

# TORSION CABLES

torsion/twisting angle  
up to **± 450°**  
per 19.685 inches



## RT 123 Halogen free rugged and dependable robot/track cable



Marking for RT 123 07951618: SAB BRÖCKSKES · D-VIERSEN ·

07951815 18 x 1.5 mm<sup>2</sup> RT 123 16 AWG/18 c 07951618 AWM Style 21060 80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2 CE

This 300/600 V UL/CSA approved cable is rated for 80°C and used in applications where combined twisting and bending stresses occur. This unique cable accurately transmits control signals and power supply to welding robots, rotary tables and other automated applications. The high quality UL/CSA approved 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 polyurethane is highly resistant to abrasion, oil, notching microbes and hydrolysis. In addition, the surface quality prevents adhesion to adjacently installed cables.

### Construction:

<b>Conductor</b>	
26 AWG - 22 AWG:	bare copper strands, extra fine wires
from 20 AWG:	bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6
<b>Insulation:</b>	
26 AWG - 22 AWG:	TPE 531
from 20 AWG:	TPE 510
<b>Color code</b>	
26 AWG - 22 AWG:	acc. to color code US 2 see page N/23
from 20 AWG:	black conductors with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 conductors
<b>Stranding:</b>	specially adjusted layering with netting tape over each layer and one additional non-woven tape over the outer layer
<b>Jacket material:</b>	PUR, TPU acc. to DIN VDE 0282 part 10 + HD 22.10
<b>Jacket color:</b>	black

### Technical data:

<b>Voltage</b>		<b>UL/CSA:</b> 300 V
26 AWG - 22 AWG:		<b>UL/CSA:</b> max. 600 V
from 20 AWG:		
<b>Peak operating voltage</b>		
26 AWG - 22 AWG:		max. 350 V
from 20 AWG:		
<b>Nominal voltage U<sub>0</sub>/U</b>		<b>DIN VDE:</b> 300/500 V
from 20 AWG:		
<b>Testing voltage U</b>		
26 AWG - 22 AWG:		1500 V acc. to DIN VDE 0472 part 509
from 20 AWG:		3000 V acc. to DIN VDE 0281 part 2 + HD 21.2
<b>Torsion angle:</b>		up to ± 450°/0.5 m (tested)
<b>Min. bending radius:</b>		continuous flexing 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>		<b>DIN VDE:</b> -50/+90°C <b>UL:</b> up to +80°C <b>CSA:</b> up to +80°C
<i>static:</i>		-40/+90°C
<i>flexing:</i>		up to +80°C
<b>Zero halogen:</b>		acc. to IEC 60754-1 and DIN VDE 0472 part 815
<b>Burning characteristics:</b>		UL VW-1 + CSA FT1 and FT2, IEC 60332-1-2 and EN 60332-1-2
<b>Oil resistance:</b>		very good - PUR TPU acc. to DIN VDE 0282 part 10 + HD 22.10
<b>Chem. resistance:</b>		good against acids, alkalines, solvents, hydraulic liquids etc.
<b>Continuous flexibility:</b>		very good
<b>Absence of harmful substances:</b>		acc. to RoHS-guideline 2002/95/EG as well as GefStoffV appendix IV-no. 24, see page N/25

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### Outstanding features:

- ▶ rugged and reliable
- ▶ torsion angle up to ± 450° per 0.5 m (19.685 inches)
- ▶ weld resistant

UL / CSA / CE					UL / CSA / CE					UL / CSA / CE								
item no.	no. of conductors	nominal outer-ø inch	mm	cable weight ≈ lbs/mft	item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft	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>					▶ 20 AWG (33/34) • 0.50 mm <sup>2</sup>					▶ 16 AWG (84/34) • 1.50 mm <sup>2</sup>								
07952603	3	0.217	5.5	21	07952018	18	0.492	12.5	138	07951607	7	0.461	11.7	134				
07952604	4	0.224	5.7	23	07952025	25	0.579	14.7	193	07951612	12	0.579	14.7	206				
▶ 24 AWG (32/38) • 0.25 mm <sup>2</sup>					▶ 19 AWG (42/34) • 0.75 mm <sup>2</sup>					07951618					18	0.673	17.1	297
07952403	3	0.228	5.8	25	07951904	4	0.315	8.0	53	07951625	25	0.787	20.0	415				
07952404	4	0.240	6.1	28	07951914	14	0.496	12.6	137	▶ 14 AWG (140/34) • 2.50 mm <sup>2</sup>								
07952407	7	0.283	7.2	40	07951802	2	0.295	7.5	46	07951403	3	0.409	10.4	101				
07952425	25	0.421	10.7	97	07951803	3	0.307	7.8	52	07951404	4	0.441	11.2	122				
▶ 22 AWG (42/38) • 0.34 mm <sup>2</sup>					▶ 18 AWG (56/34) • 1.00 mm <sup>2</sup>					▶ 12 AWG (224/34) • 4.00 mm <sup>2</sup>								
07952202	2	0.228	5.8	26	07951804	4	0.331	8.4	62	07951203	3	0.476	12.1	142				
					07951806	6	0.382	9.7	87	▶ 8 AWG (320/32) • 10.00 mm <sup>2</sup>								
					07951807	7	0.406	10.3	99	07950803	3	0.709	18.0	319				
					07951812	12	0.496	12.6	146	▶ 6 AWG (512/32) • 16.00 mm <sup>2</sup>								
					07951818	18	0.587	14.9	214	07950603	3	0.803	20.4	469				
					07951825	25	0.677	17.2	294	▶ 4 AWG (798/32) • 25.00 mm <sup>2</sup>								
					07951834	34	0.787	20.0	379	07950403	3	1.008	25.6	716				
					07951840	40	0.843	21.4	444	▶ 2 AWG (1102/32) • 35.00 mm <sup>2</sup>								
					07951841	41	0.843	21.4	452	07950203	3	1.118	28.4	931				

Other dimensions and colors are possible on request.

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Web site: [www.sabcable.com](http://www.sabcable.com)