# **Detailed Specifications & Technical Data**

### **ENGLISH MEASUREMENT VERSION**



## 3084A Multi-Conductor - DeviceBus® for ODVA DeviceNet™



For more Information please call

1-800-Belden1



## **General Description:**

22 and 24 AWG stranded tinned copper conductors, PVC insulation (power), FPE insulation (Data), individually foil shielded (100% coverage) and an overall tinned copper braid (65% coverage), sunlight/oil-resistant PVC jacket.

## **Physical Characteristics (Overall)**

### Conductor

AWG:

# Conductors	# Pairs	AWG	Stranding	Conductor Material
4	1	22	19x34	TC - Tinned Copper
	1	24	19x36	TC - Tinned Copper

### Insulation

#### Insulation Material:

Insulation Material	AWG
PVC - Polyvinyl Chloride	22
FPE - Foam Polyethylene	24

### Inner Shield

### Inner Shield Material:

Layer #	Type	Inner Shield Material	Coverage (%)
22 AWG Pair	Таре	Aluminum Foil-Polyester Tape	100
24 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
22	19x34	TC - Tinned Copper

### **Outer Jacket**

## Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	0.032

### **Overall Cable**

Overall Nominal Diameter: 0.280 in.

## Pair

### Pair Color Code Chart:

Number	Color
22 AWG Pair	Red & Black
24 AWG Pair	Blue & White

## **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-20°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	41 lbs/1000 ft.
Max. Recommended Pulling Tension:	65 lbs.
Min. Bend Radius/Minor Axis:	2.750 in.

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

### **Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CL2, CMG
CEC/C(UL) Specification:	CMG

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	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 Thin
Fla	me Test	
	UL Flame Test:	UL1685 FT4 Loading
	CSA Flame Test:	FT4
Su	tability	
	Sunlight Resistance:	Yes
	Oil Resistance:	Yes
Ple	Plenum/Non-Plenum	
	Plenum (Y/N):	No

## **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Description	Impedance (Ohm)
24 AWG Pair	120

### Nom. Inductance:

Description	Inductance (µH/ft)
22 AWG Pair	.221
24 AWG Pair	.251

### Nom. Capacitance Conductor to Conductor:

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

## Nominal Velocity of Propagation:

Description	VP (%)
24 AWG Pair	75

## Maximum Delay:

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

### Maximum Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/100 m)		
22 AWG	17.5		
24 AWG	28.0		

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
3.2

## Max. Attenuation:

0	Description	Freq. (MHz)
.29	24 AWG Pair Only	.125
.50		.500
.70		1.000

## Max. Operating Voltage - UL:

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

### Max. Recommended Current:

Current
1.7 Amps per conductor @ 25°C (24 AWG)
4 Amps per conductor @ 24 V per NEC CL2 (Power Pair)

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### Notes (Overall)

Notes: Flex Life: +/- 90 Degree Flex Test, 2" Diameter, 2 lbs. tension: 2000 Cycles minimum. Meter marks on jacket to aid users in installation. ODVA DevaiceNet is an Open DeviceNet Vendor Association, Inc. trademark.

### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3084A T5U1000	1,000 FT	47.000 LB	GRAY T5U	С	2 #22, 2 #24 SHLD PVC
3084A T5U2000	2,000 FT	96.000 LB	GRAY T5U	CZ	2 #22, 2 #24 SHLD PVC
3084A T5U500	500 FT	23.500 LB	GRAY T5U	С	2 #22, 2 #24 SHLD PVC
3084A T5U5000	5,000 FT	235.000 LB	GRAY T5U	С	2 #22, 2 #24 SHLD PVC
3084A 0021000	1,000 FT	47.000 LB	RED	С	2 #22, 2 #24 SH PVC

### Notes:

C = CRATE REEL PUT-UP.
Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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