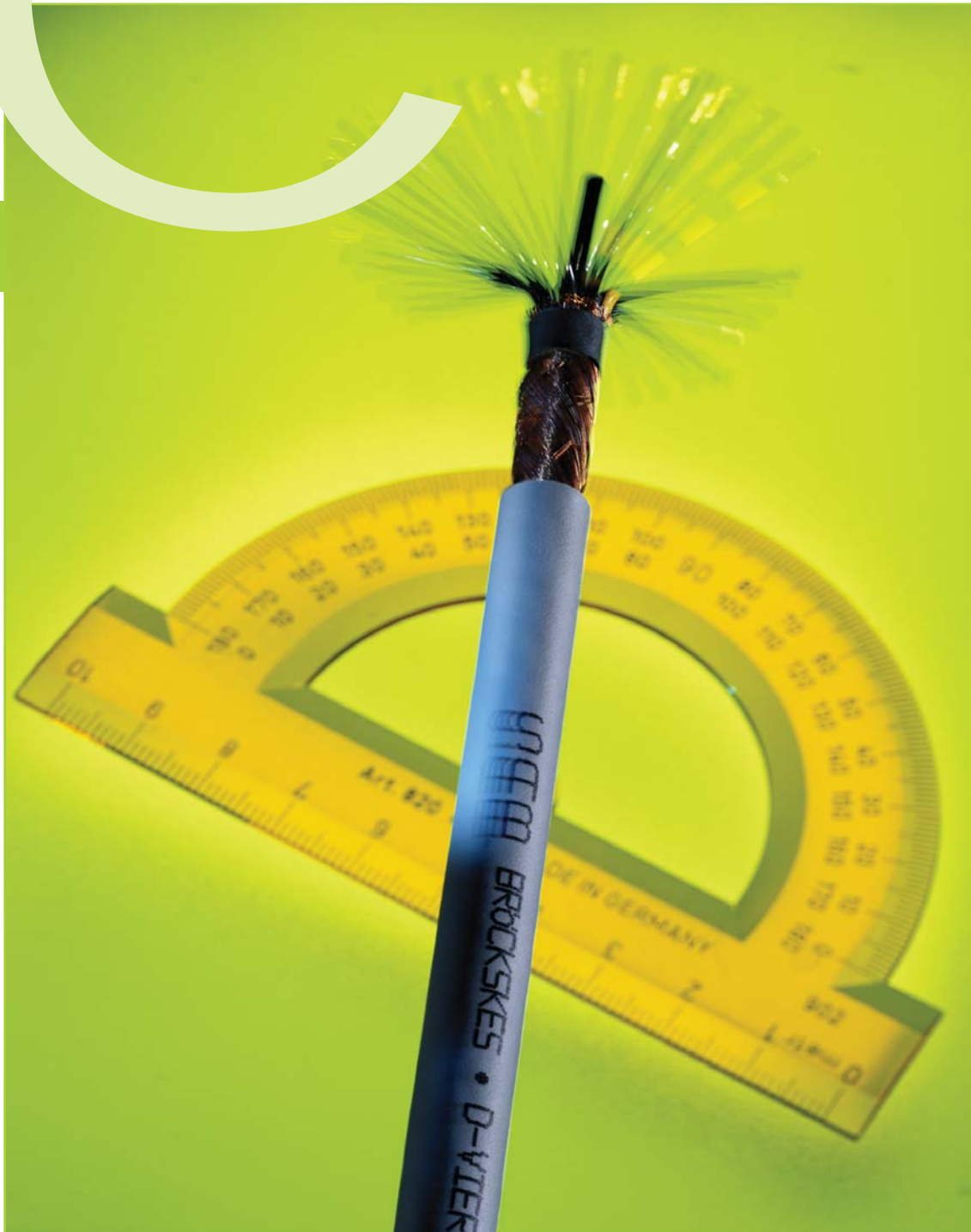


# Torsion **Cables**





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# Chapter

Item	Description	Page
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<b>Hybrid torsional cable</b>		
 SABIX® A 883	Twisting and torsional connection cable, CE	C 9

 : especially for use in rail vehicles

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# TORSION CABLES

## Application

### ■ 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, low temperature application as well as in explosion proof 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, low temperature application as well as in explosion proof areas.

#### Exemplary applications:

<b>RT 123</b>	Packaging, wood working, textile, welding and cutting machine construction,
<b>RT 123 D</b>	car manufacturing industry, industrial robot construction, electrical drive, control,
<b>RT 113</b>	and measurement technology, construction of industrial plants and machine tooling
<b>RT 113 D</b>	construction

### ■ Hybrid torsional cable

Hybrid torsional cables are designed for applications as connection cables in industrial transportation. These cables are suitable for medium mechanical stress as well as continuous torsional and linear stress in free moving applications without tensile load. These cables are used where combined twisting and bending stress occur.

#### Exemplary applications:

<b>SABIX® A 883</b>	transportation vehicles and locomotives within railcars and boxes
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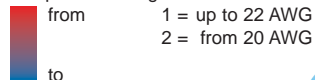
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# TORSION CABLES

## Selection index

		Cable type				
		RT 123	RT 123 D	RT 113	RT 113 D	SBIX® A 833
Application	Screened		x		x	
	Inner jacket					x
	Torsion angle 450°	x	x			
	Torsion angle 270°			x	x	
Temperature range static*	+ 90 °C					
	+ 85 °C					
	+ 80 °C					
	- 40 °C					
	- 50 °C					
Voltage	Voltage 300 V (UL/CSA) up to 22 AWG Voltage max. 600 V (UL/CSA) from 20 AWG	x	x			
	Voltage 300 V (UL) up to 22 AWG Voltage max. 600 V (UL/CSA) from 20 AWG			x		
	Voltage 300 V (UL)				x	
	Up to 22 AWG: Peak operating voltage max. 350 V / Testing voltage 1500 V	x	x	x	x	
	From 20 AWG: Nominal voltage U <sub>0</sub> /U 300/500 V Testing voltage 3000 V	x	x			
	From 20 AWG: Nominal voltage U <sub>0</sub> /U 300/500 V Testing voltage 2000 V			x		
	Nominal voltage U <sub>0</sub> /U 300/500 V Testing voltage 2000 V					x
Standard	Burning characteristics: UL VW-1 + CSA FT1 and FT2, IEC 60332-1-2 and EN 60332-1-2	x	x			
	Burning characteristics up to 22 AWG: UL VW-1, IEC 60332-1-2 and EN 60332-1-2			x	x	
	Burning characteristics from 20 AWG: UL VW-1 + CSA FT1 and FT2, IEC 60332-1			x		
	Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2					x
	UL/CSA acc. to AWM Style	x	x			
	UL acc. to AWM Style up to AWG 22 UL/CSA acc. to AWM Style from AWG 20			x		
	UL acc. to AWM Style				x	
Characteristic	Zero halogen acc. to DIN VDE and IEC	x	x			x
	Very good oil resistance acc. to DIN VDE	x	x	x	x	
	Good oil resistance					x
	Good chemical resistance	x	x			
	Continuous flexibility	x	x	x	x	
	Good UV resistance					x
	Good ozone resistance					x
Good weather resistance					x	

Temperature range:



\*The temperature range for flexing is mentioned on the particular catalog page

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# 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 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 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/25
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, TMPU acc. to DIN VDE 0282 part 10 + HD 22.10
<b>Jacket color:</b>	black

### Outstanding features:

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

### Technical data:

<b>Voltage</b>			
26 AWG - 22 AWG:	<b>UL/CSA:</b> 300 V		
from 20 AWG:	<b>UL/CSA:</b> max. 600 V		
<b>Peak operating voltage</b>			
26 AWG - 22 AWG:	max. 350 V		
<b>Nominal voltage U<sub>o/U</sub></b>			
from 20 AWG:	<b>DIN VDE:</b> 300/500 V		
<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 <b>± 450°/0.5 m</b> (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>	<b>UL:</b>	<b>CSA:</b>
static:	-50/+90°C	up to +80°C	up to +80°C
flexing:	-40/+90°C	up to +80°C	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 TMPU 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 directive of the European Union see page N/28		

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item no.	no. of conductors	nominal outer- inch	nominal outer- mm	cable weight ≈ lbs/mft
▶ 26 AWG (≈ 18/38) • 0.14 mm <sup>2</sup>				
07952603	3	0.217	5.5	21
07952604	4	0.224	5.7	23
▶ 24 AWG (≈ 14/34) • 0.25 mm <sup>2</sup>				
07952403	3	0.228	5.8	25
07952404	4	0.240	6.1	28
07952407	7	0.283	7.2	40
07952425	25	0.421	10.7	97
▶ 22 AWG (≈ 7/30) • 0.34 mm <sup>2</sup>				
07952202	2	0.228	5.8	26

item no.	no. of conductors incl. ground	nominal outer- inch	nominal outer- mm	cable weight ≈ lbs/mft
▶ 20 AWG (≈ 28/34) • 0.50 mm <sup>2</sup>				
07952018	18	0.492	12.5	138
07952025	25	0.579	14.7	193
▶ 19 AWG (≈ 42/34) • 0.75 mm <sup>2</sup>				
07951904	4	0.315	8.0	53
07951914	14	0.496	12.6	137
▶ 18 AWG (≈ 56/34) • 1.00 mm <sup>2</sup>				
07951802	2	0.295	7.5	46
07951803	3	0.307	7.8	52
07951804	4	0.331	8.4	62
07951806	6	0.382	9.7	87
07951807	7	0.406	10.3	99
07951812	12	0.496	12.6	146
07951818	18	0.587	14.9	214
07951825	25	0.677	17.2	294
07951834	34	0.787	20.0	379
07951840	40	0.843	21.4	444
07951841	41	0.843	21.4	452

item no.	no. of conductors incl. ground	nominal outer- inch	nominal outer- mm	cable weight ≈ lbs/mft
▶ 16 AWG (≈ 84/34) • 1.50 mm <sup>2</sup>				
07951607	7	0.461	11.7	134
07951612	12	0.579	14.7	206
07951618	18	0.673	17.1	297
07951625	25	0.787	20.0	415
▶ 14 AWG (≈ 140/34) • 2.50 mm <sup>2</sup>				
07951403	3	0.409	10.4	101
07951404	4	0.441	11.2	122
▶ 12 AWG (≈ 224/34) • 4.00 mm <sup>2</sup>				
07951203	3	0.476	12.1	142
▶ 8 AWG (≈ 320/32) • 10.00 mm <sup>2</sup>				
07950803	3	0.709	18.0	319
▶ 6 AWG (≈ 504/32) • 16.00 mm <sup>2</sup>				
07950603	3	0.803	20.4	469
▶ 4 AWG (≈ 760/32) • 25.00 mm <sup>2</sup>				
07950403	3	1.008	25.6	716
▶ 2 AWG (≈ 1083/32) • 35.00 mm <sup>2</sup>				
07950203	3	1.118	28.4	931

Other dimensions and colors are possible on request.

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torsion/twisting angle  
up to  $\pm 450^\circ$   
per 19.685 inches

# TORSION CABLES



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

21060 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 x 1.5 mm<sup>2</sup> 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 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. The overall tinned copper spiral shield is recommended whenever electrical interference distorts signal transmission or when EMI emission needs to be suppressed.

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### 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/25
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>Screen:</b>	wrapped with bare copper wires
<b>Wrapping:</b>	non-woven tape
<b>Jacket material:</b>	PUR, TMPU acc. to DIN VDE 0282 part 10 + HD 22.10
<b>Jacket color:</b>	black

### Outstanding features:

- rugged and reliable
- torsion angle up to  $\pm 450^\circ$  per 0.5 m (19.685 inches)
- weld resistant

### Technical data:

<b>Voltage</b>			
26 AWG - 22 AWG:		UL/CSA: 300 V	
from 20 AWG:		UL/CSA: max. 600 V	
<b>Peak operating voltage</b>			
26 AWG - 22 AWG:		max. 350 V	
<b>Nominal voltage U<sub>0</sub>/U</b>			
from 20 AWG:		DIN VDE: 300/500 V	
<b>Testing voltage U</b>			
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	
<b>Torsion angle:</b>		up to $\pm 450^\circ/0.5$ 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>			
static:	DIN VDE: -50/+90°C	UL: up to +80°C	CSA: up to +80°C
flexing:	-40/+90°C	up to +80°C	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 TMPU 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 directive of the European Union see page N/28	

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

item no.	no. of conductors incl. ground	nominal outer- $\phi$ inch	nominal outer- $\phi$ mm	cable weight $\approx$ lbs/mft
➤ 16 AWG ( $\approx$ 84/34) • 1.50 mm <sup>2</sup>				
07961612	12	0.602	15.3	231
07961618	18	0.701	17.8	335
Other dimensions and colors are possible on request.				

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# TORSION CABLES



## RT 113 Economical torsional cable for moderate torsional stress



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

Marking for RT 113 07971618: SAB BRÖCKSKES · D-VIERSEN ·

07971815 18 x 1.5 mm<sup>2</sup> RT 113 16 AWG/18 c 07961618 AWM Style 21216 90°C Oil 60°C 600V CSA AWM I/II A/B 90°C F 600V FT1 FT2 CE

This 300/600 V UL recognized, CSA approved cable is rated for 80°C and used in applications where moderate twisting stress occur. This cable accurately transmits control signals and power supply to rotary tables and other automated applications. The high quality UL recognized, CSA approved PVC jacket is oil resistant and passes the stringent VDE-Oil test.

### 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>	PVC Tl2 acc. to DIN VDE 0281 part 1 + HD 21.1
<b>Color code</b> 26 AWG - 22 AWG:	acc. to color code US 2 see page N/25
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>	PVC TM5 acc. to DIN VDE 0281 part 1 HD 21.1
<b>Jacket color:</b>	black

### Outstanding features:

- ▶ rugged and reliable
- ▶ torsion angle up to ± 270° per 0.5 m (19.685 inches)

### Technical data:

<b>Voltage</b> 26 AWG - 22 AWG:	UL: 300 V
from 20 AWG:	UL/CSA: max. 600 V
<b>Peak operating voltage</b> 26 AWG - 22 AWG:	max. 350 V
<b>Nominal voltage U<sub>o</sub>/U</b> from 20 AWG:	DIN VDE: 300/500 V
<b>Testing voltage U</b> 26 AWG - 22 AWG:	1500 V acc. to DIN VDE 0472 part 509
from 20 AWG:	2000 V acc. to DIN VDE 0281 part 2 + HD 21.2
<b>Torsion angle:</b>	up to ± 270°/0.5 m (tested)
<b>Min. bending radius:</b>	continuous flexing 12 x O.D. from 34 conductors 20 x O.D.
<b>Temperature range</b> 26 AWG - 22 AWG	<b>DIN VDE</b> <b>UL:</b> static:                      -40/+70°C                      up to +80°C flexing:                      +5/+70°C
from 20 AWG	<b>DIN VDE</b> <b>UL + CSA:</b> static:                      -40/+70°C                      up to +90°C flexing:                      +5/+70°C
<b>Burning characteristics</b> 26 AWG - 22 AWG:	UL VW1, IEC 60332-1-2 and EN 60332-1-2
from 20 AWG:	UL VW1 + CSA FT1 + FT2 and IEC 60332-1
<b>Oil resistance:</b>	very good - TM5 acc. to DIN VDE 0281 part 1 + HD 21.1
<b>Continuous flexibility:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page N/28



#### UL / CE

item no.	no. of conductors	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 26 AWG (≈ 18/38) • 0.14 mm <sup>2</sup>				
07972603	3	0.205	5.2	22
07972604	4	0.220	5.6	24
▶ 24 AWG (≈ 14/34) • 0.25 mm <sup>2</sup>				
07972403	3	0.220	5.6	26
07972404	4	0.232	5.9	29
07972407	7	0.287	7.3	44
07972425	25	0.449	11.4	116
▶ 22 AWG (≈ 7/30) • 0.34 mm <sup>2</sup>				
07972202	2	0.217	5.5	26

#### UL / CSA / CE

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 20 AWG (≈ 28/34) • 0.50 mm <sup>2</sup>				
07972025	25	0.583	14.8	214
▶ 19 AWG (≈ 42/34) • 0.75 mm <sup>2</sup>				
07971904	4	0.295	7.5	53
07971907	7	0.402	10.2	106
07971914	14	0.500	12.7	151
▶ 18 AWG (≈ 56/34) • 1.00 mm <sup>2</sup>				
07971802	2	0.268	6.8	44
07971803	3	0.283	7.2	52
07971804	4	0.311	7.9	62
07971812	12	0.496	12.6	157
07971818	18	0.583	14.8	228
07971825	25	0.677	17.2	318
07971834	34	0.795	20.2	414
07971841	41	0.850	21.6	494

#### UL / CSA / CE

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 16 AWG (≈ 84/34) • 1.50 mm <sup>2</sup>				
07971618	18	0.650	16.5	306
07971625	25	0.760	19.3	429
▶ 14 AWG (≈ 140/34) • 2.50 mm <sup>2</sup>				
07971403	3	0.402	10.2	108
07971404	4	0.437	11.1	130
▶ 12 AWG (≈ 224/34) • 4.00 mm <sup>2</sup>				
07971203	3	0.484	12.3	157
▶ 8 AWG (≈ 320/32) • 10.00 mm <sup>2</sup>				
07970803	3	0.728	18.5	368
▶ 6 AWG (≈ 504/32) • 16.00 mm <sup>2</sup>				
07970603	3	0.831	21.1	534
▶ 4 AWG (≈ 760/32) • 25.00 mm <sup>2</sup>				
07970403	3	0.941	23.9	758
▶ 2 AWG (≈ 1083/32) • 35.00 mm <sup>2</sup>				
07970203	3	1.138	28.9	1045

Other dimensions and colors are possible on request.

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torsion/twisting angle  
up to  $\pm 270^\circ$   
per 19.685 inches

# TORSION CABLES



## RT 113 D Spiral shielded economical torsional cable for moderate torsional stress

26 AWG/12c 07982612 AWM Style 2464 80°C 300V CE



Marking for RT 113 D 07982612:

SAB BRÖCKSKES · D-VIERSEN · 07981201 12 x 0.14 mm<sup>2</sup> RT 113 D 26 AWG/12c 07982612 AWM Style 2464 80°C 300V CE

This 300 V UL recognized cable is rated for 80°C and used in applications where moderate twisting stress occur. This cable accurately transmits control signals and power supply to rotary tables and other automated applications. The high quality UL recognized PVC jacket is oil resistant and passes the stringent VDE-Oil test. The overall tinned copper spiral shield is recommended whenever electrical interference distorts signal transmission or when EMI emission needs to be suppressed.

### Construction:

<b>Conductor:</b>	bare copper strands, extra fine wires
<b>Insulation:</b>	PVC T12 acc. to DIN VDE 0281 part 1 + HD 21.1
<b>Color code:</b>	to color code US 2 see page N/25
<b>Stranding:</b>	specially adjusted layering with netting tape over each layer and one additional non-woven tape over the outer layer
<b>Screen:</b>	wrapped with bare copper wires
<b>Wrapping:</b>	non-woven tape
<b>Jacket material:</b>	PVC TM5 acc. to DIN VDE 0281 part 1 HD 21.1
<b>Jacket color:</b>	black

### Outstanding features:

- rugged and reliable
- torsion angle up to  $\pm 270^\circ$  per 0.5 m (19.685 inches)

item no.	no. of conductors	nominal outer- $\phi$ inch	mm	cable weight $\approx$ lbs/mft
----------	-------------------	----------------------------	----	--------------------------------

➤ 26 AWG ( $\approx 18/38$ ) • 0.14 mm <sup>2</sup>				
07982612	12	0.346	8.8	57
➤ 24 AWG ( $\approx 14/34$ ) • 0.25 mm <sup>2</sup>				
07982425	25	0.472	12.0	126

Other dimensions and colors are possible on request.

### Technical data:

<b>Voltage:</b>	<b>UL:</b> 300 V
<b>Peak operating voltage:</b>	max. 350 V
<b>Testing voltage U:</b>	1500 V acc. to DIN VDE 0472 part 509 conductor/screen 1200 V
<b>Torsion angle:</b>	up to $\pm 270^\circ/0.5$ m (tested)
<b>Min. bending radius:</b>	continuous flexing 12 x O.D. from 34 conductors 20 x O.D.
<b>Temperature range static:</b>	<b>DIN VDE:</b> -40/+70°C
<b>flexing:</b>	<b>UL:</b> up to +80°C + 5/+70°C
<b>Burning characteristics:</b>	UL VW1, IEC 60332-1-2 and EN 60332-1-2
<b>Oil resistance:</b>	very good - TM5 acc. to DIN VDE 0281 part 1 + HD 21.1
<b>Continuous flexibility:</b>	very good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page N/28

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E-mail: [info@sabcable.com](mailto:info@sabcable.com)

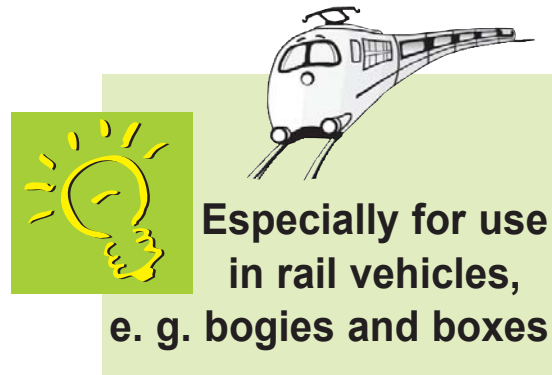
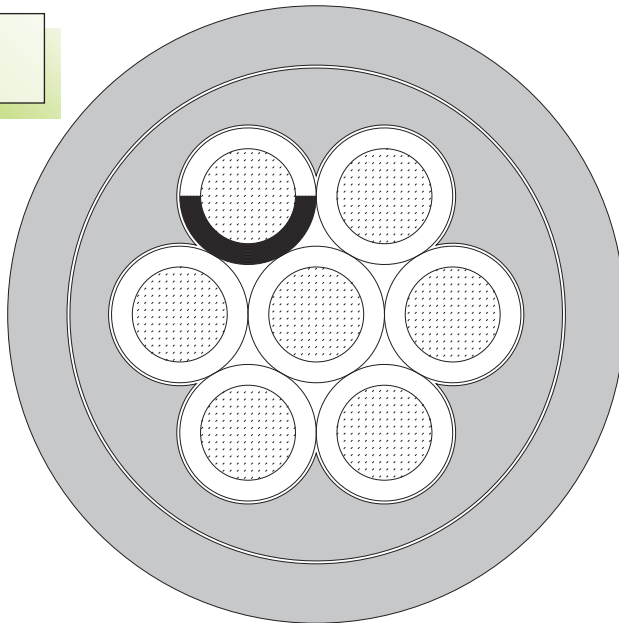


Web site: [www.sabcable.com](http://www.sabcable.com)



# HYBRID TORSION CABLES

## SABIX® A 883 Twisting and torsional connection cable



**Especially for use  
in rail vehicles,  
e. g. bogies and boxes**



Marking for SABIX® A 883 08830715:  
SAB BRÖCKSKES · D-VIERSEN ·  
SABIX® A 883 Ö 7 x 1,5 mm² CE

SABIX® A 883 is a halogen free special made cable for use in transportation vehicles and locomotives. The special PUR outer jacket and the TPE conductors are used where combined twisting and bending stress occur within railcars and boxes. This cable is also available without a green/yellow ground conductor.

### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6
<b>Insulation:</b>	TPE
<b>Color code:</b>	black conductors with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 conductors
<b>Stranding:</b>	in layers
<b>Inner jacket:</b>	SABIX®
<b>Jacket material:</b>	PUR
<b>Jacket color:</b>	black

### Outstanding features:

- ▶ for the use in rail vehicles, e. g. bogies and boxes
- ▶ also without earth wire possible

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 300/500 V
<b>A.C. testing voltage:</b>	conductor/conductor 2000 V
<b>Min. bending radius</b>	
<i>fixed installation:</i>	4 x O.D.
<i>free movement:</i>	6 x O.D.
<b>Temperature range</b>	
<i>static:</i>	-50/+85 °C
<i>flexing:</i>	-40/+85 °C
<b>Torsion angle:</b>	± 15°
<b>Zero halogen:</b>	acc. to DIN VDE 0472 part 815 and IEC 60754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2
<b>UV resistance:</b>	good
<b>Ozone resistance:</b>	good
<b>Oil resistance:</b>	good
<b>Weather resistance:</b>	good
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page N/28

item no.	no. of conductors incl. ground	nominal outer-ø inch	nominal outer-ø mm	cable weight ≈ lbs/mft
▶ 16 AWG (≈ 84/34) • 1.50 mm²				
08830215	2	0.319	8.1	62
08820315	3	0.331	8.4	72
08830415	4	0.354	9.0	86
08830715	7	0.409	10.4	127
08831815	18	0.598	15.2	280

item no.	no. of conductors incl. ground	nominal outer-ø inch	nominal outer-ø mm	cable weight ≈ lbs/mft
▶ 14 AWG (≈ 140/34) • 2.50 mm²				
08830325	3	0.382	9.7	106
08830425	4	0.413	10.5	129
08830525	5	0.453	11.5	157
08830725	7	0.480	12.2	196

item no.	no. of conductors incl. ground	nominal outer-ø inch	nominal outer-ø mm	cable weight ≈ lbs/mft
▶ 12 AWG (≈ 224/34) • 4.00 mm²				
08830540	5	0.535	13.6	225
Other dimensions and colors are possible on request.				

E-mail: [info@sabcable.com](mailto:info@sabcable.com)



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