Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



183079A Multi-Conductor - Continuous Armor DataBus® ISA/SP-50 PROFIBUS Cable



For more Information please call

1-800-Belden1



General Description:

22 AWG solid bare copper conductors, FHDPE insulation, Beldfoil® (100% coverage) plus a tinned copper braid shield (65% coverage), PVC jacket.

2

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
1	22	Solid	BC - Bare Copper	0.6604

Total Number of Conductors:

Insulation

Insulation Material:

Insulation Material
FRFPE - Flame Retardant Foam Polyethylene

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Таре	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	65

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Outer Jacket over Armor (y/n):

Outer Jacket over Armor

Outer Jacket Wall Thickness Over Armor: .055

Armor

Armor Type: Continuously Corrugated

Armor Material: Aluminum

Armor Thickness: .025

Diameter over Armor: .555

Overall Cable

Overall Nominal Diameter: 16.637 mm

Pair

Pair Color Code Chart:

Number Color
1 Red & Green

Pair Lay Length & Direction:

Lay Length (mm) 69.85

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +60°C
Bulk Cable Weight:	252.994 Kg/Km
Max. Recommended Pulling Tension:	222.410 N
Min. Bend Radius/Minor Axis:	177.800 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMG, PLTC

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CEC/C(UL) Specification:	CMG
EU Directive 2011/65/EU (ROHS II):	Yes
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	04/18/2006
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
ame Test	
UL Flame Test:	UL1685 FT4 Loading
CSA Flame Test:	FT4
itability	
Sunlight Resistance:	Yes
Plenum/Non-Plenum	
Plenum (Y/N):	No

Electrical Characteristics (Overall)

Fitted Impedance:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
		3	20	150

Nom. Inductance:

Inductance (µH/m) 0.925242

Nom. Mutual Capacitance:

Capacitance (pF/m) 27.8885

Nominal Velocity of Propagation:

78

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 12.796 Ohm/km

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)	
.2	0.88587	
4.0	2.19827	
16.0	4.49497	

Max. Attenuation:

Freq. (MHz)	Attenuation (dB/100 m)
0.200	1.100
4.000	2.650
16.000	5.400

Max. Operating Voltage - UL:

Voltage	Description
300V	CMG
600V	AWM

Max. Recommended Current:

Description Current Per Conductor 2.3 Amps

Other Electrical Characteristic 1:

Capacitance Unbalance @ 1 kHz: Less than 1000 pF/km

Put Ups and Colors:

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No put ups and colors are available for this product

Revision Number: 3 Revision Date: 12-23-2015

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Authorized Distributor

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