

torsion/twisting angle
up to $\pm 450^\circ$
per 0.5 meter



TORSION CABLES

RT 123 D Spiral shielded halogen-free rugged and dependable robot/track cable

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



Marking for RT 123 D 07961618: SAB BRÖCKSKES · D-VIERSEN ·

07961815 18 G 1.5 mm² RT 123 D 16 AWG/18c 07961618 AWM Style 21060 80°C 600V CSA AWM I/II A/B 80°C 600V FT1 FT2 CE

This 300/600 V UL recognized, 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 recognized, CSA approved insulation with its smooth surface and slide wrapping increases cable life expectancy under extreme twisting and bending stresses. The TPE outer jacket is blended with specially formulated polyurethane and is highly resistant to abrasion, oil, notching, microbes and hydrolysis. In addition, the surface quality prevents adhesion to adjacently installed cables. The overall tinned copper spiral shield is recommended whenever electrical interference distorts signal transmission or when EMI emission needs to be suppressed.

Construction:

Conductor	
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
Insulation:	TPE
Color code	
26 AWG - 22 AWG:	acc. to color code US 2 see page O/27
from 20 AWG:	black conductors with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 conductors
Stranding:	specially adjusted layering with woven tape over each layer and one additional non-woven tape over the outer layer
Screen:	wrapped with bare copper wires
Wrapping:	non-woven tape
Jacket material:	PUR, TPU acc. to DIN VDE 0282 part 10 + HD 22.10
Jacket color:	black

Outstanding features:

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

Technical data:

Voltage	
26 AWG - 22 AWG:	UL/CSA: 300 V
from 20 AWG:	UL/CSA: max. 600 V
Peak operating voltage	
26 AWG - 22 AWG:	max. 350 V
Nominal voltage U_o/U	
from 20 AWG:	DIN VDE: 300/500 V
Testing voltage U	
26 AWG - 22 AWG:	1500 V acc. to DIN VDE 0472 part 509 conductor/screen 1200 V
from 20 AWG:	3000 V acc. to DIN VDE 0281 part 2 + HD 21.2, conductor/screen 2000 V
Torsion angle:	up to $\pm 450^\circ/0.5$ meter (tested)
Min. bending radius:	continuous flexing 12 x O.D
Radiation resistance:	5 x 10 ⁷ cJ/kg
Temperature range	
static:	DIN VDE: -50/+90°C
motion:	UL: up to +80°C CSA: up to +80°C
Zero halogen:	acc. to IEC 60754-1 and DIN VDE 0472 part 815
Burning characteristics:	UL VW-1 + CSA FT1 and FT2, IEC 60332-1-2 and EN 60332-1-2
Oil resistance:	very good acc. to DIN VDE 0282 part 10 + HD 22.10
Chemical resistance:	good against acids, alkalines, solvents, hydraulic liquids etc.
Continuous flexibility:	very good
Absence of harmful substances:	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors	nominal outer- ϕ inch	nominal outer- ϕ mm	cable weight \approx lbs/mft
➤ 26 AWG (\approx 18/38)		0.14 mm ²		
07962612	12	0.335	8.5	53
➤ 24 AWG (\approx 14/34)		0.25 mm ²		
07962425	25	0.445	11.3	115
➤ 20 AWG (\approx 28/34)		0.50 mm ²		
07962005	5	0.343	8.7	64

item no.	no. of conductors incl. ground	nominal outer- ϕ inch	nominal outer- ϕ mm	cable weight \approx lbs/mft
➤ 18 AWG (\approx 56/34)		1.00 mm ²		
07961807	7	0.437	11.1	119
➤ 16 AWG (\approx 84/34)		1.50 mm ²		
07961612	12	0.602	15.3	231
07961618	18	0.701	17.8	335

Other dimensions and colors are possible on request.