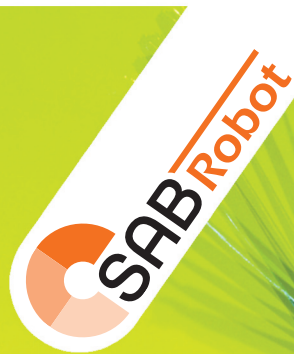
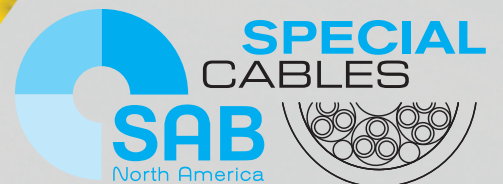
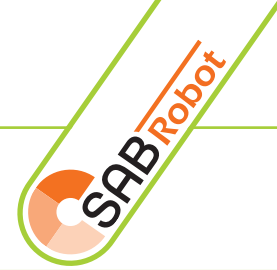


# TORSION CABLES








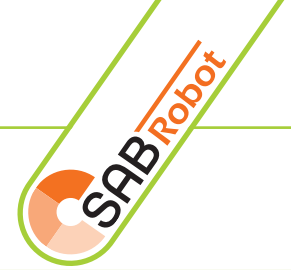
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### ■ Torsional data cables

Torsional data cables are designed for applications as connection cables in various industrial areas, e.g. industrial plant construction, industrial robot construction and the manufacturing of machine tools. These cables are suitable for medium mechanical stress, particularly from scrubbing or abrasion, as well as continuous torsional and linear stress in free moving applications without tensile load. The cables can be used in cable tracks, in dry, wet or damp conditions, and with appropriate protection class in low temperature applications as well as in hazardous areas.

### ■ Torsional control cables

Torsional control cables are designed for applications as connection cables in various industrial areas, e.g. industrial plant construction, industrial robot construction and the manufacturing of machine tools. These cables are suitable for medium mechanical stress, particularly from scrubbing or abrasion, as well as continuous torsional and linear stress in free moving applications without tensile load. The cables can be used in cable tracks, in dry, wet or damp conditions, and appropriate protection class in low temperature applications as well as in hazardous areas.

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#### Exemplary applications:

RT 123  
RT 123 D  
RT 113  
RT 113 D

Packaging, wood working, textile, welding and cutting machine construction, car manufacturing industry, industrial robot construction, electrical drive, control, and measurement technology, construction of industrial plants, and machine tooling construction

### ■ Cleanroom Torsion Cables

SABclean cables are used in cleanrooms where combined twisting and bending stresses occur. The high quality insulation with its smooth surface and slide wrapping increases cable life expectancy under extreme twisting and bending stresses. The outer jacket made of specially formulated TPE is highly resistant to abrasion, oil, notching, microbes and hydrolysis. In addition, the surface quality prevents adhesion to adjacently installed cables. SABclean cables meet the highest requirements acc. to ISO 14644-1 and US Federal Standard 209 E.

#### Exemplary applications:

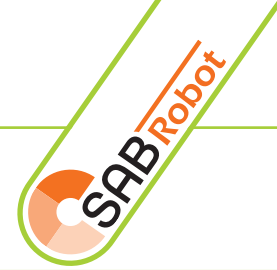
SABclean RT 793 D

Production of semi-conductors, machines for display manufacturing, devices for biological or medical engineering, food and medical production

■ You will find further information about the safe application of cables in Chapter O.

# Torsion Cables

## Selection Table



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		Cable Type				
		C/5 RT 123	C/6 RT 123 D	C/7 RT 113	C/8 RT 113 D	C/9 SABclean RT 793 D
Application	Color conductors	●	●	●	●	
	Numbered conductors	●	●	●		●
	Copper shielding		●		●	●
	Torsion angle 450° /0.5m	●	●			
	Torsion angle 360° /0.5m					●
	Torsion angle 270° /0.5m			●	●	
Temperature range fixed laying*	+ 90°C					
	+ 80°C					
	+ 70°C					
	- 40°C					
	- 50°C					
Voltage	0.14 mm <sup>2</sup> - 0.34 mm <sup>2</sup> : Peak operating voltage max. 350 V	●	●	●	●	
	from 0.50 mm <sup>2</sup> : Nominal voltage U <sub>0</sub> /U 300/500 V	●	●	●		●
	0.14 mm <sup>2</sup> - 0.34 mm <sup>2</sup> : Voltage UL/CSA 300 V	●	●	●	●	
	from 0.50 mm <sup>2</sup> : Voltage UL/ CSA 600 V	●	●	●		●
	0.14 mm <sup>2</sup> - 0.34 mm <sup>2</sup> : Test voltage conductor/conductor: 1500 V	●	●	●	●	
	0.14 mm <sup>2</sup> - 0.34 mm <sup>2</sup> : Test voltage conductor/shielding: 1200 V		●		●	
	from 0.50 mm <sup>2</sup> : Test voltage conductor/conductor: 2000 V			●		
	from 0.50 mm <sup>2</sup> : Test voltage conductor/conductor: 3000 V	●	●			●
	from 0.50 mm <sup>2</sup> : Test voltage conductor/shielding: 2000 V		●			●
Standards	Halogen-free acc. to IEC 60754-1 + VDE 0482-754-1	●	●			
	Fire performance: IEC 60332-1-2 + VDE 0482-332-1-2	●	●	●	●	
	Fire performance UL VW-1	●	●	●	●	
	Fire performance CSA FT1, FT2	●	●	●		
	UL recognized	●	●	●	●	●
CSA approved	●	●	●		●	
Characteristics	Very good oil resistance acc. to EN 50363-10-2 + VDE 0207-363-10-2	●	●			
	Very good oil resistance acc. to EN 50363-4-1 + VDE 0207-363-4-1			●	●	
	Oil rating 60°C acc. to UL 758, Fuel oil acc. to CSA C22.2 No. 210.2-M90			●		
	Good chemical resistance	●	●			
	Very good continuous flexibility	●	●	●	●	●



1 = up to 22 AWG  
2 = from 20 AWG

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

# Torsion Cables

## RT 123

PUR rugged and dependable robot/track cable  $\pm 450^\circ$  torsion over 0.5 m



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



Marking for RT 123 7951618:

SAB BRÖCKSKES · D-VIERSEN · 7951815 18 x 1.5 mm<sup>2</sup> RT 123 16 AWG/18c 7951618 AWM Style 21060 80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2 CE

### Construction:

<b>Conductor:</b> 26 AWG - 22 AWG:	bare copper strands, extra fine wires
<b>Conductor:</b> from 20 AWG:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	TPE
<b>Color code:</b> 26 AWG - 22 AWG:	acc. to color code US 2, see page O/27
<b>Color code:</b> from 20 AWG:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
<b>Stranding:</b>	specialy adjusted layering with non-woven tape over each layer and one additional non-woven tape over the outer layer
<b>Jacket material:</b>	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Jacket color:</b>	black (RAL 9005)

### Outstanding features:

- rugged and reliable
- torsion angle up to  $\pm 450^\circ$  over 0.5 meter
- weld resistant

### Technical data:

<b>Peak operating voltage:</b> 26 AWG - 22 AWG:	max. 350 V	
<b>Peak operating voltage:</b> from 20 AWG:	U <sub>o</sub> /U 300/500 V	
<b>Voltage UL/CSA:</b> 26 AWG - 22 AWG:	300 V	
<b>Voltage UL/CSA:</b> from 20 AWG:	600 V	
<b>Testing voltage:</b> 26 AWG - 22 AWG:	conductor/conductor: 1500 V	
<b>Testing voltage:</b> from 20 AWG:	conductor/conductor: 3000 V	
<b>Torsion angle:</b>	up to $\pm 450^\circ/0.5$ m	
<b>Min. bending radius:</b> continuously flexible:	12 x O.D.	
from 34 conductors:	20 x O.D.	
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range:</b> static:	<b>DIN VDE</b>	<b>UL/CSA:</b> up to +80°C
motion:	-50/+90°C	
	-40/+90°C	
<b>Halogen-free:</b>	acc. to IEC 60754-1 + VDE 0482-754-1	
<b>Burning characteristics:</b>	acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1, CSA FT1, FT2	
<b>Oil resistance:</b>	very good - TPU acc. to IEC 50363-10-2 + VDE 0207-363-10-2	
<b>Chemical resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids, etc.	
<b>Continuous flexibility:</b>	very good	
<b>Approvals:</b>	UR AWM, CSA AWM, CE, EAC, RoHS	
<b>Absence of harmful substances:</b>	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
<b>► 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b>				
7952603	3	0.217	5.5	21
7952604	4	0.185	4.7	17
7952616	16	0.295	7.5	87
<b>► 24 AWG (≈ 14/34) ▪ 0.25 mm<sup>2</sup></b>				
7952403	3	0.181	4.6	17
7952404	4	0.189	4.8	19
7952407	7	0.213	5.4	26
7952425	25	0.358	9.1	79
<b>► 22 AWG (≈ 7/30) ▪ 0.34 mm<sup>2</sup></b>				
7952202	2	0.189	4.8	18
<b>► 20 AWG (≈ 28/34) ▪ 0.50 mm<sup>2</sup></b>				
7952018	18	0.492	12.5	138
7952025	25	0.579	14.7	193

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>► 19 AWG (≈ 42/34) ▪ 0.75 mm<sup>2</sup></b>				
7951904	4	0.315	8.0	53
7951914	14	0.496	12.6	139
<b>► 18 AWG (≈ 56/34) ▪ 1.00 mm<sup>2</sup></b>				
7951802	2	0.287	7.3	43
7951803	3	0.299	7.6	50
7951804	4	0.319	8.1	61
7951806	6	0.370	9.4	85
7951807	7	0.394	10.0	99
7951812	12	0.480	12.2	144
7951818	18	0.579	14.7	212
7951825	25	0.654	16.6	288
7951834	34	0.776	19.7	376
7951840	40	0.823	20.9	443
7951841	41	0.823	20.9	450

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>► 16 AWG (≈ 84/34) ▪ 1.50 mm<sup>2</sup></b>				
7951603	3	0.335	8.5	67
7951607	7	0.445	11.3	132
7951612	12	0.563	14.3	204
7951618	18	0.654	16.6	292
7951625	25	0.752	19.1	409
<b>► 14 AWG (≈ 140/34) ▪ 2.50 mm<sup>2</sup></b>				
7951403	3	0.390	9.9	91
7951404	4	0.406	10.3	112
7951405	5	0.465	11.8	141
<b>► 12 AWG (≈ 224/34) ▪ 4.00 mm<sup>2</sup></b>				
7951203	3	0.453	11.5	142
<b>► 8 AWG (≈ 320/32) ▪ 10.00 mm<sup>2</sup></b>				
7950803	3	0.650	16.5	316
<b>► 6 AWG (≈ 504/32) ▪ 16.00 mm<sup>2</sup></b>				
7950603	3	0.764	19.4	458
<b>► 4 AWG (≈ 760/32) ▪ 25.00 mm<sup>2</sup></b>				
7950403	3	0.945	24.0	695
<b>► 2 AWG (≈ 1083/32) ▪ 35.00 mm<sup>2</sup></b>				
7950203	3	1.071	27.2	933

Other dimensions and colors are available on request



Also suitable for flexing applications



# Torsion Cables

## RT 123 D

Spiral shielded PUR rugged and dependable robot/track cable  
±450° torsion over 0.5 m



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



Marking for RT 123 D 7961618:

SAB BRÖCKSKES · D-VIERSEN · 7961815 18 x 1.5 mm<sup>2</sup> RT 123 D 16 AWG/18c 7961618 AWM Style 21060 80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2 CE

### Construction:

<b>Conductor:</b> 26 AWG - 22 AWG:	bare copper strands, extra fine wires
<b>Conductor:</b> from 20 AWG:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	TPE
<b>Color code:</b> 26 AWG - 22 AWG:	acc. to color code US 2, see page O/27
<b>Color code:</b> from 20 AWG:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
<b>Stranding:</b>	specialy adjusted layering with non-woven tape over each layer and one additional non-woven tape over the outer layer
<b>Shielding:</b>	wrapped with bare copper wires
<b>Wrapping:</b>	non-woven tape
<b>Jacket material:</b>	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Jacket color:</b>	black (RAL 9005)

### Outstanding features:



- rugged and reliable
- torsion angle up to ± 450° per 0.5 meter

### Technical data:

<b>Peak operating voltage:</b> 26 AWG - 22 AWG:	max. 350 V
<b>Peak operating voltage:</b> from 20 AWG:	U <sub>o</sub> /U 300/500 V
<b>Voltage UL/CSA:</b> 26 AWG - 22 AWG:	300 V
<b>Voltage UL/CSA:</b> from 20 AWG:	600 V
<b>Testing voltage:</b> 26 AWG - 22 AWG:	conductor/conductor: 1500 V conductor/shielding: 1200 V
<b>Testing voltage:</b> from 20 AWG:	conductor/conductor: 3000 V conductor/shielding: 2000 V
<b>Torsion angle:</b>	up to ± 450°/0.5 m (tested)
<b>Min. bending radius:</b> <i>continuously flexible:</i> from 34 conductors:	12 x O.D. 20 x O.D.
<b>Radiation resistance:</b>	5 x 10 <sup>7</sup> cJ/kg
<b>Temperature range:</b> <i>static:</i> <i>motion:</i>	<b>DIN VDE</b> <b>UL/CSA:</b> up to +80°C -50/+90°C -40/+90°C
<b>Halogen-free:</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1, CSA FT1, FT2
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Chemical resistance:</b>	good against acids, alkalines, solvents, hydraulic liquids, etc.
<b>Continuous flexibility:</b>	very good
<b>Approvals:</b>	UR AWM, CSA AWM, CE, EAC, RoHS
<b>Absence of harmful substances:</b>	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 <sup>2</sup>				
7962612	12	0.272	6.9	42
▶ 24 AWG (≈ 14/34) ▪ 0.25 mm <sup>2</sup>				
7962425	25	0.394	10.0	105
▶ 20 AWG (≈ 28/34) ▪ 0.50 mm <sup>2</sup>				
7962005	5	0.323	8.2	63

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 18 AWG (≈ 56/34) ▪ 1.00 mm <sup>2</sup>				
7961807	7	0.421	10.7	120
▶ 16 AWG (≈ 84/34) ▪ 1.50 mm <sup>2</sup>				
7961612	12	0.587	14.9	227
7961618	18	0.673	17.1	333

Other dimensions and colors are available on request



Also suitable  
for flexing applications



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# Torsion Cables

## RT 113

Economical torsional cable for moderate torsional stress  
±270° torsion over 0.5 m



Marking for RT 113 7971618:

SAB BRÖCKSKES · D-VIERSEN · 7971815 18 x 1.5 mm<sup>2</sup> RT 113 16 AWG/18c 7971618 AWM Style 21216 90°C Oil 60°C 600V CSA AWM I/II A/B 90°C F 600V FT1 FT2 CE

### Construction:

<b>Conductor:</b> 26 AWG - 22 AWG:	bare copper strands, extra fine wires
<b>Conductor:</b> from 20 AWG:	bare copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	PVC, T12 acc. to EN 50363-3 + VDE 0207-363-3
<b>Color code:</b> 26 AWG - 22 AWG:	acc. to color code US 2, see page O/27
<b>Color code:</b> from 20 AWG:	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, green/yellow ground from 3 conductors
<b>Stranding:</b>	specially adjusted layering with non-woven tape over each layer and one additional non-woven tape over the outer layer
<b>Jacket material:</b>	PVC, TM5 acc. to EN 50363-4-1 + VDE 0207-363-4-1
<b>Jacket color:</b>	black (RAL 9005)

### Outstanding features:

- rugged and reliable
- torsion angle up to ± 270° per 0.5 meter

### Technical data:

<b>Peak operating voltage:</b> 26 AWG - 22 AWG:	max. 350 V	
<b>Nominal voltage:</b> from 20 AWG:	U <sub>o</sub> /U 300/500 V	
<b>Voltage UL:</b> 26 AWG - 22 AWG:	300 V	
<b>Voltage UL/CSA:</b> from 20 AWG:	600 V	
<b>Testing voltage:</b> 26 AWG - 22 AWG:	conductor/conductor: 1500 V	
<b>Testing voltage:</b> from 20 AWG:	conductor/conductor: 2000 V	
<b>Torsion angle:</b>	up to ± 270/0.5 m (tested)	
<b>Min. bending radius:</b> <i>continuously flexible:</i> from 34 conductors:	12 x O.D. 20 x O.D.	
<b>Temperature range:</b> 26 AWG - 22 AWG: <i>static:</i> <i>motion:</i>	<b>DIN VDE</b> -40/+70°C +5/+70°C	<b>UL:</b> up to +80°C
<b>Temperature range:</b> from 20 AWG: <i>static:</i> <i>motion:</i>	<b>DIN VDE</b> -40/+70°C +5/+70°C	<b>UL/CSA:</b> up to +90°C
<b>Burning characteristics:</b> 26 AWG - 22 AWG:	acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1	
<b>Burning characteristics:</b> from 20 AWG:	acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1, CSA FT1, FT2	
<b>Oil resistance:</b>	very good - TM5 acc. to EN 50363-4-1 + VDE 0207-363-4-1, oil rating 60°C acc. to UL 758, Fuel-Oil acc. to CSA C22.2 No. 210.2-M90	
<b>Continuous flexibility:</b>	very good	
<b>Approvals:</b>	UR AWM, CSA AWM, CE, EAC, RoHS	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30	

### UR / CE

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b>				
7972603	3	0.205	5.2	21
7972604	4	0.220	5.6	24
<b>▶ 24 AWG (≈ 14/34) ▪ 0.25 mm<sup>2</sup></b>				
7972403	3	0.213	5.4	25
7972404	4	0.232	5.9	29
7972407	7	0.287	7.3	45
7972425	25	0.441	11.2	116
<b>▶ 22 AWG (≈ 7/30) ▪ 0.34 mm<sup>2</sup></b>				
7972202	2	0.209	5.3	24
7972025	25	0.583	14.8	223

### UR / CSA / CE

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 20 AWG (≈ 28/34) ▪ 0.50 mm<sup>2</sup></b>				
7972025	25	0.583	14.8	223
<b>▶ 19 AWG (≈ 42/34) ▪ 0.75 mm<sup>2</sup></b>				
7971904	4	0.291	7.4	50
7971907	7	0.378	9.6	90
7971914	14	0.492	12.5	151
<b>▶ 18 AWG (≈ 56/34) ▪ 1.00 mm<sup>2</sup></b>				
7971802	2	0.268	6.8	40
7971803	3	0.272	6.9	48
7971804	4	0.307	7.8	60
7971812	12	0.488	12.4	157
7971818	18	0.567	14.4	224
7971825	25	0.665	16.9	314
7971834	34	0.791	20.1	419
7971841	41	0.843	21.4	492

### UR / CSA / CE

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 84/34) ▪ 1.50 mm<sup>2</sup></b>				
7971618	18	0.650	16.5	306
7971625	25	0.736	18.7	423
<b>▶ 14 AWG (≈ 140/34) ▪ 2.50 mm<sup>2</sup></b>				
7971403	3	0.386	9.8	98
7971404	4	0.417	10.6	124
<b>▶ 12 AWG (≈ 224/34) ▪ 4.00 mm<sup>2</sup></b>				
7971203	3	0.476	12.1	151
<b>▶ 8 AWG (≈ 320/32) ▪ 10.00 mm<sup>2</sup></b>				
7970803	3	0.661	16.8	337
<b>▶ 6 AWG (≈ 504/32) ▪ 16.00 mm<sup>2</sup></b>				
7970603	3	0.776	19.7	491
<b>▶ 4 AWG (≈ 760/32) ▪ 25.00 mm<sup>2</sup></b>				
7970403	3	0.937	23.8	726
<b>▶ 2 AWG (≈ 1083/32) ▪ 35.00 mm<sup>2</sup></b>				
7970203	3	1.071	27.2	988

Other dimensions and colors are available on request



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# Torsion Cables

## RT 113 D

Spiral shielded economical torsional cable for moderate torsional stress  
±270° torsion over 0.5 m



Marking for RT 113 D 7982612:

SAB BRÖCKSKES · D-VIERSEN · 7981201 12 x 0.14 mm<sup>2</sup> RT 113 D 26 AWG/12c 7982612 AWM Style 2464 80°C 300V CE

### Construction:

<b>Conductor:</b>	bare copper strands, extra fine wires
<b>Insulation:</b>	PVC, T12 acc. to EN 50363-3 + VDE 0207-363-3
<b>Color code:</b>	acc. to color code US 2, see page O/27
<b>Stranding:</b>	specially adjusted layering with non-woven tape over each layer and one additional non-woven tape over the outer layer
<b>Shielding:</b>	wrapped with bare copper wires
<b>Wrapping:</b>	non-woven tape
<b>Jacket material:</b>	PVC, TM5 acc. to EN 50363-4-1 + VDE 0207-363-4-1
<b>Jacket color:</b>	black (RAL 9005)

### Outstanding features:

- rugged and reliable
- torsion angle up to ± 270° per 0.5 meter

### Technical data:

<b>Peak operating voltage:</b>	max. 350 V	
<b>26 AWG - 22 AWG:</b>		
<b>Voltage UL:</b>	300 V	
<b>Testing voltage:</b>	conductor/conductor: 1500 V conductor/shielding: 1200 V	
<b>Torsion angle:</b>	up to ± 270°/0.5 m (tested)	
<b>Min. bending radius:</b>		
<i>continuously flexible:</i>	12 x O.D.	
<i>from 34 conductors:</i>	20 x O.D.	
<b>Temperature range:</b>	<b>DIN VDE</b>	<b>UL/CSA:</b> up to +80°C
<i>static:</i>	-40/+70°C	
<i>motion:</i>	+5/+70°C	
<b>Burning characteristics:</b>	acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1	
<b>Oil resistance:</b>	very good - TM5 acc. to IEC 50363-4-1 + VDE 0207-363-4-1	
<b>Continuous flexibility:</b>	very good	
<b>Approvals:</b>	UR AWM, CE, EAC, RoHS	
<b>Absence of harmful substances:</b>	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
<b>► 26 AWG (≈ 18/38) ▪ 0.14 mm<sup>2</sup></b>				
7982612	12	0.331	8.4	59
<b>► 24 AWG (≈ 14/34) ▪ 0.25 mm<sup>2</sup></b>				
7982425	25	0.457	11.6	135

Other dimensions and colors are available on request

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# Torsion Cables

## SAB<sup>clean</sup> RT 793 D

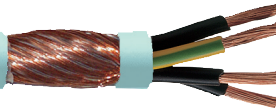
TPE Cleanroom shielded torsional cable  $\pm 360^\circ$  torsion over 1 m

torsional/twisting  
angle up to  $\pm 360^\circ$

SAB<sup>clean</sup>

SAB<sup>Robot</sup>

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



Marking for SAB<sup>clean</sup> RT 793 D 37930415:

SAB BRÜCKSKES · D-VIERSEN · 4 x 1.5 mm<sup>2</sup> SAB Clean RT 793 D 16 AWG/4c 37930415 UL AWM Style 21060 80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2 CE

### Construction:

<b>Conductor:</b>	bare copper strands, acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	TPE
<b>Color code:</b>	black conductors with consecutive white numbers acc. to EN 50334 + VDE 0293-334 and green/yellow ground from 3 conductors
<b>Stranding:</b>	conductors twisted with specially adjusted layering
<b>Wrapping:</b>	non-woven tape
<b>Shielding:</b>	wrapped with bare copper wires
<b>Wrapping:</b>	non-woven tape
<b>Jacket material:</b>	TPE
<b>Jacket color:</b>	white green (RAL 6019)

### Technical data:

<b>Nominal voltage:</b>	Uo/U 300/500 V	
<b>Voltage UL/CSA:</b>	600 V	
<b>Testing voltage:</b>	conductor/conductor: 3000 V conductor/shielding: 2000 V	
<b>Torsion angle:</b>	up to $\pm 360^\circ/1$ m (tested)	
<b>Min. bending radius:</b> <i>continuously flexible:</i>	7.5 x O.D.	
<b>Temperature range:</b> <i>static:</i>	DIN VDE -50/+70°C	UL/CSA: up to +80°C
<i>motion:</i>	-40/+70°C	up to +80°C
<b>Air cleanliness class 1:</b>	acc. to ISO 14644-1	
<b>Approvals:</b>	UR AWM, CSA AWM, EAC, CE, RoHS	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30	

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### Outstanding features:



- rugged and reliable
- torsion angle up to  $\pm 360^\circ$  over 1 meter

item no.	dimensions	outer-ø		cable weight ≈lbs/mft	ohmic resistance at 20°C max. Ω/km
		inch	mm		
▶ 37930505	20 AWG (≈ 28/34) / 5c	0.343	8.7	67	39.0
▶ 37930415	16 AWG (≈ 84/34) / 4c	0.378	9.6	97	13.3
▶ 37931215	16 AWG (≈ 84/34) / 12c	0.555	14.1	213	13.3
▶ 37930225	14 AWG (≈ 140/34) / 2c	0.386	9.8	94	7.98
▶ 37930425	14 AWG (≈ 140/34) / 4c	0.433	11.0	129	7.98

Other dimensions and colors are possible on request.



Cleanroom classification  
ISO 14644-1  
Air Cleanliness Class 1