

7896A Paired - DeviceBus® for ODVA DeviceNet™

	 	<p style="text-align: center;">For more information please call 1-800-Belden1</p> <p style="text-align: center;"><u>See Put-ups and Colors</u></p>
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Description:

16 and 18 AWG stranded tinned copper conductors, PVC/Nylon insulation (power), F-R Polypropylene insulation (data), individually foil shielded (100% coverage) plus an overall tinned copper braid (65% coverage, sunlight/oil-resistant PVC jacket).

PHYSICAL CHARACTERISTICS:

CONDUCTOR:

Number of Pairs	2
Total Number of Conductors	4

AWG :

Number of Pairs	AWG	Stranding	Conductor Material	Conductor Diameter (in.)
1	16	19x29	TC - Tinned Copper	
1	18	19x30	TC - Tinned Copper	

Stranding	19x29, 19x30
Conductor Material	TC - Tinned Copper

INSULATION:

Insulation Material	PVC/Nylon - Polyvinyl Chloride/Nylon, FRPP - Flame Retardant Polypropylene
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Insulation Material (Multi-AWG) :

AWG	Layer Number	Material Trade Name	Material	Wall Thickness (in.)	Diameter (in.)
16			PVC/Nylon - Polyvinyl Chloride/Nylon		
18			FRPP - Flame Retardant Polypropylene		

Pair Color Code Chart :

Number	Color	Number	Color
1 (16 AWG)	Red & Black	2 (18 AWG)	Blue & White

INNER SHIELD:

Inner Shield Material Trade Name	Beldfoil®
Inner Shield Type	Tape
Inner Shield Material :	

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Layer Number/Description	Material Trade Name	Type	Material	% Coverage (%)	Stranding	Diameter (in.)	Conductor Material
16 AWG Pair	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100			
18 AWG Pair	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100			

Inner Shield % Coverage 100 %

OUTER SHIELD:

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

OUTER SHIELD DRAIN WIRE :

Outer Shield Drain Wire AWG 16
 Outer Shield Drain Wire Stranding 19x29
 Outer Shield Drain Wire Conductor Material TC - Tinned Copper

OUTER JACKET:

Outer Jacket Material PVC - Polyvinyl Chloride
 Outer Jacket Nominal Wall Thickness .060 in.

OVERALL NOMINAL DIAMETER:

Overall Nominal Diameter .525 in.

MECHANICAL CHARACTERISTICS:

Operating Temperature Range -20°C To +75°C
 Non-UL Temperature Rating 75°C
 Bulk Cable Weight 135 lbs/1000 ft.
 Max. Recommended Pulling Tension 190 lbs.
 Min. Bend Radius (Install) 5 in.

APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

APPLICABLE STANDARDS:

NEC/(UL) Specification TC-ER
 CSA Specification I/II A/B
 EU CE Mark (Y/N) Yes
 EU RoHS Compliant (Y/N) Yes
 EU RoHS Compliance Date (mm/dd/yyyy): 10/13/2005
 Other Specification ODVA Cable V

FLAME TEST:

UL Flame Test UL1685 UL Loading
 CSA Flame Test FT1

SUITABILITY:

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Sunlight Resistance	Yes
Oil Resistance	Yes

PLENUM/NON-PLENUM:

Plenum (Y/N)	N
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ELECTRICAL CHARACTERISTICS:

Unaveraged Impedance :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Unaveraged Impedance (Ohms)
18 AWG Pair Only	.5			120

Nom. Capacitance Conductor to Conductor :

Description	Frequency (kHz)	Start Frequency (kHz)	Stop Frequency (kHz)	Nom. Capacitance Conductor to Conductor (pF/ft)
18 AWG Pair Only	1			14.7

Nominal Velocity of Propagation :

Description	Nominal Velocity of Propagation (%)
18 AWG Pair Only	64

Maximum Delay :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Maximum Delay (ns/ft)
18 AWG Pair Only				1.6

Nom. Conductor DC Resistance @ 20 Deg. C :

Description	Nom. Conductor DC Resistance @ 20 Deg. C (Ohms/1000 ft)
16 AWG	4.9
18 AWG	6.9

Nominal Outer Shield DC Resistance @ 20 Deg. C 1.8 Ohms/1000 ft

Max. Attenuation (dB/100 ft.) :

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Max. Attenuation (dB/100 ft.)
18 AWG Pair Only	.125			.13
	.500			.25
	1.00			.40

Max. Operating Voltage - UL 600 V RMS

Max. Recommended Current :

Description	Max. Recommended Current
15 AWG	8.0 Amps per conductor at 25°C

NOTES:

Notes Meter marks on jacket to aid users in installation. ODVA DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark.

PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
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7896A T5U1000	2 #16 PVC/NYL,2#18 FRPP SH PVC	1000	168	GRAY T5U	C
7896A T5U2000	2 #16 PVC/NYL,2#18 FRPP SH PVC	2000	340	GRAY T5U	C
7896A T5U500	2 #16 PVC/NYL,2#18 FRPP SH PVC	500	89	GRAY T5U	C

C = CRATE REEL PUT-UP.

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