000	237	102	35	8	
ISO 4	10.000	2.370	1.020	352	83	
ISO 5	100.000	23.700	10.200	3.520	832	29
ISO 6	1.000.000	237.000	102.000	35.200	8.320	293
ISO 7				352.000	83.200	2.930
ISO 8				3.520.000	832.000	29.300
ISO 9				35.200.000	8.320.000	293.000

Application examples:

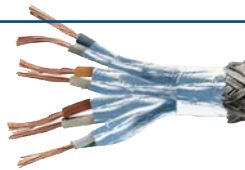
SAB^{clean} cables are used in clean rooms.

Examples are the production of semiconductors, machines for display manufacturing, devices for biological or medical engineering, food and medical production.

SAB^{clean} cables meet highest requirements acc. to ISO 14644-1 and US Federal Standard 209 E.



SAB^{clean} CATLine CAT 7A S Industrial Ethernet Cable, suitable for cable tracks



AWG 1777-9003 AWM Style 20549 80°C 300V

Marking for SAB^{clean} CATLine CAT 7A S:

SAB BRÖCKSKES · D-VIERSEN · SAB Clean CATLine Cat. 7A S 4x2x26AWG 1777-9003 AWM Style 20549 80°C 300V and current meter marking

Construction:

Dimension:	4 x 2 x 26 AWG
Conductor:	bare copper strands, fine wire
Insulation:	special polymer
Colour code:	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
Stranding:	cores twisted to pairs, pairs screened with foil, pairs together
Screen:	aluminized non-woven tape
Screen:	tinned copper braiding
Wrapping:	non-woven tape
Sheath material:	TPE
Sheath colour:	black (RAL 9005)

Technical data:

Item number:	1777-9003
Peak operating voltage:	max. 90 V
Voltage UL:	300 V
Testing voltage:	core/core 2000 V core/screen 2000 V
Min. bending radius	
fixed laying:	5 x d
flexible application:	10 x d
continuously flexible:	15 x d
Temperature range	UL: up to +80 °C
fixed laying:	-40/+70 °C
flexible application:	-40/+70 °C
Characteristic impedance:	100Ω ± 5Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 / CAT 7A
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2 UL Horizontal Flame Test FT2
Oil resistance:	very good - Oil 60 °C acc. to UL 758
Flexibility:	very good
Air cleanliness class 1:	acc. to DIN EN 14644-1 US Federal Standard 209 E
Absence of harmful substances:	acc. to RoHS directive of the European Union

item no.	type	no. of cores	cross section AWG	core-ø max. mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km
17779003	SAB Clean CATLine CAT 7A S	8	26	1,60	9,0	38,5	85

Other dimensions and colours are possible on request.



Cleanroom classification
DIN EN ISO 14644-1
air cleanliness class 1,
US Federal Standard 209 E
air cleanliness class 1.

SAB^{clean} SD 776 continuously flexible data cable

SAB^{clean} S 776 continuously flexible control cable

• D-VIERSEN • SAB Clean SD 776 • 14 x 0,25 mm² 



Marking for SAB^{clean} SD 776 37761402:

SAB BRÖCKSKES • D-VIERSEN • SAB Clean SD 776 • 14 x 0,25 mm² •  and current meter marking

• D-VIERSEN • SAB Clean S 776 • 4 G 1,0 mm² 

Marking for SAB^{clean} S 776 37760410:

SAB BRÖCKSKES • D-VIERSEN • SAB Clean S 776 • 4 G 1,0 mm² •  and current meter marking

Construction:

Conductor :	SD 776: bare copper strands, extra fine wire S 776: bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6
Insulation :	TPE
Colour code:	SD 776: with reference to DIN 47100 S 776: black cores with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 cores
Stranding:	pecially adjusted layering
Wrapping:	non-woven tape
Sheath material:	TPE
Sheath colour:	black (RAL 9005)

Outstanding features:

- flexible at low temperatures
- high abrasion resistance
- small outer diameter
- oil resistant

Technical data:

Peak operating voltage:	SD 776: max. 350 V
Nominal voltage:	S 776: U ₀ /U 300/500 V
Testing voltage:	SD 776: 1500 V S 776: 2000 V
Min. bending radius:	7,5 x d
Temperature range	
fixed laying:	-40/+80 °C
flexible application:	-30/+80 °C
Oil resistance:	very good - Oil 60 °C acc. to UL 758
Air cleanliness class 1:	acc. to DIN EN 14644-1 US Federal Standard 209 E
Absence of harmful substances:	acc. to RoHS directive of the European Union

item no.	no. of cores x cross section n x mm ²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20 °C max. Ω/km
SD 776						
37760302	3 x 0,25	0,11	4,1	7,2	23	78,0
37760402	4 x 0,25	0,11	4,3	9,6	26	78,0
37760502	5 x 0,25	0,11	4,6	12,0	31	78,0
37760602	6 x 0,25	0,11	5,0	14,4	37	78,0
37760702	7 x 0,25	0,11	5,3	16,8	42	78,0
37761002	10 x 0,25	0,11	6,1	24,0	52	78,0
37761402	14 x 0,25	0,11	6,5	33,6	65	78,0
37760503	5 x 0,34	0,11	4,9	16,3	37	57,4
37763203	32 x 0,34	0,11	9,9	104,4	162	57,4
S 776						
37760205	2 x 0,50	0,16	5,3	9,6	35	39,0
37760305	3 x 0,50	0,16	5,5	14,4	41	39,0
37760405	4 x 0,50	0,16	5,9	19,2	49	39,0
37760505	5 x 0,50	0,16	6,4	24,0	60	39,0
37760705	7 x 0,50	0,16	7,3	33,6	79	39,0
37761205	12 x 0,50	0,16	8,7	57,6	111	39,0
37760407	4 x 0,75	0,16	6,5	28,8	63	26,0
37760507	5 x 0,75	0,16	7,1	36,0	77	26,0
37760707	7 x 0,75	0,16	8,1	50,4	104	26,0
37760410	4 x 1,00	0,16	7,0	38,4	77	19,5
37760415	4 x 1,50	0,16	7,7	57,6	100	13,3
37760515	5 x 1,50	0,16	8,4	72,0	123	13,3
37760425	4 x 2,50	0,16	9,6	96,0	157	7,98
37760440	4 x 4,00	0,16	12,1	153,6	252	4,95
37760460	4 x 6,00	0,21	13,2	230,4	335	3,30
37760461	4 x 10,0	0,21	15,8	384,0	514	1,91

Other dimensions and colours are possible on request.



Cleanroom classification
DIN EN ISO 14644-1
air cleanliness class 1,
US Federal Standard 209 E
air cleanliness class 1.

SAB^{clean} SD 780 C continuously flexible data cable with overall copper screen

SAB^{clean} S 780 C continuously flexible control cable with overall copper screen



BRÖCKSKES · D-VIERSEN · SAB Clean SD 780 · 18 x 0,34 mm²

Marking for SAB^{clean} SD 780 C 37801803:

SAB BRÖCKSKES · D-VIERSEN · SAB Clean SD 780 · 18 x 0,34 mm² · RoHS and current meter marking



BRÖCKSKES · D-VIERSEN · SAB Clean S 780 C · 4 G 1,0 mm²

Marking for SAB^{clean} S 780 C 37800410:

SAB BRÖCKSKES · D-VIERSEN · SAB Clean S 780 C · 4 G 1,0 mm² · RoHS and current meter marking

Construction:

Conductor:	SD 780 C: bare copper strands, extra fine wire S 780 C: bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6
Insulation:	TPE
Colour code:	SD 780 C: with reference to DIN 47100 S 780 C: black cores with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 cores
Stranding:	specialty adjusted layering
Wrapping:	non-woven tape
Inner sheath:	S 780 C: SABIX®
Wrapping:	S 780 C: non-woven tape
Screen:	tinned copper braiding
Wrapping:	non-woven tape
Sheath material:	TPE
Sheath colour:	black (RAL 9005)

Technical data:

Peak operating voltage:	SD 780 C: max. 350 V
Nominal voltage:	S 780 C: U ₀ /U 300/500 V
Testing voltage:	SD 780 C: core/core 1500 V core/screen 1200 V S 780 C: core/core 2000 V core/screen 2000 V
Min. bending radius:	7,5 x d
Temperature range	
fixed laying:	-40/+80 °C
flexible application:	-30/+80 °C
Oil resistance:	very good - Oil 60 °C acc. to UL 758
Air cleanliness class 1:	acc. to DIN EN 14644-1 US Federal Standard 209 E
Absence of harmful substances:	acc. to RoHS directive of the European Union

Outstanding features:

- flexible at low temperatures
- high abrasion resistance
- small outer diameter
- oil resistant
- good EMC characteristics*

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

item no.	no. of cores x cross section n x mm ²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20 °C max. Ω/km
SD 780 C						
37800201	2 x 0,14	0,11	4,3	13,4	25	139,3
37800301	3 x 0,14	0,11	4,4	14,8	27	139,3
37800302	3 x 0,25	0,11	4,8	18,3	32	78,0
37800402	4 x 0,25	0,11	5,0	20,8	36	78,0
37800303	3 x 0,34	0,11	5,0	21,0	35	57,4
37800503	5 x 0,34	0,11	5,6	31,8	51	57,4
37800703	7 x 0,34	0,11	6,3	39,2	62	57,4
37801003	10 x 0,34	0,11	7,2	52,8	77	57,4
37801803	18 x 0,34	0,11	8,4	84,6	117	57,4
S 780 C						
37800305	3 x 0,50	0,16	7,2	34,6	68	39,0
37800405	4 x 0,50	0,16	7,6	39,8	76	39,0
37800207	2 x 0,75	0,16	7,5	34,9	70	26,0
37800407	4 x 0,75	0,16	8,2	51,6	92	26,0
37800210	2 x 1,00	0,16	7,9	41,8	80	19,5
37800310	3 x 1,00	0,16	8,2	51,6	92	19,5
37800410	4 x 1,00	0,16	8,9	64,6	113	19,5
37800315	3 x 1,50	0,16	9,0	69,4	118	13,3
37800415	4 x 1,50	0,16	9,6	84,5	138	13,3
37800425	4 x 2,50	0,16	11,7	148,3	216	7,98
37800440	4 x 4,00	0,16	13,9	215,5	313	4,95

Other dimensions and colours are possible on request.



Cleanroom classification
DIN EN ISO 14644-1
air cleanliness class 1,
US Federal Standard 209 E
air cleanliness class 1.

SAB_{clean} SD 787 C TP continuously flexible data cable with twisted pairs and overall copper screen

SEN · SAB Clean SD 787 C TP · 7 x 2 x 0,25mm²  RoHS



Marking for **SAB_{clean} SD 787 C TP 37810725:**

SAB BRÜCKSKES · D-VIERSEN · SAB Clean SD 787 C TP · 7 x 2 x 0,25mm² ·  RoHS and current meter marking

Construction:

Conductor:	tinned copper strands, extra fine wire with reference to DIN VDE 0812
Insulation:	TPE
Colour code:	with reference to DIN 47100
Stranding:	cores twisted to pairs in specially adjusted layering
Wrapping:	non-woven tape
Screen:	tinned copper braiding
Wrapping:	non-woven tape
Sheath material:	TPE
Sheath colour:	black (RAL 9005)

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	core/core 1500 V core/screen 1200 V
Min. bending radius:	7,5 x d
Temperature range	
fixed laying:	-40/+80 °C
flexible application:	-30/+80 °C
Oil resistance:	very good - Oil 60 °C acc. to UL 758
Air cleanliness class 1:	acc. to DIN EN 14644-1 US Federal Standard 209 E
Absence of harmful substances:	acc. to RoHS directive of the European Union

Outstanding features:

- flexible at low temperatures
- high abrasion resistance
- small outer diameter
- oil resistant
- good EMC characteristics*

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

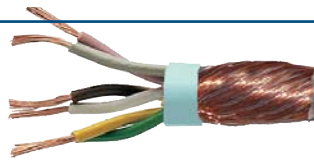
item no.	no. of cores x cross section n x 2 x mm ²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20 °C max. Ω/km
37810225	2 x 2 x 0,25	0,11	5,5	25,2	45	80,0
37810325	3 x 2 x 0,25	0,11	6,1	30,7	53	80,0
37810425	4 x 2 x 0,25	0,11	7,0	39,1	67	80,0
37810525	5 x 2 x 0,25	0,11	7,5	44,5	78	80,0
37810625	6 x 2 x 0,25	0,11	7,7	49,6	86	80,0
37810725	7 x 2 x 0,25	0,11	8,0	56,3	99	80,0
37810825	8 x 2 x 0,25	0,11	9,6	65,0	125	80,0
37811225	12 x 2 x 0,25	0,11	10,8	104,3	158	80,0
37810850	8 x 2 x 0,50	0,11	12,1	129,7	211	40,1

Other dimensions and colours are possible on request.



Cleanroom classification
DIN EN ISO 14644-1
air cleanliness class 1,
US Federal Standard 209 E
air cleanliness class 1.

SAB_{clean} RT 123 D TP (B) torsional data cable with twisted pairs and overall copper screen



80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 37939001

Marking for SAB_{clean} RT 123 D TP (B) 37939001:

SAB BRÜCKSKES · D-VIERSEN SAB Clean RT 123 D TP (B)  AWM Style 20233 80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 37939001 

Construction:

Conductor:	bare copper strands, extra fine wire, with reference to DIN VDE 0812
Insulation:	TPE
Colour code:	colour code US 2
Stranding:	cores twisted to pairs in specially adjusted layering
Wrapping:	netting tape, non-woven tape
Screen:	wrapped with bare copper wires
Drain wire:	bare copper strands, extra fine wire 0,34 mm ²
Wrapping:	non-woven tape
Sheath material:	TPE
Sheath colour:	whitegreen (RAL 6019)

Technical data:

Peak operating voltage:	DIN VDE max. 350 V	
Voltage UL/CSA:	300 V	
Testing voltage:	core/core	2000 V
	core/screen	2000 V
Torsion angle:	up to ± 450°/1 m	
Min. bending radius:	continuously flexible 7,5 x d	
Temperature range	DIN VDE	UL/CSA
	<i>fixed laying:</i>	up to +80 °C
	<i>flexible application:</i>	up to +80 °C
Air cleanliness class 1:	acc. to DIN EN 14644-1 US Federal Standard 209 E	
Absence of harmful substances:	acc. to RoHS directive of the European Union	

Outstanding features:

- rugged and reliable
- torsion angle up to ± 450° over 1 m

item no.	no. of cores x cross section n x 2 x mm ²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
37939001	3 x 2 x 0,34	0,11	7,7	37,7	69
37939002	4 x 2 x 0,34	0,11	8,6	44,5	82

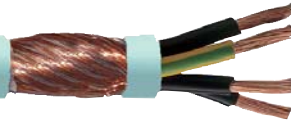
Other dimensions and colours are possible on request.



Cleanroom classification
DIN EN ISO 14644-1
air cleanliness class 1,
US Federal Standard 209 E
air cleanliness class 1.

SAB^{clean} RT 793 D torsional control cable with overall copper screen

1060 80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2 CE



Marking for: SAB^{clean} RT 793 D 37930415:

SAB BRÖCKSKES · D-VIERSEN · 4 x 1,5 mm² SAB Clean RT 793 D 16 AWG/4c 37930415

AWM Style 21060 80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2 CE

Construction:

Conductor:	bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6
Insulation:	TPE
Colour code:	black cores with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 cores
Stranding:	specially adjusted layering
Wrapping:	netting tape, non-woven tape
Screen:	wrapped with bare copper wires
Wrapping:	non-woven tape
Sheath material:	TPE
Sheath colour:	whitegreen (RAL 6019)

Technical data:

Nominal voltage U₀/U:	DIN VDE 300/500 V	
Voltage UL/CSA:	600 V	
Testing voltage:	core/core	3000 V
	core/screen	2000 V
Torsion angle:	up to ± 360°/1 m	
Min. bending radius:	continuously flexible 7,5 x d	
Temperature range	DIN VDE	UL/CSA
<i>fixed laying:</i>	-50/+70 °C	up to +80 °C
<i>flexible application:</i>	-40/+70 °C	up to +80 °C
Air cleanliness class 1:	acc. to DIN EN 14644-1 US Federal Standard 209 E	
Absence of harmful substances:	acc. to RoHS directive of the European Union	

Outstanding features:

- rugged and reliable
- torsion angle up to ± 360° over 1 m

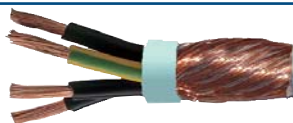
item no.	no. of cores x cross section n x mm ²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20 °C max. Ω/km
37930505	5 x 0,50	0,16	8,7	40,3	99	39,0
37930415	4 x 1,50	0,16	9,6	88,3	145	13,3
37931215	12 x 1,50	0,16	14,1	216,4	317	13,3
37930225	2 x 2,50	0,16	9,8	80,7	140	7,98
37930425	4 x 2,50	0,16	11,0	130,9	192	7,98

Other dimensions and colours are possible on request.



Cleanroom classification
DIN EN ISO 14644-1
air cleanliness class 1,
US Federal Standard 209 E
air cleanliness class 1.

SAB_{clean} RT 795 D halogen-free torsional control cable with twisted pairs and overall copper screen



Style 21060 80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2

Marking for SAB_{clean} RT 795 D 37950425:

SAB BRÖCKSKES · D-VIERSEN · 37950425 4 x 2,5 mm² SAB Clean RT 795 D 14 AWG/4c 37951404

AWM Style 21060 80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2 CE

Construction:

Conductor:	bare copper strands, extra fine wire, with reference to DIN VDE 0812
Insulation:	TPE
Colour code to 0,34 mm²:	with reference to DIN 47100
Colour code from 0,50 mm²:	black cores with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 cores
Stranding:	specially adjusted layering
Wrapping:	netting tape, non-woven tape
Screen:	wrapped with bare copper wires
Wrapping:	non-woven tape
Sheath material:	TPE
Sheath colour:	whitgreen (RAL 6019)

Technical data:

Nominal voltage U₀/U:	DIN VDE 300/500 V	
Voltage UL/CSA:	600 V	
Testing voltage:	core/core	3000 V
	core/screen	2000 V
Torsion angle:	up to ± 360°/1 m	
Min. bending radius:	continuously flexible 7,5 x d	
Temperature range	DIN VDE	UL/CSA
<i>fixed laying:</i>	-50/+90 °C	up to +80 °C
<i>flexible application:</i>	-40/+90 °C	up to +80 °C
Halogen-free:	acc. to IEC 60754-1 and DIN VDE 0472 part 815	
Air cleanliness class 1:	acc. to US Federal Standard 209 E	
Air cleanliness class 2:	acc. to DIN EN 14644-1	
Absence of harmful substances:	acc. to RoHS directive of the European Union	

Outstanding features:

- rugged and reliable
- torsion angle up to ± 360° over 1 m
- halogen-free

item no.	no. of cores x cross section n x mm ²	largest single wire ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km	ohmic resistance at 20 °C max. Ω/km
37950303	3 x 0,34	0,11	4,1	18,4	27	57,4
37950403	4 x 0,34	0,11	4,4	21,7	32	57,4
37950505	5 x 0,50	0,11	6,1	34,6	58	39,0
37951005	10 x 0,50	0,11	8,1	64,2	98	39,0
37951505	15 x 0,50	0,11	9,3	88,5	138	39,0
37952505	25 x 0,50	0,11	11,6	162,6	219	39,0
37950225	2 x 2,50	0,16	9,8	77,3	126	7,98
37950425	4 x 2,50	0,16	11,0	128,6	188	7,98

Other dimensions and colours are possible on request.



Cleanroom classification
DIN EN ISO 14644-1
air cleanliness class 2,
US Federal Standard 209 E
air cleanliness class 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 plastics processing industry/Hot runner technique
 - Diesel thermocouples ■ Probe with stainless steel sleeve
 - Temperature measurement in test vehicles
 - Transmitter ■ HV sensors
 - 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