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. These cables with PVC jacket are designed for fixed installation.

Construction:

Type/Area of Application	DeviceNet Trunk	DeviceNet Drop
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/Cell PE	Foam-skin-PE/PE/Cell PE
Conductor Insulation (power pair)	PVC/ PE/ Cell PE	PVC/ PE/ Cell 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
Total Shielding	Copper braid, tinned	Copper braid, tinned
Drain Wire	yes	yes
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

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

* DeviceNet™ is a registered trademark of Open DeviceNet Vendor Association