# **Detailed Specifications & Technical Data**

**METRIC MEASUREMENT VERSION** 



# 3082A 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.

## **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:

#### 4

### 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	Таре	Aluminum Foil-Polyester Tape	100
18 AWG Pair	Таре	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	<b>Drain Wire Conductor Material</b>
18	19x30	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
	Red & Black
2 (18 AWC	Blue & White

### **Mechanical Characteristics (Overall)**

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

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UL Temperature Rating:	75°C
Bulk Cable Weight:	160.726 Kg/Km
Max. Recommended Pulling Tension:	845.158 N
Min. Bend Radius/Minor Axis:	121.920 mm

# **Applicable Specifications and Agency Compliance (Overall)**

## **Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CMG, PLTC-ER
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):	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
ame Test	
UL Flame Test:	UL1685 FT4 Loading
CSA Flame Test:	FT4
uitability	
Sunlight Resistance:	Yes
Oil Resistance:	Yes

# Sui

Plenum/Non-Plenum

No Plenum (Y/N):

## **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

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18 AWG 22.6389

#### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 5.9058

#### Max. Attenuation:

0	Description	Freq. (MHz)	Attenuation (dB/100m)
0.42653	18 AWG Pair Only	0.125	0.427
0.82025		0.500	0.820
1.3124		1.000	1.181

#### Max. Operating Voltage - UL:

Voltage		
300 V RMS (CL2, CMG)		
600 V RMS (UL AWM Style 20201)		
300 V RMS (C(UL) AWM)		

#### 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 Associatio, 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
3082A T5U2000	610 MT	122.471 KG	GRAY T5U	С	2 #15, 2 #18 SHLD PVC
3082A T5U3000	914 MT	193.231 KG	GRAY T5U		2 #15, 2 #18 SHLD PVC
3082A T5U500	152 MT	31.071 KG	GRAY T5U	С	2 #15, 2 #18 SH PVC
3082A 0021000	305 MT	66.678 KG	RED	С	2 #15, 2 #18 SHLD FRPVC

#### Notes:

C = CRATE REEL PUT-UP.

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