Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



3083A Multi-Conductor - DeviceBus® for ODVA DeviceNet™



For more Information please call

1-800-Belden1



General Description:

15 and 18 AWG stranded tinned copper conductors, PVC insulation (power), FPE insulation (data), individually foil shielded (100% coverage) plus an overall tinned copper braid (65% coverage), CPE jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
1	15	19x28	TC - Tinned Copper
1	18	19x30	TC - Tinned Copper

Total Number of Conductors:

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Insulation

Insulation Material:

Insulation Material	AWG
PVC - Polyvinyl Chloride	15
FPE - Foam Polyethylene	18

Inner Shield

Inner Shield Material:

Layer #	Type	Inner Shield Material	Coverage (%)
15 AWG Pair	Tape	Aluminum Foil-Polyester Tape	100
18 AWG Pair Tape		Aluminum Foil-Polyester Tape	100

Outer Shield

Outer Shield Material:

	Outer Shield Material	• • •	
Braid	TC - Tinned Copper	65	

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
18	19x30	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Material CPE - Chlorinated Polyethylene

Overall Cable

Overall Nominal Diameter: 0.475 in.

Pair

Pair Color Code Chart:

Number		Color	
1 (1	5 AWG)	Red & Black	
2 (18	3 AWG)	Blue & White	

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +75°C
Non-UL Temperature Rating:	75°C
Bulk Cable Weight:	119 lbs/1000 ft.
Max. Recommended Pulling Tension:	190 lbs.
Min. Bend Radius/Minor Axis:	4.800 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMG, PLTC	
CEC/C(UL) Specification:	CMG	

Page 1 of 3 01-09-2015

Detailed Specifications & Technical Data





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EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	10/13/2005
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:	ODVA Class 2 Thick
Flame Test	
UL Flame Test:	UL1685 FT4 Loading
CSA Flame Test:	FT4
Suitability	
Sunlight Resistance:	Yes

Electrical Characteristics (Overall)

Unaveraged Impedance:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
18 AWG Pair Only				120

Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Capacitance (pF/ft)
18 AWG Pair Only	1			12.0

Nominal Velocity of Propagation:

Description	VP (%)
18 AWG Pair Only	75

Maximum Delay:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Delay (ns/ft)
18 AWG Pair Only				1.36

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/1000 ft)
15 AWG	3.6
18 AWG	6.9

Nominal Outer Shield DC Resistance:

DCR @ 20°C (C	Ohm/1000 ft)
1.8	

Max. Attenuation:

0	Description	Freq. (MHz)		
.13	18 AWG Pair Only	.125		
.26		.500		
.40		1.00		

Max. Operating Voltage - UL:

Voltage		
300 V RMS (PLTC		
CMG)		

Max. Recommended Current:

Description	Current
15 AWG	8.0 Amps
18 AWG	5.0 Amps

Notes (Overall)

Notes: Thick. Meter marks on jacket to aid users in installation. ODVA DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark. Jacket printed "1PR16" instead of "1PR15" due to UL requirements for CMG Listing.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3083A 5601000	1,000 FT	134.000 LB	YELLOW, BRIGHT	С	2 #15, 2 #18 SH CPE
3083A 5602000	2,000 FT	278.000 LB	YELLOW, BRIGHT	С	2 #15, 2 #18 SH CPE

Notes: C = CRATE REEL PUT-UP.

Page 2 of 3

Detailed Specifications & Technical Data

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Page 3 of 3