# **Detailed Specifications & Technical Data**

**ENGLISH MEASUREMENT VERSION** 



## 3082A Multi-Conductor - DeviceBus® for ODVA DeviceNet™



For more Information please call

1-800-Belden1





# **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
1.000	15	19x28	TC - Tinned Copper
1.000	18	19x30	TC - Tinned Copper

### 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	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	19x30	TC - Tinned Copper		

# Outer Jacket:

**Outer Jacket Material** 

Outer Jacket Material	Nom. Wall Thickness (in.)	
PVC - Polyvinyl Chloride	0.060	

# **Overall Cabling:**

Overall Nominal Diameter: .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 (UL AWM Style 20201)
Bulk Cable Weight:	108 lbs/1000 ft.
Max. Recommended Pulling Tension:	190 lbs.

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4.600 in. Min. Bend Radius (Install)/Minor Axis:

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

Applicable Standards: NEC/(UL) Specification	CMG, PLTC-ER
CEC/C(UL) Specification	CMG
AWM Specification	UL Style 20201 (600 V 75°C)
CSA Specification	I/II A
EU CE Mark (Y/N)	Yes
EU RoHS Compliant (Y/N)	Yes
EU RoHS Compliance Date (mm/dd/yyyy)	04/01/2005
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				120.000

Nom. Inductance

Description	Inductance (µH/ft)		
15 AWG Pair Only	0.174		

Nom. Capacitance Conductor to Conductor

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Capacitance (pF/ft)
18 AWG Pair Only	1.000			12.000

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				1.360

Nom. Conductor DC Resistance

Description	DCR @ 20°C (Ohm/1000	
15 AWG	3.600	
18 AWG	6.900	

Nominal Outer Shield DC Resistance

DCR @ 20°C (Ohm/10	000 ft)
1.800	

Max. Attenuation

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

Max. Operating Voltage - UL

Voltage Description

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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

## **PUT UPS AND COLORS:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3082A 0021000	1,000 FT	138.000 LB	RED	С	2 #15, 2 #18 SHLD FRPVC RED
3082A T5U1000	1,000 FT	138.000 LB	GRAY T5U	С	2 #15, 2 #18 SHLD PVC GRYT5U
3082A T5U2000	2,000 FT	280.000 LB	GRAY T5U	С	2 #15, 2 #18 SHLD PVC GRYT5U
3082A T5U500	500 FT	71.000 LB	GRAY T5U	С	2 #15, 2 #18 SH PVC GRYT5U

#### Notes:

C = CRATE REEL PUT-UP.

Revision Number: 1 Revision Date: 06-02-2008

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