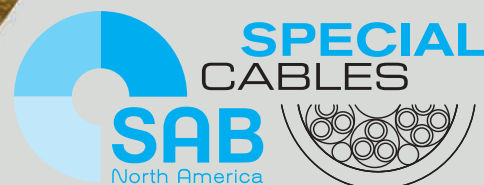


CABLE & ACCESSORIES FOR GREENHOUSES



www.sabcable.com
866-722-2974 ■ info@sabcable.com



SAB North America

About Us



SAB North America is a focused supplier for the automation, aerospace, medical, high temperature, and robotics industries, providing cable and thermocouple solutions that meet, exceed, and set new standards in the flexible cable market. In addition to flexible cable products, we offer an extensive inventory of high-quality cable accessories, including cord grips, grounding glands and other accessories that complement our flexible control and automation cables.

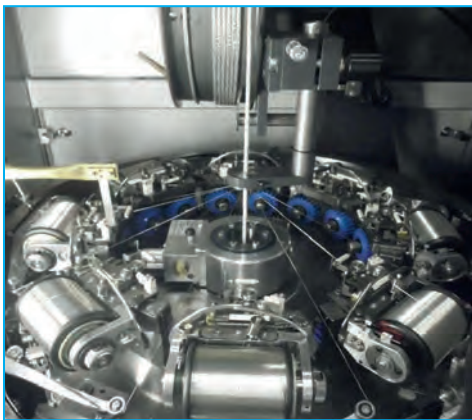
Whatever the need may be, look to SAB North America for Special Cables that can, for example, help minimize maintenance costs and increase productivity, reduce downtime, and solve specific problems. Here is a small sample of some of the challenges that Special Cables from SAB North America can help address:

- Hybrid designs for multiple functions
- Harsh environments
- Difficult applications
- Industry-specific requirements



SAB North America provides a variation of cables, cord grips and vent accessories that are ideal for greenhouses. All our cables resist humidity, are very flexible and have excellent chemical resistance. SAB cables will perform in most applications within the greenhouse; tray rated cables for lighting and other functions, VFD for HVAC, continuous flex & flexible cable for automated watering, harvesting, sorting and packaging equipment, Ethernet for process control and servo for precise positioning to name a few. Our cord grips will create a tight seal with the cable protecting the connections inside control cabinets (IP 68). SAB also supplies vent glands and plugs to maintain equal pressure inside control cabinets to prevent condensation.

SAB's level of speed and service as a supplier is unmatched. SAB lives up to its name in not only flexible cable but also flexible manufacturing.



SAB Advantage...We make it Easy

- Engineering & technical assistance
- Cut to length with no cut charges
- Prepaid freight within US for orders over \$2,500
- Specialty cable designs (1500 ft minimum)
- No minimum on orders from stock
- Free drop shipments (no surcharges)
- 24-hour shipments from stock
- Cord Grips for securing and grounding cables

Cables & Accessories for Greenhouses

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	Flexible Control and Power Tray Cable with Excellent Resistance to Humidity	
■ DC 105	  300 V, semi-rigid PVC unshielded data cable Type PLTC, ITC, and CMG	6
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■ SD 980 CP TP	  300V, high speed twisted pairs heavy duty shielded halogen-free polyurethane data cable	35



Cables & Accessories for Greenhouses

When selecting wire and cable for your indoor growing application, be sure to keep the following factors in mind:

Flexibility:	Cable runs typically have complex configurations since equipment and cable trays must be positioned to avoid blocking sunlight.
Chemical resistance:	Whether for plant growth or pest mitigation, greenhouses are teeming with agricultural chemicals and pesticides.
Moisture/humidity/corrosion resistance:	Humid conditions in greenhouses can lead to condensation forming on equipment or dripping from the ceiling. Puddles can also add to the humidity inside a greenhouse.
UV resistance:	Abundant sunlight can cause cable jacketing to degrade.
Temperature:	Elevated temperatures are common in greenhouses.
Certifications and approvals:	Make sure your wire and cable satisfies industry and local standards.



FILLING & SEEDING LINE



WATER TANKS



ROBOTIC FARMING



LIGHTING



SPRAYING EQUIPMENT



CLIMATE CONTROL

Tray Cables for Greenhouses

DC 105

Semi-rigid PVC data cable

Type PLTC, ITC, and CMG



°C (DC 105) - CSA TYPE CMG or AWM I/II A/B 105°C 300V FT4



Marking for DC 105 DC3332203:

SAB North America P/N DC3332203 22AWG/3c (UL) TYPE PLTC or ITC or CMG 105°C (DC 105) - CSA TYPE CMG or AWM I/II A/B 105°C 300V FT4 RoHS CE

Construction:

Conductor:	tinned copper strands
Insulation:	
26 - 20 AWG:	semi-rigid PVC
18 - 16 AWG:	PVC/nylon
Color code:	
26 - 24 AWG:	color code, chart 2, see below
22 AWG:	color code, chart 4, see below
20 - 16 AWG:	color code chart 6, see below
Stranding:	twisted together in layers with non-wicking fillers
Jacket material:	PVC
Jacket color:	grayish tan (RAL 7032)

Technical data:

Nominal voltage:	300 V
Testing voltage:	2000 V
Min. bending radius:	
fixed installation:	4 x O.D.
Temperature range:	-25/+105°C
Approvals:	UL: CMG (26-16 AWG) PLTC & ITC (22 - 20 AWG) PLTC-ER & ITC-ER (18 - 16 AWG) CSA: CMG/FT4 AWM I/II A/B CE, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

Color Code Chart 2:

no.	Conductor color	no.	Conductor color
1	black	14	green/white
2	white	15	blue/white
3	red	16	black/red
4	green	17	white/red
5	orange	18	orange/red
6	blue	19	blue/red
7	white/black	20	red/green
8	red/black	21	orange/green
9	green/black	22	black/white/red
10	orange/black	23	white/black/red
11	blue/black	24	red/black/white
12	black/white	25	green/black/white
13	red/white		

Color Code Chart 4:

no.	Conductor color	no.	Conductor color
1	black	14	white/orange
2	brown	15	white/yellow
3	red	16	white/green
4	orange	17	white/blue
5	yellow	18	white/violet
6	green	19	white/gray
7	blue	20	white/black/brown
8	violet	21	white/black/red
9	gray	22	white/black/orange
10	white	23	white/black/yellow
11	white/black	24	white/black/green
12	white/brown	25	white/black/blue
13	white/red		

Color Code Chart 6:

no.	Conductor color	no.	Conductor color
1	black	14	red/yellow
2	red	15	red/black
3	white	16	white/black
4	green	17	white/red
5	orange	18	white/green
6	blue	19	white/yellow
7	brown	20	white/blue
8	yellow	21	white/brown
9	violet	22	white/orange
10	gray	23	white/gray
11	pink	24	white/violet
12	tan	25	white/black/red
13	red/green		

item no.	no. of conductors	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 26 AWG (7/34)				
DC3222603	3	0.156	4.0	18
DC3222604	4	0.166	4.2	20
DC3222606	6	0.189	4.8	25
DC3222607	7	0.192	4.9	26
DC3222608	8	0.204	5.2	28
DC3222610	10	0.230	5.8	36
DC3222615	15	0.261	6.6	48
DC3222620	20	0.295	7.5	58
DC3222625	25	0.323	8.2	70
▶ 24 AWG (7/32)				
DC3222402	2	0.160	4.1	20
DC3222403	3	0.167	4.2	23
DC3222404	4	0.182	4.6	24
DC3222405	5	0.191	4.9	27
DC3222406	6	0.204	5.2	30
DC3222407	7	0.207	5.3	31
DC3222408	8	0.220	5.6	35
DC3222410	10	0.249	6.3	43
DC3222412	12	0.256	6.5	49
DC3222415	15	0.283	7.2	59
DC3222418	18	0.303	7.7	65
DC3222420	20	0.311	7.9	70
DC3222425	25	0.343	8.7	86
▶ 22 AWG (7/30)				
DC3332202	2	0.178	4.5	22
DC3332203	3	0.190	4.8	25
DC3332204	4	0.202	5.1	29
DC3332205	5	0.213	5.4	34
DC3332206	6	0.228	5.8	40
DC3332207	7	0.231	5.9	41
DC3332208	8	0.244	6.2	46
DC3332209	9	0.261	6.6	53
DC3332210	10	0.289	7.3	60
DC3332212	12	0.297	7.5	67
DC3332215	15	0.317	8.1	79
DC3332218	18	0.339	8.6	87
DC3332220	20	0.348	8.8	94
DC3332225	25	0.385	9.8	117
DC3332230	30	0.430	10.9	143
DC3332240	40	0.475	12.1	184
DC3332250	50	0.517	13.1	221

item no.	no. of conductors	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 20 AWG (≈ 19/32)				
DC3332002	2	0.196	5.0	29
DC3332003	3	0.205	5.2	35
DC3332004	4	0.220	5.6	42
DC3332006	6	0.254	6.5	55
DC3332007	7	0.254	6.5	52
DC3332008	8	0.275	7.0	62
DC3332009	9	0.303	7.7	74
DC3332010	10	0.325	8.3	80
DC3332012	12	0.335	8.5	92
DC3332015	15	0.358	9.1	110
DC3332020	20	0.415	10.5	143
DC3332025	25	0.459	11.7	184
▶ 18 AWG (19/30)				
DC3331802	2	0.276	7.0	45
DC3331803	3	0.29	7.4	58
DC3331804	4	0.313	8.0	70
DC3331805	5	0.339	8.6	78
DC3331806	6	0.366	9.3	91
DC3331807	7	0.367	9.3	98
DC3331808	8	0.395	10.0	110
DC3331809	9	0.423	10.7	124
DC3331810	10	0.457	11.6	144
DC3331812	12	0.472	12.0	164
DC3331815	15	0.507	12.9	194
DC3331818	18	0.579	14.7	244
DC3331820	20	0.595	15.1	263
DC3331825	25	0.662	16.8	325
DC3331850	50	0.904	23.0	621
▶ 16 AWG (26/30)				
DC3331602	2	0.296	7.5	54
DC3331603	3	0.312	7.9	68
DC3331604	4	0.337	8.6	83
DC3331605	5	0.366	9.3	95
DC3331606	6	0.396	10.1	109
DC3331607	7	0.397	10.1	119
DC3331608	8	0.428	10.9	134
DC3331609	9	0.459	11.7	160
DC3331610	10	0.497	12.6	174
DC3331612	12	0.513	13.0	199
DC3331615	15	0.584	14.8	261
DC3331618	18	0.629	16.0	297
DC3331620	20	0.647	16.4	330
DC3331625	25	0.721	18.3	400

Other dimensions and colors are available on request

Tray Cables for Greenhouses

DC 105 C

Shielded semi-rigid PVC data cable

Type PLTC, ITC, and CMG



CMG OR AWM I/II A/B 105°C 300V FT4 RoHS CE



Marking for DC 105 C DC3332204S:

SAB North America P/N DC3332204S 22AWG/4c (UL) TYPE PLTC OR ITC OR CMG SHIELDED 105°C (DC 105 C) CSA TYPE CMG OR AWM I/II A/B 105°C 300V FT4 RoHS CE

Construction:

Conductor:	tinned copper strands
Insulation:	
26 - 20 AWG:	semi-rigid PVC
18 - 16 AWG:	PVC/nylon
Color code:	
26 - 24 AWG:	color code, chart 2, see below
22 AWG:	color code, chart 4, see below
20 - 16 AWG:	color code chart 6, see below
Stranding:	twisted together in layers with non-wicking fillers
Shielding:	double shielding, alu-foil, tinned copper braiding and tinned drain wire
Jacket material:	PVC
Jacket color:	grayish tan (RAL 7032)

Technical data:

Nominal voltage:	300 V
Testing voltage:	2000 V
Min. bending radius: <i>fixed installation:</i>	6 x O.D.
Temperature range:	-25/+105°C
Approvals:	UL: CMG (26 - 16 AWG) PLTC & ITC (22 - 20 AWG) PLTC-ER & ITC-ER (18 - 16 AWG) CSA: CMG/FT4 AWM I/II A/B CE, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

Color Code Chart 2:

no.	Conductor color	no.	Conductor color
1	black	14	green/white
2	white	15	blue/white
3	red	16	black/red
4	green	17	white/red
5	orange	18	orange/red
6	blue	19	blue/red
7	white/black	20	red/green
8	red/black	21	orange/green
9	green/black	22	black/white/red
10	orange/black	23	white/black/red
11	blue/black	24	red/black/white
12	black/white	25	green/black/white
13	red/white		

Color Code Chart 4:

no.	Conductor color	no.	Conductor color
1	black	14	white/orange
2	brown	15	white/yellow
3	red	16	white/green
4	orange	17	white/blue
5	yellow	18	white/violet
6	green	19	white/gray
7	blue	20	white/black/brown
8	violet	21	white/black/red
9	gray	22	white/black/orange
10	white	23	white/black/yellow
11	white/black	24	white/black/green
12	white/brown	25	white/black/blue
13	white/red		

Color Code Chart 6:

no.	Conductor color	no.	Conductor color
1	black	14	red/yellow
2	red	15	red/black
3	white	16	white/black
4	green	17	white/red
5	orange	18	white/green
6	blue	19	white/yellow
7	brown	20	white/blue
8	yellow	21	white/brown
9	violet	22	white/orange
10	gray	23	white/gray
11	pink	24	white/violet
12	tan	25	white/black/red
13	red/green		

item no.	no. of conductors	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 26 AWG (7/34)				
DC3222602S	2	0.180	4.6	27
DC3222603S	3	0.186	4.7	30
DC3222604S	4	0.196	5.0	32
DC3222605S	5	0.207	5.3	34
DC3222606S	6	0.219	5.6	37
DC3222607S	7	0.221	5.6	39
DC3222608S	8	0.231	5.9	43
DC3222610S	10	0.258	6.6	51
DC3222615S	15	0.289	7.3	66
DC3222618S	18	0.307	7.8	70
DC3222625S	25	0.343	8.7	88
▶ 24 AWG (7/32)				
DC3222403S	3	0.197	5.0	35
DC3222404S	4	0.209	5.3	36
DC3222405S	5	0.221	5.6	39
DC3222406S	6	0.234	5.9	45
DC3222407S	7	0.236	6.0	46
DC3222408S	8	0.248	6.3	51
DC3222409S	9	0.261	6.6	56
DC3222410S	10	0.288	7.3	62
DC3222412S	12	0.288	7.3	67
DC3222415S	15	0.312	7.9	80
DC3222418S	18	0.332	8.4	86
DC3222420S	20	0.340	8.6	92
DC3222425S	25	0.372	9.4	111

item no.	no. of conductors	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 22 AWG (7/30)				
DC3332203S	3	0.210	5.3	40
DC3332204S	4	0.224	5.7	43
DC3332205S	5	0.237	6.0	49
DC3332206S	6	0.252	6.4	54
DC3332207S	7	0.260	6.6	57
DC3332208S	8	0.267	6.8	61
DC3332210S	10	0.312	7.9	77
DC3332212S	12	0.320	8.1	86
DC3332215S	15	0.339	8.6	99
DC3332218S	18	0.362	9.2	110
DC3332220S	20	0.371	9.4	118
DC3332225S	25	0.433	11	150
▶ 20 AWG (≈ 19/32)				
DC3332003S	3	0.229	5.8	51
DC3332004S	4	0.244	6.2	59
DC3332006S	6	0.289	7.3	73
DC3332008S	8	0.307	7.8	85
DC3332010S	10	0.348	8.8	102
DC3332015S	15	0.380	9.7	135
DC3332020S	20	0.437	11.1	169
DC3332025S	25	0.481	12.2	213
▶ 18 AWG (19/30)				
DC3331803S	3	0.314	8.0	79
DC3331804S	4	0.337	8.6	92
DC3331806S	6	0.390	9.9	116
▶ 16 AWG (26/30)				
DC3331603S	3	0.336	8.5	93
DC3331604S	4	0.361	9.2	111
DC3331606S	6	0.420	10.7	139

Other dimensions and colors are available on request

Tray Cables for Greenhouses

DC 105 C TP

Shielded, semi-rigid, twisted pair, PVC data cable
Type PLTC, ITC, and CMG



AWM I/II A/B 105°C 300V FT4 RoHS CE

Marking for DC 105 C TP DC3332203TP:

SAB North America P/N DC3332203TP 22AWG/3pr (UL) TYPE PLTC or ITC or CMG SHIELDED
105°C (DC 105 CTP) CSA TYPE CMG or AWM I/II A/B 105°C 300V FT4 RoHS CE

Construction:

Conductor:	tinned copper strands
Insulation:	
24 - 20 AWG:	semi-rigid PVC
18 - 16 AWG:	PVC/nylon
Color code:	color code, chart 3, see below
Stranding:	paired and twisted together in layers with non-wicking fillers
Shielding:	double shielding, alu-foil tinned copper braiding and tinned drain wire
Jacket material:	PVC
Jacket color:	grayish tan (RAL 7032)

Technical data:

Nominal voltage:	300 V
Testing voltage:	2000 V
Min. bending radius: <i>fixed installation:</i>	6 x O.D.
Temperature range:	-25/+105°C
Approvals:	UL: CMG (24 - 16 AWG) PLTC & ITC (22 - 20 AWG) PLTC-ER & ITC-ER (18 - 16 AWG) CSA: CMG/FT4 AWM I/II A/B CE, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

Color Code Chart 3:

Pair no.	color combination
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

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 24 AWG (7/32)				
DC3222401TP*	1	0.190	4.8	31
DC3222402TP	2	0.246	6.2	44
DC3222403TP	3	0.258	6.6	51
DC3222404TP	4	0.292	7.4	57
DC3222405TP	5	0.307	7.8	65
DC3222406TP	6	0.328	8.3	73
DC3222408TP	8	0.351	8.9	85
DC3222409TP	9	0.373	9.5	97
DC3222415TP	15	0.460	11.7	151
▶ 22 AWG (7/30)				
DC3332201TP*	1	0.203	5.2	32
DC3332202TP	2	0.266	6.8	50
DC3332203TP	3	0.289	7.3	63
DC3332204TP	4	0.323	8.2	71
DC3332205TP	5	0.333	8.5	80
DC3332206TP	6	0.358	9.1	90
DC3332208TP	8	0.383	9.7	107
DC3332209TP	9	0.429	10.9	128
DC3332211TP	11	0.460	11.7	154
DC3332215TP	15	0.505	12.8	188

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 20 AWG (≈ 19/32)				
DC3332001TP	1	0.220	5.6	42
DC3332002TP	2	0.305	7.7	67
DC3332003TP	3	0.321	8.2	80
DC3332004TP	4	0.345	8.8	95
DC3332006TP	6	0.422	10.7	129
DC3332009TP	9	0.482	12.2	180
DC3332015TP	15	0.572	14.5	254
▶ 18 AWG (19/30)				
DC3331801TP	1	0.300	7.6	68
DC3331802TP	2	0.415	10.5	106
DC3331803TP	3	0.439	11.2	128
DC3331804TP	4	0.476	12.1	162
DC3331806TP	6	0.595	15.1	231
DC3331809TP	9	0.686	17.4	312
DC3331815TP	15	0.823	20.9	461
▶ 16 AWG (26/30)				
DC3331601TP	1	0.320	8.1	78
DC3331602TP	2	0.448	11.4	124
DC3331603TP	3	0.474	12.0	162
DC3331604TP	4	0.515	13.1	192

*DC3222401TP & DC3332201TP: black paired with white color code

Tray Cables for Greenhouses

TR 600 S

UV and oil resistant 90°C flexible tray cable

Type TC-ER, MTW, WTTC, and CSA approved



-25°C SR FT4 OR AWM I/II A/B 90C 1000V FT4 RoHS



Marking for TR 600 S 93331641:

SAB NORTH AMERICA TR 600 S 93331641 16 AWG/41C (UL) TC-ER 90C DRY/WET 600V SUN RES DIR BUR OIL RES I/II OR WTTC 1000V OR MTW

"FLEXING" OR DP-1 OR AWM 2586 105°C CSA CIC-TC PVC/N 90°C DRY 75°C WET 600V -25°C SR FT4 OR AWM I/II A/B 90C 1000V FT4 RoHS

Construction:

Conductor:	bare copper strands class K (30 AWG multiple strands)
Insulation:	special formulated PVC/Nylon
Color code:	black conductors with consecutive white numbers; green/yellow ground from 3 conductors
Stranding:	in layers
Jacket material:	special oil resistant pressure extruded PVC
Jacket color:	black (RAL 9005)

Outstanding features:

- flexible stranding for easy installation
- oil resistant meeting UL Oil Res I and II
- NFPA 79 for Industrial Machinery
- UL TC-ER (exposed runs)
- CSA approved for TC
- Submersible pump (14 AWG ≥ 3 thru 7 cond.)
- WTTC: Wind Turbine tray cable
- 90°C Wet rated
- Class 1 Div 2 per NEC Article 501.4 (B)

Technical data:

Voltage:	UL-AWM / (UL) / CSA: 600 V (UL) WTTC: 1000 V
Testing voltage:	2500 V
Min. bending radius: <i>fixed installation:</i> <i>free movement:</i>	4 x O.D. 6 x O.D.
Temperature range: <i>static:</i>	UL -AWM (UL) / CSA: up to +105°C up to +90°C -40°C
Burning characteristics:	(UL) FT4 and CSA FT1, FT2, FT4
Oil resistance I & II:	yes
Sunlight resistance:	yes
Exposed runs:	yes
Cold bend test:	-40°C
Direct burial:	yes
Machinery area:	yes
Approvals:	UL TC-ER UL MTW, UL WTTC, UR AWM, CSA CIC-TC, 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 incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 18 AWG				
93331802*	2	0.286	7.3	45
93331803	3	0.300	7.6	55
93331804	4	0.324	8.2	67
93331805	5	0.349	8.9	79
93331807	7	0.376	9.6	100
93331809	9	0.432	11.0	125
93331812	12	0.480	12.2	157
93331818	18	0.596	15.1	244
93331825	25	0.686	17.4	319
93331850	50	0.940	23.9	622
▶ 16 AWG				
93331602*	2	0.306	7.8	52
93331603	3	0.321	8.2	70
93331604	4	0.348	8.8	81
93331605	5	0.376	9.6	96
93331607	7	0.412	10.5	126
93331608	8	0.440	11.2	137
93331609	9	0.473	12.0	152
93331612	12	0.527	13.4	196
93331616	16	0.613	15.6	273
93331618	18	0.646	16.4	300
93331619	19	0.646	16.4	310
93331625	25	0.746	18.9	395
93331634	34	0.884	22.5	544
93331637	37	0.896	22.8	592
93331641	41	0.945	24.0	654
93331650	50	1.025	26.0	756

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 14 AWG				
93331402*	2	0.346	8.8	65
93331403	3	0.364	9.2	88
93331404	4	0.396	10.1	112
93331405	5	0.430	10.9	130
93331407	7	0.472	12.0	169
93331409	9	0.578	14.7	236
93331412	12	0.644	16.4	297
93331418	18	0.744	18.9	417
93331425	25	0.904	23.0	596
▶ 12 AWG				
93331202*	2	0.385	9.8	99
93331203	3	0.403	10.2	120
93331204	4	0.440	11.2	150
93331205	5	0.479	12.2	189
93331207	7	0.526	13.4	240
▶ 10 AWG				
93331003	3	0.487	12.4	179
93331004	4	0.568	14.4	248
93331005	5	0.618	15.7	298
93331007	7	0.674	17.1	403
▶ 8 AWG				
93330803	3	0.662	16.8	309
93330804	4	0.728	18.5	388
93330805	5	0.826	21.0	465
▶ 6 AWG				
93330603	3	0.765	19.4	443
93330604	4	0.879	22.3	580
93330605	5	0.954	24.2	717

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 4 AWG				
93330403	3	0.966	24.5	696
93330404	4	1.061	26.9	845
93330405	5	1.179	29.9	1035
▶ 2 AWG				
93330203	3	1.114	28.3	977
93330204	4	1.160	29.5	1215
93330205	5	1.363	34.6	1575
▶ 1 AWG				
93330104	4	1.401	35.6	1588
▶ 1/0 AWG				
93331104	4	1.458	37.0	1971
▶ 2/0 AWG				
93332104	4	1.588	40.3	2301
▶ 3/0 AWG				
93333104	4	1.733	44.0	2946
▶ 4/0 AWG				
93334104	4	1.841	46.8	3459
▶ 250 MCM				
93332504	4	2.138	54.3	4538
▶ 350 MCM				
93333504	4	2.335	59.3	5591
▶ 500 MCM				
93335004	4	2.815	71.5	8065

Other dimensions and colors are available on request
* 2 conductor cables are rated UL TC only

UL TC-ER-JP (joist pull) available upon request

Tray Cables for Greenhouses

TR 600 S CY

UV and oil resistant 90°C shielded flexible tray cable
Type TC-ER, MTW, WTTC, and CSA approved



Marking for TR 600 S CY 93341604:

SAB NORTH AMERICA TR 600 S CY 93341604 16 AWG/ 4C (UL) TC-ER 90C DRY/WET 600V SUN RES DIR BUR OIL RES I/II OR WTTC 1000V OR
MTW "FLEXING" OR DP-1 OR AWM 2586 105°C CSA CIC-TC PVC/N 90°C DRY 75°C WET 600V -25°C SR FT4 OR AWM I/II A/B 90C 1000V FT4 RoHS CE

Construction:

Conductor:	bare copper strands class K (30 AWG multiple strands)
Insulation:	special formulated PVC/Nylon
Color code:	black conductors with consecutive white numbers; green/yellow ground from 3 conductors
Stranding:	in layers
Wrapping:	fleece tape
Shielding:	tinned copper braiding (85% coverage)
Jacket material:	special oil resistant pressure extruded PVC
Jacket color:	black (RAL 9005)

Outstanding features:

- flexible stranding for easy installation
- oil resistant meeting UL Oil Res I and II
- NFPA 79 for Industrial Machinery
- UL TC-ER (exposed run)
- CSA approved for TC
- Submersible pump (14 AWG ≥ 3 thru 7 cond.)
- WTTC: Wind Turbine tray cable
- 90°C Wet rated
- Class 1 Div 2 per NEC Article 501.4 (B)

Technical data:

Voltage:	UL-AWM / (UL) / CSA: 600 V (UL) WTTC: 1000 V
Testing voltage:	2500 V
Min. bending radius: <i>fixed installation:</i> <i>free movement:</i>	6 x O.D. 8 x O.D.
Temperature range: <i>static:</i>	UL -AWM up to +105°C -40°C (UL) / CSA: up to +90°C
Burning characteristics:	(UL) FT4 and CSA FT1, FT2, FT4
Oil resistance I & II:	yes
Sunlight resistance:	yes
Exposed runs:	yes
Cold bend test:	-40°C
Direct burial:	yes
Machinery area:	yes
Approvals:	UL TC-ER, UL MTW, UL WTTC, UR AWM, CSA CIC-TC, 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 incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 18 AWG				
93341803	3	0.324	8.2	71
93341804	4	0.348	8.8	85
93341805	5	0.373	9.5	95
93341807	7	0.400	10.2	120
93341809	9	0.455	11.6	149
93341812	12	0.504	12.8	185
93341818	18	0.617	15.7	270
93341825	25	0.710	18.0	365
▶ 16 AWG				
93341603	3	0.345	8.8	83
93341604	4	0.372	9.4	100
93341605	5	0.400	10.2	116
93341607	7	0.430	10.9	145
93341609	9	0.492	12.5	187
93341612	12	0.579	14.7	245
93341618	18	0.664	16.9	335
93341625	25	0.770	19.6	445

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 14 AWG				
93341403	3	0.388	9.9	108
93341404	4	0.420	10.7	131
93341405	5	0.454	11.5	155
93341407	7	0.490	12.4	190
93341412	12	0.662	16.8	350
93341418	18	0.764	19.4	482
93341425	25	0.924	23.5	701
▶ 12 AWG				
93341203	3	0.427	10.8	145
93341204	4	0.464	11.8	178
93341205	5	0.506	12.9	210
93341207	7	0.578	14.7	307
▶ 10 AWG				
93341003	3	0.562	14.3	190
93341004	4	0.568	14.4	250
93341005	5	0.643	16.3	350
93341007	7	0.695	17.7	408

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 8 AWG				
93340804	4	0.759	19.3	447
▶ 6 AWG				
93340604	4	0.915	23.2	672
93340605	5	0.936	23.8	766
▶ 4 AWG				
93340404	4	1.097	27.9	993
▶ 2 AWG				
93340204	4	1.271	32.3	1455

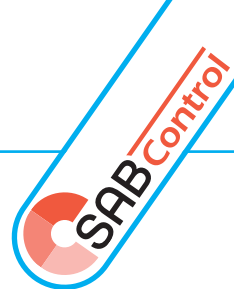
Other dimensions and colors are available on request

UL TC-ER-JP (joist pull) available upon request

Control & Power Cables for Greenhouses

CC 600

Oil Resistant 90°C flexible control cable with black conductors



Marking for CC 600 2041604:

SAB BRÖCKSKES · D-VIERSEN · <VDE-REG 7000> 4x1.5mm² CC 600 16 AWG/4c 2041604

AWM Style 21216 90°C Oil 60°C 600V CSA AWM I/II A/B 90°C F 600V FT1 FT2 CE

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	special PVC acc. to VDE and UL/CSA
Color code:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
Stranding:	in layers
Jacket material:	special oil resistant PVC acc. to VDE and UL/CSA
Jacket color:	gray (RAL 7000)

Outstanding features:

- UL recognized, CSA approved
- high mechanical loading capacity
- oil resistant
- acc. to VDE-Reg. no. 7000

Technical data:

Nominal voltage:	U ₀ /U 300/500 V
Voltage UL/CSA:	600 V
Testing voltage:	conductor/conductor: 3000 V
Min. bending radius:	
fixed installation:	4 x O.D.
free movement:	6 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range:	DIN VDE UL/CSA: up to +90°C
static:	-40/+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:	very good - TM5 acc. to EN 50363-4-1 + VDE 0207-363-4-1, Oil 60°C acc. to UL 758, Fuel Oil acc. to CSA-C 22.2 No. 210
Chemical resistance:	see page O/11
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 20 AWG (≈ 16/32) • 0.50 mm ²			
2042002	2	0.209 5.3	28
2042003	3	0.220 5.6	32
2042004	4	0.236 6.0	38
2042005	5	0.264 6.7	47
2042007	7	0.283 7.2	58
2042008	8	0.335 8.5	73
2042009	9	0.362 9.2	84
2042010	10	0.370 9.4	85
2042012	12	0.382 9.7	96
2042014	14	0.398 10.1	108
2042016	16	0.429 10.9	125
2042018	18	0.449 11.4	138
2042025	25	0.547 13.9	189
2042034	34	0.614 15.6	249
2042041	41	0.665 16.9	287
2042061	61	0.780 19.8	422
▶ 18 AWG (≈ 30/32) • 1.00 mm ²			
2041802	2	0.236 6.0	37
2041803	3	0.252 6.4	46
2041804	4	0.276 7.0	55
2041805	5	0.307 7.8	69
2041807	7	0.335 8.5	86
2041809	9	0.425 10.8	122
2041810	10	0.433 11.0	125
2041812	12	0.445 11.3	142
2041814	14	0.476 12.1	165
2041815	15	0.500 12.7	180
2041818	18	0.535 13.6	209
2041825	25	0.646 16.4	285
2041834	34	0.728 18.5	376
2041841	41	0.783 19.9	434
2041850	50	0.882 22.4	533
2041861	61	0.933 23.7	649

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 16 AWG (≈ 27-29/30) • 1.50 mm ²			
2041602	2	0.264 6.7	48
2041603	3	0.280 7.1	58
2041604	4	0.311 7.9	73
2041605	5	0.339 8.6	88
2041607	7	0.378 9.6	115
2041608	8	0.441 11.2	140
2041609	9	0.480 12.2	162
2041612	12	0.504 12.8	189
2041615	15	0.563 14.3	229
2041618	18	0.602 15.3	277
2041625	25	0.728 18.5	382
2041630	30	0.760 19.3	448
2041634	34	0.827 21.0	511
2041641	41	0.902 22.9	597
2041650	50	0.980 24.9	714
2041661	61	1.051 26.7	880
▶ 14 AWG (≈ 46/30) • 2.50 mm ²			
2041402	2	0.319 8.1	73
2041403	3	0.339 8.6	89
2041404	4	0.374 9.5	112
2041405	5	0.417 10.6	140
2041407	7	0.457 11.6	177
2041409	9	0.587 14.9	267
2041412	12	0.618 15.7	296
2041418	18	0.736 18.7	432
2041425	25	0.909 23.1	607

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 12 AWG (≈ 52/28) • 4.00 mm ²			
2041203	3	0.402 10.2	132
2041204	4	0.445 11.3	165
2041205	5	0.496 12.6	204
2041207	7	0.547 13.9	267
2041212	12	0.740 18.8	447
▶ 10 AWG (≈ 78/28) • 6.00 mm ²			
2041003	3	0.476 12.1	191
2041004	4	0.520 13.2	236
2041005	5	0.587 14.9	296
2041007	7	0.669 17.0	403
▶ 8 AWG (≈ 69/26)			
2040803	3	0.618 15.7	333
2040804	4	0.689 17.5	411
2040805	5	0.768 19.5	503
▶ 6 AWG (≈ 110/26)			
2040604	4	0.839 21.3	632
2040605	5	0.945 24.0	799
▶ 4 AWG (≈ 175/26)			
2040404	4	1.043 26.5	985
▶ 2 AWG (≈ 272/26)			
2040204	4	1.197 30.4	1349
▶ 1 AWG (≈ 342/26)			
2040104	4	1.374 34.9	1902

Other dimensions and colors are available on request



also available with blue, red or
orange conductors and black
or orange jacket

Control & Power Cables for Greenhouses

CC 600 CY

Oil Resistant 90°C flexible shielded control cable



Marking for CC 600 CY 2591804:

SAB BRÖCKSKES · D-VIERSEN · <VDE-REG 7000> 4x1.0mm² CC 600 CY 18 AWG/4c 2591804 AWM Style 21216 90°C 600V Oil 60°C CSA AWM I/II A/B 90°C F 600V FT1 FT2 CE

Construction:

Conductor: AWG 20 - 10:	bare copper strands acc. to IEC 60228, VDE 0295, class 5
AWG 8 - 1:	bare copper strands acc. to UL/CSA
Insulation:	special PVC acc. to VDE and UL/CSA
Color code:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
Stranding:	in layers
Inner Jacket:	special PVC acc. to VDE and UL/CSA
Shielding:	tinned copper braiding
Jacket material:	special oil resistant PVC acc. to VDE and UL/CSA
Jacket color:	gray (RAL 7000)

Outstanding features:

- UL recognized, CSA approved
- high mechanical loading capacity
- oil resistant
- AWG 20 - AWG 10:
built acc. to VDE-Reg. no. 7000
- good EMC characteristics

Technical data:

Nominal voltage:	U ₀ /U 300/500 V
Voltage UL/CSA:	600 V
Testing voltage:	conductor/conductor: 3000 V conductor/shielding: 2000 V
Min. bending radius: fixed installation: free movement:	5 x O.D. 10 x O.D.
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range: static: flexible:	DIN VDE UL/CSA: up to +90°C -40/+70°C +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:	very good - TM5 acc. to DIN VDE 0281 part 1 + HD 21.1, Oil 60°C acc. to UL 758, Fuel Oil acc. to CSA-C 22.2 No. 210
Chemical resistance:	see page O/11
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 20 AWG (≈ 16/32) • 0.50 mm ²			
2592002	2	0.291 7.4	55
2592003	3	0.311 7.9	64
2592004	4	0.331 8.4	73
2592005	5	0.358 9.1	85
2592007	7	0.378 9.6	98
2592010	10	0.469 11.9	148
2592012	12	0.492 12.5	163
2592025	25	0.657 16.7	288
▶ 18 AWG (≈ 30/32) • 1.0 mm ²			
2591802	2	0.327 8.3	71
2591803	3	0.339 8.6	79
2591804	4	0.370 9.4	95
2591805	5	0.402 10.2	117
2591807	7	0.437 11.1	140
2591809	9	0.535 13.6	195
2591812	12	0.555 14.1	218
2591818	18	0.642 16.3	310
2591825	25	0.772 19.6	411

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 16 AWG (≈ 27-29/30) • 1.50 mm ²			
2591602	2	0.358 9.1	87
2591603	3	0.374 9.5	98
2591604	4	0.406 10.3	122
2591605	5	0.433 11.0	144
2591607	7	0.480 12.2	176
2591612	12	0.614 15.6	274
2591618	18	0.724 18.4	394
2591625	25	0.878 22.3	548
▶ 14 AWG (≈ 46/30) • 2.50 mm ²			
2591403	3	0.441 11.2	144
2591404	4	0.476 12.1	172
2591405	5	0.520 13.2	206
2591407	7	0.567 14.4	256
2591412	12	0.744 18.9	418
2591418	18	0.874 22.2	585
2591425	25	1.028 26.1	773

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 12 AWG (≈ 52/28) • 4.00 mm ²			
2591203	3	0.512 13.0	201
2591204	4	0.555 14.1	243
2591205	5	0.602 15.3	285
2591207	7	0.665 16.9	372
▶ 10 AWG (≈ 78/28) • 6.00 mm ²			
2591003	3	0.587 14.9	273
2591004	4	0.630 16.0	323
2591005	5	0.705 17.9	406
2591007	7	0.772 19.6	511
▶ 8 AWG (≈ 69/26)			
2590804	4	0.807 20.5	531
▶ 6 AWG (≈ 110/26)			
2590604	4	0.957 24.3	746
▶ 4 AWG (≈ 175/26)			
2590404	4	1.157 29.4	1144
▶ 2 AWG (≈ 272/26)			
2590204	4	1.346 34.2	1564
▶ 1 AWG (≈ 342/26)			
2590104	4	1.441 36.6	1882

Other dimensions and colors are available on request

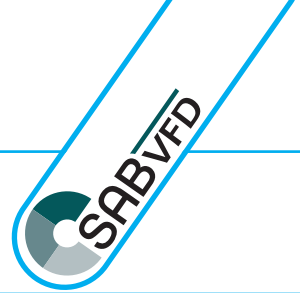


also available with blue, red
or orange conductors and
black or orange jacket

VFD Cables for Greenhouses

VFD XLPE TR

Variable frequency drive - double shielded VFD cable with XLPE insulation
Type TC-ER



Marking for VFD XLPE TR 35681404:

SAB NORTH AMERICA VFD XLPE TR P/N 35681404 (UL) Type TC-ER 14AWG/3C RHW-2 CDRS + GNDG CDR 90C Dry/Wet 600V, Oil Res I & II, Sunlight Resistant, Direct Burial, (UL) WTTC 1000V, (UL) Flexible Motor Supply Cable, c(UL) CIC-TC XLPE 600V FT4, CSA AWM I/II A/B 90C 1000V FT4 RoHS CE

Construction:

Conductor:	tinned copper strands class K
Insulation:	special formulated crosslinked PE, ground wire PVC
Color code:	blackish gray conductors with consecutive white numbers and green/yellow ground
Stranding:	in layers
Shielding:	double shield, AMA foil and tinned copper braiding
Jacket material:	special sunlight and oil resistant copolymer
Jacket color:	black (RAL 9005)

Outstanding features:

- interconnection of variable frequency drive control device to variable frequency motors
- UL 90°C wet
- WTTC: UL subject 2277
- TC-ER UL standard 1277
- UL flexible motor supply cable 1000 V
- crosslinked conductors, better for longer installations
- Oil Res I & II
- double shielded (100% shielded)
- Class 1 Div 2 per NEC Article 501.4 (B)

Technical data:

Voltage:	(UL) / c(UL): 600 V CSA-AWM: 1000 V (UL) WTTC: 1000 V
Testing voltage:	3000 V
Min. bending radius:	12 x O.D.
Temperature range:	(UL) / c(UL) / CSA-AWM: static: up to +90°C -40/105°C
Burning characteristics:	(UL) / c(UL) FT4, c(UL) / CSA-AWM FT1, FT2
Oil resistance I & II:	yes
Sunlight resistance:	yes
Exposed runs:	yes
Cold bend test:	-40°C
Direct burial:	yes
Approvals:	UL TC-ER, UL WTTC, c(UL) CIC-TC, CSA AWM, CE, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30



Temperature resistant
down to -40°C
Heavy duty application

item no.	AWG/c	nominal outer-ø		cable weight ≈lbs/mft
		inch 10%	mm 10%	
▶ 35681604	16/4c	0.477	12.1	125
▶ 35681404	14/4c	0.522	13.3	159
▶ 35681204	12/4c	0.592	15.0	214
▶ 35681004	10/4c	0.680	17.3	294
▶ 35680804	8/4c	0.886	22.5	556
▶ 35680604	6/4c	0.968	24.6	736
▶ 35680404	4/4c	1.090	27.7	1079
▶ 35680204	2/4c	1.247	31.7	1550
▶ 35680104	1/4c	1.444	36.7	1190

* UL TC-ER-JP (joist pull) available upon request

Larger AWG Sizes - minimum may apply

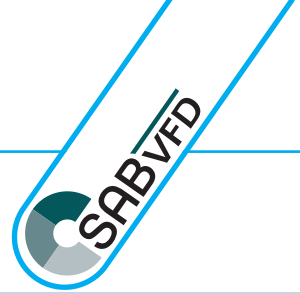
item no.	AWG/c	nominal outer-ø		cable weight ≈lbs/mft
		inch 10%	mm 10%	
▶ 35681104	1/0-4c	1.565	39.8	2168
▶ 35682104	2/0-4c	1.661	42.2	2550
▶ 35683104	3/0-4c	1.830	46.5	3135
▶ 35684104	4/0-4c	2.083	52.9	3844
▶ 35682504	250/4c	2.217	56.3	4566
▶ 35683504	350/4c	2.471	62.8	6106
▶ 35685004	500/4c	3.121	79.3	8609

Other dimensions and colors are possible on request.

VFD Cables for Greenhouses

VFD Combo XLPE

Variable frequency drive - double shielded VFD cable with XLPE insulation and shielded pair, Type TC-ER



FT4 CSA AWM I/II A/B 90°C 1000V FT1 FT2 CE



Marking for VFD Combo XLPE 35691404:

SAB NORTH AMERICA VFD Combo XLPE P/N 35691404 (UL) Type TC-ER 14AWG/3C RHW-2 CDRS + GNDG CDR + 14AWG/1PR 90C Dry/Wet 600V,

Oil Res I & II, Sunlight Resistant, Direct Burial, (UL) WTTC 1000V, (UL) Flexible Motor Supply Cable, c(UL) CIC-TC XLPE 600V FT4, CSA AWM I/II A/B 90C 1000V FT4 RoHS CE

Construction:

Conductor:	tinned copper strands class K
Insulation:	special formulated crosslinked PE, ground wire: PVC, pair: PVC/Nylon
Color code:	blackish gray conductors with consecutive white numbers and green/yellow ground, pair is black with white #5 and #6
Stranding:	in layers
Shielding (pair):	aluminum foil and drain wire (drain wire same size as pair)
Shielding (overall):	double shield, AMA foil and tinned copper braiding
Jacket material:	special sunlight and oil resistant copolymer
Jacket color:	black (RAL 9005)

Outstanding features:

- interconnection of variable frequency drive control device to variable frequency motors
- shielded pairs for a brake or temperature sensor
- WTTC: UL subject 2277
- TC-ER: UL standard 1277
- UL flexible motor supply cable 1000 V
- crosslinked conductors, better for longer installations
- Oil Res I & II
- double shielded (100% shielded)
- rated for UL 90°C wet
- Class 1 Div 2 per NEC Article 501.4 (B)

Technical data:

Voltage:	(UL) / c(UL): 600 V CSA-AWM: 1000 V (UL) WTTC: 1000 V
Testing voltage:	3000 V
Min. bending radius:	12 x O.D.
Temperature range:	(UL) / c(UL) / CSA-AWM: up to +90°C -40/105°C
static:	
Burning characteristics:	(UL) / c(UL) FT4, c(UL) / CSA-AWM FT1, FT2
Oil resistance I & II:	yes
Sunlight resistance:	yes
Exposed runs:	yes
Cold bend test:	-40°C
Direct burial:	yes
Approvals:	UL TC-ER, UL WTTC, c(UL) CIC-TC, CSA AWM, CE, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30



Temperature resistant
down to -40°C
Heavy duty application

item no.	AWG/c	AWG/pair	nominal outer-ø		cable weight ≈lbs/mft
			inch 10%	mm 10%	
▶ 35691614	16/4c	18/1pr	0.573	14.6	144
▶ 35691624D	16/4c	16/1pr	0.580	14.7	210
▶ 35691414	14/4c	18/1pr	0.616	15.6	175
▶ 35691404	14/4c	14/1pr	0.628	16.0	213
▶ 35691424D	14/4c	16/1pr	0.626	15.9	257
▶ 35691464	14/4c	18/2pr	0.662	16.8	254
▶ 35691214	12/4c	18/1pr	0.654	16.6	231
▶ 35691224D	12/4c	16/1pr	0.662	16.8	308
▶ 35691204	12/4c	14/1pr	0.667	16.9	277
▶ 35691264	12/4c	18/2pr	0.698	17.7	299
▶ 35691004	10/4c	14/1pr	0.736	18.7	354
▶ 35691024D	10/4c	16/1pr	0.746	18.9	417

item no.	AWG/c	AWG/pair	nominal outer-ø		cable weight ≈lbs/mft
			inch 10%	mm 10%	
▶ 35691064	10/4c	18/2pr	0.762	19.4	383
▶ 35690804	8/4c	14/1pr	0.960	24.4	536
▶ 35690864	8/4c	18/2pr	0.961	24.4	576
▶ 35690604	6/4c	14/1pr	1.030	26.2	726
▶ 35690664	6/4c	16/2pr	1.032	26.2	766
▶ 35690404	4/4c	14/1pr	1.140	29.0	1011
▶ 35690464	4/4c	14/2pr	1.192	30.3	1068
▶ 35690204	2/4c	14/1pr	1.280	32.5	1401

Other dimensions and colors are possible on request.

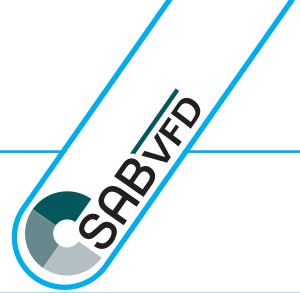
D means drain wire in P/N

* UL TC-ER-JP (joist pull) available upon request

VFD Cables for Greenhouses

VFD Symmetrical XLPE TR

Variable frequency drive - double shielded VFD cable with XLPE insulation and 3 symmetrical grounds, Type TC-ER



600V FT4, CSA AWM I/II A/B 90C 1000V FT4 RoHS CE



Marking for VFD Symmetrical XLPE TR 35681003:

SAB NORTH AMERICA VFD Symmetrical XLPE TR P/N 35681003 (UL) TC-ER 10AWG/3C RHW-2 CDRS + 3 x 14 AWG GNDS 90C Dry/Wet, Oil Resistant I/II, Sunlight Resistant, Direct Burial, (UL) WTTC 1000V, (UL) Flexible Motor Supply Cable, c(UL) CIC-TC XLPE 600V FT4, CSA AWM I/II A/B 90C 1000V FT4 RoHS CE

Construction:

Conductor:	tinned copper strands class K
Insulation:	special formulated crosslinked PE
Color code:	blackish gray conductors with consecutive white numbers
Stranding:	in layers with 3 tinned ground wires in the interstices
Shielding:	double shield, AMA foil and tinned copper braiding
Jacket material:	special sunlight and oil resistant copolymer
Jacket color:	black (RAL 9005)

Outstanding features:

- interconnection of variable frequency drive control device to variable frequency motors
- WTTC approval
- finer strand for better flexibility
- TC-ER: UL standard 1277
- UL flexible motor supply cable 1000 V
- crosslinked conductors, better for longer installations
- Oil Res I & II
- double shielded (100% shielded)
- 3 symmetrical grounds
- Class 1 Div 2 per NEC Article 501.4 (B)

Technical data:

Voltage:	(UL) / c(UL): 600 V CSA-AWM: 1000 V (UL) WTTC: 1000 V
Testing voltage:	3000 V
Min. bending radius:	12 x O.D.
Temperature range:	(UL) / c(UL) / CSA-AWM: static: up to +90°C -40/105°C
Burning characteristics:	(UL) / c(UL) FT4, c(UL) / CSA-AWM FT1, FT2
Oil resistance I & II:	yes
Sunlight resistance:	yes
Exposed runs:	yes
Cold bend test:	-40°C
Direct burial:	yes
Approvals:	UL TC-ER, UL WTTC, c(UL) CIC-TC, CSA AWM, CE, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	AWG/c kcmil/c	ground wire n x AWG	nominal outer-ø inch 10%	mm 10%	cable weight ≈lbs/mft
▶ 35681403	14/3c	3x18	0.501	12.7	170
▶ 35681203	12/3c	3x16	0.570	14.5	230
▶ 35681003	10/3c	3x14	0.642	16.3	312
▶ 35680803	8/3c	3x14	0.811	20.6	465
▶ 35680603	6/3c	3x12	0.954	24.2	674
▶ 35680403	4/3c	3x12	1.062	27.0	877
▶ 35680203	2/3c	3x10	1.226	31.1	1266
▶ 35680103	1/3c	3x8	1.305	33.1	1545
▶ 35681103	1/0-3c	3x8	1.408	35.8	1757
▶ 35682103	2/0-3c	3x8	1.507	38.3	2167
▶ 35683103	3/0-3c	3x6	1.601	40.7	2508
▶ 35684103	4/0-3c	3x6	1.890	48.0	3060
▶ 35682503	250/3c	3x6	2.005	50.9	3680
▶ 35683503	350/3c	3x2	2.231	56.7	5170
▶ 35685003	500/3c	3x2	2.490	63.2	6353

Other dimensions and colors are possible on request.



Temperature resistant
down to -40°C

Heavy duty application

Type TC-ER



WTTC 1000V OR AWM 21270 105C 600V OR c (UL) CIC-TC PVC/N 600V FT4 CSA AWM I/II A/B 90C 600V FT4 RoHS CE

Conductor:	bare copper strands class M
Insulation:	special formulated PVC/Nylon
Color code:	black with numerical print* and one green/yellow earth ground** *Alpha-Numeric Alternate and Inverted, ie: 1-ONE
Stranding:	in layers with fleece tape separator
Jacket material:	TPE
Jacket color:	black (RAL 9005)

- heavy duty tray cable and control and instrumentation cable
- UL-AWM 21270 recognized for 105°C
- extremely oil resistant
- WTTC: UL subject 2277
- TC: UL standard 1277
- CSA listed
- NFPA 79 for Industrial Machinery
- c(UL) CIC-TC FT4
- continuous flex applications
- Class 1 Div 2 per NEC Article 501.4 (B)

Voltage:	UL-AWM / (UL) / c(UL): (UL) WTTTC:	600 V 1000 V
Testing voltage:	2500 V	
Min. bending radius: <i>fixed installation:</i> <i>free movement:</i> <i>continuous flexing:</i>	4 x O.D. 6 x O.D. 10 x O.D.	
Temperature range: <i>static:</i>	UL-AWM up to +105°C -40°C	(UL) / c(UL) / CSA-AWM: up to +90°C
Cold bend test:	-40°C	
Burning characteristics:	(UL) Vertical Tray Flame and c(UL) FT1, FT2, FT4	
Oil resistance I & II:	yes	
Exposed runs:	yes	
Approvals:	UL TC-ER, UL WTTTC, UR AWM, c(UL) CIC-TC, CSA AWM, CE, RoHS	
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30	
Alt. Color code:	** Add B at the end of Part No. for Blue conductors blue conductors with numbers; one white-blue conductor and green/yellow ground ** Add R at the end of Part No. for Red conductors red conductors with numbers; one white-red conductor and green/yellow ground	

item no.	no. of conductors incl. ground	nominal inch	outer-ø mm	cable weight ≈lbs/mft
▶ 8 AWG				
32320804	4	0.756	19.2	385
32320805	5	0.826	21.0	465
▶ 6 AWG				
32320603	3	0.767	19.5	426
32320604	4	0.879	22.3	580
▶ 4 AWG				
32320404	4	1.061	26.9	845
32320405	5	1.177	29.9	1035
▶ 2 AWG				
32320204	4	1.235	31.4	1278
32320205	5	1.363	34.6	1575

Other dimensions and colors are available on request



- with gray jacket as well as blue
- or red conductors

* For blue conductors add B at end of P/N, for red add an R, ie 32321404B

Continuous Flex Cables for Greenhouses

TR 600 Auto C HD

Shielded continuous flex heavy duty tray cable

Type TC-ER



CSA AWM I/II A/B 90C 600V FT4 RoHS CE



Marking for TR 600 Auto C HD 32421604:

SAB NORTH AMERICA TR 600 Auto HD 16AWG/4c P/N 32421604 (UL) TC-ER 90C DRY 75 C WET 600V OIL RES I/II SUN RES DIR BUR OR

WTTC 1000V OR AWM 21270 105C 600V OR c (UL) CIC-TC PVC/N 600V FT4 CSA AWM I/II A/B 90C 600V FT4 RoHS CE

Construction:

Conductor:	bare copper strands class M
Insulation:	special formulated PVC/Nylon
Color code:	black with numerical print* and one green/yellow earth ground** *Alpha-Numeric Alternate and Inverted, ie: 1-ONE
Stranding:	in layers
Wrapping:	fleece binder
Shielding:	tinned copper braiding (85% coverage)
Separator:	tissue tape
Jacket material:	TPE
Jacket color:	black (RAL 9005)

Outstanding features:

- heavy duty tray cable and control and instrumentation cable
- UL-AWM 21270 recognized for 105°C
- extremely oil resistant
- WTTC: UL subject 2277
- TC: UL standard 1277
- CSA listed
- NFPA 79 for Industrial Machinery
- c(UL) CIC-TC FT4
- continuous flex applications
- Class 1 Div 2 per NEC Article 501.4 (B)

Technical data:

Voltage:	UL-AWM / (UL) / c(UL): 600 V (UL) WTTC: 1000 V
Testing voltage:	2500 V
Min. bending radius:	fixed installation: 5 x O.D. free movement: 10 x O.D. continuous flexing: 12 x O.D.
Temperature range:	UL-AWM (UL) / c(UL) / CSA-AWM: static: up to +105°C up to +90°C -40°C
Cold bend test:	-40°C
Burning characteristics:	(UL) Vertical Tray Flame and c(UL) FT1, FT2, FT4
Oil resistance I & II:	yes
Exposed runs:	yes
Approvals:	UL TC-ER, UL WTTC, UR AWM, c(UL) CIC-TC, CSA AWM, CE, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30
Alt. Color code:	** Add B at the end of Part No. for Blue conductors: blue conductors with numbers; one white-blue conductor and green/yellow ground ** Add R at the end of Part No. for Red conductors: red conductors with numbers; one white-red conductor and green/yellow ground

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 18 AWG			
32421803	3	0.322 8.2	45
32421804	4	0.345 8.8	85
32421807	7	0.425 10.8	120
32421812	12	0.500 12.7	185
32421818	18	0.609 15.5	260
32421825	25	0.714 18.1	307
▶ 16 AWG			
32421603	3	0.356 9.0	78
32421604	4	0.384 9.8	100
32421605	5	0.414 10.5	127
32421607	7	0.478 12.1	145
32421612	12	0.600 15.2	245
32421618	18	0.669 17.0	337
32421625	25	0.883 22.4	541

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 14 AWG			
32421403	3	0.381 9.7	108
32421404	4	0.411 10.4	123
32421405	5	0.443 11.3	147
32421407	7	0.515 13.1	185
▶ 12 AWG			
32421204	4	0.478 12.1	178
32421205	5	0.519 13.2	210
32421207	7	0.586 14.9	272
▶ 10 AWG			
32421004	4	0.613 15.6	280
32421005	5	0.673 17.1	350
▶ 8 AWG			
32420804	4	0.785 19.9	450

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 6 AWG			
32420604	4	0.914 23.2	630
▶ 4 AWG			
32420404	4	1.094 27.8	945
▶ 2 AWG			
32420204	4	1.264 32.1	1450

Other dimensions and colors are available on request



Possible on request:

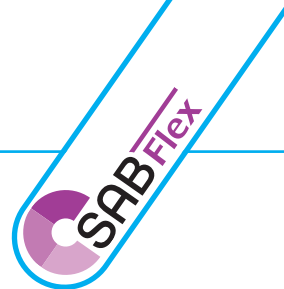
- with blue or red conductors

* For blue conductors add B at end of P/N, for red add an R, ie 32421404B

Continuous Flex Cables for Greenhouses

S 900

Continuous flex oil resistant power supply cable for small bend radius applications



10455 90°C 600V CSA AWM I/II A/B 90°C 600V FT1 FT2



Marking for S 900 7671362:

SAB BRÖCKSKES · D-VIERSEN · 7670601 16.0 mm² S 900 6 AWG 7671362 AWM Style 10455 90°C 600V CSA AWM I/II A/B 90°C 600V FT1 FT2 CE

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	PVC, TI2 acc. to EN 50363-3 + VDE 0207-363-3, black
Wrapping:	non-woven tape
Jacket material:	PVC, TM5 acc. to EN 50363-3 + VDE 0207-363-3
Jacket color:	black (RAL 9005)

Outstanding features:

- highly flexible single conductor for use in cable tracks
- UV resistant jacket

Technical data:

Nominal voltage:	U ₀ /U 0.6/1 kV
Voltage UL/CSA:	600 V
Min. bending radius: <i>continuously flexing:</i>	7.5 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range: <i>static:</i> <i>flexing:</i>	DIN VDE UL/CSA: up to +90°C -40/+70°C +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:	very good - TM5 acc. to EN 50363-3 + VDE 0207-363-3
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors n x mm ²	AWG/MCM	outer-ø ± 5% inch	outer-ø ± 5% mm	cable weight ≈lbs/mft	ampere at 30° C
▶ 7671315	1 x 1.50	16 (≈ 84/34)	0.193	4.9	26	24
▶ 7671325	1 x 2.50	14 (≈ 140/34)	0.228	5.8	37	32
▶ 7671340	1 x 4.00	12 (≈ 224/34)	0.260	6.6	52	42
▶ 7671360	1 x 6.00	10 (≈ 186/32)	0.287	7.3	70	54
▶ 7671361	1 x 10.00	8 (≈ 320/32)	0.358	9.1	108	73
▶ 7671362	1 x 16.00	6 (≈ 512/32)	0.398	10.1	155	98
▶ 7671363	1 x 25.00	4 (≈ 798/32)	0.472	12.0	226	129
▶ 7671364	1 x 35.00	2 (≈ 1083/32)	0.539	13.7	305	158
▶ 7671365	1 x 50.00	1 (≈ 703/28)	0.622	15.8	425	198
▶ 7671385	1 x 54.00	1/0 (≈ 779/28)	0.642	16.3	455	213
▶ 7671386	1 x 68.00	2/0 (≈ 969/28)	0.673	17.1	530	226
▶ 7671366	1 x 70.00	2/0 (≈ 988/28)	0.681	17.3	540	245
▶ 7671387	1 x 86.00	3/0 (≈ 1218/28)	0.776	19.7	696	263
▶ 7671367	1 x 95.00	3/0 (≈ 1340/28)	0.827	21.0	770	292
▶ 7671388	1 x 108.00	4/0 (≈ 1528/28)	0.886	22.5	864	313
▶ 7671368	1 x 120.00	4/0 (≈ 1680/28)	0.898	22.8	941	344
▶ 7671389	1 x 127.00	250 MCM (≈ 1799/28)	0.917	23.3	1001	370
▶ 7671369	1 x 150.00	250 MCM (≈ 2122/28)	0.969	24.6	1158	391
▶ 7671390	1 x 152.00	300 MCM (≈ 2154/28)	0.969	24.6	1158	396
▶ 7671391	1 x 177.00	350 MCM (≈ 1443/26)	1.051	26.7	1378	430
▶ 7671370	1 x 185.00	350 MCM (≈ 1472/26)	1.051	26.7	1401	448
▶ 7671392	1 x 204.00	400 MCM (≈ 1628/26)	1.197	30.4	1620	470
▶ 7671393	1 x 232.00	450 MCM (≈ 1850/26)	1.240	31.5	1809	490
▶ 7671371	1 x 240.00	450 MCM (≈ 1910/26)	1.240	31.5	1856	528
▶ 7671394	1 x 255.00	500 MCM (≈ 2035/26)	1.252	31.8	1962	535
▶ 7671395	1 x 283.00	550 MCM (≈ 2257/26)	1.323	33.6	2284	560
▶ 7671372	1 x 300.00	550 MCM (≈ 2388/26)	1.350	34.3	2286	608
▶ 7671396	1 x 306.00	600 MCM (≈ 2442/26)	1.350	34.3	2329	613

from 283 mm² only UL recognition.
Other dimensions and colors are possible on request.



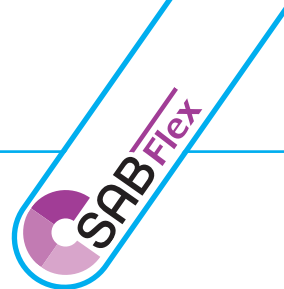
Possible on request:

- with green/yellow insulation

Continuous Flex Cables for Greenhouses

SD 960

Continuous flex data cable for small bending radius



Marking for SD 960 37102625:

SAB BRÖCKSKES · D-VIERSEN · 37102625 25 x 0.14 mm² SD 960 26 AWG/25c 37102625 AWM Style 21083 80°C 300V CE

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	PVC, TI2 acc. to EN 50363-3 + VDE 0207-363-3
Color code:	acc. to color code US 2, see below
Stranding:	specially adjusted layering with non-woven tape over each layer
Jacket material:	PVC, TM2 acc. to EN 50363-3 + VDE 0207-363-3
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- very good flexibility
- small bending radius
- reinforced outer jacket

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL:	300 V
Testing voltage:	conductor/conductor: 1500 V
Min. bending radius: <i>continuously flexing:</i>	7.5 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range: <i>static:</i> <i>flexing:</i>	DIN VDE UL/CSA: up to +80°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, UL VW-1
Oil resistance:	acc. to our internal standard, see page O/29
Approvals:	UR AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 26 AWG (≈ 18/38) ▪ 0.14 mm ²				
37102602	2	0.154	3.9	11
37102603	3	0.161	4.1	14
37102604	4	0.177	4.5	16
37102605	5	0.193	4.9	20
37102607	7	0.224	5.7	28
37102610	10	0.264	6.7	33
37102614	14	0.283	7.2	42
37102618	18	0.323	8.2	56
37102625	25	0.398	10.1	78

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 24 AWG (≈ 32/38) ▪ 0.25 mm ²				
37102402	2	0.165	4.2	15
37102403	3	0.177	4.5	17
37102404	4	0.189	4.8	21
37102405	5	0.209	5.3	26
37102407	7	0.248	6.3	36
37102410	10	0.287	7.3	44
37102414	14	0.319	8.1	58
37102418	18	0.354	9.0	74
37102425	25	0.433	11.0	102

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 22 AWG (≈ 42/38) ▪ 0.34 mm ²				
37102202	2	0.173	4.4	17
37102203	3	0.185	4.7	20
37102204	4	0.201	5.1	24
37102205	5	0.217	5.5	30
37102207	7	0.260	6.6	41
37102210	10	0.311	7.9	53
37102214	14	0.335	8.5	69
37102218	18	0.374	9.5	87
37102225	25	0.461	11.7	120

Other dimensions and colors are available on request

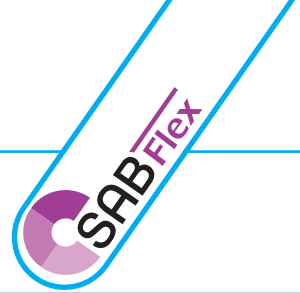
US 2 color code:

#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

Continuous Flex Cables for Greenhouses

S 960

Continuous flex control cable for small bending radius with black conductors



Marking for S 960 7521612:

SAB BRÖCKSKES · D-VIERSEN · 7521215 12 x 1.5 mm² S 960 16 AWG/12c 7521612 AWM Style 2587 90°C 600V CSA AWM I/II A/B 90°C 600V FT1 FT2 CE

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	PVC, TI2 acc. to EN 50363-3 + VDE 0207-363-3
Color code:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
Stranding:	specially adjusted layering with non-woven tape over each layer
Jacket material:	PVC, TM2 acc. to EN 50363-3 + VDE 0207-363-3
Jacket color:	black (RAL 9005)

Outstanding features:

- very good flexibility
- small bending radius
- reinforced outer jacket
- UV resistant jacket

Technical data:

Nominal voltage:	U ₀ /U 300/500 V
Voltage UL/CSA:	600 V
Testing voltage:	conductor/conductor: 2000 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range:	DIN VDE UL/CSA: up to +90°C <i>static:</i> -40/+70°C <i>flexing:</i> +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 our 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

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
► 20 AWG (≈ 28/34) • 0.50 mm ²				
7522002	2	0.217	5.5	27
7522003	3	0.228	5.8	32
7522004	4	0.248	6.3	38
7522005	5	0.276	7.0	48
7522007	7	0.323	8.2	66
7522012	12	0.398	10.1	97
7522018	18	0.472	12.0	142
7522025	25	0.567	14.4	191
7522034	34	0.638	16.2	254
7522050	50	0.752	19.1	351
7522061	61	0.831	21.1	440
► 19 AWG (≈ 42/34) • 0.75 mm ²				
7521902	2	0.232	5.9	32
7521903	3	0.248	6.3	38
7521904	4	0.268	6.8	46
7521905	5	0.295	7.5	5
7521907	7	0.358	9.1	82
7521912	12	0.433	11.0	119
7521918	18	0.516	13.1	175
7521925	25	0.622	15.8	238
7521934	34	0.705	17.9	318
7521950	50	0.831	21.1	450
7521961	61	0.925	23.5	558
► 18 AWG (≈ 56/34) • 1.00 mm ²				
7521802	2	0.244	6.2	37
7521803	3	0.256	6.5	44
7521804	4	0.283	7.2	55
7521805	5	0.311	7.9	68
7521807	7	0.370	9.4	95
7521809	9	0.445	11.3	136
7521812	12	0.453	11.5	142
7521815	15	0.516	13.1	187
7521818	18	0.539	13.7	210

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
► 18 AWG (≈ 56/34) • 1.00 mm ²				
7521825	25	0.650	16.5	285
7521834	34	0.736	18.7	382
7521850	50	0.886	22.5	555
7521861	61	0.965	24.5	671
► 16 AWG (≈ 84/34) • 1.50 mm ²				
7521602	2	0.268	6.8	47
7521603	3	0.287	7.3	59
7521604	4	0.315	8.0	73
7521605	5	0.346	8.8	91
7521607	7	0.417	10.6	129
7521609	9	0.496	12.6	179
7521612	12	0.512	13.0	194
7521618	18	0.606	15.4	286
7521625	25	0.736	18.7	390
7521634	34	0.831	21.1	522
7521650	50	0.988	25.1	749
7521661	61	1.087	27.6	915
► 14 AWG (≈ 140/34) • 2.50 mm ²				
7521402	2	0.35	8.9	79
7521403	3	0.374	9.5	97
7521404	4	0.409	10.4	120
7521405	5	0.457	11.6	150
7521407	7	0.551	14.0	214
7521412	12	0.681	17.3	323
7521418	18	0.815	20.7	480
7521425	25	0.988	25.1	654
► 12 AWG (≈ 224/34) • 4.00 mm ²				
7521203	3	0.445	11.3	150
7521204	4	0.488	12.4	179
7521205	5	0.543	13.8	230
7521207	7	0.657	16.7	331

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
► 10 AWG (≈ 186/32) • 6.00 mm ²				
7521003	3	0.516	13.1	214
7521004	4	0.571	14.5	256
7521005	5	0.638	16.2	329
7521007	7	0.764	19.4	470
► 8 AWG (≈ 320/32) • 10.00 mm ²				
7520803	3	0.638	16.2	337
7520804	4	0.709	18.0	428
7520805	5	0.791	20.1	529
► 6 AWG (≈ 504/32) • 16.00 mm ²				
7520603	3	0.764	19.4	507
7520604	4	0.846	21.5	641
7520605	5	0.949	24.1	798
► 4 AWG (≈ 760/32) • 25.00 mm ²				
7520404	4	1.024	26.0	935
7520405	5	1.142	29.0	1195
► 2 AWG (≈ 1083/32) • 35.00 mm ²				
7520204	4	1.173	29.8	1284
7520205	5	1.295	32.9	1582
► 1 AWG (≈ 703/28) • 50.00 mm ²				
7520104	4	1.374	34.9	1795

Other dimensions and colors are available on request

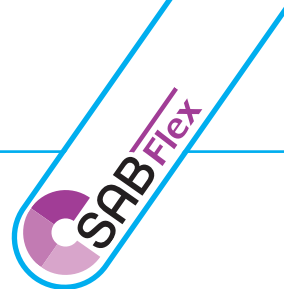


also available with gray
jacket and blue or red
conductors

Continuous Flex Cables for Greenhouses

SD 960 CY

Shielded continuous flex data cable for small bending radius



Marking for SD 960 CY 7852425:

SAB BRÖCKSKES · D-VIERSEN · 7852502 25 x 0.25 mm² SD 960 CY 24 AWG/25c 7852425 AWM Style 21083 80°C 300V CE

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	PVC, TI2 acc. to EN 50363-3 + VDE 0207-363-3
Color code:	acc. to color code US 2, see below
Stranding:	specially adjusted layering with non-woven tape over each layer
Wrapping:	non-woven tape
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PVC, TM2 acc. to EN 50363-3 + VDE 0207-363-3
Jacket color:	black (RAL 9005)

Outstanding features:

- good EMC characteristics
- very good flexibility
- small bending radius
- UV resistant jacket

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL:	300 V
Testing voltage:	conductor/conductor: 1500 V conductor/shielding: 1200 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE UL/CSA: up to +80°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, UL VW-1
Oil resistance:	acc. to our internal standard, see page O/29
Approvals:	UR AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 26 AWG (≈ 18/38) • 0.14 mm ²			
7852602	2	0.177 4.5	17
7852603	3	0.185 4.7	20
7852604	4	0.205 5.2	24
7852605	5	0.220 5.6	28
7852607	7	0.252 6.4	38
7852610	10	0.295 7.5	45
7852614	14	0.335 8.5	60
7852618	18	0.366 9.3	73
7852625	25	0.433 11.0	100

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 24 AWG (≈ 32/38) • 0.25 mm ²			
7852402	2	0.193 4.9	20
7852403	3	0.205 5.2	24
7852404	4	0.217 5.5	28
7852405	5	0.244 6.2	36
7852407	7	0.280 7.1	43
7852410	10	0.335 8.5	60
7852414	14	0.362 9.2	75
7852418	18	0.398 10.1	92
7852425	25	0.492 12.5	134

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 22 AWG (≈ 42/38) • 0.34 mm ²			
7852202	2	0.201 5.1	22
7852203	3	0.213 5.4	26
7852204	4	0.228 5.8	31
7852205	5	0.252 6.4	40
7852207	7	0.291 7.4	49
7852210	10	0.346 8.8	69
7852214	14	0.378 9.6	86
7852218	18	0.425 10.8	114
7852225	25	0.512 13.0	153

Other dimensions and colors are available on request

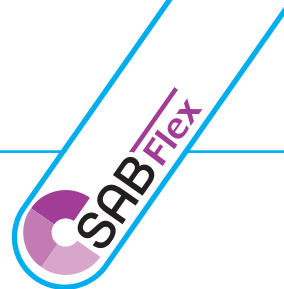
US 2 color code:

#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

Continuous Flex Cables for Greenhouses

S 960 CY

Shielded continuous flex control cable for small bending radius with black conductors



Marking for S 960 CY 7541607:

SAB BRÖCKSKES · D-VIERSEN · 754715 7 x 1.5 mm² S 960 CY 16 AWG/7c 7541607 AWM Style 2587 90°C 600V CSA AWM I/II A/B 90°C 600V FT1 FT2 CE

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	PVC, TI2 acc. to EN 50363-3 + VDE 0207-363-3
Color code:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
Stranding:	specially adjusted layering with non-woven tape over each layer
Inner jacket:	PVC, TM2 acc. to EN 50363-3 + VDE 0207-363-3
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PVC, TM2 acc. to EN 50363-3 + VDE 0207-363-3
Jacket color:	black (RAL 9005)

Technical data:

Nominal voltage:	U ₀ /U 300/500 V
Voltage UL/CSA:	600 V
Testing voltage:	conductor/conductor: 2000 V conductor/shielding: 2000 V
Min. bending radius: <i>continuously flexing:</i>	7.5 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range: <i>static:</i> <i>flexing:</i>	DIN VDE UL/CSA: up to +90°C -40/+70°C +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 our 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

Outstanding features:

- very good EMC characteristics
- very good flexibility
- small bending radius
- UV resistant jacket

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 20 AWG (≈ 28/34) • 0.50 mm ²				
7542002	2	0.311	7.9	53
7542003	3	0.323	8.2	61
7542004	4	0.343	8.7	70
7542005	5	0.370	9.4	83
7542007	7	0.421	10.7	110
7542012	12	0.516	13.1	163
7542018	18	0.594	15.1	226
7542025	25	0.697	17.7	296
▶ 19 AWG (≈ 42/34) • 0.75 mm ²				
7541902	2	0.327	8.3	60
7541903	3	0.343	8.7	69
7541904	4	0.366	9.3	81
7541905	5	0.394	10.0	95
7541907	7	0.457	11.6	126
7541912	12	0.551	14.0	185
7541918	18	0.638	16.2	261
7541925	25	0.764	19.4	350
▶ 18 AWG (≈ 56/34) • 1.00 mm ²				
7541802	2	0.339	8.6	66
7541803	3	0.350	8.9	75
7541804	4	0.374	9.5	88
7541805	5	0.406	10.3	105
7541807	7	0.476	12.1	144
7541812	12	0.579	14.7	222
7541818	18	0.665	16.9	305
7541825	25	0.791	20.1	404
7541836	36	0.890	22.6	574

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 16 AWG (≈ 84/34) • 1.50 mm ²				
7541602	2	0.366	9.3	79
7541603	3	0.382	9.7	92
7541604	4	0.409	10.4	110
7541605	5	0.453	11.5	140
7541607	7	0.531	13.5	192
7541612	12	0.638	16.2	282
7541618	18	0.744	18.9	394
7541625	25	0.886	22.5	530
▶ 14 AWG (≈ 140/34) • 2.50 mm ²				
7541402	2	0.449	11.4	122
7541403	3	0.472	12.0	147
7541404	4	0.516	13.1	179
7541405	5	0.571	14.5	229
7541407	7	0.622	15.8	294
7541412	12	0.803	20.4	438
7541418	18	0.933	23.7	610
7541425	25	1.110	28.2	815
▶ 12 AWG (≈ 224/34) • 4.00 mm ²				
7541203	3	0.539	13.7	202
7541204	4	0.575	14.6	251
7541205	5	0.630	16.0	304
7541207	7	0.760	19.3	440
▶ 10 AWG (≈ 186/32) • 6.00 mm ²				
7541003	3	0.638	16.2	288
7541004	4	0.685	17.4	347
7541005	5	0.760	19.3	416

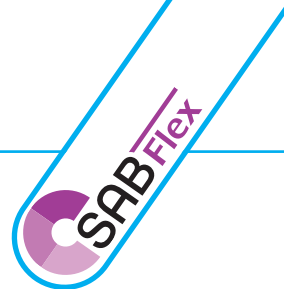
item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 8 AWG (≈ 320/32) • 10.00 mm ²				
7540804	4	0.835	21.2	531
7540805	5	0.925	23.5	644
▶ 6 AWG (≈ 504/32) • 16.00 mm ²				
7540604	4	0.980	24.9	734
7540605	5	1.079	27.4	902
▶ 4 AWG (≈ 760/32) • 25.00 mm ²				
7540404	4	1.165	29.6	1124
7540405	5	1.291	32.8	1329
▶ 2 AWG (≈ 1083/32) • 35.00 mm ²				
7540204	4	1.303	33.1	1418
▶ 1 AWG (≈ 703/28) • 50.00 mm ²				
7540104	4	1.567	39.8	2022

Other dimensions and colors are available on request

Continuous Flex Cables for Greenhouses

SD 960 CY TP

Continuous flex twisted pairs shielded data cable for small bending radius



Marking for SD 960 CY TP 7772403:

SAB BRÖCKSKES · D-VIERSEN · 7770325 3 x 2 x 0.25 mm² SD 960 CY TP 24 AWG/3pr 7772403 AWM Style 21083 80°C 300V CE

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	PVC, TM2 acc. to EN 50363-3 + VDE 0207-363-3
Color code:	acc. to color code US 3, see below
Stranding:	conductors twisted to pairs, pairs twisted in specially adjusted layering with non-woven tape over the outer layer
Shielding:	tinned copper braiding
Jacket material:	PVC, TM2 acc. to EN 50363-3 + VDE 0207-363-3
Jacket color:	black (RAL 9005)

Outstanding features:

- very good flexibility
- small bending radius
- UV resistant jacket

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL:	300 V
Testing voltage:	conductor/conductor: 1500 V conductor/shielding: 1200 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	8 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE UL/CSA: up to +80°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, UL VW-1
Oil resistance:	acc. to our internal standard, see page O/29
Approvals:	UR AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 26 AWG (≈ 18/38) • 0.14 mm ²				
7772602	2	0.240	6.1	32
7772603	3	0.264	6.7	39
7772604	4	0.299	7.6	46
7772605	5	0.339	8.6	57
7772607	7	0.362	9.2	73
7772610	10	0.421	10.7	93
7772614	14	0.504	12.8	123
7772618	18	0.547	13.9	163
7772625	25	0.634	16.1	210
▶ 24 AWG (≈ 32/38) • 0.25 mm ²				
7772402	2	0.256	6.5	36
7772403	3	0.283	7.2	47
7772404	4	0.335	8.5	58
7772405	5	0.366	9.3	69
7772407	7	0.386	9.8	91
7772410	10	0.461	11.7	116
7772414	14	0.555	14.1	168
7772418	18	0.594	15.1	205
7772425	25	0.689	17.5	265

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 22 AWG (≈ 42/38) • 0.34 mm ²				
7772202	2	0.268	6.8	40
7772203	3	0.291	7.4	51
7772204	4	0.350	8.9	69
7772205	5	0.378	9.6	79
7772207	7	0.417	10.6	111
7772210	10	0.492	12.5	131
7772214	14	0.587	14.9	193
7772218	18	0.646	16.4	240
7772225	25	0.724	18.4	299

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 20 AWG (≈ 28/34) • 0.50 mm ²				
7772002	2	0.291	7.4	47
7772003	3	0.339	8.6	70
7772004	4	0.386	9.8	86
7772005	5	0.425	10.8	108
7772007	7	0.461	11.7	138
7772010	10	0.555	14.1	187
7772014	14	0.657	16.7	251
7772018	18	0.705	17.9	308
7772025	25	0.795	20.2	387

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



Possible on request:

- with gray jacket and colored
- conductors acc. to DIN 47100

Continuous Flex Cables for Greenhouses

SD 200

Continuous flex halogen-free polyurethane data cable with extreme temperature range



BRÖCKSKES · D-VIERSEN · SD 200 25 x 0.14 mm² CE



Marking for SD 200 7742501:

SAB BRÖCKSKES · D-VIERSEN · SD 200 25 x 0.14 mm² CE

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	TPE
Color code:	DIN 47100, see below
Stranding:	specially adjusted layering with non-woven tape over each layer
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN50363-10-2 + VDE 0207-363-10-2 with matte surface
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- halogen-free
- travel > 10 m is possible
- high abrasion resistance
- minimal bending radius
- small outer diameter

Technical data:

Peak operating voltage:	max. 350 V acc. to VDE 0812
Testing voltage:	conductor/conductor: 1500 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	1 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE -50/+90°C -40/+90°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Continuous flexibility	very good
Weather resistance:	very good
Approvals:	CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 26 AWG (≈ 18/38) • 0.14 mm ²				
7740201	2	0.110	2.8	6
7740301	3	0.114	2.9	7
7740401	4	0.126	3.2	11
7740501	5	0.142	3.6	11
7740701	7	0.165	4.2	15
7741001	10	0.193	4.9	19
7741201	12	0.197	5.0	22
7741401	14	0.205	5.2	24
7741801	18	0.232	5.9	31
7742501	25	0.280	7.1	42
7743201	32	0.299	7.6	52

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 24 AWG (≈ 32/38) • 0.25 mm ²				
7740202	2	0.122	3.1	8
7740302	3	0.130	3.3	10
7740402	4	0.146	3.7	13
7740502	5	0.161	4.1	16
7740702	7	0.185	4.7	22
7741002	10	0.217	5.5	28
7741202	12	0.224	5.7	32
7741402	14	0.232	5.9	36
7741802	18	0.268	6.8	48
7742502	25	0.319	8.1	63
7743202	32	0.350	8.9	81

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 22 AWG (≈ 42/38) • 0.34 mm ²				
7740203	2	0.130	3.3	11
7740303	3	0.146	3.7	13
7740403	4	0.157	4.0	15
7740503	5	0.169	4.3	20
7740703	7	0.197	5.0	26
7741003	10	0.232	5.9	34
7741203	12	0.248	6.3	40
7741403	14	0.260	6.6	46
7741803	18	0.287	7.3	56
7742503	25	0.350	8.9	79
7743203	32	0.374	9.5	99

Other dimensions and colors are available on request

DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown, #17- white-gray, #18- gray-brown, #19- white-pink, #20- pink-brown, #21- white-blue, #22- brown-blue, #23- white-red, #24- brown-red, #25- white-black, #26- brown-black, #27- gray-green, #28- yellow-gray, #29- pink-green, #30- yellow-pink, #31- green-blue, #32- yellow-blue



Possible on request:

- 20 AWG or 19 AWG

Continuous Flex Cables for Greenhouses

S 200

Continuous flex halogen-free polyurethane control cable with extreme temperature range



Marking for S 200 7741215:

SAB BRÖCKSKES · D-VIERSEN · S 200 12 x 1.5 mm² CE

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	TPE
Color code:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
Stranding:	specially adjusted layering with non-woven tape over each layer
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-3 + VDE 0207-363-3-10-2 with matte surface
Jacket color:	gray (RAL 7000)

Outstanding features:

- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- halogen-free
- travel > 10 m is possible
- high abrasion resistance
- minimal bending radius
- small outer diameter

Technical data:

Nominal voltage:	U ₀ /U 300/500 V
Testing voltage:	conductor/conductor: 2000 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	1 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	-50/+90°C -40/+90°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids etc.
Continuous flexibility:	very good
Weather resistance:	very good
Approvals:	CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 20 AWG (≈ 28/34) ▪ 0.50 mm²				
7740205	2	0.193	4.9	19
7740305	3	0.201	5.1	23
7740405	4	0.217	5.5	28
7740505	5	0.236	6.0	34
7740705	7	0.272	6.9	46
7741205	12	0.327	8.3	67
7741805	18	0.390	9.9	96
7742505	25	0.469	11.9	132
7743605	36	0.539	13.7	189
7745005	50	0.634	16.1	256
7746505	65	0.717	18.2	321
▶ 19 AWG (≈ 42/34) ▪ 0.75 mm²				
7740207	2	0.213	5.4	24
7740307	3	0.224	5.7	30
7740407	4	0.240	6.1	36
7740507	5	0.264	6.7	45
7740707	7	0.311	7.9	62
7741207	12	0.378	9.6	92
7741807	18	0.445	11.3	136
7742507	25	0.547	13.9	187
7743607	36	0.606	15.4	258
7745007	50	0.724	18.4	355
7746507	65	0.819	20.8	462

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 18 AWG (≈ 56/34) ▪ 1.00 mm²				
7740210	2	0.228	5.8	30
7740310	3	0.240	6.1	36
7740410	4	0.260	6.6	45
7740510	5	0.283	7.2	55
7740710	7	0.339	8.6	78
7741210	12	0.409	10.4	116
7741810	18	0.484	12.3	172
7742510	25	0.594	15.1	237
7743610	36	0.669	17.0	333
7745010	50	0.799	20.3	458
7746510	65	0.902	22.9	595
▶ 16 AWG (≈ 84/34) ▪ 1.50 mm²				
7740115	1	0.157	4.0	17
7740215	2	0.252	6.4	38
7740315	3	0.264	6.7	47
7740415	4	0.287	7.3	60
7740515	5	0.315	8.0	74
7740715	7	0.378	9.6	107
7741215	12	0.465	11.8	163
7741815	18	0.559	14.2	243
7742515	25	0.673	17.1	329
7743615	36	0.760	19.3	464
7745015	50	0.906	23.0	638
7746515	65	1.024	26.0	833

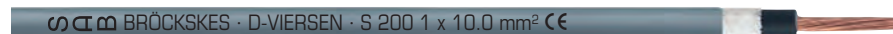
item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 14 AWG (≈ 140/34) ▪ 2.50 mm²				
7740125	1	0.185	4.7	26
7740225	2	0.307	7.8	57
7740325	3	0.327	8.3	74
7740425	4	0.362	9.2	95
7740525	5	0.402	10.2	118
7740725	7	0.480	12.2	172
7741225	12	0.606	15.4	268
7741825	18	0.713	18.1	395
7742525	25	0.870	22.1	539
7743625	36	0.976	24.8	758
▶ 12 AWG (≈ 224/34) ▪ 4.00 mm²				
7740140	1	0.213	5.4	38
7740240	2	0.366	9.3	87
7740340	3	0.386	9.8	116
7740440	4	0.425	10.8	146
7740540	5	0.476	12.1	180
7740740	7	0.575	14.6	265

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Continuous Flex Cables for Greenhouses

S 200

Continuous flex halogen-free polyurethane control cable with extreme temperature range



Marking for S 200 7740161:

SAB BRÖCKSKES · D-VIERSEN · S 200 1 x 10.0 mm²



Marking for S 200 7741215:

SAB BRÖCKSKES · D-VIERSEN · S 200 12 x 1.5 mm²

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 10 AWG (≈ 186/32) ▪ 6.00 mm²			
7740160	1	0.240 6.1	51
7740260	2	0.425 10.8	118
7740360	3	0.461 11.7	165
7740460	4	0.504 12.8	212
7740560	5	0.571 14.5	261
7740760	7	0.681 17.3	339
▶ 8 AWG (≈ 320/32) ▪ 10.00 mm²			
7740161	1	0.280 7.1	81
7740361	3	0.555 14.1	265
7740461	4	0.622 15.8	341
7740561	5	0.677 17.2	410
▶ 6 AWG (≈ 504/32) ▪ 16.00 mm²			
7740162	1	0.327 8.3	119
7740362	3	0.669 17.0	401
7740462	4	0.748 19.0	525
7740562	5	0.835 21.2	659

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 4 AWG (≈ 760/32) ▪ 25.00 mm²			
7740163	1	0.390 9.9	177
7740363	3	0.811 20.6	570
7740463	4	0.898 22.8	776
7740563	5	1.000 25.4	913
▶ 2 AWG (≈ 1083/32) ▪ 35.00 mm²			
7740164	1	0.453 11.5	247
7740464	4	1.039 26.4	1030
7740564	5	1.173 29.8	1273
▶ 1 AWG (≈ 703/28) ▪ 50.00 mm²			
7740165	1	0.551 14.0	361
7740465	4	1.252 31.8	1523
▶ 2/0 AWG (≈ 988/28) ▪ 70.00 mm²			
7740166	1	0.657 16.7	507
▶ 3/0 AWG (≈ 1340/28) ▪ 95.00 mm²			
7740167	1	0.807 20.5	691

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 4/0 AWG (≈ 1680/28) ▪ 120.00 mm²			
7740168	1	0.846 21.5	847
▶ 250 MCM (≈ 2122/28) ▪ 150.00 mm²			
7740169	1	0.969 24.6	1087
▶ 350 MCM (≈ 1472/28) ▪ 185.00 mm²			
7740170	1	1.051 26.7	1305
▶ 450 MCM (≈ 1910/28) ▪ 240.00 mm²			
7740171	1	1.185 30.1	1668

Other dimensions and colors are available on request

Continuous Flex Cables for Greenhouses

SD 200 C

Continuous flex halogen-free polyurethane shielded data cable with extreme temperature range



D-VIERSEN · SD 200 C 25 x 0.14 mm² CE



Marking for SD 200 C 7842501:

SAB BRÖCKSKES · D-VIERSEN · SD 200 C 25 x 0.14 mm² CE

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	TPE
Color code:	DIN 47100, see below
Stranding:	specially adjusted layering with non-woven tape over each layer
Wrapping:	non-woven tape
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with matte surface
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- halogen-free
- travel > 10 m is possible
- good EMC characteristics
- high abrasion resistance

Technical data:

Peak operating voltage:	max. 350 V acc. to VDE 0812
Testing voltage:	conductor/conductor: 1500 V conductor/shielding: 1200 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	1 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE -50/+90°C -40/+90°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids etc.
Continuous flexibility:	very good
Weather resistance:	very good
Approvals:	CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
► 26 AWG (≈ 18/38) • 0.14 mm ²				
7840201	2	0.130	3.3	11
7840301	3	0.142	3.6	13
7840401	4	0.154	3.9	16
7840501	5	0.161	4.1	17
7840701	7	0.185	4.7	24
7841001	10	0.226	5.7	30
7841201	12	0.232	5.9	32
7841801	18	0.256	6.5	42
7842501	25	0.299	7.6	54
7843201	32	0.319	8.1	65

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
► 24 AWG (≈ 32/38) • 0.25 mm ²				
7840202	2	0.150	3.8	13
7840302	3	0.157	4.0	16
7840402	4	0.165	4.2	19
7840502	5	0.181	4.6	23
7840702	7	0.205	5.2	32
7841002	10	0.244	6.2	38
7841202	12	0.252	6.4	44
7841402	14	0.268	6.8	51
7841802	18	0.287	7.3	59
7842502	25	0.346	8.8	79
7843202	32	0.366	9.3	95

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
► 22 AWG (≈ 42/38) • 0.34 mm ²				
7840203	2	0.165	4.2	17
7840303	3	0.173	4.4	21
7840403	4	0.185	4.7	24
7840503	5	0.197	5.0	28
7840703	7	0.224	5.7	36
7841203	12	0.264	6.7	50
7841803	18	0.307	7.8	71
7842503	25	0.370	9.4	95
7843203	32	0.402	10.2	122

Other dimensions and colors are available on request

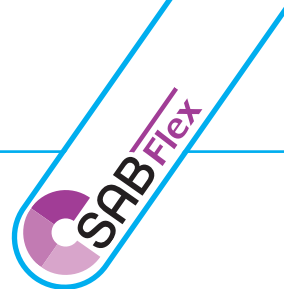
DIN 47100 color code:

#1- white, #2- brown, #3- green, #4- yellow, #5- gray, #6- pink, #7- blue, #8- red, #9- black, #10- violet, #11- gray-pink, #12- red-blue, #13- white-green, #14- brown-green, #15- white-yellow, #16- yellow-brown, #17- white-gray, #18- gray-brown, #19- white-pink, #20- pink-brown, #21- white-blue, #22- brown-blue, #23- white-red, #24- brown-red, #25- white-black, #26- brown-black, #27- gray-green, #28- yellow-gray, #29- pink-green, #30- yellow-pink, #31- green-blue, #32- yellow-blue

Continuous Flex Cables for Greenhouses

S 200 C

Continuous flex halogen-free polyurethane shielded control cable
with extreme temperature range



Marking for S 200 C 7841215:

SAB BRÖCKSKES · D-VIERSEN · S 200 C 12 x 1.5 mm² CE



Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	TPE
Color code: from 2 conductors	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
Stranding:	specially adjusted layering with non-woven tape over each layer
Inner jacket:	SABIX®
Wrapping:	non-woven tape
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-3 + VDE 0207-363-3-10-2 with matte surface
Jacket color:	gray (RAL 7000)

Outstanding features:

- free from paint wetting impairment
substances (PWIS-free)
- flexible at low temperatures
- halogen-free
- travel > 10 m is possible
- good EMC characteristics
- high abrasion resistance
- minimal bending radius
- small outer diameter

Technical data:

Nominal voltage:	U ₀ /U 300/500 V
Testing voltage:	conductor/conductor: 2000 V conductor/shielding: 2000 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	1 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	-50/+90°C -40/+90°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids etc.
Continuous flexibility:	very good
Weather resistance:	very good
Approvals:	CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
► 20 AWG (≈ 28/34) ▪ 0.50 mm ²			
7840205	2	0.268 6.8	37
7840305	3	0.276 7.0	42
7840405	4	0.291 7.4	48
7840505	5	0.311 7.9	56
7840705	7	0.354 9.0	73
7841205	12	0.417 10.6	102
7841805	18	0.480 12.2	144
7842505	25	0.583 14.8	206
7843605	36	0.646 16.4	255
7845205	52	0.756 19.2	352
7846505	65	0.854 21.7	435
► 19 AWG (≈ 42/34) ▪ 0.75 mm ²			
7840207	2	0.287 7.3	43
7840307	3	0.299 7.6	50
7840407	4	0.315 8.0	58
7840507	5	0.346 8.8	71
7840707	7	0.386 9.8	87
7841207	12	0.469 11.9	137
7841807	18	0.559 14.2	198
7842507	25	0.654 16.6	259
7843607	36	0.736 18.7	349
7845207	52	0.862 21.9	488
7846507	65	0.965 24.5	583

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
► 18 AWG (≈ 56/34) ▪ 1.00 mm ²			
7840210	2	0.303 7.7	48
7840310	3	0.315 8.0	58
7840410	4	0.335 8.5	66
7840510	5	0.366 9.3	81
7840710	7	0.421 10.7	117
7841210	12	0.504 12.8	167
7841810	18	0.598 15.2	248
7842510	25	0.724 18.4	334
7843610	36	0.799 20.3	441
7845210	52	0.937 23.8	612
7846510	65	1.055 26.8	759
► 16 AWG (≈ 84/34) ▪ 1.50 mm ²			
7840115	1	0.181 4.6	24
7840215	2	0.327 8.3	58
7840315	3	0.339 8.6	71
7840415	4	0.370 9.4	88
7840515	5	0.398 10.1	100
7840715	7	0.469 11.9	141
7841215	12	0.579 14.7	236
7841815	18	0.665 16.9	325
7842515	25	0.803 20.4	439
7843615	36	0.906 23.0	597
7845215	52	1.059 26.9	799
7846515	65	1.177 29.9	1017

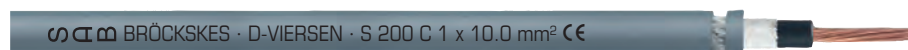
item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
► 14 AWG (≈ 140/34) ▪ 2.50 mm ²			
7840125	1	0.209 5.3	33
7840225	2	0.390 9.9	82
7840325	3	0.417 10.6	111
7840425	4	0.453 11.5	137
7840525	5	0.496 12.6	167
7840725	7	0.591 15.0	245
7841225	12	0.728 18.5	364
7841825	18	0.850 21.6	515
7842525	25	1.024 26.0	696
7843625	36	1.130 28.7	934
7845225	52	1.299 33.0	1250
► 12 AWG (≈ 224/34) ▪ 4.00 mm ²			
7840140	1	0.232 5.9	45
7840240	2	0.457 11.6	122
7840340	3	0.476 12.1	151
7840440	4	0.539 13.7	201
7840540	5	0.591 15.0	240
7840740	7	0.709 18.0	357

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Continuous Flex Cables for Greenhouses

S 200 C

Continuous flex halogen-free polyurethane shielded control cable
with extreme temperature range



Marking for S 200 C 7840161:

SAB BRÖCKSKES · D-VIERSEN · S 200 C 1 x 10.0 mm²



Marking for S 200 C 7841215:

SAB BRÖCKSKES · D-VIERSEN · S 200 C 12 x 1.5 mm²

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 10 AWG (≈ 186/32) • 6.00 mm²			
7840160	1	0.260 6.6	61
7840260	2	0.539 13.7	169
7840360	3	0.575 14.6	228
7840460	4	0.626 15.9	282
7840560	5	0.709 18.0	351
7840760	7	0.811 20.6	478
▶ 8 AWG (≈ 320/32) • 10.00 mm²			
7840161	1	0.303 7.7	91
7840361	3	0.685 17.4	347
7840461	4	0.744 18.9	434
7840561	5	0.807 20.5	491
▶ 6 AWG (≈ 504/32) • 16.00 mm²			
7840162	1	0.358 9.1	140
7840362	3	0.815 20.7	486
7840462	4	0.886 22.5	615
7840562	5	0.972 24.7	740

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 4 AWG (≈ 760/32) • 25.00 mm²			
7840163	1	0.421 10.7	202
7840363	3	0.941 23.9	698
7840463	4	1.016 25.8	871
7840563	5	1.146 29.1	1082
▶ 2 AWG (≈ 1083/32) • 35.00 mm²			
7840164	1	0.492 12.5	278
7840464	4	1.185 30.1	1196
7840564	5	1.303 33.1	1424
▶ 1 AWG (≈ 703/28) • 50.00 mm²			
7840165	1	0.591 15.0	405
7840465	4	1.398 35.5	1756
▶ 2/0 AWG (≈ 988/28) • 70.00 mm²			
7840166	1	0.693 17.6	560
▶ 3/0 AWG (≈ 1340/28) • 95.00 mm²			
7840167	1	0.846 21.5	765

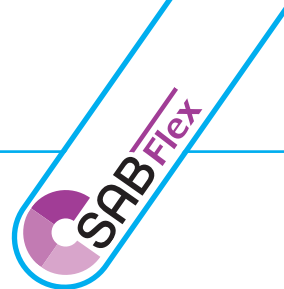
item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 4/0 AWG (≈ 1680/28) • 120.00 mm²			
7840168	1	0.894 22.7	923
▶ 250 MCM (≈ 2122/28) • 150.00 mm²			
7840169	1	1.031 26.2	1164
▶ 350 MCM (≈ 1472/26) • 185.00 mm²			
7840170	1	1.008 25.6	1402
▶ 450 MCM (≈ 1910/26) • 240.00 mm²			
7840171	1	1.232 31.3	1777

Other dimensions and colors are available on request

Continuous Flex Cables for Greenhouses

SD 200 C TP

Continuous flex halogen-free twisted pairs shielded polyurethane data cable with extreme temperature range



Marking for SD 200 C TP 7890350:

SAB BRÖCKSKES · D-VIERSEN · SD 200 C TP 3 x 2 x 0.5 mm² CE

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	TPE
Color code:	DIN 47100, see below
Stranding:	conductors twisted to pairs, pairs twisted in specially adjusted layering with non-woven tape over each layer
Wrapping:	non-woven tape
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN50363-10-2 + VDE 0207-363-10-2 with matte surface
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- halogen-free
- travel > 10 m is possible
- good EMC characteristics
- high abrasion resistance

Technical data:

Peak operating voltage:	max. 350 V acc. to VDE 0812
Testing voltage:	conductor/conductor: 1500 V conductor/shielding: 1200 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	1 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE -50/+90°C -40/+90°C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Continuous flexibility	very good
Weather resistance:	very good
Approvals:	CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 26 AWG (≈ 18/38) • 0.14 mm ²				
7890214	2	0.173	4.4	19
7890314	3	0.193	4.9	20
7890414	4	0.220	5.6	27
7890514	5	0.236	6.0	29
7890614	6	0.252	6.4	35
7890714	7	0.264	6.7	40
7891014	10	0.311	7.9	48
7891414	14	0.354	9.0	65
7891814	18	0.394	10.0	85
7892514	25	0.461	11.7	112
▶ 24 AWG (≈ 32/38) • 0.25 mm ²				
7890225	2	0.193	4.9	22
7890325	3	0.217	5.5	28
7890425	4	0.252	6.4	34
7890525	5	0.272	6.9	40
7890625	6	0.280	7.1	46
7890725	7	0.291	7.4	54
7891025	10	0.350	8.9	67
7891425	14	0.429	10.9	101
7891825	18	0.457	11.6	124
7892525	25	0.543	13.8	174

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 22 AWG (≈ 42/38) • 0.34 mm ²				
7890234	2	0.205	5.2	26
7890334	3	0.228	5.8	32
7890434	4	0.272	6.9	42
7890534	5	0.291	7.4	48
7890734	7	0.315	8.0	63
7891034	10	0.378	9.6	82
7891434	14	0.457	11.6	120
7891834	18	0.492	12.5	148
7892534	25	0.579	14.7	208
▶ 20 AWG (≈ 28/34) • 0.50 mm ²				
7890250	2	0.248	6.3	34
7890350	3	0.272	6.9	45
7890450	4	0.311	7.9	56
7890550	5	0.346	8.8	68
7890750	7	0.370	9.4	90
7891050	10	0.445	11.3	125
7891450	14	0.531	13.5	169
7891850	18	0.579	14.7	221
7892550	25	0.669	17.0	288

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 19 AWG (≈ 42/34) • 0.75 mm ²				
7890275	2	0.283	7.2	46
7890375	3	0.311	7.9	56
7890475	4	0.350	8.9	72
7890575	5	0.409	10.4	99
7890775	7	0.457	11.6	140
7891075	10	0.531	13.5	177
7891475	14	0.634	16.1	246
7891875	18	0.681	17.3	306
7892575	25	0.791	20.1	401

Other dimensions and colors are available on request

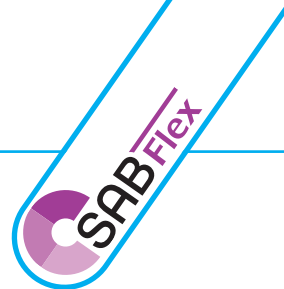
DIN 47100 color code:

#1- white/brown, #2- green/yellow, #3- gray/pink, #4- blue/red, #5- black/purple, #6- gray-pink/red-blue, #7- white-green/brown-green, #8- white-yellow/yellow-brown, #9- white-gray/gray-brown, #10- white-pink/pink-brown, #11- white-blue/brown-blue, #12- white-red/brown-red, #13- white-black/brown-black, #14- gray-green/yellow-gray, #15- pink-green/yellow-pink, #16- green-blue/yellow-blue, #17- green-red/yellow-red, #18- green-black/yellow-black, #19- gray-blue/pink-blue, #20- gray-red/pink-red, #21- gray-black/pink-black, #22- blue-black, red-black, #23- white/brown, #24- green/yellow, #25- gray/pink, #26- blue/red

Continuous Flex Cables for Greenhouses

SD 980 P

High speed continuous flex heavy duty halogen-free polyurethane data cable



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



Marking for SD 980 P 77742625:

SAB BRÖCKSKES · D-VIERSEN · 77742501 25 x 0.14 mm² SD 980 P 26 AWG/25c 77742625 AWM Style 21198 80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	TPE
Color code:	DIN 47100, see below
Stranding:	specially adjusted layering with non-woven tape over each layer and one additional non-woven tape over the outer layer
Jacket material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with matte surface
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- halogen-free
- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- travel > 10 m is possible
- high abrasion resistance
- minimal bending radius

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL/CSA:	300 V
Testing voltage:	conductor/conductor: 2000 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE -50/+90°C UL/CSA: up to +80°C -40/+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, CSA FT1 (acc.to dimension), FT2
Oil resistance:	very good - TPU acc. to IEC 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Continuous flexibility:	very good
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 26 AWG (≈ 18/38) • 0.14 mm ²			
77742603	3	0.150 3.8	11
77742604	4	0.161 4.1	13
77742605	5	0.177 4.5	15
77742607	7	0.193 4.9	19
77742610	10	0.220 5.6	24
77742614	14	0.236 6.0	30
77742618	18	0.260 6.6	36
77742625	25	0.299 7.6	48

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 24 AWG (≈ 32/38) • 0.25 mm ²			
77742403	3	0.165 4.2	14
77742404	4	0.173 4.4	17
77742405	5	0.189 4.8	20
77742407	7	0.213 5.4	25
77742410	10	0.244 6.2	33
77742414	14	0.260 6.6	42
77742418	18	0.287 7.3	52
77742425	25	0.339 8.6	69

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
▶ 22 AWG (≈ 42/38) • 0.34 mm ²			
77742203	3	0.173 4.4	16
77742204	4	0.185 4.7	19
77742205	5	0.205 5.2	24
77742207	7	0.228 5.8	30
77742210	10	0.260 6.6	40
77742214	14	0.280 7.1	50
77742218	18	0.307 7.8	62
77742225	25	0.362 9.2	83

Other dimensions and colors are available on request

DIN 47100 color code:

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



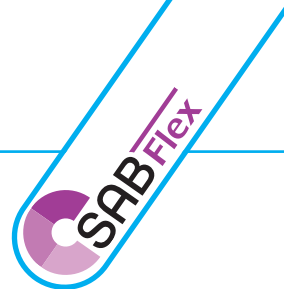
Possible on request:

- colored conductors acc. to US 2
- 20 AWG & 19 AWG

Continuous Flex Cables for Greenhouses

S 980 P

High speed continuous flex heavy duty halogen-free polyurethane control cable



Marking for S 980 P 77742012:

SAB BRÖCKSKES · D-VIERSEN · 77741205 S 980 P 12 x 0.50 mm² 20 AWG/12c 77742012 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, VDE 0295, class 6
Insulation:	TPE
Color code:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
Stranding:	specially adjusted layering with non-woven tape over each layer and one additional non-woven tape over the outer layer
Jacket material:	PUR, TPU acc. to EN 50363-3 + VDE 0207-363-3-10-2 with matte surface
Jacket color:	gray (RAL 7000)

Outstanding features:

- halogen-free
- free from paint wetting impairment
substances (PWIS-free)
- flexible at low temperatures
- travel > 10 m is possible
- high abrasion resistance
- minimal bending radius

Technical data:

Nominal voltage:	U ₀ /U 300/500 V
Voltage UL/CSA:	600 V
Testing voltage:	conductor/conductor: 2000 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE UL/CSA: up to +80°C -50/+90°C -40/+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, CSA FT1, FT2
Oil resistance:	very good - TPU acc. to IEC 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Continuous flexibility:	very good
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 20 AWG (≈ 28/34) • 0.50 mm ²				
77742003	3	0.260	6.6	35
77742004	4	0.280	7.1	41
77742005	5	0.307	7.8	48
77742007	7	0.350	8.9	62
77742012	12	0.413	10.5	93
77742018	18	0.476	12.1	129
77742025	25	0.563	14.3	171
▶ 19 AWG (≈ 42/34) • 0.75 mm ²				
77741903	3	0.280	7.1	40
77741904	4	0.299	7.6	48
77741905	5	0.331	8.4	57
77741907	7	0.378	9.6	73
77741912	12	0.441	11.2	110
77741918	18	0.524	13.3	155
77741925	25	0.618	15.7	210
▶ 18 AWG (≈ 56/34) • 1.00 mm ²				
77741803	3	0.287	7.3	46
77741804	4	0.311	7.9	56
77741805	5	0.339	8.6	66
77741807	7	0.394	10.0	86
77741812	12	0.461	11.7	131
77741818	18	0.539	13.7	185
77741825	25	0.642	16.3	252

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 16 AWG (≈ 84/34) • 1.50 mm ²				
77741603	3	0.315	8.0	58
77741604	4	0.350	8.9	73
77741605	5	0.370	9.4	88
77741607	7	0.429	10.9	113
77741612	12	0.512	13.0	175
77741618	18	0.563	14.3	247
77741625	25	0.720	18.3	344
▶ 14 AWG (≈ 140/34) • 2.50 mm ²				
77741403	3	0.366	9.3	85
77741404	4	0.394	10.0	104
77741405	5	0.437	11.1	126
77741407	7	0.504	12.8	167
77741412	12	0.618	15.7	269
77741418	18	0.732	18.6	388
77741425	25	0.925	23.5	569
▶ 12 AWG (≈ 224/34) • 4.00 mm ²				
77741203	3	0.413	10.5	148
77741204	4	0.453	11.5	156
77741205	5	0.496	12.6	182
▶ 10 AWG (≈ 186/32) • 6.00 mm ²				
77741003	3	0.480	12.2	173
77741004	4	0.524	13.3	217
77741005	5	0.575	14.6	253

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 8 AWG (≈ 320/32) • 10.00 mm ²				
77740803	3	0.622	15.8	281
77740804	4	0.685	17.4	360
77740805	5	0.768	19.5	439
▶ 6 AWG (≈ 504/32) • 16.00 mm ²				
77740603	3	0.732	18.6	399
77740604	4	0.811	20.6	554
77740605	5	0.965	24.5	714
▶ 4 AWG (≈ 760/32) • 25.00 mm ²				
77740404	4	1.024	26.0	835
77740405	5	1.138	28.9	1016
▶ 2 AWG (≈ 1083/32) • 35.00 mm ²				
77740204	4	1.161	29.5	1093
77740205	5	1.291	32.8	1332
▶ 1 AWG (≈ 703/28) • 50.00 mm ²				
77740104	4	1.425	36.2	1566

Other dimensions and colors are available on request



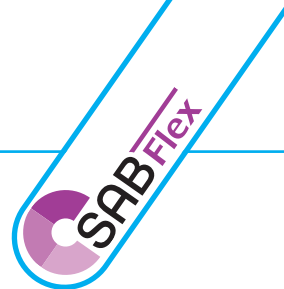
Possible on request:

- with blue, red or white conductors

Continuous Flex Cables for Greenhouses

SD 980 CP

High speed continuous flex heavy duty shielded halogen-free polyurethane data cable



Marking for SD 980 CP 77842625:

SAB BRÖCKSKES · D-VIERSEN · 77842501 25 x 0.14 mm² SD 980 CP 26 AWG/25c 77842625 AWM Style 21198 80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	TPE
Color code:	DIN 47100, see below
Stranding:	specially adjusted layering with non-woven tape over each layer
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with matte surface
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- halogen-free
- travel > 10 m is possible
- good EMC characteristics
- high abrasion resistance

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL/CSA:	300 V
Testing voltage:	conductor/conductor: 2000 V conductor/shielding: 2000V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE UL/CSA: up to +80°C -50/+90°C -40/+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, CSA FT1 (acc. to dimension), FT2
Oil resistance:	very good - TPU acc. to IEC 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Continuous flexibility:	very good
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
► 26 AWG (≈ 18/38) • 0.14 mm ²			
77842603	3	0.165 4.2	16
77842604	4	0.177 4.5	18
77842605	5	0.193 4.9	22
77842607	7	0.209 5.3	26
77842610	10	0.236 6.0	32
77842614	14	0.252 6.4	37
77842618	18	0.276 7.0	46
77842625	25	0.315 8.0	59

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
► 24 AWG (≈ 32/38) • 0.25 mm ²			
77842403	3	0.181 4.6	19
77842404	4	0.189 4.8	22
77842405	5	0.205 5.2	27
77842407	7	0.228 5.8	32
77842410	10	0.260 6.6	41
77842414	14	0.276 7.0	51
77842418	18	0.307 7.8	61
77842425	25	0.354 9.0	81

item no.	no. of conductors incl. ground	nominal outer-ø inch mm	cable weight ≈lbs/mft
► 22 AWG (≈ 42/38) • 0.34 mm ²			
77842203	3	0.189 4.8	22
77842204	4	0.201 5.1	26
77842205	5	0.220 5.6	30
77842207	7	0.244 6.2	37
77842210	10	0.276 7.0	48
77842214	14	0.295 7.5	60
77842218	18	0.323 8.2	73
77842225	25	0.378 9.6	95

Other dimensions and colors are available on request

DIN 47100 color code:

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



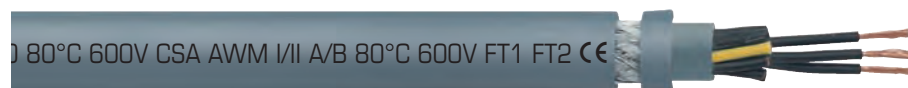
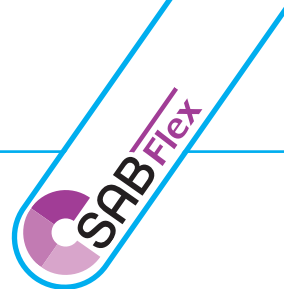
Possible on request:

- with colored conductors acc. to US 2
- 20 AWG & 19 AWG

Continuous Flex Cables for Greenhouses

S 980 CP

High speed continuous flex heavy duty shielded halogen-free polyurethane control cable



Marking for S 980 CP 77842012:

SAB BRÖCKSKES · D-VIERSEN · 77841205 x 0.5 mm² S 980 CP 20 AWG/7c 77842012 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, VDE 0295, class 6
Insulation:	TPE
Color code:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
Stranding:	specially adjusted layering with non-woven tape over each layer
Inner jacket:	special SABIX®
Wrapping:	non-woven tape
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-3 + VDE 0207-363-3-10-2 with matte surface
Jacket color:	gray (RAL 7000)

Outstanding features:

- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- travel > 10 m is possible
- good EMC characteristics
- high abrasion resistance
- small bending radius

Technical data:

Nominal voltage:	U ₀ /U 300/500 V
Voltage UL/CSA:	600 V
Testing voltage:	conductor/conductor: 2000 V conductor/shielding: 2000 V
Min. bending radius: continuously flexing:	7.5 x O.D.
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE UL/CSA: up to +80°C -50/+90°C -40/+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, CSA FT1, FT2
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids etc.
Continuous flexibility:	very good
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 20 AWG (≈ 28/34) • 0.50 mm ²				
77842003	3	0.339	8.6	58
77842004	4	0.354	9.0	66
77842005	5	0.382	9.7	75
77842007	7	0.425	10.8	92
77842012	12	0.496	12.6	137
77842018	18	0.579	14.7	192
77842025	25	0.673	17.1	255
▶ 19 AWG (≈ 42/34) • 0.75 mm ²				
77841903	3	0.354	9.0	65
77841904	4	0.374	9.5	74
77841905	5	0.406	10.3	85
77841907	7	0.461	11.7	116
77841912	12	0.543	13.8	171
77841918	18	0.630	16.0	238
77841925	25	0.736	18.7	306
▶ 18 AWG (≈ 56/34) • 1.00 mm ²				
77841803	3	0.362	9.2	71
77841804	4	0.386	9.8	82
77841805	5	0.413	10.5	95
77841807	7	0.476	12.1	129
77841812	12	0.559	14.2	201
77841818	18	0.634	16.1	269
77841825	25	0.760	19.3	350

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 16 AWG (≈ 84/34) • 1.50 mm ²				
77841603	3	0.374	9.5	80
77841604	4	0.425	10.8	102
77841605	5	0.453	11.5	127
77841607	7	0.520	13.2	168
77841612	12	0.618	15.7	258
77841618	18	0.709	18.0	346
77841625	25	0.909	23.1	521
▶ 14 AWG (≈ 140/34) • 2.50 mm ²				
77841403	3	0.449	11.4	123
77841404	4	0.476	12.1	146
77841405	5	0.528	13.4	175
77841407	7	0.610	15.5	248
77841412	12	0.736	18.7	376
77841418	18	0.921	23.4	566
77841425	25	1.071	27.2	725
▶ 12 AWG (≈ 224/34) • 4.00 mm ²				
77841203	3	0.496	12.6	167
77841204	4	0.543	13.8	205
77841205	5	0.598	15.2	251
▶ 10 AWG (≈ 186/32) • 6.00 mm ²				
77841003	3	0.579	14.7	234
77841004	4	0.622	15.8	294
77841005	5	0.681	17.3	334

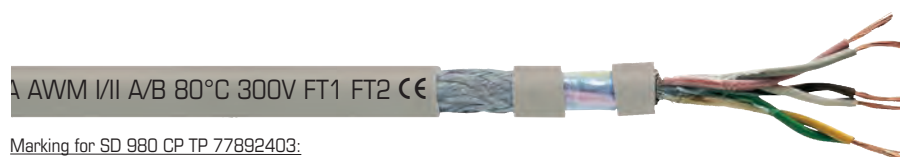
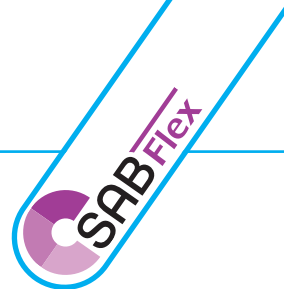
item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 8 AWG (≈ 320/32) • 10.00 mm ²				
77840803	3	0.740	18.8	372
77840804	4	0.807	20.5	458
77840805	5	0.957	24.3	607
▶ 6 AWG (≈ 504/32) • 16.00 mm ²				
77840603	3	0.878	22.3	528
77840604	4	0.992	25.2	703
77840605	5	1.110	28.2	845
▶ 4 AWG (≈ 760/32) • 25.00 mm ²				
77840404	4	1.169	29.7	1011
77840405	5	1.283	32.6	1211
▶ 2 AWG (≈ 1083/32) • 35.00 mm ²				
77840204	4	1.307	33.2	1289
77840205	5	1.437	36.5	1545

Other dimensions and colors are available on request

Continuous Flex Cables for Greenhouses

SD 980 CP TP

High speed continuous flex twisted pairs heavy duty shielded halogen-free polyurethane data cable



Marking for SD 980 CP TP 77892403:

SAB BRÖCKSKES · D-VIERSEN · 77890325 3 x 2 x 0.25 mm² SD 980 CP TP 24 AWG/3pr 77892403 AWM Style 21198 80°C 300V CSA AWM I/II A/B 80°C 300V FT1 FT2 CE

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	TPE
Color code:	DIN 47100, see below
Stranding:	conductors twisted to pairs, pairs twisted in specially adjusted layering with non-woven tape over each layer
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with matte surface
Jacket color:	grayish tan (RAL 7032)

Outstanding features:

- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- halogen-free
- travel > 10 m is possible
- good EMC characteristics
- high abrasion resistance
- 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: continuously flexing:	7.5 x O.D.
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range: static: flexing:	DIN VDE UL/CSA: up to +80°C -50/+90°C -40/+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, CSA FT1 (acc.to dimension), FT2
Oil resistance:	very good - TPU acc. to IEC 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Continuous flexibility:	very good
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 26 AWG (≈ 18/38) • 0.14 mm ²				
77892602	2	0.201	5.1	23
77892603	3	0.220	5.6	26
77892604	4	0.248	6.3	32
77892605	5	0.264	6.7	36
77892607	7	0.283	7.2	43
77892610	10	0.331	8.4	56
77892614	14	0.366	9.3	71
77892618	18	0.406	10.3	91
77892625	25	0.461	11.7	117
▶ 24 AWG (≈ 32/38) • 0.25 mm ²				
77892402	2	0.220	5.6	28
77892403	3	0.244	6.2	35
77892404	4	0.272	6.9	40
77892405	5	0.291	7.4	46
77892407	7	0.311	7.9	57
77892410	10	0.362	9.2	74
77892414	14	0.429	10.9	105
77892418	18	0.457	11.6	126
77892425	25	0.551	14.0	185

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 22 AWG (≈ 42/38) • 0.34 mm ²				
77892202	2	0.232	5.9	32
77892203	3	0.256	6.5	40
77892204	4	0.291	7.4	48
77892205	5	0.311	7.9	54
77892207	7	0.335	8.5	66
77892210	10	0.390	9.9	87
77892214	14	0.457	11.6	125
77892218	18	0.492	12.5	150
77892225	25	0.579	14.7	215
▶ 20 AWG (≈ 28/34) • 0.50 mm ²				
77892002	2	0.268	6.8	40
77892003	3	0.299	7.6	53
77892004	4	0.343	8.7	66
77892005	5	0.370	9.4	76
77892007	7	0.406	10.3	99
77892010	10	0.476	12.1	132
77892014	14	0.563	14.3	189
77892018	18	0.634	16.1	244
77892025	25	0.709	18.0	309

item no.	no. of pairs	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 19 AWG (≈ 42/34) • 0.75 mm ²				
77891902	2	0.303	7.7	53
77891903	3	0.346	8.8	66
77891904	4	0.390	9.9	81
77891905	5	0.437	11.1	108
77891907	7	0.469	11.9	127
77891910	10	0.579	14.7	204
77891914	14	0.681	17.3	271
77891918	18	0.732	18.6	327
77891925	25	0.894	22.7	473

Other dimensions and colors are available on request

DIN 47100 color code:

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



Possible on request:

- 20 AWG & 19 AWG
- with colored conductors acc. to US 3

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



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

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	
Peak operating voltage:	max. 350 V	max. 350 V
Voltage:	UL: 600 V	UL: 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: up to +80°C -40/+80°C -25/+80°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	

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



SPECIAL
CABLES
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CAT 6/6A Ethernet Cables for Greenhouses

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, suitable for robots



9 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
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



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CAT 7A Ethernet Cables for Greenhouses

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

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



20549 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 <i>suitable for cable tracks</i>	CATLine CAT 7A RT <i>suitable for robots</i>
Item numbers:	17774631 / 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 <i>suitable for cable tracks</i>	CATLine CAT 7A RT <i>suitable for robots</i>
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
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/mt
▶ 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

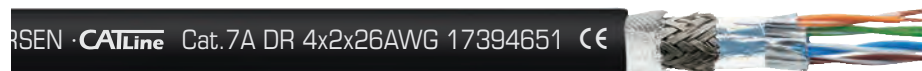
Also possible as a
cable assembly with
M12 or RJ 45 plug



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Reeling Ethernet Cables for Greenhouses

CATLine CAT 5e DR CAT 5e reeling industrial Ethernet cable
CATLine CAT 6A DR CAT 6A reeling gigabit Ethernet cable
CATLine CAT 7A DR CAT 7A reeling gigabit Ethernet cable



Marking for CATLine CAT 7A DR 17394651:

SAB BRÖCKSKES · D-VIERSEN · CATLine Cat. 7A DR 4x2x26AWG 17394651 CE

Construction:	CATLine CAT 5e DR <i>reeling Ethernet cable</i>	CATLine CAT 6A DR <i>reeling Ethernet cable</i>	CATLine CAT 7A DR <i>reeling Ethernet cable</i>
Item numbers:	15394651	16394651	17394651
Dimensions:	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
Insulation:	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	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	conductors twisted to pairs, pairs shielded with foil, pairs together
Wrapping:	non-woven tape	non-woven tape	—
Shielding:	alu foil	alu foil	aluminized 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 / supporting braid/ PUR	PUR / supporting braid/ PUR	PUR / supporting braid/ PUR
Jacket color:	black (RAL 9005)	black (RAL 9005)	black (RAL 9005)

Technical data:	CATLine CAT 5e DR <i>reeling Ethernet cable</i>	CATLine CAT 6A DR <i>reeling Ethernet cable</i>	CATLine CAT 7A DR <i>reeling Ethernet cable</i>
Peak operating voltage:	max. 90 V	max. 90 V	max. 90 V
Testing voltage: conductor/conductor: conductor/shielding:	750 V 750 V	750 V 750 V	750 V 750 V
Min. bending radius fixed laying and installation (fixed installation): for repeated winding action (flexible application): guided on pulleys (flexible application):	5 x O.D. 10 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 VDE: static: flexible:	-50/+90°C -40/+90°C	-50/+90°C -40/+90°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	acc. to IEC 60754-1 + VDE 0482-754-1
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	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 50288-2-2 / CAT 5	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 / CAT 7A
Weather resistance:	very good	very good	very good
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	tensile strength max. N
▶ 15394651	CATLine CAT 5e DR	26 (≈ 7/34)/4pr	1.05	0.335	8.5	53	200
▶ 16394651	CATLine CAT 6A DR	26 (≈ 7/34)/4pr	1.05	0.335	8.5	54	200
▶ 17394651	CATLine CAT 7A DR	26 (≈ 7/34)/4pr	1.05	0.413	10.5	79	200

Other dimensions and colors are available on request

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



866-722-2974 • www.sabcable.com

Servo Motor Cables for Greenhouses

SL 834 C

PUR motor connection cable with overall tinned copper shield, low capacitance 0.6/1 kV



Marking for SL 834 C 8341604:

SAB BRÖCKSKES · D-VIERSEN · 8340415 4 x 1.5 mm² SL 834 C 16 AWG/4c 1000V 8341604 **DESINA** AWM Style 20235 80°C CSA AWM I/II A/B 80°C 1000V FT1 FT2 CE

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
Insulation:	special polymer
Color code:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green/yellow ground
Stranding:	in layers
Wrapping:	non-woven tape
Shielding:	tinned copper braiding
Jacket material:	PUR
Jacket color:	orange (RAL 2003)

Outstanding features:

- UL recognition, CSA approval
- low capacitance construction
- very good EMC characteristics
- halogen-free
- very high flexibility
- suitable for cable tracks
- very good oil resistance
- very long service life
- adhesion-free installation
- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- DESINA® colors (see page G/3)

Technical data:

Nominal voltage:	U _o /U 0.6/1 kV
Voltage UL/CSA:	1000 V
Testing voltage:	conductor/conductor: 4000 V conductor/shielding: 4000 V
Min. bending radius:	<i>fixed installation:</i> 5 x O.D. <i>free movement:</i> 10 x O.D. <i>for continuous flexing:</i> 12 x O.D.
Radiation resistance:	5 x 10 ⁷ cuj/kg
Temperature range:	DIN VDE UL/CSA: up to +80°C <i>static:</i> -50/+70°C <i>flexible:</i> -40/+70°C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1, CSA FT1, FT2
Oil resistance:	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30



for DNC motors
on frequency converters

DESINA[®]
SIEMENS[®]

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 16 AWG (≈ 84/34) ▪ 1.50 mm ² 8341604	4	0.354	9.0	85
▶ 14 AWG (≈ 140/34) ▪ 2.50 mm ² 8341404	4	0.425	10.8	131
▶ 12 AWG (≈ 224/34) ▪ 4.00 mm ² 8341204	4	0.488	12.4	181

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 10 AWG (≈ 186/32) ▪ 6.00 mm ² 8341004	4	0.606	15.4	267
▶ 8 AWG (≈ 320/32) ▪ 10.00 mm ² 8340804	4	0.693	17.6	406
▶ 6 AWG (≈ 504/32) ▪ 16.00 mm ² 8340604	4	0.894	22.7	640

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 4 AWG (≈ 760/32) ▪ 25.00 mm ² 8340404	4	1.008	25.6	875
▶ 2 AWG (≈ 1083/32) ▪ 35.00 mm ² 8340204	4	1.138	28.9	1176
▶ 1 AWG (≈ 703/28) ▪ 50.00 mm ² 8340104	4	1.358	34.5	1670

Other dimensions and colors are available on request

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Servo Motor Cables for Greenhouses

SL 841 C

TPE motor connection cable with 1 or 2 pairs and overall tinned copper shield, 0.6/1 kV



Marking for SL 841 C 8410407:

SAB BRÖCKSKES · D-VIERSEN · 8410407 SL 841 C 4 x 0.75 mm² (1000V) + 2 x (2 x 0.34 mm²) (300V) **DESINA** AWM Style 20235 80°C CSA AWM I/II A/B 80°C 300V FT1 FT2 **CE**

Construction:

Conductor:	bare copper strands acc. to IEC 60228, VDE 0295, class 6 < 20 AWG with reference to VDE 0812
Insulation:	TPE
Color code:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 and a green/yellow ground supply conductors: * U1, V2, W3 and a green/yellow ground control conductors: ** BR1 and BR2
from item no. 08411415:	
Stranding:	control conductors 22 - 14 AWG twisted to pairs
Shielding:	pairs wrapped with alu-foil, tinned copper braiding
Wrapping:	pairs with PETP foil
Stranding:	shielded control pairs and supply conductors twisted together in layers
Wrapping:	two layers non-woven tape
Shielding:	overall tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with matte surface
Jacket color:	orange (RAL 2003)

Technical data:

Nominal voltage:	supply conductors: U ₀ /U 0.6/1 kV
Peak operating voltage:	control conductors: max. 350 V
Voltage UL/CSA:	control conductors: 300 V supply conductors: 1000 V
Testing voltage:	
<i>supply conductors:</i>	conductor/conductor: 4000 V conductor/shielding: 4000 V
<i>control conductors:</i>	conductor/conductor: 2000 V conductor/shielding: 2000 V
Min. bending radius:	
<i>fixed installation:</i>	5 x O.D.
<i>free movement:</i>	10 x O.D.
<i>for continuous flexing:</i>	12 x O.D.
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range:	DIN VDE UL/CSA: up to +80°C
<i>static:</i>	-50/+90°C
<i>flexible:</i>	-40/+90°C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1, CSA FT1, FT2
Oil resistance:	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Weather resistance:	very good
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

Outstanding features:

- UL recognition, CSA approval
- very good EMC characteristics
- long service life
- adhesion-free installation
- suitable for cable tracks
- halogen-free
- free from paint wetting impairment substances (PWIS-free)
- flexible at low temperatures
- DESINA®** colors (see page G/3)
- in accordance with Indramat INK and Siemens 6FX8008



Cable harnessing possible on request

item no.	power conductors	single pairs individually shielded	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 8410407	19 AWG/ 4c	22 AWG/ 2pr	0.457 ± 0.020	11.6 ± 0.5	113
▶ 8410410	18 AWG/ 4c	19 AWG/ 2pr	0.465 ± 0.020	11.8 ± 0.5	135
▶ 8410415	16 AWG/ 4c	19 AWG/ 2pr	0.484 ± 0.020	12.3 ± 0.5	153
▶ 8410425	14 AWG/ 4c	18 AWG/ 2pr	0.571 ± 0.031	14.5 ± 0.8	215
▶ 8410441	12 AWG/ 4c	18 AWG/ 1pr + 16 AWG/ 1pr	0.685 ± 0.024	17.4 ± 0.6	308
▶ 8410461	10 AWG/ 4c	18 AWG/ 1pr + 16 AWG/ 1pr	0.744 ± 0.031	18.9 ± 0.8	374
▶ 8410471	8 AWG/ 4c	18 AWG/ 1pr + 16 AWG/ 1pr	0.803 ± 0.039	20.4 ± 1.0	495
▶ 8410485	6 AWG/ 4c	16 AWG/ 2pr	1.024 ± 0.031	26.0 ± 0.8	746
▶ 8410490	4 AWG/ 4c	16 AWG/ 2pr	1.157 ± 0.031	29.4 ± 0.8	1019
▶ 8410495	2 AWG/ 4c	16 AWG/ 2pr	1.232 ± 0.031	31.3 ± 0.8	1265
▶ 8410496	1 AWG/ 4c	14 AWG/ 2pr	1.504 ± 0.031	38.2 ± 0.8	1787

item no.	power conductors	single pairs individually shielded	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 8411415	16 AWG/ 4c	16 AWG/ 1pr	0.492 ± 0.012	12.5 ± 0.3	49
▶ 8411425	14 AWG/ 4c	16 AWG/ 1pr	0.524 ± 0.016	13.3 ± 0.4	191
▶ 8411440	12 AWG/ 4c	16 AWG/ 1pr	0.598 ± 0.016	15.2 ± 0.4	248
▶ 8411460	10 AWG/ 4c	16 AWG/ 1pr	0.654 ± 0.043	16.6 ± 1.1	326
▶ 8411470	8 AWG/ 4c	16 AWG/ 1pr	0.768 ± 0.063	19.5 ± 1.6	455
▶ 8411480	6 AWG/ 4c	16 AWG/ 1pr	0.933 ± 0.039	23.7 ± 1.0	685
▶ 8411490	4 AWG/ 4c	16 AWG/ 1pr	1.071 ± 0.028	27.2 ± 0.7	953
▶ 8411495	2 AWG/ 4c	16 AWG/ 1pr	1.185 ± 0.039	30.1 ± 1.0	1216
▶ 8411496	1 AWG/ 4c	16 AWG/ 1pr	1.354 ± 0.039	34.4 ± 1.0	1655

Other dimensions and colors are available on request

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Servo Motor Cables for Greenhouses

SL 843 C

Composite TPE/PUR transmission cable with overall tinned copper shield



type 20235 80°C CSA AWM I/II A/B 80°C 300V FT1 CE

Marking for SL 843 C 8431050:

SAB BRÖCKSKES · D-VIERSEN · 8431050 SL 843 C 3 x (2 x 0.14 mm² D) + 4 x 0.22 mm² + 2 x 0.5 mm² DESINA AWM-Style 20235 80°C CSA AWM I/II A/B 80°C 300V FT1 CE

Construction:

Conductor:	bare copper strands with reference to VDE 0812
Insulation:	TPE
Color code:	colored (see chart below)
Stranding:	in layers or pairwise
Shielding:	acc. to dimension: pairs with tinned copper wires braided or wrapped
Inner jacket:	TPE over shielded pairs
Stranding:	conductors/pairs twisted together in layers
Wrapping:	one or two layers non-woven tape
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with matte surface
Jacket color:	green (RAL 6018) or orange (RAL 2003)

Outstanding features:

- UL recognition, CSA approval
- good EMC characteristics
- suitable for cable tracks
- oil resistant
- long service life
- adhesion-free installation
- halogen-free
- free from paint wetting impairment substances (PWIS-free)
- in accordance with Indramat INK and Siemens 6FX8008

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:	5 x O.D.
fixed installation:	10 x O.D.
free movement:	12 x O.D.
for continuous flexing:	
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range:	DIN VDE UL/CSA: up to +80°C
static:	-50/+90°C
flexible:	-40/+90°C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL FT1, CSA FT1
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Weather resistance:	very good
Approvals:	UR AWM, CSA AWM, CE, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30



suitable for
resolvers and shaft encoders

item no.	dimensions	jacket color	nominal outer-ø	inch	mm	cable weight	color codes
						≈lbs/mft	
▶ 8430009	24/4pr + 20/2c	orange	0.346 ± 0.012	8.8 ± 0.3	62		(BN/GN+RD/BK+BU/VT+GY/PK) - (WH+BN)
▶ 8430010	24/4pr + 18/2c	orange	0.346 ± 0.012	8.8 ± 0.3	65		(BN/GN+RD/BK+BU/VT+GY/PK) - (WH+BN)
▶ 8430160	(24/3pr)D + 24/3c + 18/2c	orange	0.394 ± 0.012	10.0 ± 0.3	89		(GN/YE+GY/PK+BU/RD) - (GY-PK+RD-BU+WH-GN) - (WH+BN)
▶ 8430040	(24/3pr)D	orange	0.343 ± 0.012	8.7 ± 0.3	63		(WH/BN+GN/YE+GY/PK)
▶ 8430060	26/4pr + (26/4c)D + 18/4c	orange	0.386 ± 0.012	9.8 ± 0.3	91		(GY/PK+YE/VT+BN/GN+BK/RD) - (GN-BK+BU-BK+YE-BK+RD-BK) - (WH+BU+WH-GN+BN-GN)
▶ 8430012	26/4pr + 20/4c	green	0.358 ± 10%	9.1 ± 10%	68		(PK/GY+RD/BK+BN/GN+YE/VT) - (BU+WH+BN-GN+WH-GN)
▶ 8430112	26/10c + 20/2c	green	0.335 ± 10%	8.5 ± 10%	60		(WH+BN+GN+YE+GY+PK+BU+RD+BK+VT) - (WH+BN)
▶ 8430114	26/10c + 20/4c	green	0.354 ± 10%	9.0 ± 10%	71		(WH+BN+GN+YE+GY+PK+BU+RD+BK+VT) - (WH+BN+GN+YE)
▶ 8430006	24/3pr + 20/2c	green	0.343 ± 10%	8.7 ± 10%	60		(WH/BN+GN/YE+GY/PK) - (BU+RD)
▶ 8430013	22/4pr + 20/4c	green	0.406 ± 10%	10.3 ± 10%	91		(WH/BN+GN/YE+GY/PK+BU/RD) - (BK+VT+GY-PK+RD-BU)
▶ 8430020	(26/3pr)C + 18/2c	green	0.394 ± 10%	10.0 ± 10%	85		(GN/YE+GY/PK+BU/RD) - (WH+BN)
▶ 8430022	(26/3pr)C + (20/2c)C	green	0.398 ± 10%	10.1 ± 10%	90		(GN/YE+GY/PK+BU/RD) - (WH+BN)
▶ 8431050	(26/3pr)D + 26/4c + 24/4c + 20/2c	green	0.421 ± 10%	10.7 ± 10%	87		(RD/OR+BN/BK+GN/YE) - (BU+GY+WH-BK+WH-YE) - (BN-YE+GN-RD+BN-GY+GN-BK) - (BN-BU+BN-RD)
▶ 8430070	(26/3pr)D + 26/4c + 20/2c	green	0.398 ± 10%	10.1 ± 10%	82		(RD/OR+BN/BK+GN/YE) - (BU+GY+WH-BK+WH-YE) - (BN-BU+BN-RD)
▶ 8430310	24/12c	green	0.335 ± 10%	8.5 ± 10%	58		(WH+BN+GN+YE+GY+PK+BU+RD+BK+VT+GY-PK+RD-BU)
▶ 8430212	26/2pr	green	0.264 ± 10%	6.7 ± 10%	34		(WH/BN+GN/YE)
▶ 8430214	26/4pr	green	0.323 ± 10%	8.2 ± 10%	48		(WH/BN+GN/YE+GY/PK+BU/RD)
▶ 8430216	26/8pr	green	0.382 ± 10%	9.7 ± 10%	70		(WH/BN+GN/YE+GY/PK+BU/RD+BK+VT+GY-PK+RD-BU+WH-GN/BN-GN+WH-YE/BN)

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Other dimensions and colors are available on request



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Servo Motor Cables for Greenhouses

SL 839 C

Composite PUR transmission cable with overall tinned copper shield



Marking for SL 839 C 8390122:

SAB BRÖCKSKES · D-VIERSEN · 8390122 SL 839 C 12 x 0.22 mm² **DESINA** AWM Style 20236 80°C 30V

Construction:

Conductor:	tinned copper strands with reference to VDE 0812
Insulation:	special polymer
Color code:	colored (see chart below)
Shielding:	acc. to dimension: pairs shielded with tinned copper braiding
Inner jacket:	special polymer
Stranding:	conductors or pairs
Stranding:	conductors/pairs twisted together in layers
Wrapping:	one non-woven tape or non-woven tape and PETP foil
Shielding:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 with matte surface or PU acc. to UL 758
Jacket color:	green (RAL 6018)

Technical data:

Nominal voltage:	max. 30 V
Voltage UL:	30 V
Testing voltage:	conductor/conductor: 600 V conductor/shielding: 600 V
Min. bending radius:	fixed installation: 5 x O.D. free movement: 10 x O.D. for continuous flexing: 12 x O.D.
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range:	DIN VDE UL/CSA: up to +80°C static: -40/+70°C flexible: -20/+70°C
Oil resistance:	very good - TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2 or oil rating 60°C acc. to UL 758
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids, etc.
Weather resistance:	very good
Approvals:	UR AWM, EAC, RoHS
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

Outstanding features:

- UL recognition
- good EMC characteristics
- flexible and flexing installation
- oil resistant
- long service life
- adhesion-free installation
- halogen-free
- suitable for cable tracks
- free from paint wetting impairment substances (PWIS-free)
- DESINA® colors (see page G/3)
- Siemens Drive CLiQ



suitable for resolvers
and shaft encoders and
Sinamics DRIVE CLiQ

item no.	dimensions	nominal outer-ø		cable weight ≈lbs/mft	color codes
		inch	mm		
Jacket material TPU acc. to DIN VDE 0282					
▶ 8390114	(26/3pr)D + (20/2c)D	0.362 ± 0.016	9.2 ± 0.4	71	(GN/YE+BN/BK+OR/RD) - (RD+BK)
▶ 8390214	(26/3pr)D + 26/4c + 20/2c	0.354 ± 0.016	9.0 ± 0.4	68	(RD/OR+BN/BK+GN/YE) - (BU+GY+WH-BK+WH-YE) - (BN-BU+BN-RD)
▶ 8391050	(26/3pr)D + 26/4c + 24/4c + 20/2c	0.378 ± 0.016	9.6 ± 0.4	77	(RD/OR+BN/BK+GN/YE) - (BU+GY+WH-BK+WH-YE) - (BN-YE+GN-RD+BN-GY+GN-BK) - (BN-BU+BN-RD)
▶ 8390138	22/4pr + 20/4c	0.346 ± 0.016	8.8 ± 0.4	75	(RD/OR+GN/YE+BU/VT+BN/BK) - (BK-WH+RD-WH+YE-WH+BU-WH)
▶ 8390318	26/8pr	0.307 ± 0.016	7.8 ± 0.4	52	(WH/GY+VT/BU+GN/YE+OR/RD+BK/BN+WH-RD/WH-OR+WH-BK/WH-BN+WH-YE/WH-GN)
▶ 08390122	22/12c	0.264 ± 0.016	6.7 ± 0.4	44	(RD+BK+BN+WH+GY+VT+BU+GN+YE+OR+WH-BN+WH-BK)
Jacket material PU acc. to UL 758					
▶ 8390118	26/4c	0.193 ± 0.016	4.9 ± 0.4	20	(RD+BK+OR+BN)
▶ 8390218	26/4pr	0.248 ± 0.016	6.3 ± 0.4	34	(VT/BU+GN/YE+OR/RD+BK/BN)
Siemens Sinamics/ DRIVE CLiQ					
▶ 8390115	2 x 2 x 0.15 mm ² + 2 x 0.38 mm ² ≈ 26/2pr + 22/2c	0.272 ± 0.012	6.9 ± 0.3	45	(GN/YE+BU/PK) + (RD+BK)
▶ 8390220	2 x 2 x 0.20 mm ² + 2 x 0.38 mm ² ≈ 25/2pr + 22/2c	0.272 ± 0.012	6.9 ± 0.3	41	(GN/YE+BU/PK) + (RD+BK)

D = spiral shield with pairs

Other dimensions and colors are available on request

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Polyamide Cord Grips for Greenhouses

CG 100 Metric

Dome cap cord grip, black or gray with locknut

Metric Thread

Liquid tight seal, fast and easy installation, wide clamping range, multi-purpose applications, easy handling.



Technical data:

Material:	Polyamide 6
Seal:	Chloroprene (CR)
Color:	RAL 7001 (gray) RAL 9005 (black)
Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	<i>permanent:</i> -20°C to +100°C <i>intermittent:</i> -30°C to +150°C
Flammability:	V2 (according to UL 94)
Approvals:	cURus, cULus, cCSAus, VDE, DNV-GL, CE



Part Number		Thread Type	Clamping Range Ø min-max (CR)		Outer Diameter (D)	Wrenching Flats Cap (SW1) Body (SW2)		Thread Diameter (TD)		Thread Length (TL)	Max. Height (H)	UL
gray	black		inches	mm	inches	inches	inches	inches	mm	inches	inches	
Metric												
PMG-12*	PMB-12*	M12x1.5	0.118 - 0.256	3.0 - 6.5	0.669	0.591	0.591	0.472	12	0.315	0.996	cURus
PMG-16C*	PMB-16C*	M16x1.5	0.157 - 0.315	4.0 - 8.0	0.854	0.748	0.748	0.630	16	0.394	1.079	-
PMG-16*	PMB-16*	M16x1.5	0.197 - 0.394	5.0 - 10.0	0.984	0.866	0.866	0.630	16	0.394	1.268	cURus
PMG-20*	PMB-20*	M20x1.5	0.236 - 0.472	6.0 - 12.0	1.063	0.945	0.945	0.787	20	0.394	1.276	cULus
PMG-20C*	PMB-20C*	M20x1.5	0.394 - 0.551	10.0 - 14.0	1.217	1.063	1.063	0.787	20	0.394	1.256	cULus
PMG-25C*	PMB-25C*	M25x1.5	0.433 - 0.669	11.0 - 17.0	1.280	1.142	1.142	0.984	25	0.315	1.484	cULus
PMG-25*	PMB-25*	M25x1.5	0.512 - 0.709	13.0 - 18.0	1.465	1.299	1.299	0.984	25	0.394	1.512	cULus
PMG-32C*	PMB-32C*	M32x1.5	0.591 - 0.827	15.0 - 21.0	1.614	1.417	1.417	1.260	32	0.394	1.665	cULus
PMG-32	PMB-32	M32x1.5	0.709 - 0.984	18.0 - 25.0	1.854	1.654	1.654	1.260	32	0.591	1.705	cULus
PMG-40C†	PMB-40C†	M40x1.5	0.748 - 1.102	19.0 - 28.0	2.063	1.811	1.811	1.575	40	0.394	1.866	cULus
PMG-40	PMB-40	M40x1.5	0.866 - 1.260	22.0 - 32.0	2.346	2.087	2.087	1.575	40	0.709	2.063	cULus
PMG-50	PMB-50	M50x1.5	1.181 - 1.496	30.0 - 38.0	2.669	2.362	2.362	1.969	50	0.709	2.157	cULus
PMG-63	PMB-63	M63x1.5	1.339 - 1.732	34.0 - 44.0	2.850	2.559	2.559	2.480	63	0.709	2.161	cULus
PMG-75	PMB-75	M75x2.0	1.890 - 2.165	48.0 - 55.0	3.504	2.953	3.150	2.953	75	0.984	2.165	cULus
Metric with Reducer Bushings												
PMG-12R	PMB-12R	M12x1.5	0.079 - 0.197	2.0 - 5.0	0.669	0.591	0.591	0.472	12	0.315	0.996	cURus
PMG-16RC*	PMB-16RC*	M16x1.5	0.079 - 0.236	2.0 - 6.0	0.854	0.748	0.748	0.630	16	0.394	1.079	-
PMG-16R*	PMB-16R*	M16x1.5	0.118 - 0.276	3.0 - 7.0	0.984	0.866	0.866	0.630	16	0.394	1.268	cURus
PMG-20R*	PMB-20R*	M20x1.5	0.197 - 0.354	5.0 - 9.0	1.063	0.945	0.945	0.787	20	0.394	1.276	cULus
PMG-20RC*	PMB-20RC*	M20x1.5	0.276 - 0.472	7.0 - 12.0	1.217	1.063	1.063	0.787	20	0.394	1.256	cULus
PMG-25RC*	PMB-25RC*	M25x1.5	0.354 - 0.512	9.0 - 13.0	1.280	1.142	1.142	0.984	25	0.315	1.484	cULus
PMG-25R*	PMB-25R*	M25x1.5	0.354 - 0.630	9.0 - 16.0	1.465	1.299	1.299	0.984	25	0.394	1.512	cULus
PMG-32RC*	PMB-32RC*	M32x1.5	0.433 - 0.591	11.0 - 15.0	1.614	1.417	1.417	1.260	32	0.394	1.665	cULus
PMG-32R	PMB-32R	M32x1.5	0.472 - 0.787	12.0 - 20.0	1.854	1.654	1.654	1.260	32	0.591	1.705	cULus
PMG-40RC*	PMB-40RC*	M40x1.5	0.630 - 0.906	16.0 - 23.0	2.063	1.811	1.811	1.575	40	0.394	1.866	cULus
PMG-40R	PMB-40R	M40x1.5	0.787 - 1.024	20.0 - 26.0	2.346	2.087	2.087	1.575	40	0.709	2.063	cULus
PMG-50R	PMB-50R	M50x1.5	0.984 - 1.220	25.0 - 31.0	2.669	2.362	2.362	1.969	50	0.709	2.157	cULus
PMG-63R	PMB-63R	M63x1.5	1.142 - 1.378	29.0 - 35.0	2.850	2.559	2.559	2.480	63	0.709	2.161	cULus

* Available with longer thread of 0.591". Add an "L" to end of the P/N.

† Available with longer thread of 0.709". Add an "L" to end of the P/N.

Polyamide Cord Grips for Greenhouses

CG 100 PG

Dome cap cord grip, black or gray with locknut

PG Thread

Liquid tight seal, fast and easy installation, wide clamping range, multi-purpose applications, easy handling.



Technical data:

Material:	Polyamide 6
Seal:	Chloroprene (CR)
Color:	RAL 7001 (gray) RAL 9005 (black)
Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	<i>permanent:</i> -20°C to +100°C <i>intermittent:</i> -30°C to +150°C
Flammability:	V2 (according to UL 94)
Approvals:	cURus, cULus, cCSAus, DNV-GL, CE



Part Number		Thread Type	Clamping Range Ø min-max		Outer Diameter (D)	Wrenching Flats		Thread Diameter		Thread Length (TL)	Max. Height (H)	UL
gray	black		(CR)			Cap (SW1)	Body (SW2)	(TD)				
			inches	mm		inches	inches	inches	mm			
PG												
PPG-7	PPB-7	PG 7	0.118 - 0.256	3.0 - 6.5	0.669	0.591	0.591	0.492	12.5	0.315	0.996	cURus
PPG-9	PPB-9	PG 9	0.157 - 0.315	4.0 - 8.0	0.854	0.748	0.748	0.598	15.2	0.315	1.079	cURus
PPG-11	PPB-11	PG 11	0.197 - 0.394	5.0 - 10.0	0.984	0.866	0.866	0.732	18.6	0.315	1.268	cURus
PPG-13	PPB-13	PG 13.5	0.236 - 0.472	6.0 - 12.0	1.063	0.945	0.945	0.803	20.4	0.394	1.276	cULus
PPG-16	PPB-16	PG 16	0.394 - 0.551	10.0 - 14.0	1.217	1.063	1.063	0.886	22.5	0.394	1.256	cULus
PPG-21	PPB-21	PG 21	0.512 - 0.709	13.0 - 18.0	1.465	1.299	1.299	1.114	28.3	0.433	1.512	cULus
PPG-29	PPB-29	PG 29	0.709 - 0.984	18.0 - 25.0	1.854	1.654	1.654	1.457	37.0	0.433	1.705	cULus
PPG-36	PPB-36	PG 36	0.866 - 1.260	22.0 - 32.0	2.346	2.087	2.087	1.850	47.0	0.512	2.063	cULus
PPG-42	PPB-42	PG 42	1.181 - 1.496	30.0 - 38.0	2.669	2.362	2.362	2.126	54.0	0.512	2.157	cULus
PPG-48	PPB-48	PG 48	1.339 - 1.732	34.0 - 44.0	2.850	2.559	2.559	2.335	59.3	0.551	2.161	cULus
PG with Reducer Bushings												
PPG-7R	PPB-7R	PG 7	0.079 - 0.197	2.0 - 5.0	0.669	0.591	0.591	0.492	12.5	0.315	0.996	cURus
PPG-9R	PPB-9R	PG 9	0.079 - 0.236	2.0 - 6.0	0.854	0.748	0.748	0.598	15.2	0.315	1.079	cURus
PPG-11R	PPB-11R	PG 11	0.118 - 0.276	3.0 - 7.0	0.984	0.866	0.866	0.732	18.6	0.315	1.268	cURus
PPG-13R	PPB-13R	PG 13.5	0.197 - 0.354	5.0 - 9.0	1.063	0.945	0.945	0.803	20.4	0.394	1.276	cULus
PPG-16R	PPB-16R	PG 16	0.276 - 0.472	7.0 - 12.0	1.217	1.063	1.063	0.886	22.5	0.394	1.256	cULus
PPG-21R	PPB-21R	PG 21	0.354 - 0.630	9.0 - 16.0	1.465	1.299	1.299	1.114	28.3	0.433	1.512	cULus
PPG-29R	PPB-29R	PG 29	0.472 - 0.787	12.0 - 20.0	1.854	1.654	1.654	1.457	37.0	0.433	1.705	cULus
PPG-36R	PPB-36R	PG 36	0.787 - 1.024	20.0 - 26.0	2.346	2.087	2.087	1.850	47.0	0.512	2.063	cULus
PPG-42R	PPB-42R	PG 42	0.984 - 1.220	25.0 - 31.0	2.669	2.362	2.362	2.126	54.0	0.512	2.157	cULus
PPG-48R	PPB-48R	PG 48	1.142 - 1.378	29.0 - 35.0	2.850	2.559	2.559	2.335	59.3	0.551	2.161	cULus

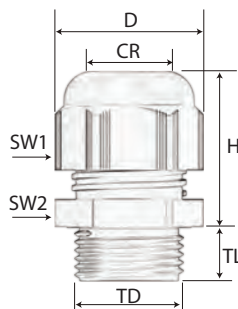
Polyamide Cord Grips for Greenhouses

CG 100 NPT

Dome cap cord grip, black or gray

NPT Thread

Liquid tight seal, fast and easy installation, wide clamping range, multi-purpose applications, easy handling.



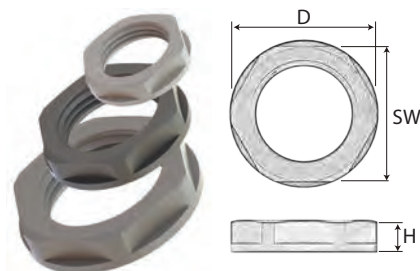
Technical data:

Material:	Polyamide 6
Seal:	Chloroprene (CR)
Color:	RAL 7001 (gray) RAL 9005 (black)
Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	permanent: -20°C to +100°C intermittent: -30°C to +150°C
Flammability:	V2 (according to UL 94)
Approvals:	cURus, cULus, cCSAus, DNV-GL, CE



Part Number		Thread Type	Clamping Range Ø min-max		Outer Diameter (D)	Wrenching Flats		Thread Diameter		Thread Length (TL)	Max. Height (H)	UL
gray	black		(CR)			Cap (SW1)	Body (SW2)	(TD)				
inches	mm		inches	mm	inches	inches	inches	inches	mm	inches	inches	
NPT												
PNG-3/8	PNB-3/8	NPT 3/8	0.197 - 0.394	5.0 - 10.0	0.984	0.866	0.866	0.675	17.2	0.591	1.268	cURus
PNG-1/2	PNB-1/2	NPT 1/2	0.236 - 0.472	6.0 - 12.0	1.063	0.945	0.945	0.840	21.3	0.591	1.276	cULus
PNG-1/2C	PNB-1/2C	NPT 1/2	0.394 - 0.551	10.0 - 14.0	1.217	1.063	1.063	0.840	21.3	0.591	1.256	cULus
PNG-3/4	PNB-3/4	NPT 3/4	0.512 - 0.709	13.0 - 18.0	1.465	1.299	1.299	1.050	26.7	0.591	1.512	cULus
PNG-1	PNB-1	NPT 1	0.709 - 0.984	18.0 - 25.0	1.854	1.654	1.654	1.315	33.4	0.709	1.705	cULus
NPT with Reducer Bushings												
PNG-3/8R	PNB-3/8R	NPT 3/8	0.118 - 0.276	3.0 - 7.0	0.984	0.866	0.866	0.675	17.2	0.591	1.268	cURus
PNG-1/2R	PNB-1/2R	NPT 1/2	0.197 - 0.354	5.0 - 9.0	1.063	0.945	0.945	0.840	21.3	0.591	1.276	cULus
PNG-1/2RC	PNB-1/2RC	NPT 1/2	0.276 - 0.472	7.0 - 12.0	1.217	1.063	1.063	0.840	21.3	0.591	1.256	cULus
PNG-3/4R	PNB-3/4R	NPT 3/4	0.354 - 0.630	9.0 - 16.0	1.465	1.299	1.299	1.050	26.7	0.591	1.512	cULus
PNG-1R	PNB-1R	NPT 1	0.472 - 0.787	12.0 - 20.0	1.854	1.654	1.654	1.315	33.4	0.709	1.705	cULus

Locknuts need to be purchased separately, see below



Part Number		Thread Type	Height		Diameter		Wrenching Flats	
gray	black		inches	mm	inches	mm	inches	mm
LNG-3/8	LNB-3/8	NPT 3/8	0.276	7	0.984	25	0.866	22
LNG-1/2	LNB-1/2	NPT 1/2	0.276	7	1.201	30.5	1.063	27
LNG-3/4	LNB-3/4	NPT 3/4	0.276	7	1.476	37.5	1.299	33
LNG-1	LNB-1	NPT 1	0.276	7	1.819	46.2	1.614	41

Metal Cord Grips for Greenhouses

CG 300 Metric

Nickel plated brass cord grip with standard or longer thread

Metric Thread

Impact resistant, suitable for industrial applications, water tight, corrosion resistant.



Technical data:

Material:	Brass, Nickel Plated
Clamping Insert:	Polyamide 6
Seal:	Chloroprene (CR)
O-Ring:	Neoprene (NBR)
Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	permanent: -20°C to +100°C intermittent: -40°C to +150°C
Flammability:	V2 (according to UL 94)
Approvals:	cURus, cULus, DNV-GL, CE



Part Number	Part Number with long threads	Thread Type	Clamping Range Ø min-max		Outer Diameter	Wrenching Flats		Thread Diameter	Thread Length	Long Thread Length	Max. Height	UL
			(CR)			Cap	Body					
			inches	mm								
Metric												
MMS-12R¹	MMS-12RL	M12x1.5	0.079 - 0.197	2.0 - 5.0	0.610	0.551	0.551	0.472	0.236	0.472	0.945	-
MMS-12¹	MMS-12L	M12x1.5	0.118 - 0.256	3.0 - 6.5	0.610	0.551	0.551	0.472	0.236	0.472	0.945	cURus
MMS-16R	MMS-16RL	M16x1.5	0.079 - 0.236	2.0 - 6.0	0.787	0.669	0.709	0.630	0.276	0.472	1.004	-
MMS-16	MMS-16L	M16x1.5	0.157 - 0.315	4.0 - 8.0	0.787	0.669	0.709	0.630	0.276	0.472	1.004	cURus
MMS-16RC	MMS-16RCL	M16x1.5	0.118 - 0.276	3.0 - 7.0	0.866	0.787	0.787	0.630	0.276	0.472	1.201	-
MMS-16C	MMS-16CL	M16x1.5	0.197 - 0.394	5.0 - 10.0	0.866	0.787	0.787	0.630	0.256	0.472	1.240	cURus
MMS-20R	MMS-20RL	M20x1.5	0.197 - 0.354	5.0 - 9.0	0.965	0.866	0.866	0.787	0.315	0.472	1.102	-
MMS-20	MMS-20L	M20x1.5	0.236 - 0.472	6.0 - 12.0	0.965	0.866	0.866	0.787	0.315	0.472	1.043	cULus
MMS-20C	MMS-20CL	M20x1.5	0.394 - 0.551	10.0 - 14.0	1.043	0.945	0.945	0.787	0.315	0.472	1.181	cULus
MMS-25R	MMS-25RL	M25x1.5	0.276 - 0.472	7.0 - 12.0	1.181	0.945	1.063	0.984	0.315	0.472	1.181	-
MMS-25*	MMS-25L	M25x1.5	0.394 - 0.551	10.0 - 14.0	1.181	0.945	1.063	0.984	0.315	0.472	1.181	cULus
MMS-25RC	MMS-25RCL	M25x1.5	0.433 - 0.669	11.0 - 17.0	1.181	1.063	1.063	0.984	0.315	0.472	1.280	cULus
MMS-25C	MMS-25CL	M25x1.5	0.512 - 0.709	13.0 - 18.0	1.299	1.181	1.181	0.984	0.315	0.472	1.378	cULus
MMS-32R	MMS-32RL	M32x1.5	0.354 - 0.630	9.0 - 16.0	1.476	1.181	1.339	1.260	0.354	0.591	1.378	-
MMS-32*	MMS-32L	M32x1.5	0.512 - 0.709	13.0 - 18.0	1.476	1.181	1.339	1.260	0.354	0.591	1.378	cULus
MMS-32RC	MMS-32RCL	M32x1.5	0.591 - 0.827	15.0 - 21.0	1.476	1.339	1.339	1.260	0.315	0.591	1.496	cULus
MMS-32C	MMS-32CL	M32x1.5	0.709 - 0.984	18.0 - 25.0	1.752	1.575	1.575	1.260	0.354	0.591	1.811	cULus
MMS-40R	MMS-40RL	M40x1.5	0.472 - 0.787	12.0 - 20.0	1.909	1.575	1.693	1.575	0.354	0.591	1.594	-
MMS-40*	MMS-40L	M40x1.5	0.709 - 0.984	18.0 - 25.0	1.909	1.575	1.693	1.575	0.354	0.591	1.594	cULus
MMS-40RC	MMS-40RCL	M40x1.5	0.748 - 1.102	19.0 - 28.0	1.909	1.693	1.693	1.575	0.354	0.591	1.791	cULus
MMS-40C	MMS-40CL	M40x1.5	0.866 - 1.260	22.0 - 32.0	2.185	1.969	1.969	1.575	0.354	0.591	2.146	cULus
MMS-50R	MMS-50RL	M50x1.5	0.787 - 1.024	20.0 - 26.0	2.402	1.969	2.165	1.969	0.354	0.591	1.969	-
MMS-50	MMS-50L	M50x1.5	0.866 - 1.260	22.0 - 32.0	2.402	1.969	2.165	1.969	0.354	0.591	1.969	cULus
MMS-50RC	MMS-50RCL	M50x1.5	1.063 - 1.496	27.0 - 38.0	2.520	2.283	2.283	1.969	0.354	0.591	2.126	cULus
MMS-50C	MMS-50CL	M50x1.5	1.339 - 1.732	34.0 - 44.0	2.756	2.520	2.520	1.969	0.354	0.591	2.165	cULus
MMS-63R	MMS-63RL	M63x1.5	1.142 - 1.378	29.0 - 35.0	2.953	2.520	2.677	2.480	0.551	0.709	2.165	-
MMS-63	MMS-63L	M63x1.5	1.339 - 1.732	34.0 - 44.0	2.953	2.520	2.677	2.480	0.551	0.709	2.165	cULus
MMS-63C	MMS-63CL	M63x1.5	1.457 - 2.087	37.0 - 53.0	3.268	2.953	2.953	2.480	63	0.709	2.087	cULus

* Other clamping ranges available

¹ Not NEMA 4X rated

Larger thread sizes (M72 to M120) available upon request

Locknuts need to be purchased separately, see page 54

Metal Cord Grips for Greenhouses

CG 300 PG

Nickel plated brass cord grip with standard or longer thread

PG Thread

Impact resistant, suitable for industrial applications, water tight, corrosion resistant.



Technical data:

Material:	Brass, Nickel Plated
Clamping Insert:	Polyamide 6
Seal:	Chloroprene (CR)
O-Ring:	Neoprene (NBR)
Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	permanent: -20°C to +100°C intermittent: -40°C to +150°C
Flammability:	V2 (according to UL 94)
Approvals:	cURus, cULus, DNV-GL, CE



Part Number	Part Number with long threads	Thread Type	Clamping Range Ø min-max		Outer Diameter (D) inches	Wrenching Flats		Thread Diameter (TD) inches	Thread Length (TL) inches	Long Thread Length (TL) inches	Max. Height (H) inches	UL
			(CR)			Cap (SW1) inches	Body (SW2) inches					
			inches	mm								
PG												
MPS-7	MPS-7L	PG 7	0.079 - 0.197	2.0 - 5.0	0.610	0.551	0.551	0.492	0.236	0.394	0.945	-
MPS-9R*	MPS-9RL	PG 9	0.118 - 0.256	3.0 - 6.5	0.610	0.551	0.551	0.492	0.236	0.394	0.945	cURus
MPS-9	MPS-9L	PG 9	0.079 - 0.236	2.0 - 6.0	0.744	0.669	0.669	0.598	0.236	0.394	1.004	-
MPS-11R*	MPS-11RL	PG 11	0.157 - 0.315	4.0 - 8.0	0.744	0.669	0.669	0.598	0.236	0.394	1.004	cURus
MPS-11	MPS-11L	PG 11	0.118 - 0.276	3.0 - 7.0	0.866	0.787	0.787	0.732	0.236	0.394	1.102	-
MPS-13R*	MPS-13RL	PG 13.5	0.197 - 0.394	5.0 - 10.0	0.866	0.787	0.787	0.732	0.236	0.394	1.102	cURus
MPS-13	MPS-13L	PG 13.5	0.197 - 0.354	5.0 - 9.0	0.965	0.866	0.866	0.803	0.256	0.394	1.043	-
MPS-16R*	MPS-16RL	PG 16	0.236 - 0.472	6.0 - 12.0	0.965	0.866	0.866	0.803	0.256	0.394	1.043	cULus
MPS-16	MPS-16L	PG 16	0.276 - 0.472	7.0 - 12.0	1.043	0.945	0.945	0.886	0.256	0.394	1.181	-
MPS-21R*	MPS-21RL	PG 21	0.394 - 0.551	10.0 - 14.0	1.043	0.945	0.945	0.886	0.256	0.394	1.181	cULus
MPS-21	MPS-21L	PG 21	0.354 - 0.630	9.0 - 16.0	1.299	1.181	1.181	1.114	0.283	0.472	1.378	-
MPS-29R*	MPS-29RL	PG 29	0.512 - 0.709	13.0 - 18.0	1.299	1.181	1.181	1.114	0.283	0.472	1.378	cULus
MPS-29	MPS-29L	PG 29	0.472 - 0.787	12.0 - 20.0	1.752	1.575	1.575	1.457	0.315	0.472	1.594	-
MPS-36R*	MPS-36RL	PG 36	0.709 - 0.984	18.0 - 25.0	1.752	1.575	1.575	1.457	0.315	0.472	1.594	cULus
MPS-36	MPS-36L	PG 36	0.787 - 1.024	20.0 - 26.0	2.185	1.969	1.969	1.850	0.354	0.551	1.969	-
MPS-42R*	MPS-42RL	PG 42	0.866 - 1.260	22.0 - 32.0	2.185	1.969	1.969	1.850	0.354	0.551	1.969	cULus
MPS-42	MPS-42L	PG 42	0.984 - 1.220	25.0 - 31.0	2.520	2.283	2.283	2.126	0.472	0.630	2.008	-
MPS-48R*	MPS-48RL	PG 48	1.181 - 1.496	30.0 - 38.0	2.520	2.283	2.283	2.126	0.472	0.630	2.008	cULus
MPS-48	MPS-48L	PG 48	1.142 - 1.378	29.0 - 35.0	2.756	2.520	2.520	2.335	0.551	0.709	2.146	-

* R versions are not NEMA 4X rated

Locknuts need to be purchased separately, see page 54

Metal Cord Grips for Greenhouses

CG 300 NPT

Nickel plated brass cord grip

NPT Thread

Impact resistant, suitable for industrial applications, water tight, corrosion resistant.



Technical data:

Material:	Brass, Nickel Plated
Clamping Insert:	Polyamide 6
Seal:	Chloroprene (CR)
O-Ring:	Neoprene (NBR)
Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	
<i>permanent:</i>	-20°C to +100°C
<i>intermittent:</i>	-40°C to +150°C
Flammability:	V2 (according to UL 94)
Approvals:	cURus, cULus, DNV-GL, CE



Part Number	Thread Type	Clamping Range Ø min-max		Outer Diameter (D)	Wrenching Flats		Thread Diameter (TD)	Thread Length (TL)	Max. Height (H)	UL
		inches	mm		inches	inches				
NPT										
MNS-3/8R	NPT 3/8	0.079 - 0.236	2.0 - 6.0	0.827	0.669	0.748	0.675	0.453	1.004	-
MNS-3/8RC	NPT 3/8	0.118 - 0.276	3.0 - 7.0	0.866	0.787	0.787	0.675	0.453	1.240	-
MNS-3/8*	NPT 3/8	0.157 - 0.315	4.0 - 8.0	0.827	0.669	0.748	0.675	0.453	1.004	cURus
MNS-3/8C*	NPT 3/8	0.197 - 0.394	5.0 - 10.0	0.866	0.787	0.787	0.675	0.453	1.240	cURus
MNS-1/2R	NPT 1/2	0.197 - 0.354	5.0 - 9.0	0.965	0.866	0.866	0.840	0.512	1.083	-
MNS-1/2*	NPT 1/2	0.236 - 0.472	6.0 - 12.0	0.965	0.866	0.866	0.840	0.512	1.083	cULus
MNS-1/2RC	NPT 1/2	0.276 - 0.472	7.0 - 12.0	1.055	0.945	0.945	0.840	0.512	1.181	-
MNS-1/2C*	NPT 1/2	0.394 - 0.551	10.0 - 14.0	1.055	0.945	0.945	0.840	0.512	1.181	cULus
MNS-3/4R	NPT 3/4	0.354 - 0.630	9.0 - 16.0	1.299	1.181	1.181	1.050	0.512	1.496	-
MNS-3/4*	NPT 3/4	0.512 - 0.709	13.0 - 18.0	1.299	1.181	1.181	1.050	0.512	1.496	cULus
MNS-1R	NPT 1	0.472 - 0.787	12.0 - 20.0	1.909	1.575	1.693	1.315	0.512	1.791	-
MNS-1*	NPT 1	0.709 - 0.984	18.0 - 25.0	1.909	1.575	1.693	1.315	0.512	1.791	cULus
MNS-1 1/4	NPT 1 1/4	0.866 - 1.26	22.0 - 32.0	2.185	1.969	1.969	1.660	1.008	1.969	cULus
MNS-1 1/2	NPT 1 1/2	1.181 - 1.496	18.0 - 25.0	2.520	2.283	2.283	1.902	1.024	2.008	cULus
MNS-2	NPT-2	1.339 - 1.732	34.0 - 44.0	2.756	2.520	2.520	2.375	1.063	2.165	-

* NEMA 4X rated

Locknuts need to be purchased separately, see page 54

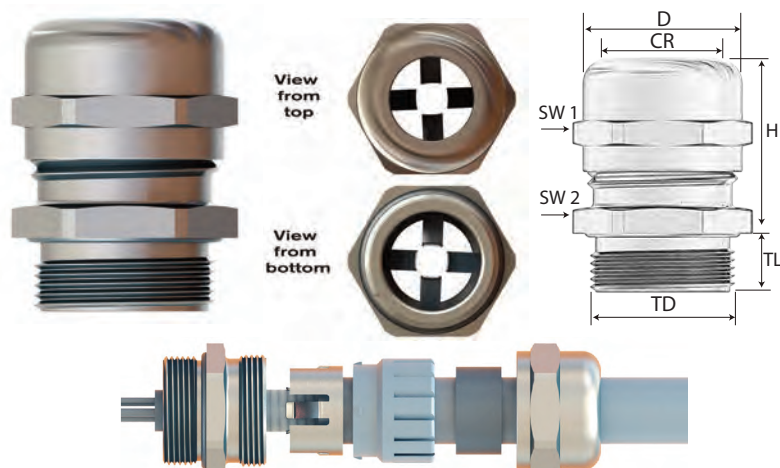
EMC Cord Grips for Greenhouses

CG EMC-2 Metric

Nickel plated brass EMC cable gland, standard & longer thread

Metric Thread

Optimal grounding of shielded cable, easy installation, water tight, impact resistant.



Technical data:

Material:	Brass, Nickel Plated
Contact spring:	Special Copper Alloy
Clamping Insert:	Polyamide 6
Seal:	Chloroprene (CR)
O-Ring:	Neoprene (NBR)
Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	<i>permanent:</i> -20°C to +100°C <i>intermittent:</i> -40°C to +150°C
Flammability:	V2 (according to UL 94)
Approvals:	cURus, cULus, VDE, DNV-GL, CE



Part Number	Thread Type	Clamping Range Ø min-max		Outer Ø (D)	Shield Diameter (Ø min)		Wrenching Flats		Thread Diameter	Thread Length	Max. Height	UL
		(CR)			Cap (SW1)	Body (SW2)						
		inches	mm				inches	mm				
Metric												
EM2-12	M12x1.5	0.118 - 0.256	3.0 - 6.5	0.610	0.098	2.5	0.551	0.551	0.472	0.236	0.945	cURus
EM2-16	M16x1.5	0.157 - 0.315	4.0 - 8.0	0.787	0.138	3.5	0.669	0.709	0.630	0.276	1.004	cURus
EM2-16C	M16x1.5	0.197 - 0.394	5.0 - 10.0	0.866	0.157	4.0	0.787	0.787	0.630	0.256	1.240	cURus
EM2-20	M20x1.5	0.236 - 0.472	6.0 - 12.0	0.965	0.197	5.0	0.866	0.866	0.787	0.315	1.043	cURus
EM2-25	M25x1.5	0.394 - 0.551	10.0 - 14.0	1.181	0.335	8.5	0.945	1.063	0.984	0.315	1.181	cULus
EM2-25C	M25x1.5	0.512 - 0.709	13.0 - 18.0	1.299	0.433	11	1.181	1.181	0.984	0.315	1.575	cULus
EM2-32	M32x1.5	0.512 - 0.709	13.0 - 18.0	1.476	0.433	11	1.181	1.339	1.260	0.354	1.378	cULus
EM2-32C	M32x1.5	0.709 - 0.984	18.0 - 25.0	1.752	0.630	16	1.575	1.575	1.260	0.354	1.811	cULus
EM2-40	M40x1.5	0.709 - 0.984	18.0 - 25.0	1.909	0.630	16	1.575	1.693	1.575	0.354	1.594	cULus
EM2-40C	M40x1.5	0.866 - 1.260	22.0 - 32.0	2.185	0.787	20	1.969	1.969	1.575	0.354	2.146	cULus
EM2-50	M50x1.5	0.866 - 1.260	22.0 - 32.0	2.402	0.787	20	1.969	2.165	1.969	0.354	1.969	cULus
EM2-50C	M50x1.5	1.063 - 1.732	27.0 - 44.0	2.165	1.024	26	1.969	2.165	1.969	0.354	1.969	-
EM2-63	M63x1.5	1.339 - 1.732	34.0 - 44.0	2.953	1.220	31	2.520	2.677	2.480	0.551	2.165	cULus
Metric with Long Thread *												
EM2-12L	M12x1.5	0.118 - 0.256	3.0 - 6.5	0.610	0.098	2.5	0.551	0.551	0.472	0.472	0.945	-
EM2-16L	M16x1.5	0.157 - 0.315	4.0 - 8.0	0.787	0.138	3.5	0.669	0.709	0.630	0.472	1.004	-
EM2-20L	M20x1.5	0.236 - 0.472	6.0 - 12.0	0.965	0.197	5.0	0.866	0.866	0.787	0.472	1.043	-
EM2-25L	M25x1.5	0.394 - 0.551	10.0 - 14.0	1.181	0.335	8.5	0.945	1.063	0.984	0.472	1.181	-
EM2-32L	M32x1.5	0.512 - 0.709	13.0 - 18.0	1.476	0.433	11	1.181	1.339	1.260	0.591	1.378	-
EM2-40L	M40x1.5	0.709 - 0.984	18.0 - 25.0	1.909	0.630	16	1.575	1.693	1.575	0.591	1.594	-
EM2-50L	M50x1.5	0.866 - 1.260	22.0 - 32.0	2.402	0.787	20	1.969	2.165	1.969	0.591	1.969	-
EM2-63L	M63x1.5	1.339 - 1.732	34.0 - 44.0	2.953	1.220	31	2.520	2.677	2.480	0.709	2.165	-

* Long thread version is not NEMA 4X rated

Locknuts need to be purchased separately, see page 54

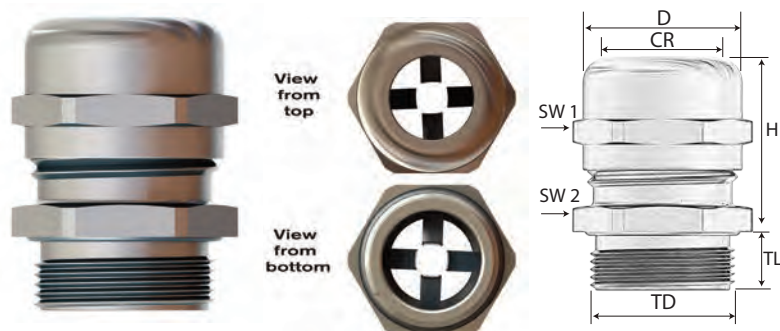
EMC Cord Grips for Greenhouses

CG EMC-2 PG / CG EMC-2 NPT

Nickel plated brass EMC cable gland, standard & longer thread

PG and NPT
Thread

Optimal grounding of shielded cable, easy installation, water tight, impact resistant.



Technical data:

Material:	Brass, Nickel Plated
Contact spring:	Special Copper Alloy
Clamping Insert:	Polyamide 6
Seal:	Chloroprene (CR)
O-Ring:	Neoprene (NBR)
Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	permanent: -20°C to +100°C intermittent: -40°C to +150°C
Flammability:	V2 (according to UL 94)
Approvals:	cURus, cULus, DNV-GL, CE



Part Number	Thread Type	Clamping Range Ø min-max		Outer Ø (D) inches	Shield Diameter (Ø min)		Wrenching Flats		Thread Diameter (TD) inches	Thread Length (TL) inches	Max. Height (H) inches	UL
		(CR)			Cap (SW1) inches	Body (SW2) inches						
		inches	mm									
PG												
EP2-7	PG 7	0.118 - 0.256	3.0 - 6.5	0.610	0.098	2.5	0.551	0.551	0.492	0.236	0.945	-
EP2-9	PG 9	0.157 - 0.315	4.0 - 8.0	0.744	0.138	3.5	0.669	0.669	0.598	0.236	1.004	cURus
EP2-11	PG 11	0.197 - 0.394	5.0 - 10.0	0.866	0.157	4.0	0.787	0.787	0.732	0.236	1.102	cURus
EP2-13	PG 13.5	0.236 - 0.472	6.0 - 12.0	0.965	0.197	5.0	0.866	0.866	0.803	0.256	1.043	cURus
EP2-16	PG 16	0.394 - 0.551	10.0 - 14.0	1.043	0.335	8.5	0.945	0.945	0.886	0.256	1.181	cULus
EP2-21	PG 21	0.512 - 0.709	13.0 - 18.0	1.299	0.433	11	1.181	1.181	1.114	0.283	1.378	cULus
EP2-29	PG 29	0.709 - 0.984	18.0 - 25.0	1.752	0.630	16	1.575	1.575	1.457	0.315	1.594	cULus
EP2-36	PG 36	0.866 - 1.26	22.0 - 32.0	2.185	0.787	20	1.969	1.969	1.850	0.354	1.969	cULus
EP2-42	PG 42	1.181 - 1.496	30.0 - 38.0	2.520	1.102	28	2.283	2.283	2.126	0.472	2.008	cULus
EP2-48	PG 48	1.339 - 1.732	34.0 - 44.0	2.756	1.220	31	2.520	2.520	2.335	0.551	2.165	cULus
PG with Long Thread*												
EP2-7L	PG 7	0.118 - 0.256	3.0 - 6.5	0.610	0.098	2.5	0.551	0.551	0.492	0.394	0.945	-
EP2-9L	PG 9	0.157 - 0.315	4.0 - 8.0	0.744	0.138	3.5	0.669	0.669	0.598	0.394	1.004	-
EP2-11L	PG 11	0.197 - 0.394	5.0 - 10.0	0.866	0.157	4.0	0.787	0.787	0.732	0.394	1.102	-
EP2-13L	PG 13.5	0.236 - 0.472	6.0 - 12.0	0.965	0.197	5.0	0.866	0.866	0.803	0.394	1.043	-
EP2-16L	PG 16	0.394 - 0.551	10.0 - 14.0	1.043	0.335	8.5	0.945	0.945	0.886	0.394	1.181	-
EP2-21L	PG 21	0.512 - 0.709	13.0 - 18.0	1.299	0.433	11	1.181	1.181	1.114	0.472	1.378	-
EP2-29L	PG 29	0.709 - 0.984	18.0 - 25.0	1.752	0.630	16	1.575	1.575	1.457	0.472	1.594	-
EP2-36L	PG 36	0.866 - 1.26	22.0 - 32.0	2.185	0.787	20	1.969	1.969	1.850	0.551	1.969	-
EP2-42L	PG 42	1.181 - 1.496	30.0 - 38.0	2.520	1.102	28	2.283	2.283	2.126	0.630	2.008	-
EP2-48L	PG 48	1.339 - 1.732	34.0 - 44.0	2.756	1.220	31	2.520	02.52	2.335	0.709	2.165	-
NPT												
EN2-3/8	NPT 3/8	0.197 - 0.394	5.0 - 10.0	0.866	0.157	4.0	0.787	0.787	0.675	0.453	1.240	cURus
EN2-1/2	NPT 1/2	0.236 - 0.472	6.0 - 12.0	0.965	0.197	5.0	0.866	0.866	0.840	0.512	1.083	cULus
EN2-3/4R*	NPT 3/4	0.354 - 0.630	9.0 - 16.0	1.299	0.335	8.5	1.181	1.181	1.050	0.512	1.496	cULus
EN2-3/4	NPT 3/4	0.512 - 0.709	13.0 - 18.0	1.299	0.433	11	1.181	1.181	1.050	0.512	1.496	cULus
EN2-1	NPT 1	0.709 - 0.984	18.0 - 25.0	1.909	0.630	16	1.575	1.693	1.315	0.512	1.791	cURus

* PG version and EN2-3/4R are not NEMA 4X rated

Locknuts need to be purchased separately, see page 54

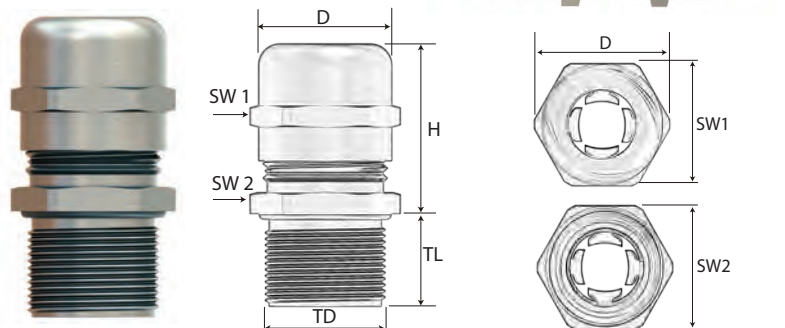
EMC Cord Grips for Greenhouses

CG EMC-4 Metric / CG EMC-4 PG / CG EMC-4 NPT

Nickel plated brass EMC cable gland, vibration proof

Metric, PG, & NPT Thread

Optimal grounding of shielded cable, bi-directional cable installation, impact resistant.



Technical data:

Material:	Brass, Nickel Plated
Contact spring:	Special Copper Alloy
Clamping Insert:	Polyamide 6
Seal:	Chloroprene (CR)
O-Ring:	Neoprene (NBR)
Protection type:	IP 68 - 5 Bar NEMA 4X
Temperature range:	<i>permanent:</i> -20°C to +100°C <i>intermittent:</i> -40°C to +150°C
Flammability:	V2 (according to UL 94)
Approvals:	cURus, cULus, VDE, DNV-GL, CE



Part Number	Thread Type	Clamping Range Ø min-max		Outer Ø (D)	Shield Diameter (Ø min)		Wrenching Flats		Thread Diameter (TD)	Thread Length (TL)	Max. Height (H)	UL
		(CR)			Cap (SW1)	Body (SW2)						
		inches	mm				inches	inches				
Metric												
EM4-12	M12x1.5	0.118 - 0.256	3.0 - 6.5	0.610	0.079	2.0	0.551	0.551	0.472	0.236	1.181	cURus
EM4-16	M16x1.5	0.197 - 0.394	5.0 - 10.0	0.866	0.138	3.5	0.787	0.787	0.630	0.236	1.378	cURus
EM4-20	M20x1.5	0.236 - 0.472	6.0 - 12.0	0.965	0.177	4.5	0.866	0.866	0.787	0.236	1.319	cULus
EM4-20C	M20x1.5	0.295 - 0.551	7.5 - 14.0	1.055	0.217	5.5	0.945	0.945	0.787	0.315	1.634	cULus
EM4-25	M25x1.5	0.394 - 0.709	10.0 - 18.0	1.299	0.276	7.0	1.181	1.181	0.984	0.315	1.752	cULus
EM4-32	M32x1.5	0.630 - 0.984	16.0 - 25.0	1.752	0.472	12	1.575	1.575	1.260	0.354	2.165	cULus
EM4-40	M40x1.5	0.866 - 1.260	22.0 - 32.0	2.185	0.709	18	1.969	1.969	1.575	0.354	2.461	cULus
EM4-50	M50x1.5	1.181 - 1.496	30.0 - 38.0	2.520	1.024	26	2.283	2.283	1.969	0.354	2.913	cULus
EM4-63	M63x1.5	1.339 - 1.732	34.0 - 44.0	2.953	1.181	30	2.520	2.677	2.480	0.551	2.362	cULus
EM4-63C	M63x1.5	1.457 - 2.087	37.0 - 53.0	3.268	1.299	33	2.953	2.953	2.480	0.394	2.953	cULus
PG1*												
EP4-7	PG 7	0.118 - 0.256	3.0 - 6.5	0.650	0.079	2.0	0.551	0.591	0.492	0.236	1.181	-
EP4-11	PG 11	0.197 - 0.394	5.0 - 10.0	0.906	0.138	3.5	0.787	0.827	0.732	0.236	1.378	-
EP4-13	PG 13.5	0.236 - 0.472	6.0 - 12.0	0.965	0.177	4.5	0.866	0.866	0.803	0.256	1.319	-
EP4-16	PG 16	0.295 - 0.551	7.5 - 14.0	1.083	0.217	5.5	0.945	0.984	0.886	0.256	1.634	-
EP4-21	PG 21	0.394 - 0.709	10.0 - 18.0	1.398	0.276	7.0	1.181	1.260	1.114	0.276	1.752	-
EP4-29	PG 29	0.630 - 0.984	16.0 - 25.0	1.752	0.472	12	1.575	1.575	1.457	0.354	2.165	-
EP4-36	PG 36	0.866 - 1.26	22.0 - 32.0	2.185	0.709	18	1.969	1.969	1.850	0.354	2.441	-
EP4-42	PG 42	1.181 - 1.496	30.0 - 38.0	2.618	1.024	26	2.283	2.362	2.126	0.472	2.933	-
EP4-48	PG 48	1.339 - 1.732	34.0 - 44.0	2.953	1.181	30	2.520	2.677	2.335	0.551	2.382	-
NPT**												
EN4-1/4	NPT 1/4	0.118 - 0.256	3.0 - 6.5	0.650	0.079	2.0	0.551	0.591	0.540	0.453	1.181	-
EN4-3/8	NPT 3/8	0.197 - 0.394	5.0 - 10.0	0.866	0.138	3.5	0.787	0.787	0.675	0.453	1.378	-
EN4-1/2	NPT 1/2	0.236 - 0.472	6.0 - 12.0	0.965	0.177	4.5	0.866	0.866	0.840	0.591	1.555	cULus
EN4-1/2C	NPT 1/2	0.295 - 0.551	7.5 - 14.0	1.055	0.217	5.5	0.945	0.945	0.840	0.591	1.634	cULus
EN4-1/2C-2	NPT 1/2	0.295 - 0.551	7.5 - 14.0	1.055	0.217	5.5	0.945	0.945	0.840	0.314	1.634	cULus
EN4-3/4	NPT 3/4	0.394 - 0.709	10.0 - 18.0	1.299	0.276	7.0	1.181	1.181	1.050	0.591	1.713	cULus
EN4-1	NPT 1	0.630 - 0.984	16.0 - 25.0	1.752	0.472	12	1.575	1.575	1.315	0.787	2.126	cULus
EN4-1 1/4	NPT 1 1/4	0.866 - 1.260	22.0 - 32.0	2.185	0.709	18	1.969	1.969	1.660	0.787	2.480	cULus
EN4-1 1/2	NPT 1 1/2	1.181 - 1.496	30.0 - 38.0	2.520	1.024	26	2.283	2.283	1.900	0.866	2.874	cULus
EN4-2	NPT 2	1.339 - 1.732	34.0 - 44.0	2.953	1.181	30	2.520	2.677	2.375	0.866	0.866	cULus

¹ PG - DNV-GL & CE only
^{*} NPT - cULus, DNV-GL & CE only
^{*} PG & NPT are not NEMA 4X rated

Locknuts need to be purchased separately, see page 54

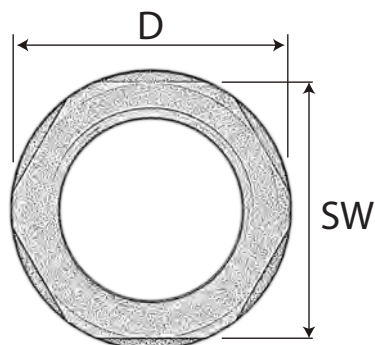
Polyamide Locknuts for Greenhouses

Polyamide Locknuts

Hexagonal locknut, black or gray

Metric, PG, &
NPT Thread

Hexagonal locknuts made of polyamide, glass fiber reinforced.



Technical data:

Material:	Polyamide 6 (30% Glass Fiber reinforced)
Color:	RAL 7001 (gray) RAL 9005 (black)
Temperature range: <i>permanent:</i> <i>intermittent:</i>	-20°C to +100°C -30°C to +150°C
Flammability:	UL 94 HB

Part Number		Thread Type	Height (H)		Diameter (D)		Wrenching Flats (SW)	
gray	black		inches	mm	inches	mm	inches	mm
LMG-12	LMB-12	M12x1.5	0.197	5	0.768	19.5	0.709	18
LMG-16	LMB-16	M16x1.5	0.197	5	0.953	24.2	0.866	22
LMG-20	LMB-20	M20x1.5	0.236	6	1.126	28.6	1.024	26
LMG-25	LMB-25	M25x1.5	0.236	6	1.378	35.0	1.260	32
LMG-32	LMB-32	M32x1.5	0.276	7	1.815	46.1	1.614	41
LMG-40	LMB-40	M40x1.5	0.276	7	2.177	55.3	1.969	50
LMG-50	LMB-50	M50x1.5	0.315	8	2.587	65.7	2.362	60
LMG-63	LMB-63	M63x1.5	0.315	8	3.248	82.5	2.953	75
LMG-75	LMB-75	M75x2.0	0.591	15	3.701	94.0	3.346	85
LPG-7	LPB-7	PG 7	0.197	5	0.823	20.9	0.748	19
LPG-9	LPB-9	PG 9	0.197	5	0.941	23.9	0.866	22
LPG-11	LPB-11	PG 11	0.197	5	1.020	25.9	0.945	24
LPG-13	LPB-13	PG 13.5	0.236	6	1.138	28.9	1.063	27
LPG-16	LPB-16	PG 16	0.236	6	1.295	32.9	1.181	30
LPG-21	LPB-21	PG 21	0.276	7	1.528	38.8	1.417	36
LPG-29	LPB-29	PG 29	0.276	7	1.961	49.8	1.811	46
LPG-36	LPB-36	PG 36	0.315	8	2.587	65.7	2.362	60
LPG-42	LPB-42	PG 42	0.315	8	2.862	72.7	2.559	65
LPG-48	LPB-48	PG 48	0.315	8	3.059	77.7	2.756	70
NPT								
LNG-3/8	LNB-3/8	NPT 3/8	0.276	7	0.984	25	0.866	22
LNG-1/2	LNB-1/2	NPT 1/2	0.276	7	1.201	30.5	1.063	27
LNG-3/4	LNB-3/4	NPT 3/4	0.276	7	1.476	37.5	1.299	33
LNG-1	LNB-1	NPT 1	0.276	7	1.819	46.2	1.614	41

Metal Locknuts for Greenhouses

Metal Locknuts / Metal EMC Locknuts

Nickel plated brass locknuts / Nickel plated brass locknuts with grounding teeth

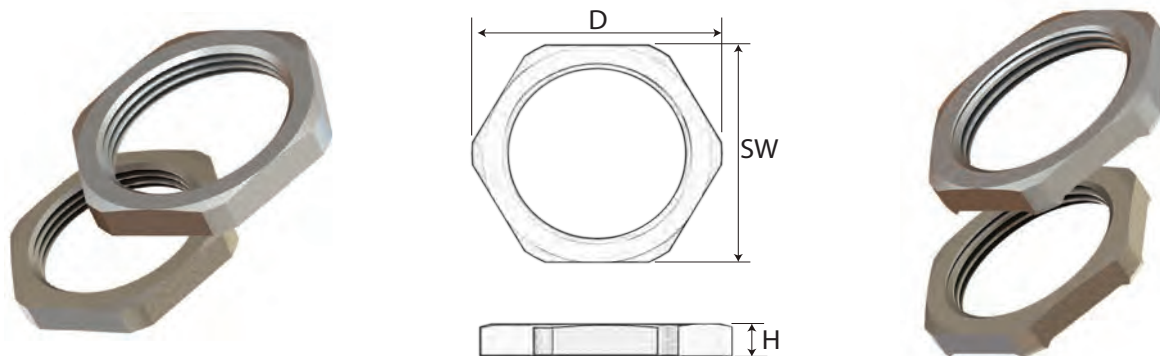
Metric, PG, &
NPT Thread

EMC locknut has grounding teeth to make connection to metal panels or control boxes.

Technical data:

Material:

Brass, Nickel Plated



Part Number	Thread Type	Height (H) inches	Diameter (D) inches	Wrenching Flats (SW) inches
Metric-Standard				
LMM-12	M12x1.5	0.110	0.654	0.591
LMM-16	M16x1.5	0.118	0.827	0.748
LMM-20	M20x1.5	0.138	1.043	0.945
LMM-25	M25x1.5	0.157	1.299	1.181
LMM-32	M32x1.5	0.197	1.555	1.417
LMM-40	M40x1.5	0.197	2.008	1.811
LMM-50	M50x1.5	0.197	2.598	2.362
LMM-63	M63x1.5	0.236	3.031	2.756
LMM-75	M75x2.0	0.276	3.528	3.150
LMM-80	M80x2.0	0.315	3.937	3.543
LMM-85	M85x2.0	0.315	4.181	3.740
LMM-90	M90x2.0	0.315	4.409	3.937
PG-Standard				
LPM-7	PG 7	0.110	0.654	0.591
LPM-9	PG 9	0.110	0.787	0.709
LPM-11	PG 11	0.118	0.925	0.827
LPM-13	PG 13.5	0.118	1.004	0.906
LPM-16	PG 16	0.118	1.142	1.024
LPM-21	PG 21	0.138	1.398	1.260
LPM-29	PG 29	0.157	1.772	1.614
LPM-36	PG 36	0.197	2.205	2.008
LPM-42	PG 42	0.197	2.598	2.362
LPM-48	PG 48	0.217	2.776	2.520
NPT-Standard				
LNM-3/8	NPT 3/8	0.197	0.965	0.866
LNM-1/2	NPT 1/2	0.197	1.181	1.063
LNM-3/4	NPT 3/4	0.197	1.437	1.299
LNM-1	NPT 1	0.197	1.831	1.693
LNM-1 1/4	NPT 1 1/4	0.197	2.087	1.890
LNM-1 1/2	NPT 1 1/2	0.197	2.402	2.165
LNM-2	NPT 2	0.217	2.776	2.520

Part Number	Thread Type	Height (H) inches	Diameter (D) inches	Wrenching Flats (SW) inches
Metric-EMC				
LME-12	M12x1.5	0.130	0.650	0.591
LME-16	M16x1.5	0.138	0.827	0.748
LME-20	M20x1.5	0.146	1.043	0.945
LME-25	M25x1.5	0.146	1.299	1.181
LME-32	M32x1.5	0.157	1.555	1.417
LME-40	M40x1.5	0.181	2.008	1.811
LME-50	M50x1.5	0.220	2.598	2.362
LME-63	M63x1.5	0.264	3.031	2.756
PG-EMC				
LPE-7	PG 7	0.130	0.650	0.591
LPE-9	PG 9	0.130	0.787	0.709
LPE-11	PG 11	0.138	0.925	0.827
LPE-13	PG 13.5	0.138	1.004	0.906
LPE-16	PG 16	0.138	1.142	1.024
LPE-21	PG 21	0.157	1.398	1.260
LPE-29	PG 29	0.181	1.772	1.614
LPE-36	PG 36	0.220	2.205	2.008
LPE-42	PG 42	0.220	2.598	2.362
LPE-48	PG 48	0.240	2.776	2.520
NPT-EMC				
LNE-1/4	NPT 1/4"	0.217	0.740	0.669
LNE-3/8	NPT 3/8"	0.224	0.945	0.866
LNE-1/2	NPT 1/2"	0.264	1.043	0.945
LNE-3/4	NPT 3/4"	0.256	1.299	1.181
LNE-1	NPT 1"	0.299	1.752	1.575
LNE-1 1/4	NPT 1 1/4"	0.299	2.185	1.969
LNE-1 1/2	NPT 1 1/2"	0.343	2.520	2.283
LNE-2	NPT 2"	0.425	3.071	2.756

Stainless steel locknuts are available upon request

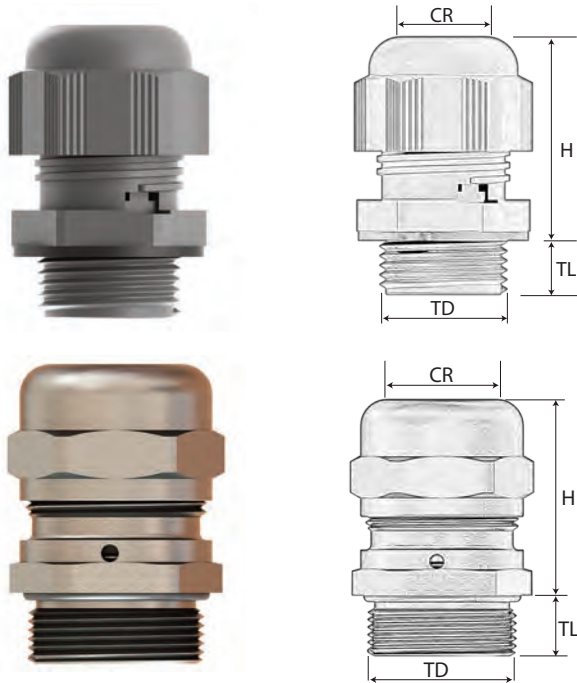
Vent Glands for Greenhouses

VG Vent PA6 / NPB

Polyamide vent gland, black or gray / Nickel plated brass vent gland

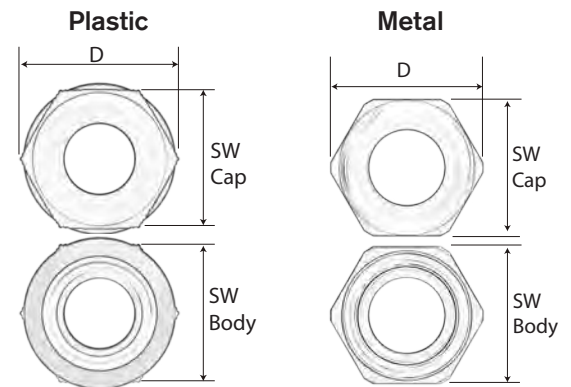
Metric & PG
Thread

Vent glands are used to secure a cable and balance the pressure in an enclosure to protect electronic connections from condensation. They are UL approved and chemical resistant. The vent plugs come in black or gray polyamide or nickel plated brass with different air flow ratings.



Technical data:

Material:	Brass, Nickel Plated or Polyamide 6
Cap:	Brass, Nickel Plated or Polyamide 6
Vent element:	PTFE
Seal:	Chloroprene (CR)
Washer:	Neoprene (NBR)
Protection type:	IP 66/67
Temperature range:	
<i>permanent:</i>	-20°C to +100°C
<i>intermittent:</i>	-30°C to +150°C
Approvals:	cURus, cCSAus, VDE, DNV-GL, CE



Part Number		Average Air Flow	Water Intrusion	Thread Size	Clamping Range Ø min - max		Thread Length	Thread Diameter	Wrenching Flats Cap & Body (SW)	Outer Diameter	max. Height
Gray	Black	l/h	Pressure bar		(CR) inches	mm	(TL) inches	(TD) inches		(D) inches	(H) inches
Plastic Vent Glands											
VGMG-12	VGMB-12	25	0.1	M12x1.5	0.157 - 0.276	4.0 - 7.0	0.315	0.472	0.748	0.854	1.114
VGPG-9	VGPB-9	25	0.1	PG 9	0.157 - 0.276	4.0 - 7.0	0.315	0.598	0.748	0.854	1.114
VGMG-16	VGMB-16	25	0.1	M16x1.5	0.157 - 0.276	4.0 - 7.0	0.394	0.630	0.748	0.854	1.114
VGPG-11	VGPB-11	25	0.1	PG 11	0.157 - 0.276	4.0 - 7.0	0.315	0.732	0.748	0.980	1.114
VGMG-20	VGMB-20	40	0.1	M20x1.5	0.236 - 0.433	6.0 - 11.0	0.394	0.787	0.945	1.063	1.311
VGPG-13	VGPB-13	40	0.1	PG 13.5	0.236 - 0.433	6.0 - 11.0	0.354	0.803	0.945	1.063	1.311
Metal Vent Glands											
VGMM-12		25	0.1	M12x1.5	0.157 - 0.276	4.0 - 7.0	0.315	0.472	0.669	0.744	1.280
VGPM-7		25	0.1	PG 7	0.157 - 0.276	4.0 - 7.0	0.315	0.492	0.669	0.744	1.280
VGPM-9		25	0.1	PG 9	0.157 - 0.276	4.0 - 7.0	0.315	0.598	0.669	0.744	1.142
VGMM-16		25	0.1	M16x1.5	0.157 - 0.276	4.0 - 7.0	0.315	0.630	0.669	0.744	1.142
VGMM-16L		35	0.1	M16x1.5	0.197 - 0.354	5.0 - 9.0	0.315	0.630	0.787	0.866	1.417
VGPM-11		35	0.1	PG 11	0.197 - 0.354	5.0 - 9.0	0.315	0.732	0.787	0.866	1.417
VGMM-20		50	0.1	M20x1.5	0.236 - 0.433	6.0 - 11.0	0.315	0.787	0.866	0.965	1.280
VGPM-13		50	0.1	PG 13.5	0.236 - 0.433	6.0 - 11.0	0.354	0.803	0.866	0.965	1.280

cCSAus approval for plastic glands only.
VDE approved for metric threads only

Vent Plugs for Greenhouses

VP Vent PA6

Polyamide vent plug, black or gray

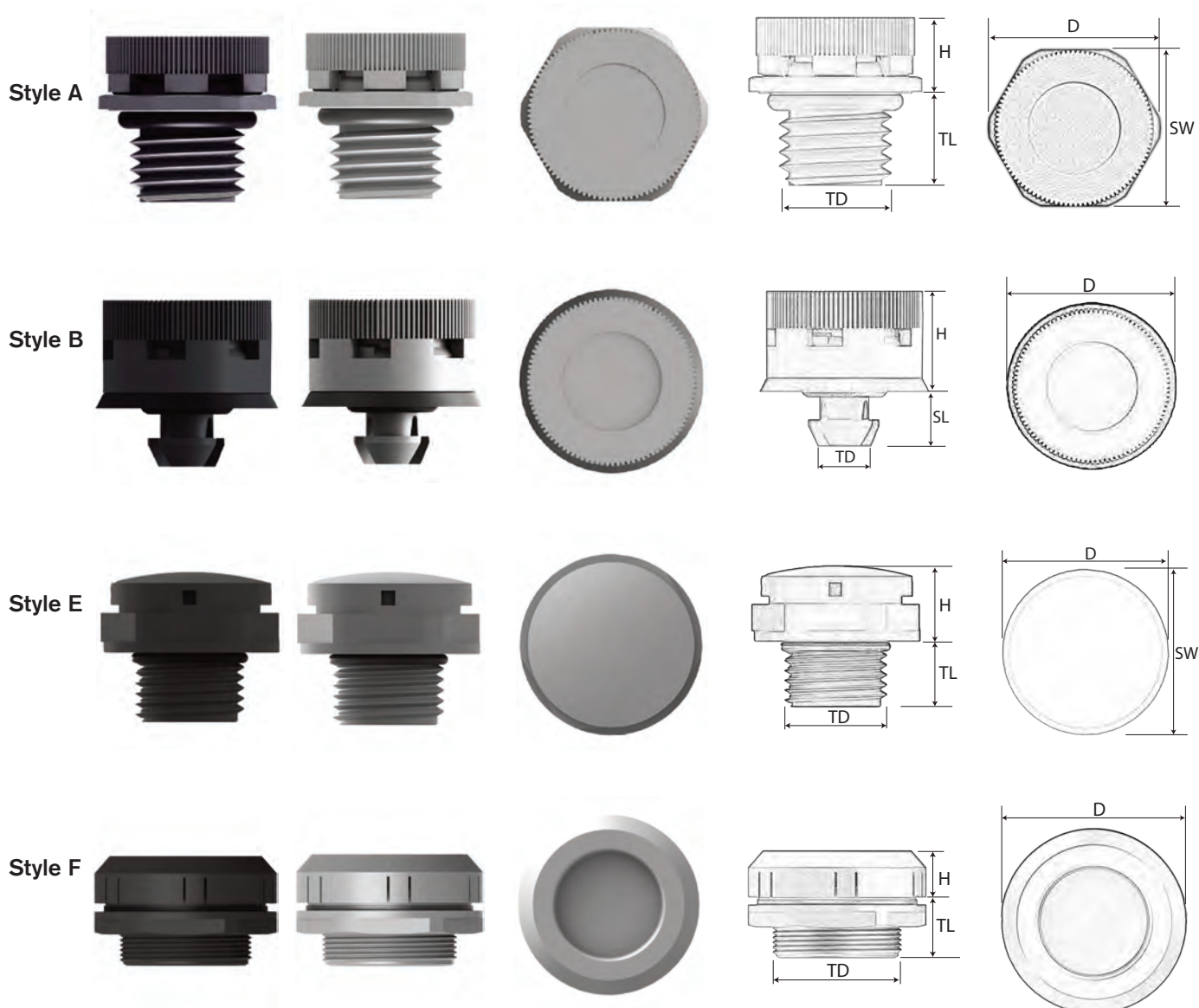
Metric Thread
and Quick Fit

Vent plugs are used to balance the pressure in an enclosure to protect electronic connections from condensation. They are UL approved and chemical resistant. The vent plugs come in black or gray polyamide with different air flow ratings.

- Balances pressure difference between inner housing and the outside environment.
- Prevents damage according to pressure differences.
- Prevents the formation of water condensation in tightly-sealed standard housing.
- Membrane properties: hydrophobic, oleophobic.

Technical data:

Body:	Polyamide 6
Cap:	Polyamide 6
Vent element:	Acrylic Co-Polymer on Nylon Support
Seal:	Chloroprene (CR)
Washer:	Neoprene (NBR)
Protection type:	IP 67/68 (for water intrusion pressure oil bar)
Temperature range:	
<i>permanent:</i>	-40°C to +100°C
<i>intermittent:</i>	-45°C to +150°C
Approvals:	cURus, CE



Vent Plugs for Greenhouses

VP Vent PA6

Polyamide vent plug, black or gray

Metric Thread
and Quick Fit

Vent plugs are used to balance the pressure in an enclosure to protect electronic connections from condensation. They are UL approved and chemical resistant. The vent plugs come in black or gray polyamide with different air flow ratings.

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Protection type:	IP 67/68 (for water intrusion pressure oil bar)
Temperature range:	
permanent:	-40°C to +100°C
intermittent:	-45°C to +150°C
Approvals:	cURus, CE



Part Number		Style	Average Air Flow	Water Intrusion	Thread Size	Thread Length (TL)	Thread Diameter (TD)	Wrenching Flats (SW)	Outer Diameter (D)	max. Height (H)	UL
Gray	Black		l/h	Pressure bar		inches	inches	inches	inches	inches	
VPG-01	VPB-01	B	16	0.9	QUICK FIT	0.295	0.217	-	0.728	0.429	-
VPG-02	VPB-02	A	16	0.9	M12x1.5	0.236	0.472	0.669	0.728	0.299	cURus
VPG-02L	VPB-02L	A	16	0.9	M12x1.5	0.394	0.472	0.669	0.728	0.299	cURus
VPG-03	VPB-03	B	25	0.5	QUICK FIT	0.295	0.217	-	0.728	0.429	-
VPG-04	VPB-04	A	25	0.5	M12x1.5	0.236	0.472	0.669	0.728	0.299	cURus
VPG-04L	VPB-04L	A	25	0.5	M12x1.5	0.394	0.472	0.669	0.728	0.299	cURus
VPG-04H	VPB-04H	E	42	0.9	M12x1.5	0.394	0.472	0.945	1.024	0.461	-
VPG-05	VPB-05	E	42	0.9	M16x1.5	0.394	0.630	0.945	1.024	0.461	-
VPG-06	VPB-06	E	42	0.9	M20x1.5	0.394	0.787	0.945	1.024	0.461	-
VPG-07	VPB-07	B	120	0.2	QUICK FIT	0.295	0.217	-	0.728	0.429	-
VPG-08H	VPB-08H	E	120	0.5	M12x1.5	0.394	0.472	0.945	1.024	0.461	-
VPG-08	VPB-08	A	120	0.2	M12x1.5	0.236	0.472	0.669	0.728	0.299	cURus
VPG-08L	VPB-08L	A	120	0.2	M12x1.5	0.394	0.472	0.669	0.728	0.299	cURus
VPG-09	VPB-09	E	120	0.5	M16x1.5	0.394	0.630	0.945	1.024	0.461	-
VPG-10	VPB-10	E	120	0.5	M20x1.5	0.394	0.787	0.945	1.024	0.461	-
VPG-11	VPB-11	F	120	0.9	M40x1.5	0.709	1.575	-	2.177	0.610	-
VPG-12	VPB-12	B	300	0.1	QUICK FIT	0.295	0.217	-	0.728	0.429	-
VPG-13	VPB-13	A	300	0.1	M12x1.5	0.236	0.472	0.669	0.728	0.299	cURus
VPG-13L	VPB-13L	A	300	0.1	M12x1.5	0.394	0.472	0.669	0.728	0.299	cURus
VPG-14	VPB-14	F	375	0.5	M40x1.5	0.709	1.575	-	2.185	0.610	-
VPG-15	VPB-15	E	450	0.2	M12x1.5	0.394	0.472	0.945	1.024	0.461	-
VPG-16	VPB-16	E	450	0.2	M16x1.5	0.394	0.630	0.945	1.024	0.461	-
VPG-17	VPB-17	E	450	0.2	M20x1.5	0.394	0.787	0.945	1.024	0.461	-
VPG-18	VPB-18	E	750	0.1	M12x1.5	0.394	0.472	0.945	1.024	0.461	-
VPG-19	VPB-19	E	750	0.1	M16x1.5	0.394	0.630	0.945	1.024	0.461	-
VPG-20	VPB-20	E	750	0.1	M20x1.5	0.394	0.787	0.945	1.024	0.461	-
VPG-21	VPB-21	F	1350	0.2	M40x1.5	0.709	1.575	-	2.177	0.610	-
VPG-22	VPB-22	F	2200	0.1	M40x1.5	0.709	1.575	-	2.177	0.610	-

Vent Plugs for Greenhouses

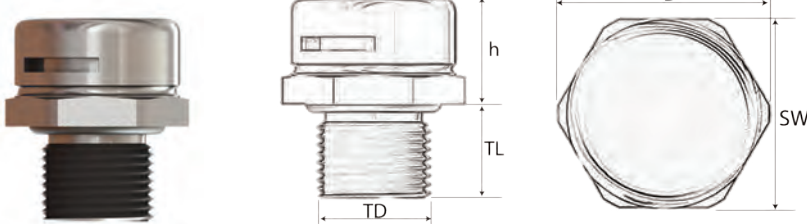
VP Vent Plug Metal

Stainless steel vent plug

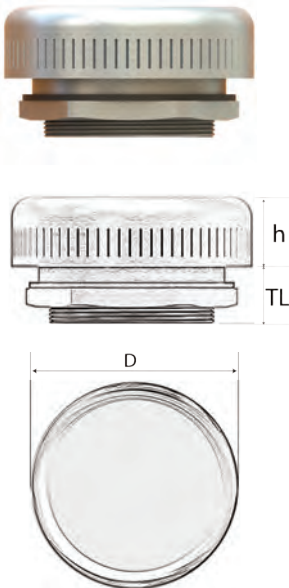
Metric & PG
Thread

Vent plugs are used to balance the pressure in an enclosure to protect electronic connections from condensation. They are UL approved and chemical resistant. The vent plugs are stainless steel AISI 303 and come with different air flow ratings.

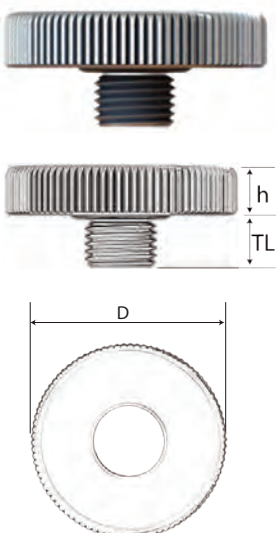
Style C



Style D



Style G

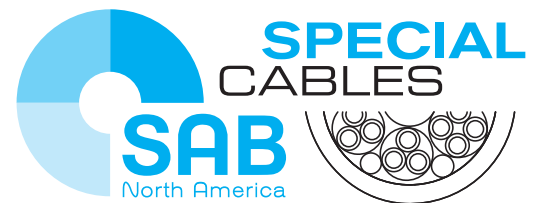


Technical data:

Body:	Stainless steel AISI 303
Cap:	Stainless steel AISI 303
Vent element:	Acrylic Co-Polymer on Nylon Support
Seal:	Chloroprene (CR)
Washer:	Neoprene (NBR)
Protection type:	IP 67/68 (for water intrusion pressure oil bar)
Temperature range:	
<i>permanent:</i>	-40°C to +100°C
<i>intermittent:</i>	-45°C to +150°C
Approvals:	cURus



Part Number	Style	Average Air Flow l/h	Water Intrusion Pressure bar	Thread Size	Thread Length (TL) inches	Thread Diameter (TD) inches	Wrenching Flats (SW) inches	Outer Diameter (D) inches	max. Height (H) inches	UL
VPM-01	G	4	0.9	M4x0.7	0.118	0.157	-	0.484	0.106	-
VPM-02	G	7	0.5	M4x0.7	0.118	0.157	-	0.484	0.106	-
VPM-03	C	16	0.9	M12x1.5	0.236	0.472	0.669	0.740	0.433	cURus
VPM-03L	C	16	0.9	M12x1.5	0.394	0.472	0.669	0.740	0.433	cURus
VPM-04	C	16	0.9	PG 7	0.413	0.492	0.669	0.740	0.433	cURus
VPM-05	C	16	0.9	M16x1.5	0.236	0.630	0.709	0.787	0.472	-
VPM-05H	C	16	0.9	M16x1.5	0.236	0.630	0.709	0.787	0.630	-
VPM-06	C	16	0.9	M20x1.5	0.236	0.787	0.866	0.965	0.512	-
VPM-06H	C	16	0.9	M20x1.5	0.236	0.787	0.866	0.965	0.669	-
VPM-07	C	25	0.5	M12x1.5	0.236	0.472	0.669	0.740	0.433	cURus
VPM-07L	C	25	0.5	M12x1.5	0.394	0.472	0.669	0.740	0.433	cURus
VPM-08	C	25	0.5	PG 7	0.413	0.492	0.669	0.740	0.433	cURus
VPM-09	C	25	0.5	M16x1.5	0.236	0.630	0.709	0.787	0.472	-
VPM-09L	C	25	0.5	M16x1.5	0.236	0.630	0.709	0.787	0.630	-
VPM-10	C	25	0.5	M20x1.5	0.236	0.787	0.866	0.965	0.512	-
VPM-10H	C	25	0.5	M20x1.5	0.236	0.787	0.866	0.965	0.669	-
VPM-11	G	35	0.2	M4x0.7	0.118	0.157	-	0.484	0.106	-
VPM-12	G	100	0.1	M4x0.7	0.118	0.157	-	0.484	0.106	-
VPM-13	C	120	0.2	M12x1.5	0.236	0.472	0.669	0.740	0.433	cURus
VPM-13L	C	120	0.2	M12x1.5	0.394	0.472	0.669	0.740	0.433	cURus
VPM-14	C	120	0.2	PG 7	0.413	0.492	0.669	0.740	0.433	cURus
VPM-15	C	120	0.2	M16x1.5	0.236	0.630	0.709	0.787	0.472	-
VPM-15H	C	120	0.2	M16x1.5	0.236	0.630	0.709	0.787	0.630	-
VPM-16	C	120	0.2	M20x1.5	0.236	0.787	0.866	0.965	0.512	-
VPM-16H	C	120	0.2	M20x1.5	0.236	0.787	0.866	0.965	0.669	-
VPM-17	D	120	0.9	M40x1.5	0.394	1.575	-	2.283	0.807	cURus
VPM-18	C	300	0.1	M12x1.5	0.236	0.472	0.669	0.740	0.433	cURus
VPM-18L	C	300	0.1	M12x1.5	0.394	0.472	0.669	0.740	0.433	cURus
VPM-19	C	300	0.1	PG 7	0.413	0.492	0.669	0.740	0.433	cURus
VPM-20	C	300	0.1	M16x1.5	0.236	0.630	0.709	0.787	0.472	-
VPM-20H	C	300	0.1	M16x1.5	0.236	0.630	0.709	0.787	0.630	-
VPM-21	C	300	0.1	M20x1.5	0.236	0.787	0.866	0.965	0.512	-
VPM-22	D	375	0.5	M40x1.5	0.394	1.575	-	2.283	0.807	cURus
VPM-23	D	1350	0.2	M40x1.5	0.394	1.575	-	2.283	0.807	cURus
VPM-24	D	2200	0.1	M40x1.5	0.394	1.575	-	2.283	0.807	cURus



344 Kaplan Drive
Fairfield, NJ 07004
Toll Free: 866-722-2974
www.sabcable.com
info@sabcable.com