# **Detailed Specifications & Technical Data**

#### **ENGLISH 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	Tape	Aluminum Foil-Polyester Tape	100
18 AWG Pair	Tape	Aluminum Foil-Polyester Tape	100

#### **Outer Shield**

Outer Shield Material:



#### Outer Shield Drain Wire AWG:

		Drain Wire Conductor Material
18	19x30	TC - Tinned Copper

#### **Outer Jacket**

Outer Jacket Material:

Out	er Jacket Material	Nom. Wall Thickness (in.)
PV	C - Polyvinyl Chloride	.060

## **Overall Cable**

Overall Nominal Diameter: 0.480 in

#### Pair

#### Pair Color Code Chart:

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

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

Operating Temperature Range:	-20°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	108 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-ER

Page 1 of 3 07-15-2015

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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
Flame Test	
UL Flame Test:	UL1685 FT4 Loading
CSA Flame Test:	FT4
Suitability	
Sunlight Resistance:	Yes
Oil Resistance:	Yes
Plenum/Non-Plenum	
Plenum (Y/N):	No

#### **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/ft)
15 AWG Pair Only	.174

## 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 (Ohm/1000 ft)
1.8

#### Max. Attenuation:

0	Description	Freq. (MHz)	Attenuation (dB/100 ft.)
.13	18 AWG Pair Only	0.125	0.130
.25		0.500	0.250
.40		1.000	0.360

# Max. Operating Voltage - UL:

ix. 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

Page 2 of 3 07-15-2015

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#### 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	2,000 FT	270.000 LB	GRAY T5U	С	2 #15, 2 #18 SHLD PVC
3082A T5U3000	3,000 FT	426.000 LB	GRAY T5U		2 #15, 2 #18 SHLD PVC
3082A T5U500	500 FT	68.500 LB	GRAY T5U	С	2 #15, 2 #18 SH PVC

#### Notes

C = CRATE REEL PUT-UP.

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Page 3 of 3