



DeviceNet™

Application:

DeviceNet™ communication link is based on proven CAN technology. DeviceNet™ is a bus system developed by Allen Bradley (Rockwell Automation). These cables are used to interconnect various industrial devices, such as SPS controls or limit switches. The special characteristic of this bus system is that a data pair and a power supply pair are integrated in one cable.



Construction:

Type/Area of Application	DeviceNet Trunk (Thick)	DeviceNet Drop (Thin)
Cable Construction	1x2x0.96mm ² + 1x2x1.53mm ²	1x2x 0.24mm ² +1x2x0.38mm ²
Inner Conductor Diameter (data pair)	Copper, tinned (AWG 18/19)	Copper, tinned (AWG 24/19)
Inner Conductor Diameter (power pair)	Copper, tinned (AWG 15/19)	Copper, tinned (AWG 22/19)
Conductor Insulation (data pair)	Foam-skin-PE/PE	Foam-skin-PE/PE
Conductor Insulation (power pair)	PVC/ PE	PVC/ PE
Conductor Colors 1	light blue, white	light blue, white
Conductor Colors 2	red, black	red, black
Stranding Element	Double conductor	Double conductor
Shielding	Polyester foil, aluminum-lined	Polyester foil, aluminum-lined
Drain Wire	yes	yes
Total Shielding	Copper braid, tinned	Copper braid, tinned
Outer Jacket Material	PVC/ PUR/ PE/ FRNC	PVC/ PUR/ PE/ FRNC
Outer Cable Diameter	12.0 mm ± 0.3 mm	7.0 mm ± 0.3 mm
Outer Jacket Color	Grey/ Violet/ Yellow	Grey/ Violet/ Yellow
For armored cable		
Inner Jacket Material	PVC/ PUR/ PE/ FRNC	PVC/ PUR/ PE/ FRNC
Armor	SWA / SWB	SWA / SWB
Outer Jacket Material	PVC/ PUR/ PE/ FRNC	PVC/ PUR/ PE/ FRNC
Outer Cable Diameter	Min. 16.0 mm	Min. 10.5mm
Outer Jacket Color	Grey/ Violet/ Yellow	Grey/ Violet/ Yellow

Fire resistant DeviceNet™ cables can also be provided upon request.



Electrical Data:

Characteristic Impedance@1MHz	120 Ω ± 10Ω				120 Ω ± 10Ω					
Conductor Resistance	22.6 Ohm/km max.				90.0 Ohm/km max.					
Insulation Resistance	0.20 GOhm x km min.				0.20 GOhm x km min.					
Mutual Capacitance@800MHz	39.8 nF/km nom.				39.8 nF/km nom.					
Working Voltage	Max: 300V				Max: 300V					
Test Voltage	2.0 KV				2.0 KV					
Data Rate	125 Kbit/s	500m			125 Kbit/s	100m				
	250 Kbit/s	250m			250 Kbit/s	100m				
	500 Kbit/s	100m			500 Kbit/s	100m				
Attenuation:	125	KHz	<	0.42	dB/100m	125	KHz	<	0.95	dB/100m
	500	KHz	<	0.81	dB/100m	500	KHz	<	1.64	dB/100m
	1	MHz	<	1.26	dB/100m	1	MHz	<	2.38	dB/100m

Technical Data:

Weight	approximately 195.0 kg/km	approximately 69.0 kg/km
Min. Bending Radius (Laying)	10 x OD mm	10 x OD mm
Operating Temp.Range, min.	- 20 °C	- 20 °C
Operating Temp.Range, max.	+80 °C	+80 °C

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