



Part Number: 3079A

ISA/SP-50 PROFIBUS DP, (1 pr) 22 AWG Solid BC, FRFPE/PVC, Foil+TC Braid Shld, CMG, PLTC

Product Description

One 22 AWG pair solid bare copper conductors, flame retardant foam polyethylene (FRFPE) insulation, overall Beldfoil® shield (100% coverage) plus a tinned copper braid shield (65% coverage), sunlight resistant PVC jacket.

Technical Specifications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
22	Solid	BC - Bare Copper	0.026 in	1

Conductor Count:	2
Conductor Size:	22 AWG

Insulation

Material
FRFPE - Flame Retardant Foam Polyethylene

Color Chart

Number	Color
1	Red & Green

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Aluminum Foil-Polyester Tape	Beldfoil®	100 %
Braid	2	TC - Tinned Copper		65 %

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.315 in

Construction and Dimensions

Stranding

Lay Length
2.75 in

Electrical Characteristics

Conductor DCR

Individual Pair Nominal Shield DCR	Nominal Conductor DCR
3.9 Ohm/1000ft	16 Ohm/1000ft

Capacitance

Nom. Mutual Capacitance
8.5 pF/ft

Inductance

Nominal Inductance
0.282 µH/ft

Impedance

Nominal Characteristic Impedance
150 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
0.2 MHz	0.27 dB/100ft
4 MHz	0.67 dB/100ft
16 MHz	1.37 dB/100ft

Delay

Nominal Velocity of Propagation (VP) [%]
78 %

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)
0.2 MHz	1.1 dB/100m
4 MHz	2.65 dB/100m
16 MHz	5.4 dB/100m
0.2 MHz	
4 MHz	
16 MHz	

Current

Element	Max. Recommended Current [A]
Per Conductor	2.3 Amps

Voltage

UL Voltage Rating
300 V RMS (NEC Type CMG)
600 V RMS (UL AWM Style 20201)
300V RMS (NEC Type PLTC)

Electrical Characteristics Notes:	Capacitance Unbalance @ 1 kHz: Less than 1000 pF/km
Other Electrical Characteristic 2:	Input Impedance/Unfitted Impedance 3 - 20 MHz, 150 +/-15 Ohms

Temperature Range

UL Temp Rating:	60°C
Operating Temp Range:	-30°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	52 lbs/1000ft
Max Recommended Pulling Tension:	50 lbs
Min Bend Radius/Minor Axis:	3.2 in

Standards

NEC/(UL) Specification:	CMG, PLTC
CEC/C(UL) Specification:	CMG
UL AWM Style:	UL Style 20201 (600 V 75°C)
CPR Euroclass:	Eca

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Sunlight Resistance:	Yes
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Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 FT4 Loading
CSA Flammability:	FT4
IEEE Flammability:	1202
UL Voltage Rating:	300V RMS (NEC Type CMG)

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Footnote
3079A 0601000	CHROME	C
3079A 0602000	CHROME	C
3079A 0071000	VIOLET	C
3079A 0072000	VIOLET	C
3079A 0075000	VIOLET	

Footnote:	C - CRATE REEL PUT-UP.
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