

DeviceNet Cable

15 & 18AWG Multi-conductor Device Bus

ODVA Class 2 Thick

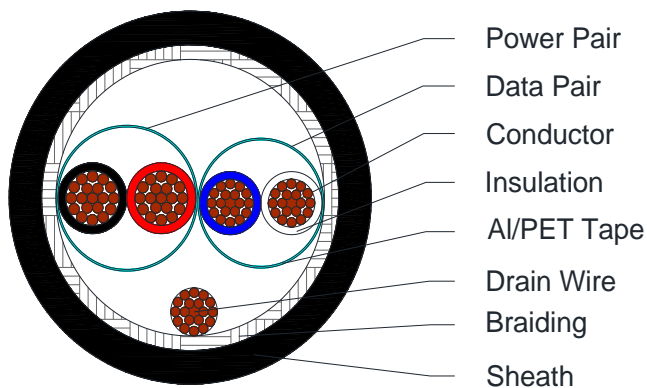


C1158, C1178

Applications

Individual screened paired multi conductor cable suitable for Class 2 thick ODVA DeviceNet applications.

Cross Section Drawing



Design

Unit	Properties
Conductor	Tinned Stranded Copper wires
Insulation	Pair 1: Black/Red (Power) PVC Pair 2: Blue/White (Data) FPE
Pair	Two wires twisted together
Screen	Each pair individually screened with an Aluminium/Polyester foil tape
Drain Wire	Tinned Copper wire
Braiding	Tinned Copper wire
Sheath Material	UV and Oil resistant PVC or Chlorinated PE
Standard Put Up Length	305 meters

*Other Colors, Put Up Lengths and structures can be manufactured upon request, please contact your local B3 International sales representative.

DeviceNet Cable

15 & 18AWG Multi-conductor Device Bus

ODVA Class 2 Thick



C1158, C1178

Physical Characteristics

Part Number	C1158		C1178	
Pair Number	1	1	1	1
Conductor size (AWG)	15	18	15	18
Conductor Construction (AWG)	19x28	19x30	19x28	19x30
Insulation Material	PVC	FPE	PVC	FPE
Screen Coverage (%)	115	115	115	115
Nom. Drain wire size (AWG)	18 (19 x 30)			
Braiding Coverage (%)	65			
Sheath Material	PVC		PE	
Nom. Radial Thickness Sheath (mm)	1.50			
Nom. Overall Diameter(mm)	12.2			
Operating Temperature (°C)	-20 / +75			
Max. Recommended Pulling Tension (N)	800			
Min. Bend Radius (install) (mm)	122			
Nominal Cable Weight (kg/km)	161		149	

Electrical Characteristics at 20°C

Part Number	C1158		C1178	
Conductor Construction (AWG)	19x28	19x30	19x28	19x30
Max. DC Resistance Conductor (Ω /km)	11.8	22.6	11.8	22.6
Max. DC Resistance Screen (Ω /km)	5.9			
Capacitance conductor to conductor (pF/m)	-	39	-	39
Nominal Impedance (Ω)	-	120	-	120
VOP (%)	-	75	-	75
Max Delay (ns/m)	-	4.46	-	4.46
Inductance (uH/m)	0.57	-	0.57	-
Max. Recommended Current at 25°C (Amps)	8.0	5.0	8.0	5.0

Attenuation at 20°C

Frequency (MHz)	18AWG Max. Attenuation (dB/100m)
0.125	0.43
0.50	0.85
1.00	1.31

Reference Standards

(BS) EN 50290-2	IEC 60228
IEC 60332-1 for PVC cable	RoHS directives