Detailed Specifications & Technical Data

ENGLISH 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: 0.315 in.

Pair

Pair Color Code Chart:

Number	Color
1	Red & Green

Pair Lay Length & Direction:

Lay Length (in.)
2.750

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +75°C
UL Temperature Rating:	60°C
Bulk Cable Weight:	39 lbs/1000 ft.
Max. Recommended Pulling Tension:	50 lbs.
Min. Bend Radius/Minor Axis:	3.200 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

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/ft)
.267

Nom. Mutual Capacitance:

Capacitance (pF/ft)
8.5

Nominal Velocity of Propagation:

VP (%)
78

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
16.0

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C:	3.900 Ohm/1000 ft

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
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.

Revision Number: 1 Revision Date: 08-22-2013

© 2015 Belden, Inc
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.
Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether

in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.
All sales of Belden products are subject to Belden's standard terms and conditions of sale.
Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.
Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.