

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, and with appropriate protection class in low temperature applications 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, and appropriate protection class in low temperature applications as well as in explosion proof areas.

Exemplary applications:

RT 123	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
RT 123 D	
RT 113	
RT 113 D	

■ Clean Room Torsion Cables

SAB^{clean} cables are used in clean rooms 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. SAB^{clean} cables meet the highest requirements acc. to ISO 14644-1 and US Federal Standard 209 E.

Exemplary applications:

SAB ^{clean} RT 123 D TP (B)	Production of semi-conductors, machines for display manufacturing, devices for biological or medical engineering, food and medical production
SAB ^{clean} RT 793 D	
SAB ^{clean} RT 795 D	

TORSION CABLES

Selection index

		Cable type	RT 123	RT 123 D	RT 113	RT 113 D	SAB ^{clean} RT 123 D TP (B)	SAB ^{clean} RT 793 D	SAB ^{clean} RT 795 D
Application	Colored conductors		x	x	x	x	x		
	Numbered conductors		x	x	x			x	x
	Copper screen			x		x	x	x	x
	Torsion angle 450°		x	x			x		
	Torsion angle 360°							x	x
	Torsion angle 270°		x	x					
Temperature range static*	+ 90°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)					x			
	Voltage 300 V (UL/CSA)						x		
	Voltage 600 V (UL/CSA)							x	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 ₀ /U 300/500 V Testing voltage 3000 V		x	x					
	From 20 AWG: Nominal voltage U ₀ /U 300/500 V Testing voltage 2000 V				x				
	Peak operating voltage UL/CSA 300 V						x		
	Peak operating voltage UL/CSA 600 V							x	x
	Peak operating voltage DIN VDE max. 350 V						x		
	Peak operating voltage DIN VDE 300/500 V							x	x
	Testing voltage 1500 V						x		
	Testing voltage 3000 V							x	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 recognized		x	x	x	x	x	x	x
	CSA approved		x	x	x		x	x	x
Characteristic	Zero halogen acc. to DIN VDE and IEC		x	x					
	Very good oil resistance acc. to DIN VDE		x	x	x	x			
	Good chemical resistance		x	x					
	Continuous flexibility		x	x	x	x	x	x	x

Temperature range:
 from 1 = up to 22 AWG
 to 2 = from 20 AWG

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