Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION

3079E Multi-Conductor - DataBus® ISA/SP-50 PROFIBUS Cable

For more Information
please call

1-800-Belden1

General Description:

22 AWG stranded (7x30) bare copper conductors, FRFPE insulation, Beldfoil® shield (100% coverage) plus a tinned copper braid shield (65% coverage), PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
1	22	7x30	BC - Bare Copper

Total Number of Conductors:	2

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®	Tape	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	65

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter:	8.001 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 +75°C
UL Temperature Rating:	60°C
Bulk Cable Weight:	58.040 Kg/Km
Max. Recommended Pulling Tension:	222.410 N
Min. Bend Radius/Minor Axis:	81.280 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

3079E Multi-Conductor - DataBus® ISA/SP-50 PROFIBUS Cable

NEC/(UL) Specification:	PLTC
CEC/C(UL) Specification:	CMG
AWM Specification:	UL Style 20201 (600 V 75°C)
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):	01/01/2004
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
Other Specification:	ISA/SP-50

Flame Test

UL Flame Test:	UL1685 FT4 Loading
CSA Flame Test:	FT4

Suitability

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)
0.876027

Nom. Mutual Capacitance:

Capacitance (pF/m)
27.8885

Nominal Velocity of Propagation:

VP (%)
78

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
52.496

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

Max. Attenuation:

Freq. (MHz)	Attenuation (dB/100 m)
0.100	0.510
1.000	1.570
10.000	4.800

Max. Operating Voltage - UL:

Voltage	Description
300 V RMS	CMG

Max. Recommended Current:

Description	Current

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Per Conductor	2.3 Amps

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

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3079E B021000	1,000 FT	44.000 LB	PURPLE	C	2 #22 FRFPE/FRPE SH PVC
3079E B021640	1,640 FT	73.800 LB	PURPLE	C	2 #22 FRFPE/FRPE SH PVC
3079E B023280	3,280 FT	144.320 LB	PURPLE	C	2 #22 FRFPE/FRPE SH PVC
3079E B025000	5,000 FT	220.000 LB	PURPLE	C Z	2 #22 FRFPE/FRPE SH PVC

Notes:
C = CRATE REEL PUT-UP.
Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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