Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



3082F 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), sunlight/oil-resistant PVC jacket.

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Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
1	15	65x33	TC - Tinned Copper
1	18	65x36	TC - Tinned Copper

Total Number of Conductors:

Insulation

Insulation Material:

Insulation Material	AWG
, ,	15
FPE - Foam Polyethylene	18

Inner Shield

Inner Shield Material:

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

Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	TC - Tinned Copper	65

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
18	65x36	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (mm)		
PVC - Polyvinyl Chloride	1.524		

Overall Cable

Overall Nominal Diameter: 12.192 mm

Pair

Pair Color Code Chart:

Number	Color	
1 (15 AWG)		
2 (18 AWG)	Blue & White	

Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +75°C

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UL Temperature Rating:	75°C (UL AWM Style 20201)
Bulk Cable Weight:	160.726 Kg/Km
Max. Recommended Pulling Tension:	911.881 N
Min. Bend Radius/Minor Axis:	116.840 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

11 11 11 11 11 11 11 11 11 11 11 11 11	
NEC/(UL) Specification:	CMG, PLTC-ER
CEC/C(UL) Specification:	CMG
AWM Specification:	UL Style 20201 (600 V 75°C)
CSA Specification:	III A
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):	04/01/2005
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
Oil Resistance:	Yes

Surface Printing (Overall)

Electrical Characteristics (Overall)

Unaveraged Impedance:

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

Nom. Inductance:

Description	Inductance (µH/m)
15 AWG Pair Only	0.570894

Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Capacitance (pF/m)
18 AWG Pair Only	1			39.372

Nominal Velocity of Propagation:

Description	VP (%)
18 AWG Pair Only	75

Maximum Delay:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Delay (ns/m)
18 AWG Pair Only				4.46216

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/km)
15 AWG	11.8116
18 AWG	22.6389

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Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 5.9058

Max. Attenuation:

0	Description	Freq. (MHz)
0.42653	18 AWG Pair Only	.125
0.85306		.500
1.3124		1.00

Max. Operating Voltage - UL:

Voltage	Description		
300 V RMS	C(UL) AWM		

Max. Recommended Current:

Description	Current	
15 AWG	8.0 Amps	
18 AWG	5.0 Amps	

Notes (Overall)

Notes: High-Flex. 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
3082F T5U1000	305 MT	62.596 KG	GRAY T5U	С	2 #15, 2 #18 SH PVC
3082F T5U2000	610 MT	128.821 KG	GRAY T5U	С	2 #15, 2 #18 SH PVC
3082F T5U500	152 MT	32.886 KG	GRAY T5U	С	2 #15, 2 #18 SH PVC
3082F 0021000	305 MT	62.596 KG	RED	С	2 #15, 2 #18 SHLD FRPVC

Notes:

C = CRATE REEL PUT-UP.

Test Reports

a) UL

- i) UL Test Reports are available on-line through the UL Client Document Access web portal.
- ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

b) CŚA

- i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal. ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.
- * other test data may be available if requested at time of order.

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