

# Industrial Data Solutions® — Industrial Ethernet

## DataTuff® Twisted Pair and TrayOptic® Fiber Optic Cables

### Overview

The reliability of your industrial Ethernet network depends on the cable infrastructure. Data transmission errors can lead to interruptions in critical control functions resulting in lost production time and even safety issues. Belden's family of industrial Ethernet cables is designed to withstand the rigors of industrial environments. Whether it's exposure to oil and sunlight, temperature variation, abrasion and crushing, or the presence of electromagnetic interference (EMI) or radio frequency interference (RFI), turn to Belden for the solution.

Belden offers an extensive line of high performance cables in both copper constructions with DataTuff cables as well as fiber optic designs with TrayOptic cables.

### Performance Assurance from Blue Hose® to Industrial Ethernet

To assist you in achieving optimum network performance, Belden has built

quality and reliability into each cable it manufactures. Decades of leadership and experience in supplying reliable high-end cable solutions, such as Blue Hose®, to industrial networks and control systems are combined to give you industrial Ethernet cables that perform to maximum network capability.

Our dedication to quality manufacturing practices and processes assures consistent products of uncompromising quality.

### Installable Performance® with Patented Bonded-Pair Technology

Belden's Bonded-Pair versions of DataTuff cables are unique in the industry to give you an Installable Performance advantage. This patented design yields superior electrical performance even after the effects and stresses of pulling, twisting and bending during typical installations.

This performance advantage is achieved by bonding the individual insulated conductors along their longitudinal axes, resulting in uniform conductor-to-conductor spacing and the elimination of gaps between conductors that can occur during installation. This is a critical construction feature because non-uniform conductor spacing and gaps change the physical characteristics of the cable such that the electrical performance of the cable suffers. Only Bonded-Pair cables deliver the electrical integrity you demand.

### TrayOptic Cables

Belden® TrayOptic cables are a line of indoor/outdoor fiber optic cables designed to meet the demanding requirements of industrial applications. When the installation demands the combination of sophisticated fiber optic technology and rugged durability, turn to Belden.

### DataTuff® Industrial Ethernet Cable Selection Guide

Part No.	No. of Pairs	Shielding		Conductor		Installation		Environmental Issues					Industrial Grade Jacket			
		Unshielded	Shielded *	Solid	Stranded **	Installation Stress Resistance†	Pull Tension	Oil Resistance	UV Sunlight Resistance	CMX/Outdoor	Underground (burial)	Gasoline Resistance	Hi/Lo Temp	Heavy	Upjacket	Armored
<b>Category 5e Cable</b>																
<b>new</b> 7932A <i>EtherNet/IP</i>	2	●		●		●	20	●	●							●
<b>new</b> 7933A <i>EtherNet/IP</i>	2		●	●		●	20	●	●							●
7923A <i>EtherNet/IP</i>	4	●		●		●	40	●	●	●						●
7918A	4	●		●			35	●	●	●						●
7924A	4	●			●	●	40	●	●	●						●
<b>new</b> 7930A	4	●			●		25	●	●	●						●
<b>new</b> 7922A PLTC	4	●		●		●	40	●	●	●						●
<b>new</b> 7934A <i>EtherNet/IP</i>	4	●		●		●	40		●		●					●
7928A <i>EtherNet/IP</i>	4	●		●		●	40	●	●		●	●				●
11700A <i>EtherNet/IP</i>	4	●		●		●	40	●	●	●						●
<b>new</b> 11700A2 Oil Res I&II	4	●		●		●	40	●	●							●
121700A	4	●		●		●	40	●	●							●
<b>new</b> 121700R	4	●		●		●	40	●	●							●
7929A	4		●	●		●	35	●	●	●						●
7919A	4		●	●		●	25	●	●	●						●
7921A <i>EtherNet/IP</i>	4		●	●		●	75	●	●	●						●
<b>Category 6 Cable</b>																
7927A	4	●		●		●	45	●	●							●
7931A	4	●		●		●	40	●	●		●	●				●
11872A	4	●		●		●	45									●
121872A	4	●		●		●	45	●	●							●

\*Shielded products are recommended for high-noise environments. \*\*Stranded products are recommended where more flexibility is needed.

†Products with Bonded-Pair technology provide Installable Performance® advantages — refer to Belden's Bonded-Pair Cable Bulletin #BP02

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# Industrial Data Solutions® — Industrial Ethernet


## Category 5e DataTuff® Twisted Pair Cables, 2-Pair and 4-Pair

### Heavy-Duty Sunlight and Oil-Resistant Jackets


Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							

**Enhanced Cat 5e • 24 AWG Bonded-Pairs Solid BC Conductors • Rip Cord • See Color Codes below**

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant PVC Jacket (Black, Red or Teal)**


Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
<b>EtherNet/IP Compliant</b> 	<b>7932A</b> <i>new</i>	NEC: CMR CEC: CMR FT4	2	1000	304.8	19.0	8.61	.207	5.26	1	2.0	65.3	63.3	60.8	100±12	20.0
				2000▲	609.6	38.0	17.24	4	4.0	56.3	52.3	48.7	100±12	23.6		
				8	5.7	51.8	46.1	42.7	100±12	25.4						
				10	6.4	50.3	43.9	40.8	100±12	26.0						
				16	8.1	47.3	39.1	36.7	100±12	26.0						
				25	10.3	44.3	34.1	32.8	100±15	25.5						
				31.25	11.6	42.9	31.3	30.9	100±15	25.0						
				62.5	16.8	38.4	21.6	24.8	100±15	23.5						
				100	21.7	35.3	17.1	20.8	100±15	22.5						
				155	27.7	32.5	4.7	16.9	100±18	19.0						
				200	32.0	30.8	3.0	14.7	100±20	19.0						
250	36.4	29.3	—	12.8	100±20	18.0										
350	44.3	27.2	—	9.9	100±22	17.0										

\*2000 ft. put-up available in Black only. • M-12 or RJ-45 Compatible • Jacket sequentially marked at 2 ft. intervals  
Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
<b>EtherNet/IP Compliant</b> 	<b>7923A</b>	NEC: CMR, CMX-Outdoor CEC: CMR FT4	4	1000	304.8	28.0	12.7	.230	5.84	1	2.0	65.3	63.3	60.8	100±12	20.0
				2000▲	609.6	54.0	24.5	4	4.0	56.3	52.3	48.7	100±12	23.6		
				8	5.7	51.8	46.1	42.7	100±12	25.4						
				10	6.4	50.3	43.9	40.8	100±12	26.0						
				16	8.1	47.3	39.1	36.7	100±12	26.0						
				25	10.3	44.3	34.1	32.8	100±15	25.5						
				31.25	11.6	42.9	31.3	30.9	100±15	25.0						
				62.5	16.8	38.4	21.6	24.8	100±15	23.5						
				100	21.7	35.3	17.1	20.8	100±15	22.5						
				155	27.7	32.5	4.7	16.9	100±18	19.0						
				200	32.0	30.8	3.0	14.7	100±20	19.0						
250	36.4	29.3	—	12.8	100±20	18.0										
350	44.3	27.2	—	9.9	100±22	17.0										


\*2000 ft. put-up available in Black only. • RJ-45 Compatible • Jacket sequentially marked at 2 ft. intervals  
Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126 • P-07-KA060003-MSHA\*

**Polyolefin Insulation • Waterblocked Sunlight- and Oil-resistant Black Polyethylene Jacket**

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
<b>EtherNet/IP Compliant</b> <b>Halogen-Free Burial</b> 	<b>7934A</b> <i>new</i>	—	4	1000	304.8	25.0	11.34	.230	5.84	1	2.0	62.3	60.0	60.8	100±15	20.0
				4	4.1	53.3	49.0	48.7	100±15	23.6						
				8	5.8	48.8	43.0	42.7	100±15	25.4						
				10	6.5	47.3	41.0	40.8	100±15	26.0						
				16	8.2	44.3	36.0	36.7	100±15	26.0						
				20	9.3	42.8	33.5	34.7	100±15	26.0						
				25	10.4	41.3	30.9	32.8	100±15	25.5						
				31.25	11.7	39.9	28.0	30.9	100±15	25.0						
				62.5	17.0	35.4	19.0	24.8	100±15	23.5						
				100	22.0	32.3	11.0	20.8	100±15	22.5						
				155	28.1	29.5	1.4	16.9	100±25	15.8						
200	32.0	27.8	1.0	14.7	100±25	15.0										

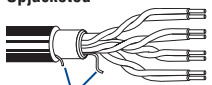
RJ-45 Compatible • Jacket sequentially marked at 3 ft. intervals  
Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126 • Waterblocked per Telcordia, IEC and ICEA

**Plenum • FEP Insulation • Sunlight-, Oil- and Gas-resistant Black FEP Jacket**

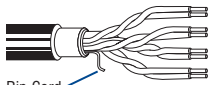
Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
<b>EtherNet/IP Compliant</b> <b>High &amp; Low Temp</b> <b>Oil Res I &amp; II</b> <b>Gas Res</b> 	<b>7928A</b>	NEC: Limited Combustible FHC 25/50 CMP CEC: CMP FT6	4	1000	304.8	24.0	10.9	.187	4.75	1	2.0	65.3	63.3	60.8	100±12	20.0
				4	4.0	56.3	52.3	48.7	100±12	23.6						
				8	5.7	51.8	46.1	42.7	100±12	25.4						
				10	6.4	50.3	43.9	40.8	100±12	26.0						
				16	8.1	47.3	39.1	36.7	100±12	26.0						
				25	10.3	44.3	34.1	32.8	100±15	25.5						
				31.25	11.6	42.9	31.3	30.9	100±15	25.0						
				62.5	16.8	38.4	21.6	24.8	100±15	23.5						
				100	21.7	35.3	17.1	20.8	100±15	22.5						
				155	27.7	32.5	4.7	16.9	100±18	19.0						
				200	32.0	30.8	3.0	14.7	100±20	19.0						
250	36.4	29.3	—	12.8	100±20	18.0										
350	44.3	27.2	—	9.9	100±22	17.0										

RJ-45 Compatible  
Cable passes -70°C Cold Bend per UL1581 • Installation Temperature: -55°C to +150°C • Operating Temperature: -70°C to +150°C\*\*  
Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126

**Polyolefin Insulation • PVC Inner Jacket • .035" Industrial Grade PVC Outer Jacket (Black, Gray, Red, Teal or Blue)**

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
<b>EtherNet/IP Compliant</b> <b>Upjacketed</b> 	<b>11700A</b>	NEC: CMR, CMX-Outdoor CEC: CMR FT4	4	1000	304.8	39.0	17.7	.285	7.24	1	2.0	65.3	63.3	60.8	100±12	20.0
				3000†	914.4	117.0	53.2	4	4.0	56.3	52.3	48.7	100±12	23.6		
				8	5.7	51.8	46.1	42.7	100±12	25.4						
				10	6.4	50.3	43.9	40.8	100±12	26.0						
				16	8.1	47.3	39.1	36.7	100±12	26.0						
				25	10.3	44.3	34.1	32.8	100±15	25.5						
				31.25	11.6	42.9	31.3	30.9	100±15	25.0						
				62.5	16.8	38.4	21.6	24.8	100±15	23.5						
				100	21.7	35.3	17.1	20.8	100±15	22.5						
				155	27.7	32.5	4.7	16.9	100±18	19.0						
				200	32.0	30.8	3.0	14.7	100±20	19.0						
250	36.4	29.3	—	12.8	100±20	18.0										
350	44.3	27.2	—	9.9	100±22	17.0										

†3000 ft. put-up available in Black only. • Outer jacket is sunlight- and oil-resistant. • Jacket sequentially marked at 2 ft. intervals  
Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
RJ-45 Compatible • Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126 • P-07-KA060005-MSHA\*

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
<b>Oil Res I &amp; II</b> <b>Upjacketed</b> 	<b>11700A2</b> <i>new</i>	NEC: CMR CEC: CMR FT4	4	1000††	304.8	42.0	19.1	.285	7.24	1	2.0	65.3	63.3	60.8	100±12	20.0
				2000††	609.6	86.0	39.1	4	4.0	56.3	52.3	48.7	100±12	23.0		
				8	5.7	51.8	46.1	42.7	100±12	24.5						
				10	6.4	50.3	43.9	40.8	100±12	25.0						
				16	8.1	47.3	39.1	36.7	100±12	25.0						
				25	10.3	44.3	34.1	32.8	100±15	24.3						
				31.25	11.6	42.9	31.3	30.9	100±15	23.6						
				62.5	16.8	38.4	21.6	24.8	100±15	21.5						
				100	21.7	35.3	17.1	20.8	100±15	20.1						
				155	27.7	32.5	4.7	16.9	100±18	19.0						
				200	32.0	30.8	3.0	14.7	100±20	19.0						
250	36.4	29.3	—	12.8	100±20	18.0										
350	44.3	27.2	—	9.9	100±22	17.0										

††1000 ft. put-up available in Black or Blue only, 2000 ft. put-up in Black only. • RJ-45 Compatible • Outer jacket is sunlight resistant.  
Cable passes -10°C Cold Bend per UL1581 • Installation Temperature: +5°C to +75°C • Operating Temperature: -10°C to +75°C\*\*  
Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126

ACR = Attenuation Crosstalk Ratio • BC = Bare Copper • ELFEXT = Equal Level Far-end Crosstalk • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • TC = Tinned Copper  
\*Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration Certification. EtherNet/IP is a trademark of ControlNet International, Ltd. under license by Open DeviceNet Vendor Association, Inc.  
\*\*Subject to length de-rating.

**DataTuff Color Codes:** Pair 1 = White/Blue Stripe & Blue, Pair 2 = White/Orange Stripe & Orange, Pair 3 = White/Green Stripe & Green, Pair 4 = White/Brown Stripe & Brown

For two pair products: use color codes for Pairs 2 & 3



For more information, contact Belden Technical Support: 1-800-BELDEN-1 • www.belden.com

# Industrial Data Solutions® — Industrial Ethernet

Category 5e DataTuff® Twisted Pair Cables, 2-Pair and 4-Pair Heavy-Duty Sunlight and Oil-Resistant Jackets

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							

**Enhanced Cat 5e • 22 AWG Bonded-Pairs** Solid Bare Copper Conductors • Rip Cord • See Color Code Chart (below)

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant Black PVC Jacket**

PLTC	7922A <i>new</i>	NEC: PLTC, CMR, CMX- Outdoor CEC: CMR FT4	4	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
				1000	304.8	46.3	21.0	.301	7.65	1	2.0	65.3	63.3	60.8	100±12	20.0
				2000	609.6	92.5	42.0			4	4.0	56.3	52.3	48.7	100±12	23.0
										8	5.7	51.8	46.1	42.7	100±12	24.5
										10	6.4	50.3	43.9	40.8	100±12	25.0
										16	8.1	47.3	39.1	36.7	100±12	25.0
										25	10.3	44.3	34.1	32.8	100±15	24.3
										31.25	11.6	42.9	31.3	30.9	100±15	23.6
										62.5	16.8	38.4	21.6	24.8	100±15	21.5
										100	21.7	35.3	17.1	20.8	100±15	20.1
										155	27.7	32.5	4.7	16.9	100±18	19.0
										200	32.0	30.8	3.0	14.7	100±20	19.0
										250	36.4	29.3	—	12.8	100±20	18.0
										350	44.3	27.2	—	9.9	100±22	17.0

Cable passes -25°C Cold Bend per UL1581 • Installation Temperature: -10°C to +75°C • Operating Temperature: -25°C to +75°C\*\*  
Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126

**Enhanced Cat 5e • 24 AWG Bonded-Pairs** Stranded (7x32) TC Conductors • See Color Code Chart (below)

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant PVC Jacket (Black, Red or Teal)**

Stranded Flexible	7924A	NEC: CMR, CMX- Outdoor CEC: CMR FT4	4	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
				1000	304.8	30.0	13.6	.242	6.15	1	2.4	65.3	62.9	60.8	100±12	20.0
				2000 †	609.6	58.0	26.3			4	4.8	56.3	51.5	48.7	100±12	23.6
										8	6.8	51.8	45.0	42.7	100±12	25.4
										10	7.7	50.3	42.6	40.8	100±12	26.0
										16	9.7	47.3	37.5	36.7	100±12	26.0
										25	12.4	44.3	31.9	32.8	100±15	25.5
										31.25	13.9	42.9	29.0	30.9	100±15	25.0
										62.5	20.2	38.4	18.3	24.8	100±15	23.5
										100	26.0	35.3	9.2	20.8	100±18	22.5
										155	33.2	32.5	—	16.9	100±18	19.0
										200	38.4	30.8	—	14.7	100±20	19.0
										250	43.7	29.3	—	12.8	100±20	18.0
										350	53.2	27.2	—	9.9	100±22	17.0

†2000 ft. put-up available in Black only. • RJ-45 Compatible • Jacket sequentially marked at 2 ft. intervals  
Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151; 5,734,126 and 5,763,823

**Enhanced Cat 5e • 24 AWG Bonded-Pairs** Solid BC Conductors • Overall Beldfoil® Shield (100%) • Drain Wire • See Color Codes (below)

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant PVC Jacket (Black, Red or Teal)**

EtherNet/IP Compliant Shielded	7933A <i>new</i>	NEC: CMR CEC: CMR FT4	2	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
				1000	304.8	32.0	14.5	.227	5.77	1	2.0	62.3	60.3	60.8	100±15	20.0
				2000 ▲	609.6	64.8	29.4			4	4.1	53.3	49.2	48.7	100±15	23.6
										10	6.5	47.3	40.8	40.8	100±15	26.0
										16	8.2	44.3	36.1	36.7	100±15	26.0
										31.25	11.7	39.9	28.2	30.9	100±15	25.0
										62.5	17.0	35.4	18.4	24.8	100±15	23.5
										100	22.0	32.3	10.3	20.8	100±15	22.5
										200	32.4	27.8	1.0	14.7	100±25	15.0

\*2000 ft. put-up available in Black only. • M-12 or RJ-45 Compatible • Shield is bonded to jacket inner wall for electrical stability.  
Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant PVC Jacket (Black or Blue)**

Shielded	7929A	NEC: CMR, CMX- Outdoor CEC: CMR FT4	4	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
				1000	304.8	37.0	16.8	.265	6.73	1	2.0	62.3	60.3	60.8	100±15	20.0
				2000 ▲	609.6	72.0	32.7			4	4.1	53.3	49.2	48.7	100±15	23.0
										10	6.5	47.3	40.8	40.8	100±15	25.0
										16	8.2	44.3	36.1	36.7	100±15	25.0
										31.25	11.7	39.9	28.2	30.9	100±15	23.6
										62.5	17.0	35.4	18.4	24.8	100±15	21.5
										100	22.0	32.3	10.3	20.8	100±15	20.1
										200	32.4	27.8	1.0	14.7	100±25	15.0

\*2000 ft. put-up available in Black only. • RJ-45 Compatible • Shield is bonded to jacket inner wall for electrical stability.  
Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126 • P-07-KA060003-MSHA\*

**Enhanced Cat 5e • 24 AWG Bonded-Pairs** Solid BC Conductors • Overall Beldfoil (100%) + TC Braid Shield (70% Coverage) • Drain Wire\*

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant PVC Jacket (Black, Red, Blue or Teal)**

EtherNet/IP Compliant Heavy-shielded	7921A	NEC: CMR, CMX- Outdoor CEC: CMR FT4	4	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							
				1000	304.8	55.0	24.9	.330	8.38	1	2.0	62.3	60.3	60.8	100±15	20.0
				2000 ▲	609.6	106.0	48.1			4	4.1	53.3	49.2	48.7	100±15	23.6
										10	6.5	47.3	40.8	40.8	100±15	26.0
										16	8.2	44.3	36.1	36.7	100±15	26.0
										31.25	11.7	39.9	28.2	30.9	100±15	25.0
										62.5	17.0	35.4	18.4	24.8	100±15	23.5
										100	22.0	32.3	10.3	20.8	100±15	22.5

\*2000 ft. put-up available in Black only. \*24 AWG solid spiral drain wire.  
Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • NEMA WC-63.1 Category 5e • U.S. Patents 5,606,151 and 5,734,126

ACR = Attenuation Crosstalk Ratio • AL = Aluminum • BC = Bare Copper • ELFEXT = Equal Level Far-end Crosstalk • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • TC = Tinned Copper  
EtherNet/IP is a trademark of ControlNet International, Ltd. under license by Open DeviceNet Vendor Association, Inc.  
\*Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration Certification.  
\*\*Subject to length de-rating.

**DataTuff Color Codes:** Pair 1 = White/Blue Stripe & Blue, Pair 2 = White/Orange Stripe & Orange, Pair 3 = White/Green Stripe & Green, Pair 4 = White/Brown Stripe & Brown  
For two pair products: use color codes for Pairs 2 & 3



For more information, contact Belden Technical Support: 1-800-BELDEN-1 • www.belden.com

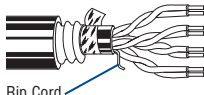
# Industrial Data Solutions® — Industrial Ethernet

Category 5e DataTuff® Twisted Pair Cables, 4-Pair Heavy-Duty Sunlight and Oil-Resistant Jackets

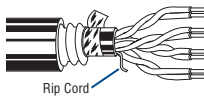
Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							

**Enhanced Cat 5e • 24 AWG Bonded-Pairs Solid BC Conductors • Polyester Wrap • Rip Cord • See Color Code Chart (below)**

**AL Interlocked Armor • Polyolefin Insulation • PVC Inner Jacket • .045" Industrial Grade PVC Outer Jacket (Black or Gray)**

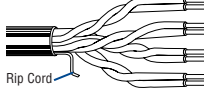
Interlocked AL Armor	121700A	NEC: CM CEC: HL CMG FT4	4	Standard Lengths		Standard Unit Wt.		Nominal OD		1	2.0	65.3	63.3	60.8	100±12	20.0
				1000	304.8	159.0	72.0	.530	13.46							
																
†3000 ft. put-up available in Black only. • RJ-45 Compatible • Outer jacket is sunlight- and oil-resistant. Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C** Jacket sequentially marked at 1 meter intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126																

**AL Interlocked Armor • Polyolefin Insulation • PVC Inner Jacket • .045" Industrial Grade PVC Outer Jacket (Black or Blue)**

Interlocked AL Armor -40°C Cold Impact	121700R <i>(NEW)</i>	NEC: CM CEC: HL CMG FT4	4	Standard Lengths		Standard Unit Wt.		Nominal OD		1	2.0	62.3	60.3	60.8	100±15	20.0
				1000	304.8	159.0	72.0	.530	13.46							
																
†5000 ft. put-up available in Blue only. • RJ-45 Compatible • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C** Outer jacket is sunlight- and oil-resistant. • Jacket sequentially marked at 1 meter intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126																

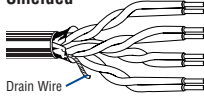
**Cat 5e • 24 AWG Solid Bare Copper Conductors • Twisted Pairs • Rip Cord • See Color Code Chart (below)**

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant PVC Jacket (Black or Blue)**

7918A	NEC: CMR, CMX-Outdoor CEC: CMR FT4	4	Standard Lengths		Standard Unit Wt.		Nominal OD		1	2.0	62.3	60.3	60.8	100±15	20.0
			1000	304.8	28.0	12.7	.230	5.84							
															
††2000 ft. put-up available in Black only. • RJ-45 Compatible • Jacket sequentially marked at 2 ft. intervals Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C** • Third party verified to TIA/EIA-568-B.2, Category 5e															

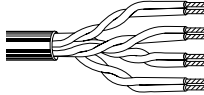
**Cat 5e • 24 AWG Solid BC • Twisted Pairs • Overall Beldfoil® Shield (100% Coverage) • 24 AWG Stranded TC Drain Wire • See Color Code Chart**

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant PVC Jacket (Black or Blue)**

Shielded	7919A	NEC: CMR, CMX-Outdoor CEC: CMR FT4	4	Standard Lengths		Standard Unit Wt.		Nominal OD		1	2.0	62.3	60.3	60.8	100±15	20.0
				1000	304.8	35.0	15.9	.265	6.73							
																
†2000 ft. put-up available in Black only. • RJ-45 Compatible • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C** • Cable passes -40°C Cold Bend per UL1581 Shield is bonded to jacket inner wall for electrical stability. • Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • P-07-KA060004-MSHA*																

**Cat 5e • 24 AWG Stranded (7x32) Bare Copper Conductors • Twisted Pairs • See Color Code Chart (below)**

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant Black PVC Jacket**

Stranded/Flexible	7930A <i>(NEW)</i>	NEC: CMR, CMX-Outdoor CEC: CMR FT4	4	Standard Lengths		Standard Unit Wt.		Nominal OD		1	2.5	62.3	59.8	60.8	100±15	20.0
				1000	304.8	29.0	13.2	.240	6.09							
																
Installation Temperature: 0°C to +75°C • Operating Temperature: -25°C to +75°C** • Cable passes -25°C Cold Bend per UL1581 RJ-45 Compatible • Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • P-07-KA060003-MSHA* ACR = Attenuation Crosstalk Ratio • BC = Bare Copper • ELFEXT = Equal Level Far-end Crosstalk • FEP = Fluorinated Ethylene-propylene • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • TC = Tinned Copper																

Installation Temperature: 0°C to +75°C • Operating Temperature: -25°C to +75°C\*\* • Cable passes -25°C Cold Bend per UL1581  
 RJ-45 Compatible • Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2, Category 5e • P-07-KA060003-MSHA\*

ACR = Attenuation Crosstalk Ratio • BC = Bare Copper • ELFEXT = Equal Level Far-end Crosstalk • FEP = Fluorinated Ethylene-propylene •  
 NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • TC = Tinned Copper

EtherNet/IP is a trademark of ControlNet International, Ltd. under license by Open DeviceNet Vendor Association, Inc.

\*Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration Certification.

\*\*Subject to length de-rating.

**Color Codes: DataTuff**

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

For two pair products: use color codes for Pairs 2 & 3



# Industrial Data Solutions® — Industrial Ethernet

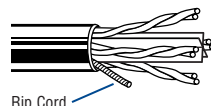
## Category 6 DataTuff® Twisted Pair Cables, 4-Pair

### Heavy-Duty Jackets

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm							

**Enhanced Cat 6 • 23 AWG Bonded-Pairs** Solid BC Conductors • Patented E-Spline Center Member • Rip Cord • See Color Code Chart

**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant Black PVC Jacket**

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)		
				Ft.	m	Lbs.	kg	Inch	mm									
	7927A	NEC: CMR CEC: CMR FT4	4	1000	304.8	44.0	20.0	.251	6.38	1	1.9	80.3	78.5	70.8	100±12	20.0		
				2000	609.6	88.0	39.9	x	x	10	5.7	65.3	59.6	50.8	100±12	25.0		
												31.25	10.2	57.9	47.7	40.9	100±15	25.0
												62.5	14.7	53.4	38.7	34.9	100±15	25.0
												100	18.9	50.3	31.4	30.8	100±15	25.0
												155	23.9	47.5	23.5	27.0	100±15	22.8
												200	27.5	45.8	18.3	24.8	100±15	21.7
												250	31.2	44.3	13.2	22.8	100±20	20.5
												350	37.7	40.2	4.5	19.9	100±22	19.8
												400	40.6	39.3	0.6	18.8	100±22	19.5
												500	46.2	37.8	>0.0*	16.8	100±22	18.4
												550	48.8	37.2	—	16.0	100±22	18.0
								600	51.4	36.6	—	15.2	100±22	17.6				

RJ-45 Compatible • Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2-1, Category 6  
 Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
 \*PSUM ACR >0 is guaranteed to 460 MHz. • U.S. Patents 5,606,151; 5,734,126; 5,789,711 and 6,297,454-B1

**Cat 6 • 23 AWG Bonded-Pairs** Solid BC Conductors • See Color Code Chart (below)

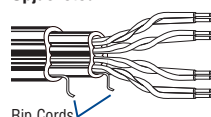
**Plenum • FEP Insulation • Sunlight-, Oil- and Gas-resistant Black FEP Jacket**

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)		
				Ft.	m	Lbs.	kg	Inch	mm									
	7931A	NEC: Limited CEC: Combustible FHC 25/50 CMP CEC: CMP FT6	4	1000	304.8	35.0	15.9	.214	5.44	1	2.0	72.3	70.3	64.8	100±15	20.0		
												10	6.0	57.3	51.3	44.8	100±15	25.0
												20	8.5	52.8	44.3	38.7	100±15	25.0
												31.25	10.7	49.9	39.2	34.9	100±15	23.6
												62.5	15.4	45.4	30.0	28.8	100±15	21.5
												100	19.8	42.3	22.5	24.8	100±15	20.1
								200	29.0	37.8	8.8	18.7	100±22	18.0				
								250	32.8	36.3	3.5	16.8	100±32	17.3				

RJ-45 Compatible  
 Cable passes -70°C Cold Bend per UL1581 • Installation Temperature: -55°C to +150°C • Operating Temperature: -70°C to +150°C\*\*  
 Jacket sequentially marked at 2 ft. intervals • Third party verified to TIA/EIA-568-B.2-1, Category 6 • U.S. Patents 5,606,151 and 5,734,126

**Enhanced Cat 6 • 23 AWG Bonded-Pairs** Solid BC Conductors • Rip Cord • See Color Code Chart (below)

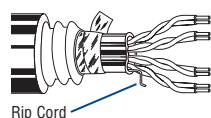
**Polyolefin Insulation • PVC Inner Jacket • .035" Industrial Grade PVC Outer Jacket (Black or Gray)**

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)				
				Ft.	m	Lbs.	kg	Inch	mm											
	11872A	NEC: CM CEC: CM FT1	4	1000	304.8	66.0	30.0	.475	12.07	1	1.9	72.3	70	64.8	100±12	20.0				
												4	3.7	63.3	59	52.7	100±12	23.0		
												x	x	10	5.9	57.3	51	44.8	100±12	25.0
												.265	6.73	16	7.5	54.3	46	40.7	100±12	25.0
														31.25	10.6	49.9	39	34.9	100±15	23.6
														62.5	15.4	45.4	30	28.8	100±15	21.5
														100	19.8	42.3	25	24.8	100±15	21.0
														155	25.1	39.5	14	20.9	100±15	21.0
														200	29.0	37.9	10	18.7	100±15	21.0
														310	37.1	34.9	—	14.9	100±20	18.0
														x	x	—	13.9	100±22	17.0	
														.165	4.19	—	12.7	100±32	14.0	
										500†	49.0	31.8	—	10.8	100±32	14.0				

†Value provided for information only. • RJ-45 Compatible • Cable passes -25°C Cold Bend per UL1581  
 Installation Temperature: -10°C to +75°C • Operating Temperature: -25°C to +75°C\*\*  
 Jacket sequentially marked at 2 ft. intervals • Verified to TIA/EIA-568-B.2-1, Category 6 • U.S. Patents 5,606,151, 5,734,126 and 5,821,467

**Enhanced Cat 6 • 23 AWG Bonded-Pairs** Solid BC Conductors • Polyester Wrap • Rip Cord • See Color Code Chart (below)

**AL Interlocked Armor • Polyolefin Insulation • PVC Inner Jacket • .055" Industrial Grade PVC Outer Jacket (Black or Gray)**

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)					
				Ft.	m	Lbs.	kg	Inch	mm												
	121872A	NEC: HL CEC: CMG FT4	4	1000	304.8	222.0	100.6	.684	17.37	1	1.9	72.3	70	64.8	100±12	20.0					
												4	3.7	63.3	59	52.7	100±12	23.0			
													10	5.9	57.3	51	44.8	100±12	25.0		
													.265	6.73	16	7.5	54.3	46	40.7	100±12	25.0
															31.25	10.6	49.9	39	34.9	100±15	23.6
															62.5	15.4	45.4	30	28.8	100±15	21.5
															100	19.8	42.3	25	24.8	100±15	21.0
															155	25.1	39.5	14	20.9	100±15	21.0
															200	29.0	37.9	10	18.7	100±15	21.0
															310	37.1	34.9	—	14.9	100±20	18.0
														x	x	—	13.9	100±22	17.0		
														.165	4.19	—	12.7	100±32	14.0		
										500†	49.0	31.8	—	10.8	100±32	14.0					

†Value provided for information only. • RJ-45 Compatible • Jacket sequentially marked at 1 meter intervals  
 Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C\*\*  
 Verified to TIA/EIA-568-B.2-1, Category 6 • U.S. Patents 5,606,151, 5,734,126 and 5,821,467

ACR = Attenuation Crosstalk Ratio • AL = Aluminum • BC = Bare Copper • ELFEXT = Equal Level Far-end Crosstalk • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • TC = Tinned Copper  
 \*\*Subject to length de-rating.

**Color Codes: DataTuff**

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

# Industrial Data Solutions® — Industrial Ethernet

## TrayOptic® Heavy-Duty, All-Dielectric Fiber Optic Cables

### Loose Tube — Indoor/Outdoor Riser & Tray

#### Applications

- Industrial and other harsh environment applications
- Factory automation
- Direct burial

#### Product Description

Laser Optimized Fiber to handle Gigabit Ethernet light sources and expanded bandwidth requirements. Passes IEEE 383-2003 flame test. Waterblocking agent for moisture protection. CPE outer jacket option provides extra chemical or abrasion resistance.

<b>Jacket Material</b>	PVC or CPE
<b>Strength Member</b>	Aramid Yarn
<b>Jacket Color</b>	Orange

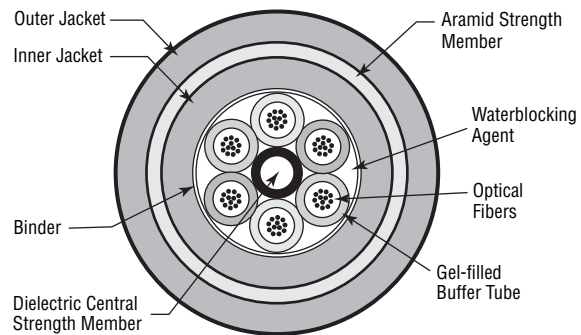
#### Ratings

<b>Riser</b>	
UL Type	OFNR
cUL Type	OFN FT4
Flame Resistance	IEEE 383-2003

#### Specifications

<b>Temperature Range</b>	
Storage	-40 to +70°C
Operating	-40 to +70°C
<b>Crush Resistance (EIA-455-41)</b>	500 lbs./in. min.
<b>Impact Resistance (EIA-455-25)</b>	3.3 ft.-lbs./25 impacts min. @ 2.2N-m
<b>Cyclic Flexing (EIA-455-104)</b>	25 cycles, 12 lbs., 20 x OD radius min.
<b>Min. Bend Radius</b>	
Installation	20 x OD
Long Term	15 x OD
<b>Maximum Installation Load</b>	600 lbs. (2700 N)
<b>Optical Specifications</b>	See page 10.2

#### Fiber Bundle Detail



No. of Fibers	Fibers Per Tube	Outside Diameter		PVC Jacket			CPE Jacket		
		Inches	mm	Belden Part No.	Weight Lbs./1000'	Weight kg/km	Belden Part No.	Weight Lbs./1000'	Weight kg/km

#### TrayOptic Series

Riser (NEC/CEC OFNR/OFN FT4)									
2	2	0.440	11.18	I100255	88	131	I100266	83	124
4	4	0.440	11.18	I100455	88	131	I100466	83	124
6	6	0.440	11.18	I100655	88	131	I100666	83	124
8	4	0.440	11.18	I400855	88	131	I400866	83	124
12	6	0.440	11.18	I601255	88	131	I601266	83	124
18	6	0.440	11.18	I601855	88	131	I601866	83	124
24	6	0.440	11.18	I602455	88	131	I602466	83	124
36	6	0.440	11.18	I603655	88	131	I603666	83	124
48	12	0.540	13.72	I604855	136	202	I604866	129	192
60	12	0.540	13.72	I606055	136	202	I606066	129	192
72	12	0.540	13.72	I607255	136	202	I607266	129	192

All optical fiber products can be supplied in compliance with RoHS regulations. Please contact Customer Service for more details.

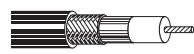
# Industrial Data Solutions® — Industrial Ethernet

## Coaxial Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

**Thinnet 10Base2 Ethernet • 20 AWG Stranded (19x32) .037" TC Conductor • Duobond® II (100% Coverage) + TC Braid (93% Coverage)**

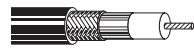
**Foam Polyethylene Insulation • Gray PVC Jacket**

	UL AWM	<b>9907</b>	NEC:	500	152.4	12.5	5.7	20 AWG	.102	2.59	Duobond II	.185	4.70	50	80%	25.4	83.3	1	.43	1.4
	Style 1354		CL2	U-1000	U-304.8	25.0	11.4	(19x32)			+ 93%							10	1.30	4.3
	(30V 60°C)		CM	1000	304.8	25.0	11.4	.037"			TC Braid							50	2.90	9.5
			CEC:	1640	500.0	41.0	18.6	TC			5.8Ω/M'							100	4.20	13.8
			CM	U-2500	U-762.0	60.0	27.3	8.8Ω/M'			19.0Ω/km							200	6.10	20.0
				2500	762.0	62.5	28.4	28.9Ω/km										400	8.90	29.2
			3280	1000.0	82.0	37.3											700	12.10	39.7	
																	900	13.90	45.6	
																	1000	14.80	48.6	

DEC Part No. 17-01248-00

For Plenum versions of 9907, see 89907 or 82907.

**Plenum • Foam FEP Insulation • Gray Fluorocopolymer Jacket**

	150°C	<b>89907</b>	NEC:	500	152.4	13.0	5.7	20 AWG	.095	2.41	Duobond II	.160	4.06	50	80%	25.4	83.3	1	.43	1.4
			CL2P	1000	304.8	24.0	10.9	(19x32)			+ 93%							10	1.30	4.3
			CMP	2500†	762.0	60.0	27.3	.037"			TC Braid							50	2.90	9.5
			CEC:					TC			5.8Ω/M'							100	4.18	13.8
			CMP FT6					8.8Ω/M'			19.0Ω/km							200	6.10	20.0
								28.9Ω/km										400	9.20	30.2
																	700	12.90	42.3	
																	900	15.00	49.2	
																	1000	16.00	52.5	

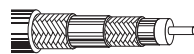
RG-58/U Type

DEC Part No. 17-01246-00

Suitable for Outdoor and Direct Burial applications.

**Thicknet 10Base5 Ethernet • 12 AWG Solid .086" Bare Copper Conductor • Duobond IV\* Quad Shield (100% Coverage)**

**Foam Polyethylene Insulation • Yellow PVC Jacket**

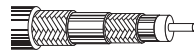
	UL AWM	<b>9880</b>	NEC:	500	152.4	66.0	30.0	12 AWG	.243	6.17	Duobond IV	.405	10.29	50	78%	26.0	85.0	1	.19	.62
	Style 1478		CL2	1000	304.8	131.0	59.5	(solid)			(Duobond II							5	.37	1.21
	(30V 60°C)		CM	1640	500.0	219.0	99.9	.086"			+ 94% TC Braid							10	.52	1.71
			CEC:					BC			+ Duofoil®							50	1.20	3.94
			CM					1.4Ω/M'			+ 90% TC							100	1.70	5.58
								4.7Ω/km			Braid)							200	2.55	8.37
										1.5Ω/M'							400	3.90	12.80	
										5.0Ω/km							700	5.50	18.10	
																	900	6.50	21.30	
																	1000	6.90	22.60	

DEC Part No. 17-00451-00

Ring-band stripes marked every 2.5 meters to aid users in tap placement.

For Plenum version of 9880, see 89880.

**Plenum • Foam FEP Insulation • Orange Fluorocopolymer Jacket**

	150°C	<b>89880</b>	NEC:	1000	304.8	134.0	60.9	12 AWG	.245	6.22	Duobond IV	.375	9.53	50	78%	26.0	85.0	1	.18	.59
			CL2P	1640†	500.0	224.7	102.1	(solid)			(Duobond II							5	.37	max. 1.21
			CMP					.086"			+ 90% TC Braid							10	.52	max. 1.71
			CEC:					BC			+ Duofoil							50	1.15	3.77
			CMP FT6					1.4Ω/M'			+ 90% TC							100	1.65	5.41
								4.7Ω/km			Braid)							200	2.45	8.04
										1.5Ω/M'							400	3.80	12.50	
										5.0Ω/km							700	5.60	18.40	
																	900	6.80	22.30	
																	1000	7.20	23.60	

DEC Part No. 17-00324-00

Ring-band stripes marked every 2.5 meters to aid users in tap placement.

Suitable for Outdoor and Direct Burial applications.

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene • TC = Tinned Copper

Contact the Belden Customer Service Department for a Comprehensive Connector Cross Reference. **1-800-BELDEN-1**.

\*Duobond IV = Duobond II + 94% tinned copper braid + Duofoil® + 90% tinned copper braid.

(Plenum version is Duobond II + 90% tinned copper braid + Duofoil + 90% tinned copper braid.)

† Spools and/or UnReel® cartons are one piece, but length may vary ±10% from length shown.

## Industrial Data Solutions® — Industrial Twinax

### Belden® Blue Hose® Selection Guide for PLC and DCS Applications

Part No.	Description	Specifications
9463	<b>Blue Hose Standard Data Highway Cable</b> A Standard Data Highway Cable that is sometimes referred to as Blue Hose. Designed to be used in light industrial environments. Available in Blue, Brown or Orange up to 10,000 ft. special lengths.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil® + 55% tinned copper braid and drain wire, Blue sunlight-resistant PVC jacket. Nominal diameter: .238".
3072F	<b>600V Data Highway Cable — UL Type TC</b> A DataTray® cable designed for cable tray use in industrial applications. Cable can occupy same tray or conduit as 600V power cables.	1-pair, 18 AWG stranded (7x26) tinned copper, flame-retardant polyolefin insulation (color coded Blue, White), Beldfoil + 55% tinned copper braid and drain wire, Blue sunlight-resistant PVC jacket. Nominal diameter: .324". UL-1277 600V TC/PLTC/ITC/CMG.
9463F	<b>High-Flex Cable</b> A highly flexible version of the standard Blue Hose cable. The cable also has heavier braid coverage for better noise immunity.	1-pair, 20 AWG stranded (42x36) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 85% tinned copper braid, Blue sunlight-resistant PVC jacket. Nominal diameter: .243".
YR28826*	<b>Dual Blue Hose Cable</b> Dual Data Highway/Remote I/O cable has two Twinax pairs individually shielded with an overall braid. Designed for use in daisy chain applications or applications requiring two Blue Hose cables.	2-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), each pair Beldfoil shielded (1 pair Blue tape and 1 pair Green tape), 85% tinned copper braid and drain wire, Blue PVC jacket. Nominal diameter: .382".
YC39151*	<b>Dual Armored Data Highway Cable</b> Features two twinax pairs individually shielded with an overall braid, an inner PVC jacket, aluminum interlocked armor, with an outer PVC jacket. Designed for use in daisy chain applications or applications requiring two Blue Hose cables, with the extra mechanical protection and electrical shielding provided by the armor.	2-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), each pair Beldfoil shielded, 55% tinned copper braid and drain wire, Blue PVC inner jacket, aluminum interlocked armor, Blue sunlight-resistant PVC outer jacket. Nominal diameter: .820".
9463DB	<b>Gel-Filled Direct Burial Cable</b> A gel-filled Blue Hose cable featuring a low-density polyethylene (LDPE) jacket. Especially suited for high-moisture environments and burial applications.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, CoreGuard® flooding compound, Blue sunlight-resistant low density polyethylene jacket. Nominal diameter: .240".
89463	<b>Plenum Cable</b> A plenum, 200°C grade cable that is suitable for installations where high and low temperatures, as well as corrosive environments, are encountered.	1-pair, 20 AWG stranded (7x28) tinned copper, FEP insulation (color coded Blue, Clear), Beldfoil + 76% tinned copper braid and drain wire, Blue FEP jacket. Nominal diameter: .203".
YR28764*	<b>Thick-Wall, Heavy-Duty Cable — UL Type PLTC</b> A rugged, heavy-duty cable specially designed for abusive environments. A .069" thick jacket provides extra protection against cuts and abrasion.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue sunlight-resistant PVC jacket. Nominal diameter: .380".
YR41104*	<b>Low Smoke, Zero Halogen Cable</b> For applications concerned with smoke emissions, toxicity and electronic component corrosion.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue Haloarrest® jacket. Nominal diameter: .256".
129463	<b>Aluminum Interlocked Armor Blue Hose Cable</b> Features interlocked aluminum armor combined with a PVC jacket and is an ideal alternative to conduit installation. Provides both mechanical protection and electrical shielding. Up to 25 Data Highway cables can be bundled under one sheath.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue PVC inner jacket, aluminum interlocked armor, Blue PVC sunlight-resistant outer jacket. Nominal overall diameter: .563".
139463	<b>Steel Interlocked Armor Blue Hose Cable</b> Features interlocked galvanized steel armor combined with a PVC jacket. Provides mechanical protection and electrical shielding, as well as prevention against the low-frequency 60 Hz magnetic noise from power lines. Up to 25 cables can be bundled under one sheath.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue PVC inner jacket, steel interlocked armor, Blue sunlight-resistant outer PVC jacket. Nominal overall diameter: .563".
189463	<b>Continuously Corrugated Aluminum Armor Blue Hose Cable</b> Features continuously corrugated aluminum armor combined with a PVC jacket. Provides mechanical protection, electrical shielding and is impervious to moisture.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue PVC inner jacket, continuously corrugated aluminum armor, Blue sunlight-resistant PVC outer jacket. Nominal overall diameter: .500".
YR29565*	<b>Colored Blue Hose</b> When your application calls for multiple Blue Hose cables you can rest assured that Belden has the solution. This special construction is available in Red, Yellow, Green, White or Pink.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, sunlight-resistant PVC jacket. Nominal diameter: .238".

\*Custom made product. Minimum order quantity may apply.

# Industrial Data Solutions® — Industrial Twinax

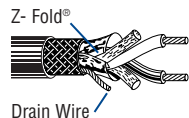
## Blue Hose® Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

**78 Ohm • 20 AWG** Stranded (7x28) .038" TC Conductors • Beldfoil® (100% Coverage) + TC Braid Shield (55% Coverage) • TC Drain Wire

**Polyethylene Insulation • Blue Sunlight-resistant PVC Jacket** (Color Code: Clear, Blue)

<b>Blue Hose</b>	<b>9463</b>	NEC:	100	30.5	4.2	1.9	20 AWG	.154	3.91	Beldfoil	.238	6.05	78	66%	19.7	64.6	1	.6	2.0
UL AWM		CM CL2	U-500	U-152.4	18.5	8.4	(7x28)			+55%							10	2.1	6.9
Style 2464		CEC:	500	152.4	18.5	8.4	.038"			TC Braid							50	5.0	16.4
(300V 80°C)		CM	U-1000	U-304.8	37.0	16.8	Tinned			4.1Ω/M'							100	7.5	24.6
			1000 <sup>▲</sup>	304.8	37.0	16.8	Copper			13.4Ω/km							200	11.0	36.1
			6000 <sup>▲†</sup>	1828.8	222.0	100.9	9.5Ω/M'										400	16.0	52.5
			10000 <sup>▲†</sup>	3048.0	370.0	168.0	31.0Ω/km												



CPE jacket optional.

Allen-Bradley P/N 1770-CD • P-7K-SC-182141-MSHA\*

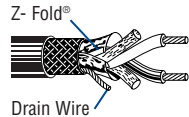
<sup>▲</sup>1000 ft. and 6000 ft. put-ups also available in Brown, Orange or Purple.

<sup>†</sup>10000 ft. put-up available in Brown or Orange only.

<sup>!</sup>Final put-up length may vary ±10% from length shown.

**Polyethylene Insulation • Blue Sunlight-resistant LDPE Jacket** (Color Code: Clear, Blue)

<b>Flooded Direct Burial Blue Hose</b>	<b>9463DB</b>	—	1000	304.8	33.0	15.0	20 AWG	.154	3.91	Beldfoil	.240	6.10	78	66%	19.7	64.6	1	.6	2.0
300V 80°C			5000	1524.0	155.0	70.4	(7x28)			+55%							10	2.1	6.9
							.038"			TC Braid							50	5.0	16.4
							Tinned			4.1Ω/M'							100	7.5	24.6
							Copper			13.4Ω/km							200	11.0	36.1
							9.5Ω/M'										400	16.0	52.5
							31.0Ω/km												



Allen-Bradley P/N 1770-CD

**78 Ohm • 20 AWG** Stranded (42x36) .038" TC Conductors • Overall Beldfoil (100% Coverage) + TC Braid Shield (85% Coverage)

**Polyethylene Insulation • Blue Sunlight-resistant PVC Jacket** (Color Code: Clear, Blue)

<b>High-Flex Blue Hose</b>	<b>9463F</b>	NEC:	1000	304.8	42.0	19.1	20 AWG	.154	3.91	Beldfoil	.243	6.17	78	66%	19.7	64.6	1	.6	2.0
300V 60°C		CM CL2	5000	1524.0	205.0	93.1	(42x36)			+85%							10	2.1	6.9
		CEC:					.038"			TC Braid							50	5.0	16.4
		CM					Tinned			5.0Ω/M'							100	7.5	24.6
							Copper			6.4Ω/km							200	11.0	36.1
							9.5Ω/M'										400	16.0	52.5
							31.0Ω/km												

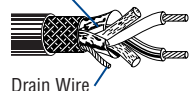


Allen-Bradley P/N 1770-CD • P-7K-SC-182141-MSHA\*

**78 Ohm • 20 AWG** Stranded (7x28) .038" TC Conductors • Overall Beldfoil (100% Coverage) + TC Braid Shield (76% Coverage) • Drain Wire

**Plenum • FEP Insulation • Blue FEP Jacket** (Color Code: Clear, Blue)

<b>High Temperature Blue Hose</b>	<b>89463</b>	NEC:	1000	304.8	34.0	15.4	20 AWG	.151	3.83	Beldfoil	.203	5.16	78	69%	19.7	64.6	1	.6	2.0
300V 200°C		CMP CL2P	2500	762.0	90.0	40.9	(7x28)			+76%							10	2.1	6.9
		CEC:					.038"			TC Braid							50	5.0	16.4
		CMP FT6					Tinned			4.1Ω/M'							100	7.5	24.6
							Copper			13.4Ω/km							200	11.0	36.1
							9.5Ω/M'										400	16.0	52.5
							31.0Ω/km												



Allen-Bradley P/N 1770-CD

DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene • LDPE = Low-density Polyethylene • TC = Tinned Copper

\*Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration Certification.

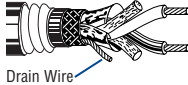
# Industrial Data Solutions® — Industrial Twinax

## Blue Hose® and Other Twinaxial Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

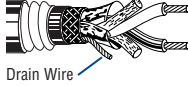
**78 Ohm • 20 AWG** Stranded (7x28) TC Conductors • Overall Beldfoil® (100% Coverage) + TC Braid Shield (55% Coverage) • TC Drain Wire

**Aluminum Interlocked Armor • PE Insulation • Blue Sunlight-resistant PVC Outer Jacket\*** (Color Code: Clear, Blue)

<b>Aluminum Armored Blue Hose</b> 300V 60°C 	<b>129463</b> NEC: CM CL2 CEC: CM, CMG FT4, HLBCD (Haz Loc)	1000†	304.8	122.0	55.5	20 AWG (7x28)	.154	3.91	Beldfoil +55%	Inner Jacket: .238	78	66%	19.7	64.6	1	.6	2.0
		6000†	1828.8	924.0	420.0	.038"	Tinned	4.1Ω/M'	TC Braid	Overall: .563	6.05				10	2.1	6.9
						Copper	13.4Ω/km								50	5.0	16.4
						9.5Ω/M'									100	7.5	24.6
						31.0Ω/km									200	11.0	36.1
														400	16.0	52.5	

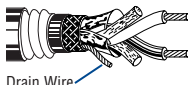
\*Blue PVC inner jacket. Allen-Bradley P/N 1770-CD

**Steel Interlocked Armor • PE Insulation • Blue Sunlight-resistant PVC Outer Jacket\*** (Color Code: Clear, Blue)

<b>Steel Armored Blue Hose</b> 300V 60°C 	<b>139463</b> NEC: CM CL2 CEC: CM, CMG FT4, HLBCD (haz loc)	1000†	304.8	220.0	100.0	20 AWG (7x28)	.154	3.91	Beldfoil +55%	Inner Jacket: .238	78	66%	19.7	64.6	1	.6	2.0
		6000†	1828.8	1488.0	676.4	.038"	Tinned	4.1Ω/M'	TC Braid	Overall: .563	6.05				10	2.1	6.9
						Copper	13.4Ω/km								50	5.0	16.4
						9.5Ω/M'									100	7.5	24.6
						31.0Ω/km									200	11.0	36.1
														400	16.0	52.5	

\*Blue PVC inner jacket. Allen-Bradley P/N 1770-CD


**Continuously Corrugated AL Armor • PE Insulation • Blue Sunlight-resistant PVC Outer Jacket\*** (Color Code: Clear, Blue)

<b>Continuously Armored Blue Hose</b> 300V 60°C 	<b>189463</b> NEC: PLTC	2000†	609.6	258.0	117.1	20 AWG (7x28)	.154	3.91	Beldfoil +55%	Inner Jacket: .238	78	66%	19.7	64.6	1	.6	2.0
						.038"	Tinned	4.1Ω/M'	TC Braid	Overall: .500	6.05				10	2.1	6.9
						Copper	13.4Ω/km								50	5.0	16.4
						9.5Ω/M'									100	7.5	24.6
						31.0Ω/km									200	11.0	36.1
														400	16.0	52.5	

\*Blue PVC inner jacket. Allen-Bradley P/N 1770-CD

**78 Ohm • 20 AWG** Stranded (7x28) .038" Tinned Copper Conductors • Tinned Copper Braid Shield (93% Coverage)

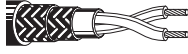
**Polyethylene Insulation • Blue PVC Jacket** (Color Code: Clear, Blue)

<b>UL AWM Style 2092 (300V 60°C)</b> 	<b>9272</b> NEC: CM CEC: U-500, U-152.4, U-304.8, U-1000 CM U-1000 U-304.8	100	30.5	4.5	2.0	20 AWG (7x28)	.156	3.96	93% TC Braid Shield	.244	6.20	78	66%	19.7	64.6	1	.6	2.0
		500	152.4	20.0	9.1	.038"	Tinned	3.4Ω/M'							10	2.1	6.9	
						Copper	11.2Ω/km								50	5.0	16.4	
						9.5Ω/M'									100	7.5	24.6	
						31.0Ω/km									200	11.0	36.1	
														400	16.0	52.5		

For Plenum version of 9272, see 89272.  
CPE jacket optional.

**95 Ohm • RG-22B/U Type • 18 AWG** Stranded (7x26) Bare Copper Conductors†† • TC Double Braid Shield (95% Coverage)

**Polyethylene Insulation • PE Inner Jacket • Black Non-contaminating PVC Outer Jacket**

<b>80°C VW-1</b> 	<b>9250</b> —	500	152.4	61.5	27.9	18 AWG (7x26)	.285	7.24	2 TC Braid Shield	.416	10.57	95	66%	16.0	52.5	1	.3	1.0
		1000	304.8	121.0	54.9	.046"	BC	6.6Ω/M'	95% Shield						10	.9	3.0	
						21.5Ω/km			3.0Ω/km						20	1.3	4.3	
															50	2.1	6.9	
															100	3.0	9.8	
														400	6.3	20.7		

CPE jacket optional.

††One conductor has tinned center strand.

AL = Aluminum • BC = Bare Copper • DCR = DC Resistance • PE = Polyethylene • TC = Tinned Copper

\*Final put-up length may vary ±10% from length shown.

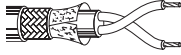
# Industrial Data Solutions® — Industrial Twinax

## Twinaxial Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

**100 Ohm • 20 AWG** Stranded (7x28) .037" One TC, One BC Conductor • Duofoil® (100% Coverage) + TC Braid Shield (86% Coverage)

**Polyethylene Insulation • Polyethylene Inner Jacket • Black PVC Outer Jacket**

75°C	<b>9207</b>	NEC:	100	30.5	7.1	3.2	20 AWG	.236	5.99	Duofoil	.330	8.38	100	66%	14.5	47.6	1	.3	1.0
		CMG CL2	U-500	U-152.4	34.0	15.5	(7x28)			+ 86%							10	1.2	3.9
		CEC:	500	152.4	34.5	15.7	.037"			TC Braid							50	2.8	9.2
		CMG FT4	1000	304.8	68.0	30.9	1 TC			2.5Ω/M'							100	4.1	13.5
			1640	500.0	111.5	50.7	1 BC			8.2Ω/km							200	6.4	21.0
			2000	609.6	136.0	61.8	9.5Ω/M'										400	10.2	33.5
			3280	1000.0	219.8	99.9	31.0Ω/km												
			5000	1524.0	350.0	159.1													

IBM P/N 7362211

For Plenum version of 9207, see 89207.  
CPE jacket optional.

**124 Ohm • 25 AWG** Stranded (7x33) .021" Tinned Copper Conductors • Beldfoil® (100% Coverage) • Stranded Tinned Copper Drain Wire

**Polyethylene Insulation • Blue PVC Jacket (Color Code: Clear, Blue)**

UL AWM	<b>9271</b>	NEC:	100	30.5	3.2	1.5	25 AWG	.170	4.32	100%	.240	6.10	124	66%	12.2	40.0	1	.6	2.0
Style 2092		CM	500	152.4	14.0	6.4	(7x33)			Beldfoil							10	1.7	5.6
(300V 60°C)		CEC:	U-1000	U-304.8	27.0	12.3	.021"			Shield							50	3.6	11.8
		CM	1000	304.8	28.0	12.7	Tinned			12.0Ω/M'							100	5.0	16.4
							Copper			39.4Ω/km							200	6.9	22.6
Shorting Fold							31.8Ω/M'										400	9.6	31.5
							104.3Ω/km												

CPE jacket optional.

**124 Ohm • 16 AWG** Solid .051" Bare Copper Conductors • Duofoil (100% Coverage) + Tinned Copper Braid Shield (90% Coverage)

**Foam Polyethylene Insulation • Black PVC Jacket (Color Code: Clear, Blue)**

UL AWM	<b>9860</b>	NEC:	500	152.4	52.0	23.6	16 AWG	.322	8.18	Duofoil	.440	11.18	124	78%	10.9	35.8	1	.2	.6
Style 2448		CMX	1000	304.8	103.0	46.8	(solid)			+90%							10	.7	2.3
(30V 60°C)		CEC:	2000	609.6	202.0	91.8	.051"			TC Braid							50	1.8	5.9
		CMX					Bare			1.3Ω/M'							100	2.9	9.5
							Copper			4.3Ω/km							200	4.1	13.5
							4.2Ω/M'										400	6.2	20.3
							13.8Ω/km												

CPE jacket optional.

**150 Ohm • 22 AWG** Stranded (19x34) .031" Tinned Copper Conductors • Duofoil (100% Coverage) • Stranded Tinned Copper Drain Wire

**Datalene® Insulation • Black PVC Jacket (Color Code: Black, Yellow)**

UL AWM	<b>9182</b>	NEC:	U-500	U-152.4	22.5	10.2	22 AWG	.275	6.98	100%	.345	8.76	150	78%	8.8	28.9	1	.4	1.3
Style 2668		CL2X CMX	500	152.4	23.0	10.4	(19x34)			Duofoil							10	1.2	3.9
(30V 60°C)		CEC:	1000	304.8	44.0	20.0	.031"			Shield							50	2.7	8.9
VW-1		CMX					Tinned			6.3Ω/M'							100	4.3	14.1
							Copper			20.7Ω/km							200	6.2	20.3
							14.0Ω/M'										400	8.8	28.9
							45.9Ω/km												

Dual version: YR41609

CPE jacket optional.

**Plenum • Foam FEP Teflon® Insulation • Black FEP Teflon Jacket (Color Code: Black, Yellow)**

	<b>89182</b>	NEC:	100	30.5	6.4	2.9	22 AWG	.278	7.06	100%	.307	7.80	150	78%	8.8	28.9	1	.4	1.3
		CMP	500†	152.4	28.0	12.7	(19x34)			Duofoil							10	1.2	3.9
		CL2P	1000†	304.8	53.0	24.1	.031"			Shield							50	2.7	8.9
		CEC:					Tinned			6.3Ω/M'							100	4.3	14.1
		CMP FT6					Copper			20.7Ω/km							200	6.2	20.3
							14.0Ω/M'										400	8.8	28.9
							45.9Ω/km												

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene • TC = Tinned Copper

†Spools are one piece, but length may vary ±10% from length shown.

Teflon is a DuPont trademark.

# Industrial Data Solutions® — Industrial Twinax

## DataTray® 600V Twinaxial Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation			
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m	
<b>18 AWG Stranded (7x26) Tinned Copper Conductors • Overall Beldfoil® (100% Coverage) + TC Braid Shield (55% Coverage) • TC Drain Wire</b> <b>Flame-retardant Polyolefin Insulation • Blue Sunlight-resistant PVC Jacket (Color Code: Natural, Blue)</b>																				
<b>UL Type TC</b> 600V 75°C  Z-Fold®  Drain Wire  P-MSHA-C-7K-1827*	<b>3072F</b>	NEC:	250	76.2	17.5	8.0	18 AWG (7x26)	.192	4.88	Beldfoil +55%	.324	8.23	78	65%	19.5	64	1	.5	1.7	
		CMG, ITC	500	152.4	35.0	15.9												10	2.0	6.5
		TC, PLTC	1000	304.8	69.0	31.3	.046"			TC Braid (100% Shield)								50	3.8	12.4
		CEC:	2500	762.0	170.0	77.2		Tinned Copper										100	5.4	17.6
		CMG FT4	5000†	1524.0	345.0	156.6		6.9Ω/M'			3.2Ω/M'							200	7.6	24.8
			10000†	3048.0	710.0	322.3			22.7Ω/km								400	10.7	35.1	
										For CPE jacketed version order Part No. YM45044.										
<b>UL Type TC</b> 600V 75°C  Z-Fold®  Drain Wire	<b>3073F</b>	NEC:	250	76.2	21.0	9.5	18 AWG (7x26)	.246	6.25	Beldfoil +55%	.388	9.86	100	65%	15.3	50.2	1	.4	1.3	
		CMG, ITC	1000	304.8	85.0	38.6												10	1.3	4.4
		TC, PLTC	5000†	1524.0	420.0	190.7	.046"			TC Braid (100% Shield)								50	3.0	9.7
		CEC:						Tinned Copper										100	4.2	13.8
		CMG FT4						6.9Ω/M'			2.9Ω/M'							200	6.0	19.5
							22.7Ω/km			9.6Ω/km							400	7.5	24.7	
										CPE jacket optional.										
<b>UL Type TC</b> 600V 75°C  Z-Fold®  Drain Wire	<b>3074F</b>	NEC:	500	152.4	62.5	28.4	18 AWG (7x26)	.328	8.33	Beldfoil +55%	.460	11.68	124	65%	12.3	40.3	1	.3	1.1	
		CMG, ITC	1000	304.8	121.0	54.9												10	1.1	3.5
		TC, PLTC	2500	762.0	300.0	136.2	.046"			TC Braid (100% Shield)								50	2.4	7.8
		CEC:						Tinned Copper										100	3.4	11.1
		CMG FT4						6.9Ω/M'			2.8Ω/M'							200	4.8	15.7
							22.7Ω/km			9.1Ω/km							400	6.8	22.2	
										CPE jacket optional.										

DCR = DC Resistance • TC = Tinned Copper if conductor, or Tray Cable if NEC rating.

\*Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration certification.

†Final put-up length may vary -0 to +10% from length shown.

# Industrial Data Solutions® — Industrial Coax

## ControlNet™ Quad Shielded Coax

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

**RG-6/U Type • 18 AWG Solid Bare Copper-covered Steel Conductor • Duobond® IV\* Quad Shield (100% Coverage)**

<b>Foam Polyethylene Insulation • PVC Jacket (Black or Intrinsically Safe Blue)</b>																			
	<b>3092A</b>	NEC:	500	152.4	20.0	9.1	18 AWG	.180	4.57	Duobond IV	.298	7.57	75	82%	16.2	53.1	1	.35	1.1
		CL2R CMR	1000	304.8	39.0	17.7	(solid)			Quad							2	.38	1.2
		CEC:	2000	609.6	78.0	35.4	.040"			Shield							5	.45	1.5
		CMG FT4	2500	762.2	92.5	42.0	BCCS			3.6Ω/M'							10	.59	1.9
							28.0Ω/M'			11.8Ω/km							20	.86	2.8
						91.8Ω/km										50	1.37	4.5	
																100	1.97	6.5	
																200	2.82	9.3	
																300	3.48	11.4	
																400	4.04	13.3	

Allen-Bradley P/N 1786

<b>Plenum • Foam FEP Insulation • Fluorocopolymer Jacket (Black or Intrinsically Safe Blue*)</b>																			
	<b>3093A</b>	NEC:	1000*	304.8	40.0	18.2	18 AWG	.170	4.32	Duobond IV	.274	6.96	75	82%	16.3	53.5	1	.36	1.2
		CMP	2000†	609.6	80.0	36.3	(solid)			Quad							2	.38	1.2
		CEC:	2500†	762.0	95.0	43.1	.040"			Shield							5	.50	1.6
		CMP FT6					BCCS			3.6Ω/M'							10	.65	2.1
							28.0Ω/M'			11.8Ω/km							20	.95	3.1
						91.8Ω/km										50	1.50	4.9	
																100	2.12	7.0	
																200	2.99	9.8	
																300	3.66	12.0	
																400	4.23	13.9	

\*Blue available as standard in 1000 ft. only.

Suitable for Outdoor and Direct Burial applications. • Allen-Bradley P/N 1786

**RG-6/U Type • 20 AWG Stranded (105x40) Bare Copper Conductor • Duobond IV\* Quad Shield (100% Coverage)**

<b>Foam Polyethylene Insulation • Black PVC Jacket</b>																			
	<b>3092F</b>	NEC:	1000	304.8	44.0	20.0	20 AWG	.183	4.65	Duobond IV	.303	7.70	75	79%	17.0	55.8	1	.36	1.2
		CL2R CMR	5000	1524.0	220.0	99.8	(105x40)			Quad							2	.47	1.5
		CEC:					.040"			Shield							5	.80	2.6
		CMG FT4					Bare			3.6Ω/M'							10	1.20	3.9
							Copper			11.8Ω/km							20	2.00	6.6
						10.5Ω/M'										50	3.20	10.5	
						34.4Ω/km										100	4.60	15.1	
																200	6.50	21.3	
																300	8.00	26.2	
																400	9.30	30.5	

IEEE 802.4 MAP/IEEE 802.7 Mini-MAP. • Allen-Bradley P/N 1786

For Rockwell authorized Flexible ControlNet order YR28890 (Tinned Copper Braid version).

**RG-6/U Type • 18 AWG Solid Bare Copper-Covered Steel Conductor • Duobond IV\* Quad Shield (100% Coverage)**

<b>Aluminum Interlocked Armor • Foam Polyethylene Insulation • PVC Inner Jacket • Black PVC Sunlight Resistant Outer Jacket</b>																			
	<b>123092A</b>	NEC:	1000††	304.8	180.0	81.7	18 AWG	.180	4.57	Duobond IV	Inner Jacket	75	82%	16.2	53.2	1	.35	1.2	
	<b>new</b>	CM					(solid)			Quad	.298	7.57				2	.38	1.3	
		CEC:					.040"			Shield	Overall:						5	.45	1.5
		CMG, FT4, HL					BCCS			3.6Ω/M'	.620	15.75					10	.59	1.9
							28.0Ω/M'			11.8Ω/km							20	.86	2.8
						91.9Ω/km										50	1.37	4.5	
																100	1.97	6.5	
																200	2.82	9.3	
																300	3.48	11.4	
																400	4.04	13.3	

Allen-Bradley P/N 1786

Jacket sequentially marked at 1 meter intervals.

<b>Continuously Corrugated Aluminum Armor • Foam Polyethylene Insulation • PVC Inner Jacket • Black PVC Outer Jacket</b>																			
	<b>183092A</b>	NEC:	2000^	609.6	350.0	158.9	18 AWG	.180	4.57	Duobond IV	Inner Jacket	75	82%	16.2	53.2	1	.35	1.2	
	<b>new</b>	CL2, CM					(solid)			Quad	.298	7.57				2	.38	1.3	
							.040"			Shield	Overall:						5	.45	1.5
							BCCS			3.6Ω/M'	.570	14.48					10	.59	1.9
							28.0Ω/M'			11.8Ω/km							20	.86	2.8
						91.9Ω/km										50	1.37	4.5	
																100	1.97	6.5	
																200	2.82	9.3	
																300	3.48	11.4	
																400	4.04	13.3	

Allen-Bradley P/N 1786

Jacket sequentially marked at 2 ft. intervals.

BCCS = Bare Copper-covered Steel • DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene

\*Duobond IV Quad Shield = Duobond II Foil + 60% aluminum braid + Duofoil + 40% aluminum braid.

†Final put-up length may vary 0 to +10% from length shown.


††Final put-up length may vary ±5% from length shown.

\*Final put-up length may vary ±10% from length shown.

ControlNet is a ControlNet International trademark.


# Industrial Data Solutions® — Industrial Coax

## ControlBus™ Quad Shielded Coax


Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m
<b>RG-6/U Type • 20 AWG</b> Stranded (105x40) Bare Copper Conductor • Duobond® IV* Quad Shield (100% Coverage)																			
<b>Foam Polyethylene Insulation • Black PVC Jacket</b>																			
	<b>High-Flex 3092F</b>	NEC:	1000	304.8	44.0	20.0	20 AWG (105x40) .040" Bare Copper 10.5Ω/M' 34.4Ω/km	.183	4.65	Duobond IV Quad Shield 3.6Ω/M' 11.8Ω/km	.303	7.70	75	79%	17.0	55.8	1	.36	1.2
		CL2R CMR	5000	1524.0	225.0	102.2											2	.47	1.5
		CEC:															5	.80	2.6
		CMG															10	1.20	3.9
		FT4															20	2.00	6.6
																	50	3.20	10.5
																	100	4.60	15.1
																	200	6.50	21.3
																	300	8.00	26.2
																	400	9.30	30.5

IEEE 802.4 MAP/IEEE 802.7 Mini-MAP.

### RG-6/U Type • 18 AWG Solid Bare Copper-covered Steel Conductor • Duobond IV\* Quad Shield (100% Coverage)

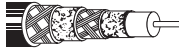
<b>Gas-Injected Foam Polyethylene Insulation • Gray PVC Jacket</b>																			
	<b>3131A</b>	NEC:	1000	304.8	41.0	18.6	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.8Ω/km	.180	4.57	Duobond IV Quad Shield 3.6Ω/M' 11.8Ω/km	.300	7.62	75	82%	16.2	53.1	1	.35	1.1
		CL2R CMR	2500	762.0	100.0	45.4											2	.38	1.2
		CEC:															5	.45	1.5
		CMR FT4															10	.59	1.9
																	20	.86	2.8
																	50	1.37	4.5
																	100	1.97	6.5
																	200	2.82	9.3
																	300	3.48	11.4
																	400	4.04	13.3

IEEE 802.4 MAP/IEEE 802.7 Mini-MAP.  
Tap marks every 2.6 meters to aid users in installation.


<b>Plenum • Foam FEP Insulation • Gray Fluorocopolymer Jacket</b>																			
	<b>150°C 3132A</b>	NEC:	1000	304.8	36.0	16.3	18 AWG (solid) .040" BCCS 28.0Ω/M' 91.8Ω/km	.170	4.32	Duobond IV Quad Shield 3.6Ω/M' 11.8Ω/km	.274	6.96	75	82%	16.3	53.5	1	.36	1.2
		CMP															2	.38	1.2
		CEC:															5	.50	1.6
		CMP FT6															10	.65	2.1
																	20	.95	3.1
																	50	1.50	4.9
																	100	2.12	7.0
																	200	2.99	9.8
																	300	3.66	12.0
																	400	4.23	13.9

IEEE 802.4 MAP/IEEE 802.7 Mini-MAP.  
Tap marks every 2.6 meters to aid users in installation.  
Suitable for Outdoor and Direct Burial applications.

### RG-11/U Type • 14 AWG Solid Bare Copper-covered Steel Conductor • Duobond IV\* Quad Shield (100% Coverage)

<b>Gas-Injected Foam Polyethylene Insulation • Gray PVC Jacket</b>																			
	<b>3094A</b>	NEC:	500	152.4	35.5	16.1	14 AWG (solid) .064" BCCS 11.0Ω/M' 36.1Ω/km	.280	7.11	Duobond IV Quad Shield 1.5Ω/M' 4.9Ω/km	.407	10.34	75	82%	16.2	53.1	1	.16	.5
		CL2R CMR	1000	304.8	62.0	28.1											2	.18	.6
		CEC:	2000	609.6	140.0	63.6											5	.26	.9
		CMG FT4															10	.38	1.2
																	20	.55	1.8
																	50	.83	2.7
																	100	1.17	3.8
																	200	1.60	5.3
																	300	1.99	6.5
																	400	2.30	7.5

IEEE 802.4 MAP  
Tap marks every 2.6 meters to aid users in installation.

<b>Plenum • Foam FEP Insulation • Gray Fluorocopolymer Jacket</b>																			
	<b>150°C 3095A</b>	NEC:	1000	304.8	76.0	34.5	14 AWG (solid) .064" BCCS 11.0Ω/M' 36.1Ω/km	.280	7.11	Duobond IV Quad Shield 3.9Ω/M' 12.8Ω/km	.387	9.83	75	82%	16.5	54.1	1	.17	.6
		CMP															2	.22	.7
		CEC:															5	.28	.9
		CMP FT6															10	.40	1.3
																	20	.60	2.0
																	50	1.20	3.9
																	100	1.70	5.6
																	200	2.50	8.2
																	300	3.04	10.0
																	400	3.50	11.5

IEEE 802.4 MAP  
Tap marks every 2.6 meters to aid users in installation.  
Suitable for Outdoor and Direct Burial applications.

BCCS = Bare Copper-covered Steel • DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene  
\*Duobond IV Quad Shield = Duobond II Foil + 60% aluminum braid + Duofoil® + 40% aluminum braid.

# Industrial Data Solutions® — Industrial Data

## DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

**FOUNDATION Fieldbus/PROFIBUS PA • 18 AWG** Stranded (7x26) TC Conductors • Beldfoil® Shield (100% Coverage) • TC Drain Wire

**Polyolefin Insulation • Orange or Blue PVC Jacket** (Color Code: Blue, Orange)

Type A	3076F	NEC:	250	76.2	10.5	4.8	(2) 18 AWG	.088	2.24	100%	.253	6.43	100 @	66%	24.0	78.7	.039	.08	.26
300V 105°C (31.25 KBits/sec)		PLTC CM	500	152.4	18.5	8.4	(7x26)			Beldfoil Shield				31.25 KHz					
		ITC	1000	304.8	37.0	16.8	.048"			7.5Ω/M'									
		CEC:	2500	762.0	85.0	38.6	Tinned			24.6Ω/km									
		CM	5000†	1524.0	170.0	77.2	Copper												

Shorting Fold

123076F — Version with Aluminum Interlocked Armor  
 133076F — Version with Steel Interlocked Armor  
 YM47023 — CPE jacketed version  
 YM46698 — Black & White color-coded pairs  
 YM47090 — Various colored jackets  
 YM41725 — LSZH (FRNC) jacketed version

Fieldbus: Orange jacket. Profibus PA: Intrinsically Safe Blue jacket. Blue available as standard in 1000 ft. put-up only.

**FOUNDATION Fieldbus • 22 AWG** Stranded (7x30) TC Conductors • Beldfoil Shield (100% Coverage) • Tinned Copper Drain Wire

**Polyolefin Insulation • Orange PVC Jacket** (Color Code: Blue, Orange)

Type B	3077F	NEC:	500†	152.4	11.0	5.0	(2) 22 AWG	.059	1.50	100%	.196	4.97	100 @	66%	23.5	77.1	.039	.14	.45
300V 105°C (31.25 KBits/sec)		PLTC CM	1000†	304.8	23.0	10.4	(7x30)			Beldfoil Shield				31.25 KHz					
		ITC					.030"			11.4Ω/M'									
		CEC:					Tinned			37.4Ω/km									
		CM					Copper												

Shorting Fold

123077F — Version with Aluminum Interlocked Armor  
 133077F — Version with Steel Interlocked Armor  
 CPE and LSZH jacketed versions also available.

**FHDPE Insulation • Orange PVC Jacket** (Color Code: Blue, Orange)

High Speed▲	3078F	NEC:	250	76.2	10.0	4.5	(2) 22 AWG	.121	3.07	100%	.351	8.92	150 @	78%	8.5	27.9	.250	.18	.59
300V 75°C (1.0 & 2.5 MBits/sec)		PLTC CM	500	152.4	23.0	10.4	(7x30)			Beldfoil Shield				1 MHz			.625	.26	.85
		ITC					.030"			3.3Ω/M'							1.250	.34	1.12
		CEC:	1000	304.8	44.0	20.0	Tinned			11.1Ω/km							3.125	.55	1.81
		CM	2500	762.0	115.0	52.2	Copper												

Shorting Fold

123078F — Version with Aluminum Interlocked Armor  
 133078F — Version with Steel Interlocked Armor  
 CPE and LSZH jacketed versions also available.

**PROFIBUS DP • 22 AWG** Solid Bare Copper Conductors • Beldfoil (100% Coverage) + Tinned Copper Braid Shield (65% Coverage)

**FHDPE Insulation • Chrome or Purple PVC Jacket** (Color Code: Red, Green)

300V 75°C	3079A	NEC:	1000	304.8	56.0	25.4	(2) 22 AWG	.099	2.52	Beldfoil + 65% TC Braid Shield (100% Coverage)	.315	8.00	150	78%	8.5	27.9	.2	.27	.9
		PLTC CMG	2000	609.6	112.0	50.8	(solid)										4.0	.67	2.2
		CEC:	3600	1097.6	201.6	91.4	.026"			3.9Ω/M'							16.0	1.37	4.5
		CMG FT4					Bare Copper			12.8Ω/km							100.0	3.75	12.3
							16.0Ω/M'										300.0	6.52	21.4

Shorting Fold

123079A — Aluminum Interlocked Armor  
 133079A — Steel Interlocked Armor  
 YR45047 — CPE jacketed version  
 YR44731 — LSZH (FRNC) jacketed version

UL AWM 20201 (600V)  
 Siemens Sinec L2 cable.

**PROFIBUS DP • 22 AWG** Stranded (7x30) Bare Copper Conductors • Beldfoil (100% Coverage) + TC Braid Shield (65% Coverage)

**FR-FPE Insulation • Purple PVC Jacket** (Color Code: Red, Green)

300V 75°C	3079E	NEC:	1000	304.8	44.0	20.0	(2) 22 AWG	.099	2.52	Beldfoil + 65% TC Braid Shield (100% Coverage)	.315	8.00	150	78%	8.5	27.9	.2	.34	1.1
		PLTC CMG	1640	500.0	73.8	33.5	Stranded (7x30)										4.0	.81	2.7
		CEC:	3280	1000.0	144.3	65.5	Bare Copper			3.9Ω/M'							16.0	1.64	5.4
		CMG FT4					16.0Ω/M'			12.8Ω/km									

Shorting Fold

DCR = DC Resistance • FHDPE = Foamed High-Density Polyethylene • FR-FPE = Flame-Retardant Polyethylene • FRNC = Flame-Retardant Non-Corrosive • LSZH = Low-Smoke Zero-Halogen • TC = Tinned Copper  
 †Final put-up length may vary -0 to +10% from length shown.

▲ For HSE, see Industrial Ethernet Section for copper and fiber cables.

# Industrial Data Solutions® — Industrial Data

DeviceBus® for ODVA DeviceNet™

## DeviceNet Communications Rate Table

Communications Rate	Maximum Distance																			
	3082A		3082F		3082K		3083A		3084F		3084A/3085A		7895A		7896A		7897A		7900A	
	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m
125 Kbps	1640	500	1640	500	1378	420	1640	500	328	100	328	100	984	300	1378	420	1640	500	328	100
250 Kbps	820	250	820	250	656	200	820	250	328	100	328	100	820	250	656	200	820	250	328	100
500 Kbps	328	100	328	100	246	75	328	100	328	100	328	100	328	100	328	100	328	100	328	100

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

**600V Class 1 Thick • 15 and 18 AWG Stranded TC Conductors • Individually Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)**

**PVC/Nylon Insulation (Power) • FEP Insulation (Data) • Gray Sunlight/Oil-resistant PVC Jacket**

<b>High Velocity Thick</b> 600V 75°C	<b>7897A</b>	NEC:	500	152.4	69.5	31.6	(2)15 AWG TC	100%	Power Pair:	.460	11.7	—	—	—	—	—	—	—	—	—
		TC-ER	1000	304.8	135.0	61.3	(19x28)	Individual Foil	Red&Black											
			2000	609.6	274.0	124.4	3.6Ω/M'	11.8Ω/km	+ Overall											
							(2)18 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125	.13	.43		
							(19x30)	TC Braid	Blue&White							.500	.25	.82		
							6.9Ω/M'	1.8Ω/M'								1.000	.40	1.31		
							22.6Ω/km	5.9Ω/km												

18 AWG stranded (19x30) tinned copper drain wire.  
Meter marks on jacket to aid users in installation.  
Allen-Bradley P/N 1485 CPI-A

**600V Class 1 ODVA Cable V • 16 and 18 AWG Stranded TC Cond. • Individ. Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)**

**PVC/Nylon Insulation (Power) • F-R Polypropylene Insulation (Data) • Gray Sunlight/Oil-resistant PVC Jacket**

<b>600V 75°C</b>	<b>7896A</b>	NEC:	500	152.4	89.0	40.4	(2)16 AWG TC	100%	Power Pair:	.525	13.34	—	—	—	—	—	—	—	—	—
		TC-ER	1000	304.8	168.0	76.2	(19x29)	Individual Foil	Red&Black											
			2000	609.6	340.0	154.2	4.9Ω/M'	16.1Ω/km	+ Overall											
							(2)18 AWG TC	65%	Data Pair:			120	64%	14.7	48.2	.125	.13	.43		
							(19x30)	TC Braid	Blue&White							.500	.25	.82		
							6.9Ω/M'	1.8Ω/M'								1.000	.40	1.31		
							22.6Ω/km	5.9Ω/km												

C(UL) AWM I/II A/B  
16 AWG stranded (19x29) tinned copper drain wire.  
Meter marks on jacket to aid users in installation.  
Allen-Bradley P/N 1485 CPI-A

**600V Class 1 ODVA Cable IV • 16 and 18 AWG Stranded Tinned Copper Conductors • Unshielded**

**PVC/Nylon Insulation (Power) • F-R Polypropylene Insulation (Data) • Gray Sunlight/Oil-resistant PVC Jacket**

<b>Drop</b> 600V 75°C	<b>7900A</b>	NEC:	500	152.4	51.0	23.1	(2)16 AWG TC	Unshielded	Power Pair:	.430	10.92	—	—	—	—	—	—	—	—	—
		TC-ER	1000	304.8	105.0	47.6	(19x29)		Red&Black											
		CEC: FT1						4.9Ω/M'	16.1Ω/km											
							(2)18 AWG TC		Data Pair:			120	64%	14.7	48.2	.125	.13	.43		
							(19x30)		Blue&White							.500	.25	.82		
							6.9Ω/M'									1.000	.40	1.31		
							22.6Ω/km													

C(UL) AWM I/II A/B  
Meter marks on jacket to aid users in installation.  
Allen-Bradley P/N 1485 CPI-C

DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene • F-R = Flame-retardant • TC = Tinned Copper • TC-ER = Tray Cable Exposed Run per 2005 NEC Article 336

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For more information, contact Belden Technical Support: 1-800-BELDEN-1 • www.belden.com


# Industrial Data Solutions® — Industrial Data

DeviceBus® for ODVA DeviceNet™


Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

**300V Class 2 Thick • 15 and 18 AWG Stranded TC Cond. • Individually Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)**

**PVC Insulation (Power) • FPE Insulation (Data) • Sunlight- and Oil-resistant PVC Jacket (Available in Gray or Red)**


Thick 75°C 	<b>3082A</b>	NEC:	500†	152.4	71.0	32.2	(2)15 AWG TC	100%	Power Pair:	.480	12.19	—	—	—	—	—	—	—
		CMG:	1000	304.8	138.0	62.6	(19x28)	Individual	Red&Black									
		PLTC-ER	2000†	609.6	280.0	127.0	3.6Ω/M'	Foil										
		CEC:					11.8Ω/km	+ Overall										
		CMG FT4				(2)18 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125	.13	.43	
						(19x30)	TC Braid	Blue&White							.500	.25	.82	
						6.9Ω/M'	1.8Ω/M'								1.000	.36	1.18	
						22.6Ω/km	5.9Ω/km											

†500 ft. and 2000 ft. put-ups not available in Red.  
UL AWM 20201 (600V) • C(UL) AWM I/II A  
18 AWG stranded (19x30) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-A

High-Flex Thick 75°C 	<b>3082F</b>	NEC:	500†	152.4	72.5	32.9	(2)15 AWG TC	100%	Power Pair:	.480	12.19	—	—	—	—	—	—	—
		CMG:	1000	304.8	140.0	63.5	(65x33)	Individual	Red&Black									
		PLTC-ER	2000†	609.6	284.0	128.8	3.6Ω/M'	Foil										
		CEC:					11.8Ω/km	+ Overall										
		CMG FT4				(2)18 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125	.13	.43	
						(65x36)	TC Braid	Blue&White							.500	.25	.82	
						6.9Ω/M'	1.8Ω/M'								1.000	.36	1.18	
						22.6Ω/km	5.9Ω/km											

†500 ft. and 2000 ft. put-ups not available in Red.  
UL AWM 20201 (600V) • C(UL) AWM I/II A  
18 AWG stranded (65x36) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-A

**PVC Insulation (Power) • FPE Insulation (Data) • Yellow CPE Jacket**

Thick 75°C 	<b>3083A</b>	NEC:	1000	304.8	137.0	62.1	(2)15 AWG TC	100%	Power Pair:	.475	12.07	—	—	—	—	—	—	—
		CMG, PLTC	2000	609.6	278.0	126.1	(19x28)	Individual	Red&Black									
		CEC:					3.6Ω/M'	Foil										
		CMG FT4					11.8Ω/km	+ Overall										
						(2)18 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125	.13	.43	
						(19x30)	TC Braid	Blue&White							.500	.25	.82	
						6.9Ω/M'	1.8Ω/M'								1.000	.36	1.18	
						22.6Ω/km	5.9Ω/km											


18 AWG stranded (19x30) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-A

**300V Class 2 Thin • 22 and 24 AWG Stranded TC Conductors • Individ. Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)**

**PVC Insulation (Power) • FPE Insulation (Data) • Gray Sunlight- and Oil-resistant PVC Jacket**


Thin 75°C 	<b>3084A</b>	NEC:	500	152.4	22.0	10.0	(2)22 AWG TC	100%	Power Pair:	.280	7.11	—	—	—	—	—	—	—
		CL2 CMG	1000†	304.8	47.0	21.3	(19x34)	Individual	Red&Black									
		CEC:	2000	609.6	96.0	43.6	17.5Ω/M'	Foil										
		CMG FT4					57.4Ω/km	+ Overall										
						(2)24 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125*	.29*	.95*	
						(19x36)	TC Braid	Blue&White							.500*	.50*	1.64*	
						91.9Ω/km	10.5Ω/km								1.000*	.70*	2.30*	

†1000 ft. put-up also available in Red.  
22 AWG stranded (19x34) tinned copper drain wire. • C(UL) AWM I/II A  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-C

High-Flex Thin 75°C 	<b>3084F</b>	NEC:	500	152.4	22.0	10.0	(2)22 AWG TC	100%	Power Pair:	.275	6.99	—	—	—	—	—	—	—
		CL2 CMG	1000	304.8	47.0	21.3	(154x44)	Individual	Red&Black									
		CEC:	2000	609.6	96.0	43.6	17.5Ω/M'	Foil										
		CMG FT4					57.4Ω/km	+ Overall										
						(2)24 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125*	.29*	.95*	
						(105x44)	TC Braid	Blue&White							.500*	.50*	1.64*	
						28.0Ω/M'	3.2Ω/M'								1.000*	.70*	2.30*	
						91.9Ω/km	10.5Ω/km											

C(UL) AWM I/II A  
22 AWG stranded (26x36) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-C

**PVC Insulation (Power) • FPE Insulation (Data) • Yellow CPE Jacket**

Thin 75°C 	<b>3085A</b>	NEC:	500	152.4	25.0	11.4	(2)22 AWG TC	100%	Power Pair:	.280	7.11	—	—	—	—	—	—	—
		CL2 CMG	1000	304.8	47.0	21.4	(19x34)	Individual	Red&Black									
		CEC:	2000	609.6	96.0	43.6	17.5Ω/M'	Foil										
		CMG FT4					57.4Ω/km	+ Overall										
						(2)24 AWG TC	65%	Data Pair:			120	75%	12.0	39.4	.125*	.29*	.95*	
						(19x36)	TC Braid	Blue&White							.500*	.50*	1.64*	
						28.0Ω/M'	3.2Ω/M'								1.000*	.70*	2.30*	
						91.9Ω/km	10.5Ω/km											

22 AWG stranded (19x34) tinned copper drain wire.  
Meter marks on jacket to aid users in installation. • Allen-Bradley P/N 1485 CPI-C

DCR = DC Resistance • FPE = Foam Polyethylene • PLTC-ER = Power Limited Tray Cable - Exposed Run per 2005 NEC Article 725 • TC = Tinned Copper

\*These values are Maximum Attenuation.


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# Industrial Data Solutions® — Industrial Data

DeviceBus® for ODVA DeviceNet™

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Maximum Attenuation		
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m
<b>300V Class 2 ODVA Cable III • 20 and 18 AWG Stranded TC Cond. • Indiv. Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)</b>																		
<b>PVC Insulation (Power) • FPE Insulation (Data) • Gray Sunlight/Oil-resistant PVC Jacket</b>																		
Mid 75°C	<b>7895A</b>	NEC: CMG PLTC CEC: CMG FT4	500 1000	152.4 304.8	41.0 84.0	18.6 38.1	(2)18 AWG TC (19x30) 6.9Ω/M' 22.6Ω/km (2)20 AWG TC (19x32) 10.9Ω/M' 35.8Ω/km	100% Individual Foil + Overall 65% TC Braid 10.5Ω/km	Power Pair: Red&Black Data Pair: Blue&White	.378	9.60	—	—	—	—	—	—	—
																		
UL AWM 20201 (600V) 20 AWG stranded (19x32) tinned copper drain wire. Meter marks on jacket to aid users in installation.																		

**Flat • 16 AWG Stranded (19x29) Tinned Copper Conductors • Unshielded**

<b>PVC Insulation (Power) • FPE Insulation (Data) • Gray Sunlight-resistant PVC Jacket</b>																		
Class 2 300V 75°C	<b>3082K</b>	NEC: CMG CL2 PLTC CEC: CMG FT4	246 656 1378	75.0 200.0 420.0	30.8 78.7 165.4	14.0 35.7 75.1	(4)16 AWG TC (19x29) 4.9Ω/M' 16.1Ω/km	Unshielded	Power Pair: Red&Black Data Pair: Blue&White	.760 x .210	10.92 x 5.33	—	—	—	—	—	—	—
																		
Allen-Bradley P/N 1485 CPI-G																		

<b>PVC Insulation • Black Sunlight-resistant PVC Jacket</b>																		
Class 1 Power 600V 75°C	<b>3082KP</b>	NEC: CMG, ITC, PLTC, TC CEC: CMG FT4	246 656 1378	75.0 200.0 420.0	32.0 81.3 170.9	14.5 36.9 77.6	(4)16 AWG TC (19x29) 4.9Ω/M' 16.1Ω/km	Unshielded	Red&Black, Blue&White	.760 x .210	10.92 x 5.33	—	—	—	—	—	—	—
																		
Allen-Bradley P/N 1485 CPI-G																		

DCR = DC Resistance • FPE = Foam Polyethylene • F-R = Flame-retardant • TC = Tinned Copper if conductor, or Tray Cable if NEC rating.

ODVA DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark.

# Industrial Data Solutions® — Industrial Data

## DeviceBus® for Honeywell Smart Distributed System

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

**22 AWG** Stranded Tinned Copper Conductors • Each Pair Individually Beldfoil® Shielded (100% Coverage) • Drain Wire

PVC Insulation (Power) • FPE Insulation (Data) • Gray PVC Jacket																		
UL AWM	<b>3087A</b>	NEC:	500	152.4	19.0	8.6	(4)22 AWG	100%	Power Pair:	.290	7.37	—	—	—	—	—		
Style 2464		CL2	1000	304.8	41.0	18.6	(19x34)	Beldfoil	Blue&Brown									
30V 80°C		CEC:	2000	609.6	84.0	38.1	.030"	Each Pair										
CSA AWM I/II A		FT1					Tinned Copper		Data Pair:			120	76%	12.0	39.4	.125	.23	.76
							17.5Ω/M'		Black&White							.500	.42	1.38
							57.4Ω/km									1.000	.60	1.97

Micro Cable (Drop)  
22 AWG stranded (19x34) tinned copper drain wire.

**16 and 20 AWG** Stranded Tinned Copper Conductors • Each Pair Individually Beldfoil Shielded (100% Coverage) • Drain Wire

PVC Insulation (Power) • FPE Insulation (Data) • Gray PVC Jacket																		
UL AWM	<b>3086A</b>	NEC:	500	152.4	43.5	19.7	(2)16 AWG TC	100%	Power Pair:	.398	10.11	—	—	—	—	—		
Style 2464		CL2	1000	304.8	88.0	39.9	(19x29)	Beldfoil	Blue&Brown									
30V 80°C		CEC:					.067"	Each Pair										
CSA AWM I/II A		FT1					3.6Ω/M'		Data Pair:			120	76%	12.0	39.4	.125	.18	.59
							11.8Ω/km		Black&White							.500	.35	1.15
							(2)20 AWG TC									1.000	.47	1.54
							(19x32)											
							.041"											
							10.0Ω/M'											
							32.8Ω/km											

Mini Cable (Trunk)  
20 AWG stranded (19x32) tinned copper drain wire.


DCR = DC Resistance • FPE = Foamed Polyethylene • TC = Tinned Copper

# Industrial Data Solutions® — Industrial Data


## DeviceBus® for Square D/Seriplex®

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance*	
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m

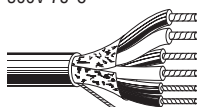
**18 and 22 AWG** Stranded Tinned Copper Conductors • Overall 100% Beldfoil® Shield (100% Coverage) • 22 AWG (7x30) TC Drain Wire

Foam HDPE Insulation (Power) • Foam HDPE Insulation (Data) • Orange PVC Jacket															
	<b>3124A</b> UL AWM Style 20201 (600V 75°C)	NEC: CL2 CM CEC: CM	1000	304.8	47.0	21.3	(2)18 AWG (16x30)	100% Overall	Power Cdrs: Red&Black  Data Cdrs: White&Green	.308	7.82	—	—	20.0	65.6
							.040" TC 6.8Ω/M' 21.3Ω/km	Beldfoil Shield 10.7Ω/M' 35.1Ω/km							78%
Seriplex CBL 1822-P18															

**16 and 22 AWG** Stranded Tinned Copper Conductors • Overall 100% Beldfoil Shield (100% Coverage) • 22 AWG (7x30) TC Drain Wire

Foam HDPE Insulation (Power) • Foam HDPE Insulation (Data) • Orange PVC Jacket															
	<b>3125A</b> 300V 75°C	NEC: CL2 CM CEC: CM	500	152.4	31.5	14.3	(2)16 AWG (26x30)	100% Overall	Power Cdrs: Red&Black  Data Cdrs: White&Green	.368	9.35	—	—	28.0	91.9
							.060" TC 4.5Ω/M' 14.8Ω/km	Beldfoil Shield 10.7Ω/M' 35.1Ω/km							78%
Seriplex CBL 1622-P1															

**16, 22 and 12 AWG** Stranded Tinned Copper Conductors • Overall Beldfoil Shield (100% Coverage) • 22 AWG (7x30) TC Drain Wire

Foam HDPE Insulation (Control) • Foam HDPE Insulation (Data) • PVC Insulation (Power) • Orange PVC Jacket															
	<b>3126A</b> 300V 75°C	NEC: CL2 CM CEC: CM	1000	304.8	112.0	50.8	(2)16 AWG (26x30)	100% Overall	Control Cdrs: Red&Black Power Cdrs: Black&White, Red&White	.486	12.34	—	—	28.0	91.9
							.060" TC 4.5Ω/M' 14.7Ω/km	Beldfoil Shield 10.7Ω/M' 35.1Ω/km							
Seriplex CBL 162212-P16															

DCR = DC Resistance • HDPE = High-density Polyethylene • TC = Tinned Copper  
 \*Capacitance between one conductor and other conductors connected to shield.

Square D/Seriplex is a Square D/Schneider AEG trademark.



# Industrial Data Solutions® — Industrial Data

## DeviceBus® for Phoenix Contact InterBus®-S



Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance*	
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m

**18 and 24 AWG** Stranded Tinned Copper Conductors • Overall Beldfoil® Shield (100% Coverage) + Tinned Copper Braid (90% Coverage)

PVC Insulation (Power) • PE Insulation (Data) • Green Polyurethane Jacket															
UL AWM Style 20233 (300V 80°C)	3119A	—	500	152.4	35.5	16.1	(3)18 AWG (7x26)	100% Overall Beldfoil + 90% TC Braid	Power: Red, Blue, Green w/ Yellow Stripe Data: Pink&Gray, White&Brown, Yellow&Green	.333	8.46	—	—	—	—
			1000	304.8	71.0	32.2				.060" TC 6.6Ω/M' 21.7Ω/km (3pr)24 AWG (7x32) .024" TC 23.4Ω/M' 76.8Ω/km	2.7Ω/M' 8.9Ω/km				



**24 AWG** Stranded Tinned Copper Conductors • Overall 100% Beldfoil Shield (100% Coverage) + Tinned Copper Braid (90% Coverage)

Polyethylene Insulation • Green Polyurethane Jacket															
UL AWM Style 20233 (300V 80°C)	3120A	—	500	152.4	26.0	11.8	(3pr)24 AWG (7x32)	100% Overall Beldfoil + 90% TC Braid	Pink&Gray, White&Brown, Yellow&Green	.277	7.04	100	66%	15.4	50.5
			1000	304.8	49.0	22.2				26.0Ω/M' 85.3Ω/km	2.7Ω/M' 8.9Ω/km				



DCR = DC Resistance • PE = Polyethylene • PVC = Polyvinyl Chloride • TC = Tinned Copper

\*Capacitance between one conductor and other conductors connected to shield.


InterBus-S is a Phoenix Contact trademark.



For more information, contact Belden Technical Support: 1-800-BELDEN-1 • www.belden.com


# Industrial Data Solutions® — Industrial Data

## EIA Industrial RS-485 PLTC/CM

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nom. Capacitance			
					Ft.	m	Lbs.	kg	Cond.	Shield	Inch	mm			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m
<b>22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • Overall Beldfoil® Shield (100% Coverage) + TC Braid (90% Coverage) • Drain Wire<sup>^</sup></b>																		
<b>Datalene® Insulation • Black UV Resistant PVC Jacket (CPE jacket optional)</b>																		
Oil Res II 300V 	<b>3105A<sup>†</sup></b>	NEC: CM PLTC	1	See Chart (below)	500	152.4	23.0	10.4	14.7Ω/M'	2.8Ω/M'	.284	7.21	120	78%	11.0	36.1	20.9	68.6
		CEC: CM FT1			1000	304.8	50.0	22.7	48.2Ω/km	9.2Ω/km	For CPE jacketed version order Part No. YR44345							
	<b>3106A</b>	NEC: CM PLTC	1.5 <sup>*</sup>	White/Orange, Orange/White, Blue/White	500	152.4	27.0	12.3	14.7Ω/M'	2.8Ω/M'	.300	7.62	120	78%	11.0	36.1	20.9	68.6
		CEC: CM FT1			1000	304.8	51.0	23.2	48.2Ω/km	9.2Ω/km	For CPE jacketed version order Part No. YR46721							
	<b>3107A<sup>†</sup></b>	NEC: CM PLTC	2	See Chart (below)	1000	304.8	69.0	31.3	14.7Ω/M'	1.8Ω/M'	.356	9.04	120	78%	11.0	36.1	20.9	68.6
		CEC: CM FT1			4000	1219.2	300.0	136.2	48.2Ω/km	5.9Ω/km	For CPE jacketed version order Part No. YR46792							
	<b>3108A</b>	NEC: CM PLTC	3	See Chart (below)	1000	304.8	93.0	42.2	14.7Ω/M'	1.5Ω/M'	.420	10.67	120	78%	11.0	36.1	20.9	68.6
		CEC: CM FT1			2000	609.6	184.0	83.5	48.2Ω/km	4.9Ω/km	For CPE jacketed version order Part No. YR45287							
	<b>3109A</b>	NEC: CM PLTC	4	See Chart (below)	1000	304.8	107.0	48.6	14.7Ω/M'	1.4Ω/M'	.420	10.67	120	78%	11.0	36.1	20.9	68.6
		CEC: CM FT1			2000	609.6	218.0	99.0	48.2Ω/km	4.6Ω/km	For CPE jacketed version order Part No. YR44768							

<sup>\*</sup>3015A and 3107A are DMX512 Type.

<sup>\*</sup>22 AWG stranded tinned copper drain wire.

<b>AL Interlocked Armor • Datalene® Insulation • PVC Inner Jacket • Black UV Resistant PVC Outer Jacket</b>																		
300V 	<b>123107A</b> <small>(NEW)</small>	NEC: CM PLTC	2	See Chart (below)	5000 <sup>††</sup>	1523.9	1140.0	514.1	14.7Ω/M'	1.8Ω/M'	.650	16.51	120	78%	11.0	36.1	20.9	68.6
		CEC: CMG FT4							48.2Ω/km	5.9Ω/km								

<sup>\*</sup>22 AWG stranded tinned copper drain wire.

DCR = DC Resistance • TC = Tinned Copper

\* Capacitance between conductors.

\*\*Capacitance between one conductor and other conductors connected to shield.

† Final put-up length may vary -0 to +10% from length shown.

†† Final put-up length may vary ±10% for spools or reels and ±5% for UnReel® cartons from length shown.

<sup>\*</sup>All conductors are under the braid shield; one pair is under the Beldfoil shield.

### Color Code Chart

Pair No.	Color Combination
1	White/Blue Stripe Blue/White Stripe
2	White/Orange Stripe Orange/White Stripe
3	White/Green Stripe Green/White Stripe
4	White/Brown Stripe Brown/White Stripe



# Industrial Data Solutions® — Interconnect Cable

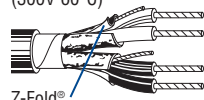
## Shielded Twisted Pair Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nom. Capacitance			
					Ft.	m	Lbs.	kg	Cond.	Shield	Inch	mm			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m

**24 AWG Stranded (7x32) TC Conductors • Twisted Pairs • Individually Beldfoil® Shielded (100% Coverage) • 24 AWG Stranded TC Drain Wire**

**Datalene® Insulation • Chrome PVC Jacket**

UL AWM Style 2493 (300V 60°C)	<b>9729</b>	NEC: CM CEC: CM	2	Red&Black, White&Black	100 500 1000 10000	30.5 152.4 304.8 3048.0	4.3 20.5 39.0 390.0	2.0 9.3 17.7 177.1	24.0Ω/M' 78.7Ω/km	15.0Ω/M' 49.3Ω/km	.266 6.76	100	76%	12.5	41.0	23.2	76.1
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Z-Fold®

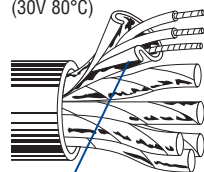
24 AWG stranded (7x32) tinned copper drain wire.

For Plenum version of 9729, see 89729 or 82729.

**22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • Individually Beldfoil Shielded (100% Coverage) • 22 AWG Stranded TC Drain Wire**

**Polypropylene Insulation • Chrome PVC Jacket**

UL AWM Style 2919 (30V 80°C)	<b>8777</b>	NEC: CM CEC: CM	3	Red&Black, White&Black, Green&Black	100 250 U-500 500 U-1000 1000 1640 3280 5000 10000	30.5 76.2 U-152.4 152.4 U-304.8 304.8 499.9 999.7 1524.0 3048.0	4.6 11.0 21.0 21.0 41.0 42.0 67.2 137.8 210.0 450.0	2.1 5.0 9.5 9.5 18.6 19.1 30.5 62.5 95.3 204.3	15.0Ω/M' 49.2Ω/km	10.6Ω/M' 34.8Ω/km	.273 6.93	50	66%	30	98	55	180
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Z-Fold®

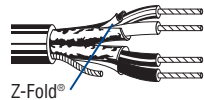
22 AWG stranded (19x34) tinned copper drain wire.

For Plenum versions of 8777, see 88777, 87777 or 82777.

**22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • Individually Beldfoil Shielded (100% Coverage) • 24 AWG Stranded TC Drain Wire**

**Polypropylene Insulation • Chrome PVC Jacket (Pairs Cabled on Common Axis to Reduce Diameter)**

300V RMS 60°C	<b>8723</b>	NEC: CM CEC: CM	2	Red&Black, Green&White	100 U-500 500 U-1000 1000 1640 U-2000 2000 3280 5000 10000	30.5 U-152.4 152.4 U-304.8 304.8 499.9 U-609.6 609.6 999.7 1524.0 3048.0	2.3 10.5 10.0 20.0 20.0 32.8 40.0 40.0 65.6 95.0 200.0	1.0 4.8 4.5 9.1 9.1 14.9 18.2 18.2 29.8 43.1 90.8	16.0Ω/M' 52.5Ω/km	14.7Ω/M' 48.3Ω/km	.168 4.27	45	66%	35	115	62	203
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Z-Fold®

24 AWG stranded (7x32) tinned copper drain wire.

For Plenum versions of 8723, see 88723, 87723 or 82723.

**Plenum • FEP Insulation • Red FEP Jacket (Pairs Cabled on Common Axis to Reduce Diameter)**

300V RMS, Non-conduit	<b>88723</b>	NEC: CMP CEC: CMP FT6	2	Red&Black, Green&White	100 500 1000	30.5 152.4 304.8	3.4 11.0 21.0	1.5 5.0 9.5	16.0Ω/M' 52.5Ω/km	14.7Ω/M' 48.3Ω/km	.148 3.76	40	69%	35	115	67	220
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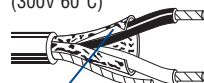
Z-Fold®

24 AWG stranded (7x32) tinned copper drain wire.

**18 AWG Stranded (16x30) TC Conductors • Twisted Pair • Overall Beldfoil Shield (100% Coverage) • 20 AWG Stranded TC Drain Wire**

**Polyethylene Insulation • Chrome PVC Jacket**

UL AWM Style 2092 (300V 60°C)	<b>8760</b>	NEC: CM CEC: CM	1	Black & Clear	250 U-500 500 U-1000 1000 2000 5000 10000	76.2 U-152.4 152.4 U-304.8 304.8 609.6 1524.0 3048.0	6.8 13.0 13.0 26.0 26.0 50.0 135.0 260.0	3.1 5.9 5.9 11.8 11.8 22.7 61.3 118.0	—	—	.222 5.64	—	—	24	79	44	144
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Shorting Fold

20 AWG stranded (7x28) tinned copper drain wire.

For Plenum versions of 8760, see 88760, 87760 or 82760.

DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • PVC = Polyvinyl Chloride • TC = Tinned Copper

\* Capacitance between conductors.

\*\* Capacitance between one conductor and other conductors connected to shield.