



Data & Sensor Cables

SAB offers a wide range of data and sensor cables designed to meet or exceed high-speed data communications requirements for the exact measurement of physical values, precise positioning, measuring tolerances, and production control. These applications require SAB flexible data cables with the smallest cross-sections and a variety of shielding options to protect against high-frequency interference or interference from adjoining circuits.



Features:

- 26 AWG to 16 AWG data/communication cables
- Shielded, unshielded and paired with overall shield
- Flexible for easier routing



Semi Rigid PVC Data Cables with UL Recognition, CSA Approval

■ DC 300 DS	UL SP	Multi-conductor double shielded PVC signal and control cable, Type AWM	78
■ DC 300 DS TP	UL SP	Multi-pair double shielded PVC signal and control cable, Type AWM.	79

Additional Data & Sensor cables are available on our website and in the full line catalog (Section F)



Cables for Industrial Automation

DC 300 DS

Multi-conductor double shielded PVC signal and control cable

Type AWM

very good
EMC

SAB Data

AWM I/II A/B 80°C 300V FT1 FT2 CE



Marking for DC 300 DS 3242225:

SAB BRÖCKSKES · D-VIERSEN · 3242522 DC 300 DS 22 AWG/25c 3242225 AWM Style 2464 80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

Construction:

Conductor:	tinned copper strands acc. to ASTM B 286
Insulation:	semi-rigid PVC
Color code:	US 2, see below
Stranding:	in layers
Shielding:	double shielding, alu. foil, tinned copper braiding with tinned drain wire (0.22 mm ²)
Jacket material:	PVC
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- very good EMC characteristics
- small outer diameter
- small bending radius

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL/CSA:	300 V
Testing voltage:	conductor/conductor: 2000 V conductor/shielding: 2000 V
Min. bending radius:	fixed installation: 5 x O.D. free movement: 10 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range:	DIN VDE UL/CSA: up to +80°C static: -30/+70°C flexible: -5/+70°C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1, CSA FT1, FT2
Oil resistance:	acc. to internal standard, see page O/29
Approvals:	UR AWM, CSA AWM, CE, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors	outer-ø ±5% inch	outer-ø ±5% mm	cable weight ≈lbs/mft
▶ AWG 28/7				
3242802	2	0.169	4.3	14
3242803	3	0.173	4.4	16
3242804	4	0.181	4.6	17
3242805	5	0.193	4.9	20
3242807	7	0.201	5.1	23
3242810	10	0.236	6.0	29
3242812	12	0.244	6.2	32
3242814	14	0.252	6.4	34
3242818	18	0.272	6.9	41
3242825	25	0.311	7.9	50
▶ AWG 26/7				
3242602	2	0.177	4.5	16
3242603	3	0.181	4.6	17
3242604	4	0.193	4.9	20
3242605	5	0.201	5.1	24
3242607	7	0.213	5.4	26
3242610	10	0.252	6.4	34
3242612	12	0.260	6.6	38
3242614	14	0.268	6.8	41
3242618	18	0.291	7.4	50
3242625	25	0.335	8.5	63

item no.	no. of conductors	outer-ø ±5% inch	outer-ø ±5% mm	cable weight ≈lbs/mft
▶ AWG 24/7				
3242402	2	0.185	4.7	18
3242403	3	0.193	4.9	20
3242404	4	0.201	5.1	24
3242405	5	0.217	5.5	28
3242407	7	0.228	5.8	32
3242410	10	0.272	6.9	42
3242412	12	0.280	7.1	47
3242414	14	0.287	7.3	52
3242418	18	0.315	8.0	64
3242425	25	0.366	9.3	82

item no.	no. of conductors	outer-ø ±5% inch	outer-ø ±5% mm	cable weight ≈lbs/mft
▶ AWG 22/7				
3242202	2	0.197	5.0	21
3242203	3	0.205	5.2	25
3242204	4	0.217	5.5	28
3242205	5	0.232	5.9	34
3242207	7	0.248	6.3	40
3242210	10	0.295	7.5	54
3242212	12	0.303	7.7	60
3242214	14	0.315	8.0	67
3242218	18	0.346	8.8	83
3242225	25	0.406	10.3	110

Other dimensions and colors are available on request

US 2 color code:

#1- black, #2- white, #3- red, #4- green, #5- orange, #6- blue, #7- white-black, #8- red-black, #9- green-black, #10- orange-black, #11- blue-black, #12- black-white, #13- red-white, #14- green-white, #15- blue-white, #16- black-red, #17- white-red, #18- orange-red, #19- blue-red, #20- red-green, #21- orange-green, #22- black-white-red, #23- white-black-red, #24- red-black-white, #25- green-black-white

Cables for Industrial Automation

DC 300 DS TP

Multi-pair double shielded PVC signal and control cable

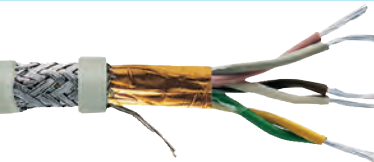
Type AWM

very good
EMC

SAB Data



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



Marking for DC 300 DS TP 3842203:

SAB BRÖCKSKES · D-VIERSEN · 3840322 DC 300 DS TP 22 AWG/3pr 3842203 AWM Style 2464 80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

Construction:

Conductor:	tinned copper strands acc. to ASTM B 286
Insulation:	semi-rigid PVC
Color code:	US 3, see below
Stranding:	conductors twisted to pairs, pairs twisted in layers
Shielding:	double shielding, alu. foil, tinned copper braiding with tinned drain wire (0.22 mm ²)
Jacket material:	PVC
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- very good EMC characteristics
- small outer diameter
- small bending radius

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL/CSA:	300 V
Testing voltage:	conductor/conductor: 2000 V conductor/shielding: 2000 V
Min. bending radius:	fixed installation: 5 x O.D. free movement: 10 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range:	DIN VDE -30/+70°C static: -5/+70°C flexible:
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1, CSA FT1, FT2
Oil resistance:	acc. to internal standard, see page O/29
Approvals:	UR AWM, CSA AWM, CE, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of pairs	outer-ø ±10% inch	outer-ø ±10% mm	cable weight ≈lbs/mft
▶ AWG 28/7				
3842802	2	0.201	5.1	19
3842803	3	0.217	5.5	23
3842804	4	0.240	6.1	27
3842805	5	0.256	6.5	31
3842807	7	0.272	6.9	36
3842810	10	0.311	7.9	45
3842814	14	0.354	9.0	57
3842818	18	0.378	9.6	70
3842825	25	0.425	10.8	87
▶ AWG 26/7				
3842602	2	0.213	5.4	22
3842603	3	0.232	5.9	27
3842604	4	0.260	6.6	32
3842605	5	0.276	7.0	38
3842607	7	0.287	7.3	42
3842610	10	0.335	8.5	56
3842614	14	0.386	9.8	73
3842618	18	0.413	10.5	89
3842625	25	0.465	11.8	112

item no.	no. of pairs	outer-ø ±10% inch	outer-ø ±10% mm	cable weight ≈lbs/mft
▶ AWG 24/7				
3842402	2	0.228	5.8	26
3842403	3	0.248	6.3	32
3842404	4	0.280	7.1	39
3842405	5	0.299	7.6	46
3842407	7	0.311	7.9	54
3842410	10	0.362	9.2	71
3842414	14	0.421	10.7	94
3842418	18	0.453	11.5	116
3842425	25	0.508	12.9	148

item no.	no. of pairs	outer-ø ±10% inch	outer-ø ±10% mm	cable weight ≈lbs/mft
▶ AWG 22/7				
3842202	2	0.248	6.3	32
3842203	3	0.268	6.8	40
3842204	4	0.303	7.7	48
3842205	5	0.327	8.3	58
3842207	7	0.343	8.7	70
3842210	10	0.402	10.2	95
3842214	14	0.465	11.8	124
3842218	18	0.500	12.7	156
3842225	25	0.579	14.7	207

Other dimensions and colors are available on request

US 3 color code:

#1- black paired with red, #2- black paired with white, #3- black paired with green, #4- black paired with blue, #5- black paired with yellow, #6- black paired with brown, #7- black paired with orange, #8- red paired with white, #9- red paired with green, #10- red paired with blue, #11- red paired with yellow, #12- red paired with brown, #13- red paired with orange, #14- green paired with white, #15- green paired with blue, #16- green paired with yellow, #17- green paired with brown, #18- green paired with orange, #19- white paired with blue, #20- white paired with yellow, #21- white paired with brown, #22- white paired with orange, #23- blue paired with yellow, #24- blue paired with brown, #25- blue paired with orange

Cables for Industrial Automation

S PN 667 PUR Profinet type C, continuous flex with UL recognition and CSA approval

S PN 669 PUR Profinet type C, continuous flex suitable for cable tracks with UL recognition



Marking for S PN 669 6692202:

SAB BRÖCKSKES · D-VIERSEN · S PN 669 Profinet CAT 5 Type C 2x2x22AWG AWM Style 21198 80° 300V CE

Construction:	PN 667 Profinet type C continuous flex	S PN 669 Profinet type C continuous flex
Item numbers:	6672202 / 6679001	6692202
Dimensions:	2 x 2 x 22 AWG	2 x 2 x 22 AWG
Conductor:	tinned copper strands, 7 wires or 19 wires	tinned copper strands, extra fine wires
Insulation:	special polymer	PE
Color code:	blue, yellow, white, orange	blue, yellow, white, orange
Stranding:	in layers	in layers
Wrapping:	PETP foil	PETP foil
Inner jacket:	thermoplastic material	thermoplastic material
Wrapping:	alu foil	alu foil
Shielding:	tinned copper braiding	tinned copper braiding
Wrapping:	non-woven tape	non-woven tape
Jacket material:	PUR	PUR
Jacket color:	green (similar RAL 6018)	green (similar RAL 6018)

Technical data:	PN 667 Profinet type C continuous flex	S PN 669 Profinet type C continuous flex
Peak operating voltage:	max. 350 V	max. 350 V
Voltage:	UL/CSA: 300 V	UL: 300 V
Testing voltage: conductor/conductor: conductor/shielding:	2000 V 2000 V	2000 V 2000 V
Min. bending radius: fixed installation: free movement: continuous flex:	5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D. 15 x O.D.
Temperature range VDE: static: flexible:	UL/CSA: up to +80°C -40/+70°C -40/+70°C	UL: up to +80°C -30/+70°C -20/+70°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
Characteristic impedance:	100Ω ± 5Ω, accomplishes the electrical and transmission requirements with high frequency acc. to EN 50288-2-2 + VDE 0819-2-2 (CAT 5 acc. to EN 50173-1)	
UL Style:	21198	21198
Application:	suitable for EtherCAT and EtherNET/IP applications	
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30	

item no.	type	dimensions AWG	max. cond.-ø mm	nominal outer-ø inch	mm	cable weight ≈lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km
▶ 6672202	S PN 667	22 (≈ 7/30)/4c	1.55	0.256	6.5	40	58.8
▶ 6692202	S PN 669	22 (≈ 19/34)/4c	1.55	0.272	6.9	46	58.0

For extreme bending stress - conductor construction 19 wires:

▶ 6679001	S PN 667	22 (≈ 19/34)/4c	1.55	0.256	6.5	39	58.8
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Other dimensions and colors are available on request



**short assembling time
by "Fast Connect"
construction (7 wires)**

Also possible as a
cable assembly with
M12 or RJ 45 plug



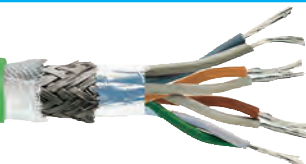
Cables for Industrial Automation

PN 675 PVC Ethernet cable type B, for flexible applications, PLTC 600 V, CAT 5e

S PN 676 PUR Ethernet cable type C, continuous flex, CAT 5



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



Marking for S PN 676 6762404:

SAB BRÖCKSKES · D-VIERSEN · S PN 676 CAT 5 Type C 4x2x24AWG x AWM Style 21198 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Construction:	PN 675 type B flexible	S PN 676 type C continuous flex
Item numbers:	6752202	6752204
Dimensions:	2 x 2 x 22 AWG	4 x 2 x 22 AWG
Conductor:	tinned copper strands, fine wires	tinned copper strands, fine wires
Insulation:	Polyolefin	PFA/PP
Color code:	orange & white/orange stripe green & white/green stripe	blue & white/blue stripe orange & white/orange stripe green & white/green stripe brown & white/brown stripe
Stranding:	in layers	in layers
Wrapping:	—	—
Shielding:	aluminum foil/polyester tape + 24 AWG (7/32) tinned copper drain wire	tinned copper braiding
Wrapping:	—	—
Jacket material:	PVC	PUR
Jacket color:	teal	teal

Technical data:	PN 675 type B flexible	S PN 676 type C continuous flex
Approvals:	c(UL) CMG 75C, (UL) PLTC, (UL) AWM 2570 600V 80°C	UL, CSA
Peak operating voltage:	max. 350 V	max. 350 V
Voltage:	UL: 600 V	UL/CSA: 600 V
Testing voltage: conductor/conductor: conductor/shielding:	1500 V 1200 V	1500 V 1200 V
Min. bending radius: fixed installation: free movement: continuous flex:	5 x O.D. 10 x O.D. —	5 x O.D. 10 x O.D. 12 x O.D.
Temperature range VDE: static: flexible:	UL: up to +80°C -40/+80°C -25/+80°C	UL/CSA: up to +80°C -40/+90°C -30/+90°C
Halogen-free:	—	—
Oil resistance:	oil resistance I	oil resistance I
UV resistance:	yes	yes
Characteristic impedance:	100Ω ± 15Ω (0.722-100.0 MHz)	100Ω ± 15Ω (0.722-100.0 MHz)
Transmission performance:	1 - 250 MHz	1 - 250 MHz
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog	

item no.	type	jacket color	dimensions AWG	nominal outer-ø inch	nominal outer-ø mm	cable weight ≈ lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km
▶ 6752202	PN 675	teal	22 (≈ 7/30)/2pr	0.310	7.9	45	—
▶ 6752204	PN 675	teal	22 (≈ 7/30)/4pr	0.330	8.4	59	—
▶ 6762404	S PN 676	green (similar RAL 6018)	24 (≈ 19/36)/4pr	0.327	8.3	53	145

Also possible as a
cable assembly with
M12 or RJ 45 plug



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Cables for Industrial Automation

CATLine CAT 6 S / CAT 6A S

Gigabit Ethernet cable suitable for cable tracks

CATLine CAT 6 RT / CAT 6A RT

Gigabit Ethernet cable suitable for cable tracks and for robots



19 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Marking for CATLine CAT 6 S 16774630:

SAB BRÖCKSKES · D-VIERSEN · CATLine Cat.6 S 4x2x26AWG 16774630 AWM Style 20549 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE

Construction:	CATLine CAT 6 S suitable for cable tracks	CATLine CAT 6A S suitable for cable tracks	CATLine CAT 6 RT suitable for cable tracks/ suitable for robots	CATLine CAT 6A RT suitable for cable tracks/ suitable for robots
Item numbers:	16774630	16774631	16874630	16874631
Dimensions:	4 x 2 x 26 AWG	4 x 2 x 26 AWG	4 x 2 x 26 AWG	4 x 2 x 26 AWG
Conductor:	bare copper strands, fine wires	bare copper strands, fine wires	bare copper strands, fine wires	bare copper strands, fine wires
Insulation:	special polymer	special polymer	special polymer	special polymer
Color code:	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown		white-blue/blue, white-orange/orange, white-green/green, white-brown/brown	
Stranding:	conductors twisted to pairs, pairs together		conductors twisted to pairs, pairs together	
Wrapping:	non-woven tape	non-woven tape	non-woven tape	non-woven tape
Shielding:	alu foil	alu foil	alu foil	alu foil
Shielding:	tinned copper braiding	tinned copper braiding	tinned copper braiding	tinned copper braiding
Wrapping:	non-woven tape	non-woven tape	non-woven tape	non-woven tape
Jacket material:	PUR	PUR	PUR	PUR
Jacket color:	green (similar RAL 6018)	green (similar RAL 6018)	green (similar RAL 6018)	green (similar RAL 6018)

Technical data:	CATLine CAT 6 S suitable for cable tracks	CATLine CAT 6A S suitable for cable tracks	CATLine CAT 6 RT suitable for cable tracks/ suitable for robots	CATLine CAT 6A RT suitable for cable tracks/ suitable for robots
Peak operating voltage:	max. 90 V	max. 90 V	max. 90 V	max. 90 V
Voltage UL/CSA:	300 V	300 V	300 V	300 V
Testing voltage: conductor/conductor: conductor/shielding:	2000 V 2000 V	2000 V 2000 V	2000 V 2000 V	2000 V 2000 V
Min. bending radius: fixed installation free movement: continuous flex:	5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D. 15 x O.D.
Torsion:	—	—	up to ± 180°/m	up to ± 180°/m
Temperature range VDE: static: flexible:	UL: up to +80°C -40/+70°C -40/+70°C	UL: up to +80°C -40/+70°C -40/+70°C	UL: up to +80°C -40/+70°C -40/+70°C	UL: up to +80°C -40/+70°C -40/+70°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1	acc. to IEC 60754-1 + VDE 0482-754-1	acc. to IEC 60754-1 + VDE 0482-754-1	acc. to IEC 60754-1 + VDE 0482-754-1
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2; UL Horizontal Flame Test FT2			
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2		TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
Characteristic impedance (100 MHz): accomplishes the electrical and transmission requirements with high frequency	100Ω ± 10Ω, with reference to EN 50288-5-2 / CAT 6	100Ω ± 10Ω, with reference to EN 50288-10-2 / CAT 6A	100Ω ± 10Ω, with reference to EN 50288-5-2 / CAT 6	100Ω ± 10Ω, with reference to EN 50288-10-2 / CAT 6A
Flexibility:	very good	very good	very good	very good
UL Style:	20549	20549	20549	20549
Application:	suitable for EtherCAT and EtherNET/IP applications			
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30			

item no.	type	dimensions AWG	max. cond.-ø mm	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 16774630	CATLine CAT 6 S	26 (≈ 7/34)/4pr	1.05	0.280	7.1	38
▶ 16774631	CATLine CAT 6A S	26 (≈ 7/34)/4pr	1.05	0.280	7.1	38
▶ 16874630	CATLine CAT 6 RT	26 (≈ 7/34)/4pr	1.05	0.280	7.1	38
▶ 16874631	CATLine CAT 6A RT	26 (≈ 7/34)/4pr	1.05	0.280	7.1	38

Other dimensions and colors are available on request



+90°C on request

Also possible as a
cable assembly with
M12 or RJ 45 plug



Cables for Industrial Automation

CATLine CAT 6A HT

Gigabit Ethernet cable – high temperature resistant



AWG 16314631 AWM Style 21618 150°C 600V CE



Marking for CATLine CAT 6A HT 16314631:

SAB BRÖCKSKES · D-VIERSEN · CATLine Cat. 6A HT 4x2x26AWG 16314631 AWM Style 21618 150°C 600V CE

Construction:

Conductor:	bare copper strands, fine wires
Insulation:	FEP
Color code:	white/blue, white/orange, white/green, white/brown
Stranding:	twisted to pairs
Wrapping:	PETP foil
Shielding:	alu. foil + tinned copper braiding
Jacket material:	FEP
Jacket color:	green (similar RAL 6018)

Outstanding features:

- high temperature resistant
- low temperature resistant
- flame retardant and self-extinguishing
- oil and chemical resistant
- UL recognized

Technical data:

Peak operating voltage:	max. 90 V
Voltage UL:	600 V
Testing voltage:	conductor/conductor: 2000 V conductor/shielding: 2000 V
Min. bending radius:	
fixed installation:	5 x O.D.
free movement:	10 x O.D.
Temperature range:	UL: up to +150°C
static:	-90/+180°C
flexible:	-55/+180°C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1
Oil resistance:	very good
Chemical resistance:	very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds
Character impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 (CAT 6A)
Approvals:	UL AWM Style 21618, CE, EAC, RoHS
Application:	suitable for EtherCAT and EtherNET/IP applications
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	type	dimensions AWG	max. cond.-ø mm	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 16314631	CATLine CAT 6A HT	26 (≈ 7/34)/4pr	1.05	0.224	5.7	35

Other dimensions and colors are available on request

Cables for Industrial Automation

CATLine CAT 7A S Gigabit Ethernet cable suitable for cable tracks

CATLine CAT 7A RT Gigabit Ethernet cable suitable for suitable for robots



549 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Marking for CATLine CAT 7A S 17774631:

SAB BRÖCKSKES · D-VIERSEN · CATLine Cat. 7A S 4x2x26AWG 17774631 AWM Style 20549 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Construction:	CATLine CAT 7A S suitable for cable tracks	CATLine CAT 7A RT suitable for robots
Item numbers:	1774631 / 17774431	17874631 / 17874431
Dimensions:	4 x 2 x 26 AWG / 4 x 2 x 24 AWG	4 x 2 x 26 AWG / 4 x 2 x 24 AWG
Conductors:	bare copper strands, fine wires	bare copper strands, fine wires
Insulation:	special polymer	special polymer
Color code:	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
Stranding:	conductors twisted to pairs, pairs shielded with foil, pairs together	conductors twisted to pairs, pairs shielded with foil, pairs together
Shielding:	aluminized non-woven tape	aluminized non-woven tape
Shielding:	tinned copper braiding	tinned copper braiding
Wrapping:	non-woven tape	non-woven tape
Jacket material:	PUR	PUR
Jacket color:	green (similar RAL 6018)	green (similar RAL 6018)

Technical data:	CATLine CAT 7A S suitable for cable tracks	CATLine CAT 7A RT suitable for robots
Peak operating voltage:	max. 90 V	max. 90V
Voltage UL/CSA:	300 V	300 V
Testing voltage: conductor/conductor: conductor/shielding:	2000 V 2000 V	2000 V 2000 V
Min. bending radius: fixed installation: free movement: continuous flex:	5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D. —
Torsion angle:	—	up to ± 180°/m
Temperature range VDE: static: flexible:	UL/CSA: up to +80°C -40/+70°C -40/+70°C	UL/CSA: up to +80°C -40/+70°C -40/+70°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1	acc. to IEC 60754-1 + VDE 0482-754-1
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 UL Horizontal Flame Test FT2	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 UL Horizontal Flame Test FT2
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Characteristic impedance (100 MHz):	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 + VDE 0819-9-2 / CAT 7A	
Flexibility:	very good	very good
UL Style:	20549	20549
Application:	suitable for EtherCAT and EtherNET/IP applications	
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30	

item no.	type	dimensions AWG	max. cond.-ø mm	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 17774631	CATLine CAT 7A S	26 (≈ 7/34)/4pr	1.50	0.355	8.5	54
▶ 17774431	CATLine CAT 7A S	24 (≈ 7/34)/4pr	1.60	0.409	10.4	68
▶ 17874631	CATLine CAT 7A RT	26 (≈ 7/34)/4pr	1.50	0.350	8.9	56
▶ 17874431	CATLine CAT 7A RT	24 (≈ 7/34)/4pr	1.60	0.366	9.3	66

Other dimensions and colors are available on request



+90°C
on request

Also possible as a
cable assembly with
M12 or RJ 45 plug



Cables for Industrial Automation

CATLine SPE C-Track Single-Pair-Ethernet cable, suitable for cable tracks
CATLine SPE Robot Single-Pair-Ethernet cable, suitable for robots
CATLine SPE HT Single-Pair-Ethernet cable, high temperature resistant



Marking for CATLine SPE C-Track 17771630:

SAB BRÖCKSKES · D-VIERSEN · CATLine SPE C-Track 2xAWG26/7 17771630 AWM Style 20549 80°C 300V CE

			
Construction:	CATLine SPE C-Track <i>suitable for cable tracks</i>	CATLine SPE Robot <i>suitable for robots</i>	CATLine SPE HT <i>high temperature resistant</i>
Item numbers:	17771630	17871630	17211620
Dimensions:	2 x 26 AWG	2 x 26 AWG	2 x 26 AWG
Conductor:	bare copper strands, 7 wires	bare copper strands, 7 wires	bare copper strands, 7 wires
Insulation:	special polymer	special polymer	TPFP
Color code:	white, blue	white, blue	white, blue
Stranding:	twisted to pairs	twisted to pairs	twisted to pairs
Inner jacket:	SABIX®	SABIX®	TPFP
Shielding:	alu foil + tinned copper braiding	alu foil + tinned copper braiding	alu foil + tinned copper braiding
Wrapping:	non-woven tape	non-woven tape	—
Jacket material:	PUR	PUR	Besilen®
Jacket color:	green (similar RAL 6018)	green (similar RAL 6018)	green

Technical data:	CATLine SPE C-Track <i>suitable for cable tracks</i>	CATLine SPE Robot <i>suitable for robots</i>	CATLine SPE HT <i>high temperature resistant</i>
Peak operating voltage:	max. 90 V	max. 90 V	max. 90 V
Voltage UL:	300 V	300 V	600 V
Testing voltage: conductor/conductor: conductor/shielding:	2000 V 2000 V	2000 V 2000 V	2000 V 2000 V
Min. bending radius: fixed installation: free movement: continuous flex:	5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D. —
Torsion angle:	—	up to ± 180°/m	—
Temperature range: static: flexible:	UL: up to 80°C -40/+70°C -40/+70°C	UL: up to 80°C -40/+70°C -40/+70°C	UL: up to 150°C -40/+180°C -25/+180°C
Temperature range conductor:	—	—	up to ± 180°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1	acc. to IEC 60754-1 + VDE 0482-754-1	—
Oil resistance:	very good - TMPU acc. to EN 50363- 10-2 + VDE 0207-363-10-2	very good - TMPU acc. to EN 50363- 10-2 + VDE 0207-363-10-2	—
Characteristic impedance:	100Ω ± 10Ω, fulfills the electrical and transmission requirements with high frequency with reference to IEC 61156-12. Bandwidth 1 - 600 MHz.		
UL Style	20549	20549	4535
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30		

item no.	type	dimensions AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 17771630	CATLine SPE C-Track	26 (7 strand)/1pr	0.181	4.6	25
▶ 17871630	CATLine SPE Robot	26 (7 strand)/1pr	0.181	4.6	25
▶ 17211620	CATLine SPE HT	26 (7 strand)/1pr	0.193	4.9	25

Other dimensions and colors are available on request



Outstanding features:

C-Track / Robot:

- UL recognized
- low cabling effort
- short latency periods
- small outer diameter
- free from paint wetting impairment
substances (PWIS-free)

SPE HT:

- UL recognized
- high temperature resistant
- flame retardant and self-extinguishing
- very easy installation

Cables for Industrial Automation

CATLine SPE Rugged

Single-Pair-Ethernet cable for robust indoor and outdoor use



SPE Rugged 2x26AWG 17399003 CE



Marking for CATLine SPE Rugged 17399003:

SAB BRÖCKSKES · D-VIERSEN · CATLine SPE Rugged 2x26AWG 1739-9003 CE

Construction:

Conductor:	bare copper strands, 7 wires
Insulation:	TPFK
Color code:	white, blue
Stranding:	twisted to pairs
Inner jacket:	TPFK
Shielding:	alu. foil + tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR 420 with matte surface
Jacket color:	black (RAL 9005)

Outstanding features:

- flexible down to -45°C
- absolutely weather resistant
- very easy installation
- small bending radius

Technical data:

Peak operating voltage:	max. 90V
Testing voltage:	conductor/conductor: 750 V conductor/shielding: 750 V
Min. bending radius:	5 x O.D. 12 x O.D.
Temperature range:	static: -90/+90°C / +125°C / 2500 h flexible: -40/+90°C / +125°C / 2500 h
Temperature range conductor:	up to +180°C
Oil resistance:	very good - TMPU acc. to EN 50363-10-2
Fuel resistance:	good
Battery acid resistance:	good
UV resistance:	acc. to HD 605
Ozone resistance:	acc. to EN 50396
Saltwater resistance:	acc. to UL 1309
Characteristic impedance:	100Ω ± 10Ω, fulfills the electrical and transmission requirements with high frequency with reference to IEC 61156-12. Bandwidth 1 - 600 MHz.
Approvals:	CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30 in full line catalog

item no.	type	dimensions AWG	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 17399005	CATLine SPE Rugged	26 (7 strand)/1 pr	0.224 5.7	22

Other dimensions and colors are available on request

High-speed data exchange has become the cornerstone of factory automation as manufacturers harness real-time information to improve efficiencies and processes. SAB's flexible bus cables are designed for industrial applications that require power, sensor and data communications. We also offer a complete range of halogen-free bus cables.

Features:

- USB 2.0 and 3.0
- DeviceNet
- CAN-Bus
- Interbus
- SafetyBus



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Additional BUS cables are available on our website and in the full line catalog (Section J)



Cables for Industrial Automation

USB 2.0	Flexible USB 2.0 cable
USB 2.0 UL	Flexible USB 2.0 cable with UL recognition
USB 2.0 FRNC	Halogen-free flexible USB 2.0 cable



2x0.5mm² 6010222 AWM Style 2655 80°C 300V



Marking for USB 2.0 UL 6010222:

SAB BRÖCKSKES · D-VIERSEN · USB 2.0 Leitung · (2x0.22mm²)ST+2x0.5mm² 6010222 AWM Style 2655 80°C 300V



Construction:	USB 2.0 <i>flexible</i>	USB 2.0 UL <i>flexible</i>	USB 2.0 FRNC <i>flexible</i>
Item numbers:	6010122	6010222	6019001
Dimensions:	(2 x 0.22 mm ²) ST + 2 x 0.50 mm ²	(2 x 0.22 mm ²) ST + 2 x 0.50 mm ²	(2 x 0.22 mm ²) ST + 2 x 0.50 mm ²
Conductor:	bare copper strands (0.50 mm ²) silver-plated strands (0.22 mm ²)	bare copper strands (0.50 mm ²) silver-plated strands (0.22 mm ²)	bare copper strands (0.50 mm ²) silver-plated strands (0.22 mm ²)
Insulation:	SABIX®	SABIX®	SABIX®
Color code:	black, red (0.50 mm ²), white, green (0.22 mm ²)	black, red (0.50 mm ²), white, green (0.22 mm ²)	black, red (0.50 mm ²), white, green (0.22 mm ²)
Stranding:	2 x 0.22 mm ² wrapped with alu foil, together with 0.5 mm ²		
Wrapping:	non-woven tape	non-woven tape	non-woven tape
Shielding:	tinned copper braiding	tinned copper braiding	tinned copper braiding
Jacket material:	PVC	PVC	SABIX®
Jacket color:	black (RAL 9005)	black (RAL 9005)	black (RAL 9005)

Technical data:	USB 2.0 <i>flexible</i>	USB 2.0 UL <i>flexible</i>	USB 2.0 FRNC <i>flexible</i>
Peak operating voltage:	max. 350 V	max. 350 V	max. 350 V
Voltage UL:	—	300 V	—
Testing voltage: conductor/conductor: conductor/shielding:	600 V 600 V	2000 V 2000 V	1500 V 1200 V
Min. bending radius: fixed installation: free movement:	5 x O.D. 10 x O.D.	5 x O.D. 10 x O.D.	5 x O.D. 10 x O.D.
Temperature range VDE: static: flexible:	-30/+70°C -5/+70°C	UL: up to 80°C -30/+70°C -5/+70°C	-40/+90°C -30/+90°C
Halogen-free:	---	—	acc. to IEC 60754-1 + VDE 0482-754-1
Burning characteristics:	---	---	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
Oil resistance:	acc. to internal standard see page O/29 in full line catalog	acc. to internal standard see page O/29 in full line catalog	---
UL Style:	—	2655	—
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog		

item no.	type	dimensions AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 6010122	USB 2.0	(2x0.22) ST + 2x0.50	0.268	6.8	40
▶ 6010222	USB 2.0 UL	(2x0.22) ST + 2x0.50	0.276	7.0	43
▶ 6019001	USB 2.0 FRNC	(2x0.22) ST + 2x0.50	0.268	6.8	42

Other dimensions and colors are available on request

Also possible as a
cable assembly with
USB type A or B plug



Cables for Industrial Automation

USB 2.0 S

Continuous flex cable, suitable for cable tracks

USB 2.0 S UL/CSA

Continuous flex cable, suitable for cable tracks

USB 2.0 RT UL/CSA

Continuous flex cable, suitable for robots



le 21198 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Marking for USB 2.0 S UL/CSA 6011122:

SAB BRÖCKSKES · D-VIERSEN · USB 2.0 Leitung · (2x0.22mm²)ST+2x0.5mm² 6011122 AWM Style 21198 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Construction:	USB 2.0 S <i>suitable for cable tracks</i>	USB 2.0 S UL/CSA <i>suitable for cable tracks</i>	USB 2.0 RT UL/CSA <i>suitable for robots</i>
Item numbers:	6011022	6011122	6012022
Dimensions:	(2 x 0.22 mm ²) ST + 2 x 0.50 mm ²	(2 x 0.22 mm ²) ST + 2 x 0.50 mm ²	(2 x 0.22 mm ²) ST + 2 x 0.50 mm ²
Conductor:	bare copper strands (0.50 mm ²) silver-plated strands (0.22 mm ²)	bare copper strands (0.50 mm ²) silver-plated strands (0.22 mm ²)	bare copper strands (0.50 mm ²) silver-plated strands (0.22 mm ²)
Insulation:	SABIX®	SABIX®	SABIX®
Color code:	black, red (0.50 mm ²), white, green (0.22 mm ²)	black, red (0.50 mm ²), white, green (0.22 mm ²)	black, red (0.50 mm ²), white, green (0.22 mm ²)
Stranding:	2 x 0.22 mm ² wrapped with alu foil, together with 0.5 mm ²		
Wrapping:	non-woven tape	non-woven tape	PTFE foil
Shielding:	tinned copper braiding	tinned copper braiding	wrapping with tinned copper round wires
Wrapping:	non-woven tape	non-woven tape	non-woven tape
Jacket material:	PUR	PUR	PUR
Jacket color:	black (RAL 9005)	black (RAL 9005)	black (RAL 9005)

Technical data:	USB 2.0 S <i>suitable for cable tracks</i>	USB 2.0 S UL/CSA <i>suitable for cable tracks</i>	USB 2.0 RT UL/CSA <i>suitable for robots</i>
Peak operating voltage:	max. 350 V	max. 350 V	max. 350 V
Voltage UL/CSA:	—	300 V	300 V
Testing voltage: conductor/conductor: conductor/shielding:	600 V 600 V	2000 V 2000 V	2000 V 2000 V
Min. bending radius: fixed installation: free movement: continuous flex:	5 x O.D. 6 x O.D. 7.5 x O.D.	5 x O.D. 6 x O.D. 7.5 x O.D.	5 x O.D. 7.5 x O.D. 10 x O.D.
Torsion angle:	---	---	up to ± 180°/m
Temperature range VDE: static: flexible:	-50/+90°C -40/+90°C	UL/CSA: up to 80°C -50/+90°C -40/+90°C	UL/CSA: up to 80°C -50/+90°C -40/+90°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1	acc. to IEC 60754-1 + VDE 0482-754-1	—
Oil resistance:	PUR, TMPU EN 50363-10-2 + VDE 0207-363-10-2	PUR, TMPU EN 50363-10-2 + VDE 0207-363-10-2	PUR, TMPU EN 50363-10-2 + VDE 0207-363-10-2
UL Style:	—	21198	21198
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog		

item no.	type	dimensions AWG	nominal outer-ø inch	mm	cable weight ≈lbs/ft
▶ 6011022	USB 2.0 S	(2x0.22) ST + 2x0.50	0.276	7.0	40
▶ 6011122	USB 2.0 S UL/CSA	(2x0.22) ST + 2x0.50	0.283	7.2	44
▶ 6012022	USB 2.0 RT UL/CSA	(2x0.22) ST + 2x0.50	0.276	7.0	43

Other dimensions and colors are available on request

Also possible as a
cable assembly with
USB type A or B plug



Cables for Industrial Automation

USB 3.0 S Continuous flex USB 3.0 cable suitable for cable tracks
USB 3.0 RT Continuous flex USB 3.0 cable suitable for robots
USB 3.0 Flexible USB 3.0 cable

transmission
length
up to 3 m



Marking for USB 3.0 S 6042098:

SAB BRÖCKSKES · D-VIERSEN · USB 3.0 S 3x(2x28AWG)ST+2x26AWG 6042098

AWM Style 20549 80° 300V CE

Construction:	USB 3.0 S suitable for cable tracks	USB 3.0 RT suitable for robots	USB 3.0 flexible
Item numbers:	6042098	6043098 / 6043096	6030078
Dimensions:	3 x (2 x 28 AWG)ST + 2 x 26 AWG	3 x (2 x 28 AWG)ST + 2 x 26 AWG 3 x (2 x 26 AWG)ST + 2 x 24 AWG	2 x (2 x 28 AWG)ST + 2 x 28 AWG + 2 x 26 AWG
Conductor:	silver-plated strands and tinned copper strands	silver-plated strands and tinned copper strands	silver-plated strands and tinned copper strands
Insulation:	special polymer	special polymer	special polymer
Color code:	yellow, blue + orange, violet (USB 3.0), green, white (USB 2.0), red, black (power supply)		
Stranding:	twisted pairs and data pairs shielded, all elements together	twisted pairs and data pairs shielded, all elements together	USB 3.0 twisted and screened pairs, USB 2.0 twisted pairs, all elements together
Wrapping:	non-woven tape	woven tape + non-woven tape	non-woven tape
Shielding:	tinned copper braiding	tinned copper braiding	tinned copper braiding
Wrapping:	non-woven tape	non-woven tape	non-woven tape
Jacket material:	PUR	PUR	PVC
Jacket color:	black (RAL 9005)	black (RAL 9005)	black (RAL 9005)

Technical data:	USB 3.0 S suitable for cable tracks	USB 3.0 RT suitable for robots	USB 3.0 flexible
Peak operating voltage:	max. 350 V	max. 350 V	max. 350 V
Voltage UL:	300 V	300 V	300 V
Testing voltage: conductor/conductor: conductor/shielding:	2000 V 2000 V	2000 V 2000 V	2000 V 2000 V
Min. bending radius: fixed installation: free movement: continuous flex:	5 x O.D. 10 x O.D. 12 x O.D.	5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D. —
Torsion angle:	—	up to ± 360°/m	—
Temperature range VDE: static: flexible:	UL: up to 80°C -50/+90°C -40/+90°C	UL: up to 80°C -50/+90°C -40/+90°C	UL: up to 80°C -30/+70°C -5/+70°C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2		
Oil resistance:	very good, TMPU acc. to EN 50363-10-2	very good, TMPU acc. to EN 50363-10-2	very good - TM5 acc. to EN 50363-4-1
UL Style:	20549	20549	21083
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog		

item no.	type	dimensions AWG	nominal outer-ø inch mm	cable weight ≈ lbs/mft	ohmic resistance at 20°C max.Ω/km		
					28 AWG	26 AWG	24 AWG
▶ 6042098	USB 3.0 S	28 (≈ 7/38)ST/3pr + 26 (≈ 7/34)/2c	0.240 6.1	30	223	140	—
▶ 6043098	USB 3.0 RT	28 (≈ 7/38)ST/3pr + 26 (≈ 7/34)/2c	0.252 6.4	34	223	140	—
▶ 6043096	USB 3.0 RT	26 (≈ 7/34)ST/3pr + 24 (7 strand)/2c	0.315 8.0	49	—	130	83.3
▶ 6030078	USB 3.0	28 (≈ 7/38)ST/2pr + 28 (≈ 7/38)/2c + 26 (≈ 7/34)/2c	0.240 6.1	32	223	140	—

Other dimensions and colors are available on request

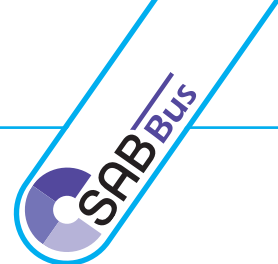
Also possible as a
cable assembly with
USB type A or B plug



Cables for Industrial Automation

CB 627 CAN-Bus cable with UL recognition

S CB 628 Halogen-free, CAN-Bus cable for cable tracks with UL recognition



Marking for S CB 628 6282251:

SAB BRÖCKSKES · D-VIERSEN · S CB 628 2 x 0.25 mm² AWM Style 20235 80°C 300 V CE



Construction:	CB 627	S CB 628
Conductors:	bare copper strands with reference to VDE 0812	bare copper strands, extra fine wires
Insulation:	PE, 2Y11 acc. to EN 50290-2-23 + VDE 0819-103	PE, 2Y11 acc. to EN 50290-2-23 + VDE 0819-103
Color code:	acc. to DIN 47100, see below	acc. to DIN 47100, see below
Wrapping:	PETP foil	non-woven tape
Inner jacket (nature):	—	SABIX®
Shielding:	tinned copper braiding	tinned copper braiding
Jacket material:	PVC, TM5 acc. to EN 50363-4-1	PUR, TPU acc. to EN 50363-10-2 with rough surface
Jacket color:	red lilac (RAL 4001)	red lilac (RAL 4001)

Technical data:	CB 627	S CB 628
Peak operating voltage:	max. 350 V	max. 350 V
Voltage UL:	300 V	300 V
Testing voltage: conductor/conductor: conductor/shielding:	2000 V 2000 V	2000 V 2000 V
Min. bending radius:	7.5 x O.D.	7.5 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg	5 x 10 ⁷ cJ/kg
Temperature range VDE: static: flexible:	UL: up to +80°C -30/+70°C -5/+70°C	UL: up to +80°C -40/+70°C -40/+70°C
Halogen-free:	—	acc. to IEC 60754-1 + VDE 0482-754-1
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2	
Oil resistance:	very good acc. to VDE 0207-5	very good acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	—	good against acids, alkalines, solvents, hydraulic liquids, etc.
Characteristic impedance:	120 Ω ± (95 - 140 Ω)	120 Ω ± (95 - 140 Ω)
Flexibility:	good	very good
Application in cable tracks:	not recommended	recommended
Weather resistance:	medium	very good
UL Style:	2464	20233
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog	

item no.	type	no. of pairs/conductors	AWG	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 6272251	CB 627	2	24 (≈ 16/34)	0.240	6.1	30
▶ 6272341	CB 627	2	22 (≈ 7/30)	0.252	6.4	32
▶ 6272501	CB 627	2	20 (≈ 17/32)	0.303	7.7	45
▶ 6272751	CB 627	2	19 (≈ 23/32)	0.378	9.6	61
▶ 6282251	S CB 628	2	24 (≈ 34/38)	0.311	7.9	52
▶ 6282341	S CB 628	2	22 (≈ 42/38)	0.327	8.3	56
▶ 6282501	S CB 628	2	20 (≈ 68/38)	0.343	8.7	54
▶ 6274251	CB 627	2 x 2	24 (≈ 16/34)	0.287	7.3	41
▶ 6274341	CB 627	2 x 2	22 (≈ 7/30)	0.303	7.7	45
▶ 6274501	CB 627	2 x 2	20 (≈ 17/32)	0.386	9.8	70
▶ 6274751	CB 627	2 x 2	19 (≈ 23/32)	0.531	13.5	120
▶ 6284251	S CB 628	2 x 2	24 (≈ 34/38)	0.358	9.1	66
▶ 6284341	S CB 628	2 x 2	22 (≈ 42/38)	0.378	9.6	71
▶ 6284501	S CB 628	2 x 2	20 (≈ 68/38)	0.417	10.6	77

Other dimensions and colors are available on request

DIN 47100 color code:

#1- white, #2- brown

Pairs: #1- white/brown, #2- green/yellow

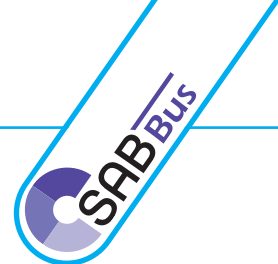


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Cables for Industrial Automation

DN 656 Halogen-free, flexible DeviceNet™ cable with a foil shield and UL recognition

DN 657 Halogen-free, flexible DeviceNet™ cable with tinned copper shield



Marking for DN 656 6562241:

SAB BRÜCKSKES · D-VIERSEN · DN 656 2x0.24mm²+2x0.38mm² 6562241 24AWG/1pr+22AWG/1pr AWM Style 21080 75°C 300V CE

				
<u>Construction:</u>	DN 656 Drop Cable	DN 656 Trunk Cable	DN 657 Drop Cable	DN 657 Trunk Cable
Item numbers:	6562241	6562781	6572241	6572781
Dimensions:	2 x 0.24 mm ² + 2 x 0.38 mm ²	2 x 0.96 mm ² + 2 x 1.53 mm ²	2 x 0.24 mm ² + 2 x 0.38 mm ²	2 x 0.96 mm ² + 2 x 1.53 mm ²
Conductor: 0.24mm ² tinned copper strands 0.38 mm ² tinned copper strands	AWG 24/19 AWG 22/19	— —	AWG 24/19 AWG 22/19	— —
Conductor: 0.96 mm ² tinned copper strands 1.53 mm ² tinned copper strands	— —	AWG 18/19 AWG 15/19	— —	AWG 18/19 AWG 15/19
Insulation:	0.24 mm ² : acc. to EN 50290-2-23 (02Y11) 0.38 mm ² : SABIX®	0.96 mm ² : acc. to EN 50290-2-23 (02Y11) 1.53 mm ² : SABIX®	0.24 mm ² : acc. to EN 50290-2-23 (02Y11) 0.38 mm ² : SABIX®	0.96 mm ² : acc. to EN 50290-2-23 (02Y11) 1.53 mm ² : SABIX®
Color code:	0.24 mm ² /0.96 mm ² : data pair white and light blue; 0.38 mm ² /1.53 mm ² : supply pair black and red		0.24 mm ² /0.96 mm ² : data pair white and light blue; 0.38 mm ² /1.53 mm ² : supply pair black and red	
Wrapping:	conductors twisted to pairs stranded with alu foil		conductors twisted to pairs stranded with alu foil	
Stranding:	pairs in specially adjusted layering, tinned copper drain wire in core			
Shielding:	alu. foil	alu. foil	tinned copper braiding	tinned copper braiding
Wrapping:	non-woven tape	non-woven tape	non-woven tape	non-woven tape
Jacket material:	SABIX®	SABIX®	SABIX®	SABIX®
Jacket color:	red lilac (RAL 4001)	red lilac (RAL 4001)	red lilac (RAL 4001)	red lilac (RAL 4001)

Technical data:	DN 656 <i>Drop Cable</i>	DN 656 <i>Trunk Cable</i>	DN 657 <i>Drop Cable</i>	DN 657 <i>Trunk Cable</i>
Peak operating voltage:	max. 350 V	max. 350 V	max. 350 V	max. 350 V
Voltage UL:	300 V	300 V	—	—
Testing voltage: conductor/conductor: conductor/shielding:	2000 V 2000 V	2000 V 2000 V	1500 V 1200 V	1500 V 1200 V
Min. bending radius: fixed installation: free movement:	7.5 x O.D. 15 x O.D.	7.5 x O.D. 15 x O.D.	7.5 x O.D. 15 x O.D.	7.5 x O.D. 15 x O.D.
Temperature range: static: flexible:	UL: up to +75°C -40/+70°C -30/+70°C	UL: up to +75°C -40/+70°C -30/+70°C	-40/+70°C -30/+70°C	-40/+70°C -30/+70°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1		acc. to IEC 60754-1 + VDE 0482-754-1	
Characteristic impedance:	120 Ω ± 10%	120 Ω ± 10%	120 Ω ± 10%	120 Ω ± 10%
UL Style:	21080	21080	—	—
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog			

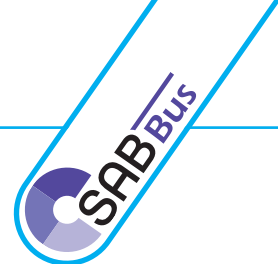
item no.	type	no. of data conductors	no. of power conductors	nominal outer-ø inch mm		cable weight ≈lbs/mft
▶ 6562241	DN 656 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	38
▶ 6562781	DN 656 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	81
▶ 6572241	DN 657 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	50
▶ 6572781	DN 657 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	123

Other dimensions and colors are available on request

Cables for Industrial Automation

DN 659 Continuous flex DeviceNet™ cable with a foil shield

DN 658 Continuous flex DeviceNet™ cable with tinned copper shield



Marking for DN 658 6582241:

SAB BRÖCKSKES · D-VIERSEN · DN 658 2x0.24mm²+2x0.38mm² 6582241 24AWG/1pr+22AWG/1pr AWM Style 20417 60°C 30V CE

				
<u>Construction:</u>	DN 659 Drop Cable	DN 659 Trunk Cable	DN 658 Drop Cable	DN 658 Trunk Cable
Item numbers:	6592241	6592781	6582241	6582781
Dimensions:	2 x 0.24 mm ² + 2 x 0.38 mm ²	2 x 0.96 mm ² + 2 x 1.53 mm ²	2 x 0.24 mm ² + 2 x 0.38 mm ²	2 x 0.96 mm ² + 2 x 1.53 mm ²
Conductor: 0.24 mm ² tinned copper strands 0.38 mm ² tinned copper strands	fine wires fine wires	— —	fine wires fine wires	— —
Conductor: 0.96 mm ² tinned copper strands 1.53 mm ² tinned copper strands	— —	fine wires fine wires	— —	fine wires fine wires
Insulation:	0.24 mm ² : acc. to EN 50290-2-23 (02Y11) 0.38 mm ² : PVC, T12 acc. to EN 50363-3	0.96 mm ² : acc. to EN 50290-2-23 (02Y11) 1.53 mm ² : PVC, T12 acc. to EN 50363-3	0.24 mm ² : acc. to EN 50290-2-23 (02Y11) 0.38 mm ² : PVC, T12 acc. to EN 50363-3	0.96 mm ² : acc. to EN 50290-2-23 (02Y11) 1.53 mm ² : PVC, T12 acc. to EN 50363-3
Color code:	0.24 mm ² /0.96 mm ² : data pair white and light blue; 0.38 mm ² /1.53 mm ² : supply pair black and red		0.24 mm ² /0.96 mm ² : data pair white and light blue; 0.38 mm ² /1.53 mm ² : supply pair black and red	
Wrapping:	conductors twisted to pairs stranded with alu foil		conductors twisted to pairs stranded with alu foil	
Stranding:	pairs in specially adjusted layering, tinned copper drain wire in core			
Shielding:	alu. foil	alu. foil	tinned copper braiding	tinned copper braiding
Wrapping:	non-woven tape	non-woven tape	non-woven tape	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with rough surface			
Jacket color:	red lilac (RAL 4001)	red lilac (RAL 4001)	red lilac (RAL 4001)	red lilac (RAL 4001)

Technical data:	DN 659 <i>Drop Cable</i>	DN 659 <i>Trunk Cable</i>	DN 658 <i>Drop Cable</i>	DN 658 <i>Trunk Cable</i>
Peak operating voltage:	max. 350 V	max. 350 V	max. 350 V	max. 350 V
Voltage UL:	30 V	30 V	30 V	30 V
Testing voltage: conductor/conductor: conductor/shielding:	2000 V 2000 V	2000 V 2000 V	2000 V 2000 V	2000 V 2000 V
Min. bending radius: fixed installation: free movement:	7.5 x O.D. 15 x O.D.	7.5 x O.D. 15 x O.D.	7.5 x O.D. 15 x O.D.	7.5 x O.D. 15 x O.D.
Temperature range: static: flexible:	UL: up to +60°C -30/+70°C -5/+70°C	UL: up to +60°C -30/+70°C -5/+70°C	UL: up to +60°C -30/+70°C -5/+70°C	UL: up to +60°C -30/+70°C -5/+70°C
Characteristic impedance:	120 Ω ± 10%	120 Ω ± 10%	120 Ω ± 10%	120 Ω ± 10%
UL Style:	20417	20417	20417	20417
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog			

item no.	type	no. of data conductors	no. of power conductors	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 6592241	DN 659 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	44
▶ 6592781	DN 659 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	77
▶ 6582241	DN 658 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	51
▶ 6582781	DN 658 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	112

Other dimensions and colors are available on request

Cables for Industrial Automation

PB 630 PVC Profibus-DP cable for fixed installation

PB 639 PVC Profibus-DP cable for direct burial

PB 636

Flexible PVC Profibus-DP cable
for outdoor installation

PB 635

PVC Profibus-DP cable
for outdoor installation



BRÖCKSKES · D-VIERSEN · PB 636 2x0.34mm² CE



Marking for PB 636 6362348:

SAB BRÖCKSKES · D-VIERSEN · PB 636 2x0.34mm² CE

Construction:	PB 630 <i>for fixed installations</i>	PB 639 <i>for direct burial</i>	PB 636 <i>for fixed installations</i>	PB 635 <i>for fixed installations</i>
Item numbers:	6302331	6392338	6362348	6352338
Dimensions:	2 x 22 AWG	2 x 22 AWG	2 x 0.34 mm ²	2 x 22 AWG
Conductor:	bare copper wire AWG 22, single wire	bare copper wire AWG 22, single wire	bare copper strands acc. to VDE 0812	bare copper wire AWG 22, single wire
Insulation:	acc. to EN 50290-2-23 + VDE 0819-103 (02Y11)	acc. to EN 50290-2-23 + VDE 0819-103 (02Y11)	acc. to EN 50290-2-23 + VDE 0819-103 (02Y11)	acc. to EN 50290-2-23 + VDE 0819-103 (02Y11)
Color code:	red, green	red, green	red, green	red, green
Stranding:	in layers	in layers	in layers	in layers
Shielding:	alu foil + tinned copper braiding		alu foil + tinned copper braiding	
Jacket material:	PVC, TM2 acc. to EN 50363-4-1	PVC, TM2 acc. to EN 50363-4-1	PVC, TM2 acc. to EN 50363-4-1	PVC, TM2 acc. to EN 50363-4-1
Jacket color:	red lilac (RAL 4001)	red lilac (RAL 4001)	red lilac (RAL 4001)	red lilac (RAL 4001)

Technical data:	PB 630 <i>for fixed installations</i>	PB 639 <i>for direct burial</i>	PB 636 <i>for fixed installations</i>	PB 635 <i>for fixed installations</i>
Peak operating voltage:	max. 350 V	max. 350 V	max. 350 V	max. 350 V
Testing voltage: conductor/conductor: conductor/shielding:	1500 V 1500 V	1500 V 1500 V	1500 V 1500 V	1500 V 1500 V
Min. bending radius:	12 x O.D.	12 x O.D.	12 x O.D.	12 x O.D.
Radiation resistance:	7 x 10 ⁶ cJ/kg	—	—	—
Temperature range: static: flexible:	-30/+70°C -5/+70°C	-30/+70°C -5/+70°C	-30/+70°C -5/+70°C	-30/+70°C -5/+70°C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2			
Oil resistance:	acc. to internal standard, see page O/29 (catalog)		acc. to internal standard, see page O/29 (catalog)	
Characteristic impedance 3 - 20 MHz:	150 Ω ± 10%	150 Ω ± 10%	150 Ω ± 10%	150 Ω ± 10%
For fixed installation:	suitable	suitable	suitable	suitable
For flexible application:	not suitable	not suitable	suitable	not suitable
Weather resistance:	medium	good	good	good
Outdoor installation:	not suitable	suitable	suitable	suitable
Direct burial:	not suitable	suitable	not suitable	not suitable
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog			

item no.	type	no. of conductors	dimensions AWG	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 6302331	PB 630	2	22	0.280	7.1	36
▶ 6392338	PB 639	2	22	0.362	9.2	63
▶ 6362348	PB 636	2	22 (≈ 7/30)	0.346	8.8	54
▶ 6352338	PB 635	2	22	0.331	8.4	53

Other dimensions and colors are available on request

Cables for Industrial Automation

PB 640

Flexible PVC
Profibus-DP cable

PB 640 UL

Flexible PVC Profibus-DP cable
with UL recognition

S PB 640

Continuous flex
PUR Profibus-DP cable

S PB 640 UL

Continuous flex PUR Profibus-DP
cable with UL recognition



06402611 AWM Style 21198 80°C 300V CE



Marking for S PB 640 UL 6402611:

SAB BRÖCKSKES · D-VIERSEN · S PB 640 UL 24AWG/2c 6402611 AWM Style 21198 80°C 300V CE

Construction:	PB 640 <i>for flexible applications</i>	PB 640 UL <i>for flexible applications</i>	S PB 640 <i>continuous flex</i>	S PB 640 UL <i>continuous flex</i>
Item numbers:	6402421	6402631	6402601	6402611
Dimensions:	2 x 24 AWG	2 x 24 AWG	2 x 24 AWG	2 x 24 AWG
Conductor:	bare copper strands 24 AWG		bare copper strands 24 AWG	
Insulation:	acc. to EN 50290-2-23 + VDE 0819-103 (02Y11)	acc. to EN 50290-2-23 + VDE 0819-103 (02Y11)	acc. to EN 50290-2-23 + VDE 0819-103 (02Y11)	acc. to EN 50290-2-23 + VDE 0819-103 (02Y11)
Color code:	red, green	red, green	red, green	red, green
Stranding:	in layers	in layers	in layers	in layers
Inner jacket (nature):	PVC	PVC	SABIX®	SABIX®
Shielding:	alu foil + tinned copper braiding		alu foil + tinned copper braiding	
Jacket material:	PVC, TM2 acc. to EN 50363-4-1		PUR, TPU acc. to EN 50363-10-2 with matte surface	
Jacket color:	red lilac (RAL 4001)	red lilac (RAL 4001)	red lilac (RAL 4001)	red lilac (RAL 4001)

Technical data:	PB 640 for flexible applications	PB 640 UL for flexible applications	S PB 640 continuous flex	S PB 640 UL continuous flex
Peak operating voltage:	max. 350 V	max. 350 V	max. 350 V	max. 350 V
Voltage UL:	—	300 V	—	300 V
Voltage CSA:	—	—	—	300 V
Testing voltage: conductor/conductor: conductor/shielding:	1500 V 1500 V	2000 V 2000 V	1500 V 1500 V	2000 V 2000 V
Min. bending radius: fixed installation: flexible application: continuous flex:	12 x O.D.	12 x O.D.	5 x O.D. 10 x O.D. 12 x O.D.	5 x O.D. 10 x O.D. 12 x O.D.
Temperature range: static: flexible:	-30/+70°C -5/+70°C	UL: up to +80°C -30/+70°C -5/+70°C	-40/+80°C -30/+80°C	UL/CSA: up to +80°C -40/+80°C -30/+80°C
Halogen-free:	—	—	acc. to IEC 60754-1 + VDE 0482-754-1	
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332 + VDE 0482-332-1-2			
Oil resistance:	acc. to internal standard, see page O/29 (catalog)		very good EN 50363-10-2 + VDE 0207-363-10-2	
Characteristic impedance (3 - 20 MHz):	150 Ω ± 10%	150 Ω ± 10%	150 Ω ± 10%	150 Ω ± 10%
Fixed installation:	suitable	suitable	suitable	suitable
For flexible application:	suitable	suitable	suitable	suitable
Application in cable tracks:	not recommended	not recommended	recommended	recommended
UL Style:	—	2464	—	21198
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog			

item no.	type	no. of conductors	AWG	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 6402421	PB 640	2	24	0.315 ± 0.016	8.0 ± 0.4	42
▶ 6402631	PB 640 UL	2	24	0.315 ± 0.016	8.0 ± 0.4	42
▶ 6402601	S PB 640	2	24	0.315 ± 0.016	8.0 ± 0.4	38
▶ 6402611	S PB 640 UL	2	24	0.315 ± 0.016	8.0 ± 0.4	42

Other dimensions and colors are available on request

Profibus-DP and Profibus-FMS apply the same transmission technology and a uniform bus access log. Therefore, both types can be used simultaneously on one cable.



**with "Fast Connect"
Construction**

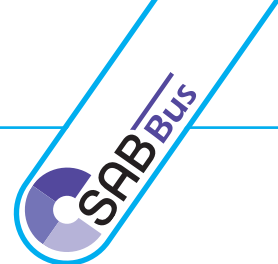


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Cables for Industrial Automation

PB 642 PVC Profibus-cable (PA)

S PB 644 Continuous flex PUR Profibus-cable (PA) for cable tracks



BRÖCKSKES · D-VIERSEN · S PB 644 2x0.25mm² CE



Marking for S PB 644 6442251:

SAB BRÖCKSKES · D-VIERSEN · S PB 644 2x0.25mm² CE

Construction:	PB 642 <i>flexible</i>	S PB 644 <i>continuous flex</i>
Item numbers:	6422221, 6424221, 6422251, 6424251, 6422767, 6422768	6442251, 6444251
Dimensions:	2 x 0.22 mm ² , 2 x 2 x 0.22 mm ² , 2 x .025 mm ² , 2 x 2 x 0.25 mm ² , 2 x 0.82 mm ² , 2 x 0.82 mm ²	2 x .025 mm ² , 2 x 2 x 0.25mm ²
Conductors:	bare copper strands with reference to VDE 0812	bare copper strands, extra fine wires
Insulation:	PE, 2Y11 acc. to EN 50290-2-23 + VDE 0819-103	PE, 2Y11 acc. to EN 50290-2-23 + VDE 0819-103
Color code:	2c: red, green, 2pr: DIN 47100	2c: red, green, 2pr: DIN 47100
Stranding:	in layers	in layers
Wrapping:	PETP foil, non-woven tape	PETP foil, non-woven tape
Shielding:	tinned copper braiding	tinned copper braiding
Jacket material:	PVC, TM2 acc. to EN 50363-4-1	PUR, TPU acc. to EN 50363-10-2 with rough surface
Jacket color:	see table below	red lilac (RAL 4001)

Technical data:	PB 642 <i>flexible</i>	S PB 644 <i>continuous flex</i>
Peak operating voltage:	max. 350 V	max. 350 V
Testing voltage: conductor/conductor: conductor/shielding:	1500 V 1200 V	1500 V 1200 V
Min. bending radius: continuously flexing:	7.5 x O.D. —	7.5 x O.D. 12 x O.D.
Temperature range: static: flexible:	-30/+70°C -5/+70°C	-40/+70°C -40/+70°C
Oil resistance:	acc. to internal standard, see page O/29 in full line catalog	very good acc. to EN 50363-10-2 + VDE 0207-363-10-2
Characteristic impedance: type B: PA:	at >100 kHz 100 Ω - 130 Ω 100 Ω - 20%	at >100 kHz 100 Ω - 130 Ω 100 Ω - 20%
For fixed installation:	suitable	suitable
For flexible application:	suitable	suitable
Application in cable tracks:	not recommended	recommended
Weather resistance:	medium	very good
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page O/30 in full line catalog	

item no.	type	jacket color	no. of conductors	AWG	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 6422221	PB 642	red lilac (RAL 4001)	2	24 (≈ 7/32)	0.173 4.4	17
▶ 6424221	PB 642	red lilac (RAL 4001)	2 x 2	24 (≈ 7/32)	0.244 6.2	30
▶ 6422251	PB 642	red lilac (RAL 4001)	2	24 (≈ 14/34)	0.193 4.9	20
▶ 6424251	PB 642	red lilac (RAL 4001)	2 x 2	24 (≈ 14/34)	0.264 6.7	35
▶ 6422767	PB 642 PA	blue (RAL 5015)	2	18 (≈ 26/32)	0.287 7.3	46
▶ 6422768	PB 642 PA	black (RAL 9005)	2	18 (≈ 26/32)	0.287 7.3	46
▶ 6442251	S PB 644	red lilac (RAL 4001)	2	24 (≈ 32/38)	0.205 5.2	22
▶ 6444251	S PB 644	red lilac (RAL 4001)	2 x 2	24 (≈ 32/38)	0.268 6.8	38

Other dimensions and colors are available on request

SAB offers a wide range of data and sensor cables designed to meet or exceed high-speed data communications requirements for the exact measurement of physical values, precise positioning, measuring tolerances, and production control. These applications require SAB flexible data cables with the smallest cross-sections and a variety of shielding options to protect against high-frequency interference or interference from adjoining circuits.



Features:

- 26 AWG to 16 AWG data/communication cables
- Shielded, unshielded and paired with overall shield
- Flexible for easier routing



Semi Rigid PVC Data Cables with UL Recognition, CSA Approval

■ DC 300 DS		Multi-conductor double shielded PVC signal and control cable, Type AWM	78
■ DC 300 DS TP		Multi-pair double shielded PVC signal and control cable, Type AWM.	79

Additional Data & Sensor cables are available on our website and in the full line catalog (Section F)



Cables for Industrial Automation

DC 300 DS

Multi-conductor double shielded PVC signal and control cable

Type AWM

very good
EMC

SAB Data



Marking for DC 300 DS 3242225:

SAB BRÖCKSKES · D-VIERSEN · 3242522 DC 300 DS 22 AWG/25c 3242225 AWM Style 2464 80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

Construction:

Conductor:	tinned copper strands acc. to ASTM B 286
Insulation:	semi-rigid PVC
Color code:	color code US 2, see below
Stranding:	in layers
Shielding:	double shielding, Alu-foil, tinned copper braiding with tinned drain wire (0.22 mm ²)
Jacket material:	PVC
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- very good EMC characteristics
- small outer diameter
- small bending radius

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL/CSA:	300 V
Testing voltage:	conductor/conductor: 2000 V conductor/shielding: 2000 V
Min. bending radius:	fixed installation: 5 x O.D. free movement: 10 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range:	DIN VDE UL/CSA: up to +80°C static: -30/+70°C flexible: -5/+70°C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1, CSA FT1, FT2
Oil resistance:	acc. to internal standard, see page O/29 in full line catalog
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30 in full line catalog

item no.	no. of conductors	nominal outer-ø ± 5% inch	nominal outer-ø ± 5% mm	cable weight ≈lbs/mft
▶ AWG 28/7				
3242802	2	0.169	4.3	14
3242803	3	0.173	4.4	16
3242804	4	0.181	4.6	17
3242805	5	0.193	4.9	20
3242807	7	0.201	5.1	23
3242810	10	0.236	6.0	29
3242812	12	0.244	6.2	32
3242814	14	0.252	6.4	34
3242818	18	0.272	6.9	41
3242825	25	0.311	7.9	50
▶ AWG 26/7				
3242602	2	0.177	4.5	16
3242603	3	0.181	4.6	17
3242604	4	0.193	4.9	20
3242605	5	0.201	5.1	24
3242607	7	0.213	5.4	26
3242610	10	0.252	6.4	34
3242612	12	0.260	6.6	38
3242614	14	0.268	6.8	41
3242618	18	0.291	7.4	50
3242625	25	0.335	8.5	63

item no.	no. of conductors	nominal outer-ø ± 5% inch	nominal outer-ø ± 5% mm	cable weight ≈lbs/mft
▶ AWG 24/7				
3242402	2	0.185	4.7	18
3242403	3	0.193	4.9	20
3242404	4	0.201	5.1	24
3242405	5	0.217	5.5	28
3242407	7	0.228	5.8	32
3242410	10	0.272	6.9	42
3242412	12	0.280	7.1	47
3242414	14	0.287	7.3	52
3242418	18	0.315	8.0	64
3242425	25	0.366	9.3	82

item no.	no. of conductors	nominal outer-ø ± 5% inch	nominal outer-ø ± 5% mm	cable weight ≈lbs/mft
▶ AWG 22/7				
3242202	2	0.197	5.0	21
3242203	3	0.205	5.2	25
3242204	4	0.217	5.5	28
3242205	5	0.232	5.9	34
3242207	7	0.248	6.3	40
3242210	10	0.295	7.5	54
3242212	12	0.303	7.7	60
3242214	14	0.315	8.0	67
3242218	18	0.346	8.8	83
3242225	25	0.406	10.3	110

Other dimensions and colors are available on request

US 2 color code:

#1- black, #2- white, #3- red, #4- green, #5- orange, #6- blue, #7- white-black, #8- red-black, #9- green-black, #10- orange-black, #11- blue-black, #12- black-white, #13- red-white, #14- green-white, #15- blue-white, #16- black-red, #17- white-red, #18- orange-red, #19- blue-red, #20- red-green, #21- orange-green, #22- black-white-red, #23- white-black-red, #24- red-black-white, #25- green-black-white

Cables for Industrial Automation

DC 300 DS TP

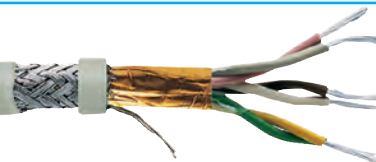
Multi-pair double shielded PVC signal and control cable
Type AWM

very good
EMC

SAB Data



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



Marking for DC 300 DS TP 3842203:

SAB BRÖCKSKES · D-VIERSEN · 3840322 DC 300 DS TP 22 AWG/3pr 3842203 AWM Style 2464 80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

Construction:

Conductor:	tinned copper strands acc. to ASTM B 286
Insulation:	semi-rigid PVC
Color code:	color code US 3, see below
Stranding:	conductors twisted to pairs, pairs twisted in layers
Shielding:	double shielding, Alu-foil, tinned copper braiding with tinned drain wire (0.22 mm ²)
Jacket material:	PVC
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- very good EMC characteristics
- small outer diameter
- small bending radius

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL/CSA:	300 V
Testing voltage:	conductor/conductor: 2000 V conductor/shielding: 2000 V
Min. bending radius:	fixed installation: free movement:
	5 x O.D. 10 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range:	DIN VDE UL/CSA: up to +80°C static: -30/+70°C flexible: -5/+70°C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1, CSA FT1, FT2
Oil resistance:	acc. to internal standard, see page O/29
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30 in full line catalog

item no.	no. of pairs	nominal outer-ø ± 5% inch	nominal outer-ø ± 5% mm	cable weight ≈lbs/mft
► AWG 28/7				
3842802	2	0.201	5.1	19
3842803	3	0.217	5.5	23
3842804	4	0.240	6.1	27
3842805	5	0.256	6.5	31
3842807	7	0.272	6.9	36
3842810	10	0.311	7.9	45
3842814	14	0.354	9.0	57
3842818	18	0.378	9.6	70
3842825	25	0.425	10.8	87
► AWG 26/7				
3842602	2	0.213	5.4	22
3842603	3	0.232	5.9	27
3842604	4	0.260	6.6	32
3842605	5	0.276	7.0	38
3842607	7	0.287	7.3	42
3842610	10	0.335	8.5	56
3842614	14	0.386	9.8	73
3842618	18	0.413	10.5	89
3842625	25	0.465	11.8	112

item no.	no. of pairs	nominal outer-ø ± 5% inch	nominal outer-ø ± 5% mm	cable weight ≈lbs/mft
► AWG 24/7				
3842402	2	0.228	5.8	26
3842403	3	0.248	6.3	32
3842404	4	0.280	7.1	39
3842405	5	0.299	7.6	46
3842407	7	0.311	7.9	54
3842410	10	0.362	9.2	71
3842414	14	0.421	10.7	94
3842418	18	0.453	11.5	116
3842425	25	0.508	12.9	148

item no.	no. of pairs	nominal outer-ø ± 5% inch	nominal outer-ø ± 5% mm	cable weight ≈lbs/mft
► AWG 22/7				
3842202	2	0.248	6.3	32
3842203	3	0.268	6.8	40
3842204	4	0.303	7.7	48
3842205	5	0.327	8.3	58
3842207	7	0.343	8.7	70
3842210	10	0.402	10.2	95
3842214	14	0.465	11.8	124
3842218	18	0.500	12.7	156
3842225	25	0.579	14.7	207

Other dimensions and colors are available on request

US 3 color code:

#1- black paired with red, #2- black paired with white, #3- black paired with green, #4- black paired with blue, #5- black paired with yellow, #6- black paired with brown, #7- black paired with orange, #8- red paired with white, #9- red paired with green, #10- red paired with blue, #11- red paired with yellow, #12- red paired with brown, #13- red paired with orange, #14- green paired with white, #15- green paired with blue, #16- green paired with yellow, #17- green paired with brown, #18- green paired with orange, #19- white paired with blue, #20- white paired with yellow, #21- white paired with brown, #22- white paired with orange, #23- blue paired with yellow, #24- blue paired with brown, #25- blue paired with orange

Cables & Accessories for Industrial Automation

Production possibilities

Flexible cables and wires "Made in Germany"

As a leading manufacturer we develop and produce cables for industrial purposes. Our wide range of materials offer a lot of possibilities for your individual product requirement. The following survey shows an extract of our production possibilities:

Conductor Materials:

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

Insulation and Jacketing Materials:

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

Temperature Ranges:

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

Conductors:

- ✓ cross sections 0.055 - 300 mm²
- ✓ unshielded and shielded over 100 conductors

Cable assemblies directly from the manufacturer SAB:

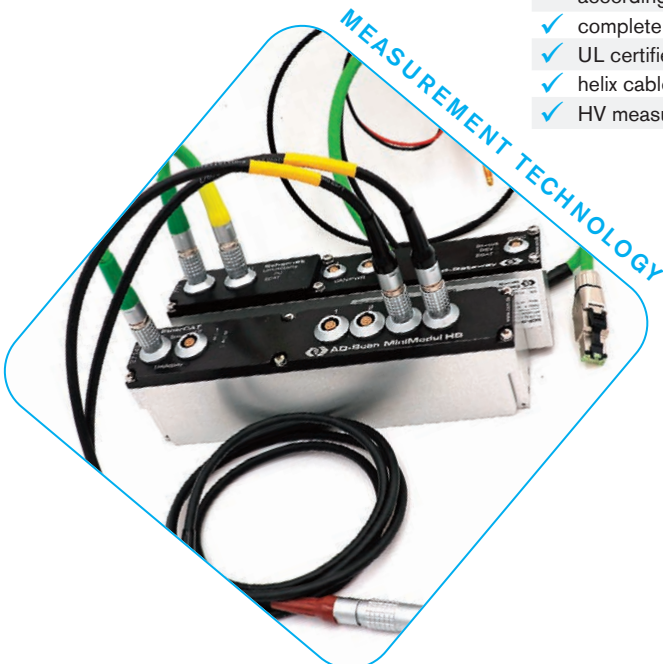
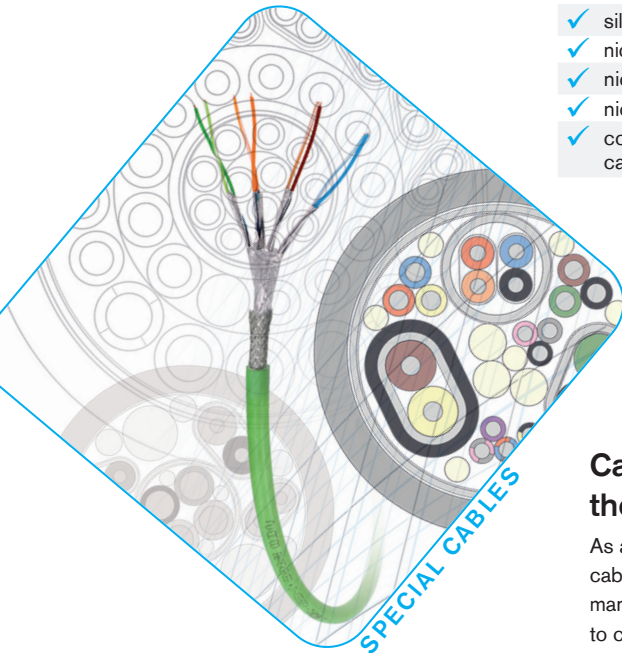
As a full service partner, we are able to offer cable design and production as well as the manufacturing of cable assemblies according to customer's request. Please trust on our experience for decades in the treatment of cables and connectors.

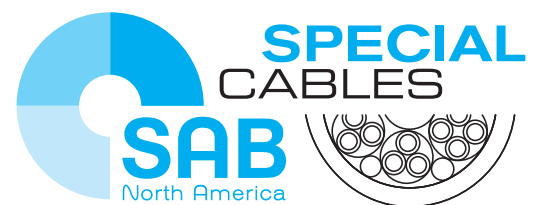
- ✓ cable assemblies according to customer's demands
- ✓ complete cable assemblies
- ✓ UL certified assemblies
- ✓ helix cables
- ✓ HV measuring assemblies

Measuring technology for industrial applications

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

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





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