

Belden IndustrialTuff® Cables

Introduction

Tough Cables for Tough Environments

Today, more than ever, manufacturing productivity depends upon seamless data communication and automation systems. And both depend upon high-performance cabling solutions.

Depend on Belden

Belden has developed the world's most comprehensive line of industrial cabling solutions for applications like yours: whether you are networking your factory floor or your process equipment and devices to their controllers...and on to the control room, or relaying data between the control room, the engineering department, and remote manufacturing sites — or, all of the above. From your petrochemical, automotive manufacturing, pharmaceutical, power generation, pulp and paper, metals, food and beverage, or general manufacturing plant to your corporate headquarters — and everywhere in between — Belden has your cabling solution.

Most importantly you can have the peace-of-mind that is inherent with the use of Belden products since all Belden cables are manufactured in ISO 9001:2000 certified facilities to the industry's highest standards of quality, utilizing the most advanced equipment, systems, controls and processes available.

Belden cables give you the performance you need day after dependable day.

Innovative Technology

Bonded-Pairs

Many DataTuff® Industrial Ethernet cables feature Belden's patented bonded-pair technology. Bonded-pairs provide *Installable Performance*® — superior electrical performance even after the stresses of installation. Bonded-pairs exhibit the most robust and reliable electrical performance in the industry.

Shielding

The evolution of technology maintains steady demand for sophisticated cable shielding. Belden meets that demand with innovative shielding and shield effectiveness testing methods to supply you with high quality, dependable cable.

Belden's exclusive patented Beldfoil® design, with its aluminum/polyester foil, was the first shield to offer 100 percent cable protection against radiated emission and ingress at audio and radio frequencies.

Armoring

Belden's innovative armoring technology delivers maximum physical protection in harsh environments. Additional benefits include reduced cost of conduit, easier installation and re-routing, plus additional shielding.

Belden has the capability to protect data, electronic, instrumentation and control cables with interlocking steel or aluminum armor as well as continuous corrugated aluminum armor. Smooth or corrugated protective metal tapes are also available.

Insulation and Jacket

Belden formulates many of its own insulations and jacket compounds. As a result, they provide superior performance under a variety of hostile environmental conditions. See "Technical Information" at the back of this section for further details.

Intrinsically Safe Wiring

In accordance with NEC Article 504, intrinsically safe cables are colored blue for easy identification. Belden offers several industrial cables in intrinsically safe blue to meet your requirements for intrinsically safe wiring. Contact the NEC and/or your local inspector for specific guidelines.

Custom Capabilities

Most of our Industrial cables are available from stock. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find an Industrial cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1.

To Specify Part Number:

1	2	3456
Overall Jacket Type	Armor Type	Core Trade Number

Overall Jacket Type Armor Type

Code	Material	Code	Material
1	PVC	2	Aluminum Interlock
3	CPE	3	Steel Interlock
4	TPE	8	Continuous Corrugated Aluminum
5	HDPE		
6	Oil Res II		
7	Haloarrest®		

PLC/DCS Cable Cross Reference Guide

PLC/DCS Manufacturer	System Name	Belden Part Number
ABB/Bailey Controls	FOUNDATION Fieldbus	See Protocol listings on page 8.6
	Industrial IT 800 X A	9880 Network Trunk Cable
	Infinet	9880 Network Trunk Cable 9463 Blue Hose® (Standard)
	Masterpiece 200	9880 Network Trunk Cable 9907 Thin Network Trunk Cable
	MICRO-DCI	3105A 1-Pair, RS-485
	MICROLINK	9860 Twinax, 16 AWG, 124 Ohm
	Modcell	3105A 1-Pair, RS-485
	Profibus DP & PA	See Protocol listings on page 8.6
Allen-Bradley/ Rockwell Automation	ControlNet™	See Protocol listings on page 8.6
	DeviceNet™	See Protocol listings on page 8.6
	DH, DH+, Remote I/O	9463 Blue Hose (Standard) 9463F Flexible Version (9463) 129463 Aluminum Armor (9463) 139463 Steel Armor (9463) 189463 Continuous Armor (9463) YR28826 Dual Version (9463) YC39151 Dual Armored (9463) 9463DB Direct Burial (9463) YR29565 Various Color Jackets (9463) 3072F 600V TC Rated (9463) YR41104 Low Smoke, Halogen Free YR28764 Super Thick (PLTC) 89463 FEP 200°C, Plenum
	DH-485	3074F 600V Tray Cable 3106A 1.5-Pair, RS-485 (PLTC) 9842 2-Pair, RS-485 YM39500 Flexible Version (3106A)
	Industrial Ethernet	See Protocol listings on page 8.6
	Longline Communications	8723 Interface Cable 88723 Plenum Version
	IMPACC System	YR29090 Proprietary Trunk Cable
	I/Q System	9463 Blue Hose (Standard)
	DeviceNet	See Protocol listings on page 8.6
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 8.6
	HART	See Protocol listings on page 8.6
	Industrial Ethernet	See Protocol listings on page 8.6
	Modbus	See Protocol listings on page 8.6
	Profibus DP	See Protocol listings on page 8.6
	Provox Plus	3091A RG-11 Quad Shield PVC 3131A RG-6 Quad Shield PVC
	RS-485	See Protocol listings on page 8.6
	DeviceNet	See Protocol listings on page 8.6
	Genius	YR29841 PLTC Version
	9030, 9070 PAC System	9182 Communications Bus 89182 Plenum Version
	Interbus®-S	See Protocol listings on page 8.6
	Modbus®	See Protocol listings on page 8.6
	Profibus	See Protocol listings on page 8.6

PLC/DCS Manufacturer	System Name	Belden Part Number
GE Fanuc — Sensor Device Networks	DeviceNet	See Protocol listings on page 8.6
	SDS	See Protocol listings on page 8.6
Honeywell	Access 4000 System	9248 RG-6 PVC
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 8.6
	IPC 620 System I/O	9271 Twinax, 25 AWG, 124 Ohm
	IPC 620 System	9729 Up to 4,000 ft.
	Serial Interface	9182 Up to 10,000 ft. 89182 Plenum
	Series C	RS-485 Foundation Fieldbus Industrial Ethernet
	3000 UCN & LCN	3131A RG-6 Quad Shield PVC 3094A RG-11 Quad Shield PVC
Honeywell Microswitch Division	Smart Distributed System	3086A Mini 3087A Micro
Invensys/ Foxboro	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 8.6
	I/A Series Carrier Band	8233 Small Trunk 3095A Plenum 9290 Drop Cable
	I/A Series Fieldbus	9207 Twinax 89207 200°C, Plenum 3073F 600V Tray Cable
	I/A Series Node Bus	9880 Trunk Cable 89880 Plenum Version
	Industrial Ethernet	See Protocol listings on page 8.6
	DCC100	3105A Actuator Bus Cable, 1-Pair, RS-485
Limitorque		
Matsushita	FP Series C-NET	9207 Twinax, 20 AWG, Stranded, 100 Ohm 9860 Twinax, 16 AWG, Solid, 124 Ohm
	FP Series MEWNET-F	9207 Twinax, 20 AWG, Stranded, 100 Ohm 9860 Twinax, 16 AWG, Solid, 124 Ohm
	FP Series MEWNET-H	9248 RG-6, 75 Ohm, 18 AWG
	FP Series MEWNET-TR	9207 Twinax, 20 AWG, Stranded, 100 Ohm 9860 Twinax, 16 AWG, Solid, 124 Ohm
	FP Series MEWNET-W	9207 Twinax, 20 AWG, Stranded, 100 Ohm 9806 4-Pair, RS-232, RS-422
	FP Series MEWNET-W2	9207 Twinax, 20 AWG, Stranded, 100 Ohm 9860 Twinax, 16 AWG, Solid, 124 Ohm
	FP Series TRNET	9207 Twinax, 20 AWG, Stranded, 100 Ohm 9860 Twinax, 16 AWG, Solid, 124 Ohm

FEP = Fluorinated Ethylene-propylene

PLC/DCS Cable Cross Reference Guide *(continued)*

PLC/DCS Manufacturer	System Name	Belden Part Number
Mitsubishi Electric Automation	CC-Link	See Protocol listings on page 8.6
	DeviceNet	See Protocol listings on page 8.6
	Melsecnet II (10/10H)	1505A Precision RG-59/U Coax
		1505F High-Flex 1505A
		1506A Plenum Precision RG-59/U, Outdoor, Direct Burial
		8241 Standard RG-59/U Coax
		8241F High-Flex 8241F
	Modbus	See Protocol listings on page 8.6
	Profibus DP	See Protocol listings on page 8.6
	Serial Communications	8777 Control and Instrumentation Interconnect Cable
Modicon/Schneider AEG	Industrial Ethernet	See Protocol listings on page 8.6
	Modbus	8777 Modem Drop Cable, 22 AWG, 3-Pair
		128777 Aluminum Armor (8777)
		138777 Steel Armor (8777)
		88777 FEP 200°C, Plenum
	Modbus II	3092A RG-6 Quad Shield PVC
		3132A RG-6 Quad Shield, 150°C, Plenum
		3092F RG-6 Quad Shield PVC, Flexible Version
		123092A Aluminum Armor (3092A)
		133092A Steel Armor (3092A)
	Modbus Plus	YM29560 24 AWG, 1-Pair, RS-485
		YC39000 Aluminum Armor (YM29560)
		YC39222 Steel Armor (YM29560)
		YQ29258 24 AWG, 1-Pair, 150°C, Plenum
	Remote I/O	3092A RG-6 Quad Shield PVC
		3092F RG-6 Quad Shield PVC, Flexible Version
		123092A Aluminum Armor (3092A)
		133092A Steel Armor (3092A)
		123092F Aluminum Armor, RG-6 Quad Shield PVC
		3132A RG-6 Quad Shield, 150°C, Plenum
		3094A RG-11 Quad Shield PVC
		123094A Aluminum Armor (3094A)
		133094A Steel Armor (3094A)
		3095A RG-11 Quad Shield, 150°C, Plenum
Omron	ComboBus/D (DeviceNet™)	See DeviceNet Protocol listings on page 8.6
	ComboBus/S	9409 18 AWG, 1-Pair, 300V PLTC Control
		9318 18 AWG, 1-Pair, 300V PLTC Control, Shielded
		3073 600V Tray Cable, Twinax
		89740 18 AWG, 1-Pair, 300V, Control

PLC/DCS Manufacturer	System Name	Belden Part Number
Omron <i>(continued)</i>	Controller Link	9207 Twinax
		89207 Twinax, 200°C, Plenum
		9815 Twinax, 100 Ohm, Direct Burial
		3073F 600V Tray Cable, Twinax
	SYSBUS-2	3073F 600V Tray Cable, Twinax
	SYSMAC BUS	9841 22 AWG, 1-Pair, RS-485
		3105A 22 AWG, 1-Pair, RS-485
	SYSMAC LINK	9231 RG-59U Coax
Phoenix Contact	DeviceNet	See Protocol listings on page 8.6
	Industrial Ethernet	See Protocol listings on page 8.6
	Interbus®-S	See Protocol listings on page 8.6
	Profibus DP FMS & PA	See Protocol listings on page 8.6
Reliance/A-B	Auto Max Distributed Power	M98021 2-Fiber Breakout
		I100255 2-Fiber Loose Tube PVC
		I100266 2-Fiber Loose Tube CPE
	R-Net	9259 RG-59 PVC
		89259 RG-59, 200°C, Plenum
Rotork Siemens/Moore	Pakscan II E RS-485	3105A 22 AWG, 1-Pair, RS-485
	FMC (Field Mountable Controller)	3105A 1-Pair, RS-485
		3106A 1.5-Pair, RS-485
		3107A 2-Pair, RS-485
		3108A 3-Pair, RS-485
		3109A 4-Pair, RS-485
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 8.6
	Hiway	9860 Network Trunk Cable
	Industrial Ethernet	See Protocol listings on page 8.6
	MODULNET	3094A RG-11 Quad Shield PVC
		3131A RG-6 Quad Shield PVC
	Profibus DP & FMS (Purple)	See Protocol listings on page 8.6
	Profibus PA (Blue)	See Protocol listings on page 8.6
	SINEC Series H1	9907 Thin Network Trunk Cable
		9880 Network Trunk Cable
	SINEC Series H2B	3131A RG-6 Quad Shield
		3094A RG-11 Quad Shield
	SINEC Series L1	3107A 2-Pair, RS-485
	SINEC Series L2	3079A 300V Twinax
	Thicknet Ethernet Trunk	9880 Network Trunk Cable
		129880 Aluminum Interlocked Armor Trunk
		139880 Steel Interlocked Armor Trunk
	Thinnet Ethernet Trunk	9907 Thin Network Trunk Cable

FEP = Fluorinated Ethylene-propylene

PLC/DCS Cable Cross Reference Guide (continued)

PLC/DCS Manufacturer	System Name	Belden Part Number
Smar	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 8.6
	Industrial Ethernet	See Protocol listings on page 8.6
	Profibus DP FMS & PA	See Protocol listings on page 8.6
	RS-485	See Protocol listings on page 8.6
Square D/ Schneider AEG	FIP/Fieldbus	3079A 22 AWG, 1-Pair, Shielded 123079A Aluminum Armor (3079A)
	Industrial Ethernet	See Protocol listings on page 8.6
	Model 50, RS-422 Cable	8760 18 AWG, 1-Pair, Shielded 128760 Aluminum Armor (8760)
	Passport I/O – I/O Net	3105A 22 AWG, 1-Pair, RS-485 123105A Aluminum Armor (3105A) 3106A 22 AWG, 1.5-Pair, RS-485 123106A Aluminum Armor (3106A)
	Power Logic	9841 24 AWG, 1-Pair, RS-485 9842 24 AWG, 2-Pair, RS-485
	Seriplex®	3124A CBL-1822-P20
		3125A CBL-1622-P16
		3126A CBL-162212-P16
		123124A Aluminum Armor (3124A)
		123125A Aluminum Armor (3125A)
		123126A Aluminum Armor (3126A)
		9463 Blue Hose® (Standard)
		9463F Flexible Version (9463)
		129463 Aluminum Armor (9463)
		139463 Steel Armor (9463)
		189463 Continuous Armor (9463)
		YR28826 Dual Version (9463)
		9463DB Direct Burial (9463)
		YR29565 Various Color Jackets 9463)
	SY/Net Network Trunk Cable	3072F 600V TC Rated (9463)
		YR41194 Low-Smoke, Halogen-Free
		YR28764 Super Thick (PLTC)
	SY/Net TNIM Cable	89463 FEP 200°C, Plenum
		9272 20 AWG, 1-Pair, Shielded 89272 FEP 200°C, Plenum

PLC/DCS Manufacturer	System Name	Belden Part Number
Yokogawa — CENTUM	DeviceNet™	See Protocol listings on page 8.6
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 8.6
	HART	See Protocol listings on page 8.6
	Industrial Ethernet	See Protocol listings on page 8.6
	Profibus	See Protocol listings on page 8.6
	RS-485	See Protocol listings on page 8.6
Yokogawa — FA-M3	DeviceNet	See Protocol listings on page 8.6
	Industrial Ethernet	See Protocol listings on page 8.6
	Modbus	See Protocol listings on page 8.6
	Profibus	See Protocol listings on page 8.6
	RS-485	See Protocol listings on page 8.6
Yokogawa — STARDOM	DeviceNet	See Protocol listings on page 8.6
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 8.6
	HART	See Protocol listings on page 8.6
	Industrial Ethernet	See Protocol listings on page 8.6
	Profibus	See Protocol listings on page 8.6
	RS-485	See Protocol listings on page 8.6
Westinghouse	WDPF	9292 RG-11 PVC

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ControlNet is a ControlNet International, Ltd. trademark.

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

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InterBus is a Phoenix Contact trademark.

Modbus is a Modicon, Inc. trademark.

PROFIBUS is a PROFIBUS International trademark.

PROFINET is a PROFIBUS International trademark.

SDS is a Honeywell International, Inc. trademark.

Seriplex is a Square D/Schneider AEG trademark.

Industrial Communications Protocol Cross Reference

System Name	Belden Part Number
Can Open/HART/ RS-485	3105A 1-Pair, RS-485 (PLTC)
	3106A 1.5-Pair, RS-485 (PLTC)
	3107A 2-Pair, RS-485 (PLTC)
CC-Link	YR47198 20 AWG/3c, Foil + Braid Shield
	YR47205 20 AWG/3c Shielded + 18 AWG/2c Power
ControlNet™	3092A RG-6 PVC Quad Shield
	3092F RG-6 PVC Quad Shield, Flex Version, Aluminum Braid
	YR28890 RG-6 PVC Quad Shield, Flex Version, Copper Braid
	3093A RG-6 FEP Quad Shield, Plenum
	123092A Aluminum Armor (3092A)
	133092A Steel Armor (3092A)
	183092A Continuous Armor (3092A)
DataHighway (DH) & DataHighway Plus (DH+) Remote I/O	9463 20 AWG Twinax, Blue Hose
	3072F 600V, TC Blue Hose
	9463DB Direct Burial Blue Hose
	9463F High-Flex, Blue Hose
	89463 High-Temp, Plenum Blue Hose
	129463 Aluminum Armor (9463)
	139463 Steel Armor (9463)
	189463 Continuous Armor (9463)
	YR28826 Dual Blue Hose
	YC39151 Dual Armored Blue Hose
	YR28764 Thick Wall PLTC Blue Hose
	YR29565 Colored Blue Hose
	YR41104 Low-Smoke, Zero-Halogen Blue Hose
DeviceNet™	3082A PVC (Thick)
	3082F High-Flex (Thick)
	3082K CL2 (Flat)
	3082KP Auxiliary Power (Flat)
	3083A CPE (Thick)
	3084A PVC (Thin)
	3084F High-Flex (Thin)
	3085A CPE (Thin)
	7895A CL2 PVC (Cable III Mid)
	7896A CL1 PVC (Type V Trunk Cable)
	7897A CL1 PVC (Thick)
	7900A CL1 Unshielded (Drop Cable IV)
FOUNDATION Fieldbus (Type SP50 ISA/IEC)	3076F Type A, H1 1900m (31.25K)
	3077F Type B, H1 1200m (31.25K)
	HSE Copper & Fiber (see <i>Cables for Industrial Ethernet</i> , pg. 18.6)
Hart/RS-485/ Can Open	3105A 1-Pair, RS-485 (PLTC)
	3106A 1.5-Pair, RS-485 (PLTC)
	3107A 2-Pair, RS-485 (PLTC)
Industrial Ethernet	7932A Cat 5e, 2-Pair, Bonded
	7933A Cat 5e, 2-Pair, Bonded, Shielded
	7918A Cat 5e, 4-Pair
	7924A Cat 5e, 4-Pair, Bonded, Flexible
	7930A Cat 5e, 4-Pair, Flexible
	7922A Cat 5e, 4-Pair, Bonded, PLTC
	7934A Cat 5e, 4-Pair, Bonded, Burial

System Name	Belden Part Number
Industrial Ethernet (continued)	11700A Cat 5e, 4-Pair, Bonded, Upjacketed
	11700A2 Cat 5e, 4-Pair, Bonded, Upjacketed, Oil Res II
	121700A Cat 5e, 4-Pair, Bonded, Armored
	7919A Cat 5e, 4-Pair, Shielded
	7921A Cat 5e, 4-Pair, Bonded, Shielded (Foil + Braid)
	7927A Cat 6, 4-Pair, Bonded
	7931A Cat 6, 4-Pair, Bonded, Gas Res, High + Low Temperature
	11872A Cat 6, 4-Pair, Bonded, Upjacketed
	121872A Cat 6, 4-Pair, Bonded, Armored
Interbus®-S	3119A 18 AWG/3c, 24 AWG/3-Pair, Composite
	3120A 24 AWG/3-Pair
IronWorks®	8471 16 AWG, 1-Pair, UL AWM 2598
	8917 16 AWG, 1-Cond, UL AWM 1015
	85102 16 AWG, 2-Cond, VW1, Plenum
Modbus	8777 22 AWG, 3-Pair, Modem Drop Cable
	128777 Aluminum Armor (8777)
	138777 Steel Armor (8777)
	88777 FEP 200°C, Plenum (8777)
Profibus DP & FMS (Purple)	3079A 22 AWG 300V Twinax
	3079E 22 AWG 300V Twinax, Flex Version
Profibus PA (Blue)	3076F 18 AWG, 2-Conductors, Type A
RS-485/HART/ Can Open	9841 1-Pair
	82841 1-Pair, Plenum
	89841 1-Pair, Plenum, High-Temperature
	9842 2-Pair
	82842 2-Pair, Plenum
	9843 3-Pair
	9844 4-Pair
	7200A 1-Pair, RS-485, Hi-Flex
	7201A 2-Pair, RS-485, Hi-Flex
	7202A 3-Pair, RS-485, Hi-Flex
	7203A 4-Pair, RS-485, Hi-Flex
	7206A 1-Pair, RS-485, Hi-Flex
	3105A 1-Pair, RS-485 (PLTC)
Seriplex®	3106A 1.5-Pair, RS-485 (PLTC)
	3107A 2-Pair, RS-485 (PLTC)
	3108A 3 Pair, RS-485 (PLTC)
	3109A 4 Pair, RS-485 (PLTC)
	3124A 1-Pair 18 AWG, 1-Pair 22 AWG
Smart Distributed System (SDS)	3125A 1-Pair 16 AWG, 1-Pair 22 AWG
	3126A 1-Pair 16 AWG, 1-Pair 22 AWG, 1-Pair 12 AWG
	123124A Aluminum Armor (3124A)
	123125A Aluminum Armor (3125A)
	123126A Aluminum Armor (3126A)
Smart Distributed System (SDS)	3086A 1-Pair 16 AWG, 1-Pair 20 AWG
	3087A 2-Pairs 22 AWG

FEP = Fluorinated Ethylene-propylene

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	Under-ground (burial)	Gasoline Resistance	Hi/Lo Temp	Heavy	Upjacket	Armored
Category 5e Cable																
7932A EtherNet/IP	2	●		●		●	20	●	●					●		
7933A EtherNet/IP	2		●	●		●	20	●	●					●		
7923A EtherNet/IP	4	●		●		●	40	●	●	●				●		
7918A	4	●		●			35	●	●	●				●		
7924A	4	●			●	●	40	●	●	●				●		
7930A	4	●			●		25	●	●	●				●		
7922A PLTC	4	●		●		●	40	●	●	●				●		
7934A EtherNet/IP	4	●		●		●	40		●		●			●		
7928A EtherNet/IP	4	●		●		●	40	●	●			●	●	●		
11700A EtherNet/IP	4	●		●		●	40	●	●	●					●	
11700A2 Oil Res I&II	4	●		●		●	40	●	●						●	
121700A	4	●		●		●	40	●	●							●
121700R	4	●		●		●	40	●	●							●
7929A	4		●	●		●	35	●	●	●				●		
7919A	4		●	●			25	●	●	●				●		
7921A EtherNet/IP	4		●	●		●	75	●	●	●				●		
Category 6 Cable																
7927A	4	●		●		●	45	●	●					●		
7931A	4	●		●		●	40	●	●			●	●	●		
11872A	4	●		●		●	45								●	
121872A	4	●		●		●	45	●	●							●

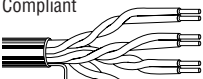
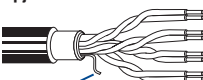
*Shielded products are recommended for high-noise environments. **Stranded products are recommended where more flexibility is needed.

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

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

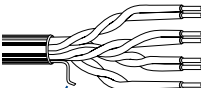
Industrial Data Solutions® — Industrial Ethernet

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

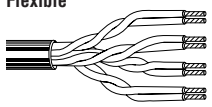
Description	Part No.	UL NEC/ (UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)	
				Ft.	m	Lbs.	kg	Inch	mm								
Enhanced Cat 5e • 24 AWG 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)																	
 Rip Cord	EtherNet/IP Compliant	7932A <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																	
 Rip Cord	EtherNet/IP Compliant	7923A	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																	
 Rip Cord	EtherNet/IP Compliant Halogen-Free Burial	7934A <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																	
 Rip Cord	EtherNet/IP Compliant High & Low Temp Oil Res I & II Gas Res	7928A	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 • Jacket sequentially marked at 2 ft. intervals 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)																	
 Rip Cord	EtherNet/IP Compliant Upjacketed	11700A	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*																	
 Rip Cord	Oil Res I & II Upjacketed	11700A2 <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																	

Industrial Data Solutions® — Industrial Ethernet

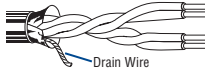
Category 5e DataTuff® Twisted Pair Cables, 2-Pair and 4-Pair
Heavy-Duty Sunlight and Oil-Resistant Jackets

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																
 Rip Cord	7922A new	NEC:	4	1000	304.8	46.3	21.0	.301	7.65	1	2.0	65.3	63.3	60.8	100±12	20.0
		PLTC,		2000	609.6	92.5	42.0			4	4.0	56.3	52.3	48.7	100±12	23.0
		CMR,								8	5.7	51.8	46.1	42.7	100±12	24.5
		CMX-								10	6.4	50.3	43.9	40.8	100±12	25.0
		Outdoor								16	8.1	47.3	39.1	36.7	100±12	25.0
		CEC:								25	10.3	44.3	34.1	32.8	100±15	24.3
		CMR FT4								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
Cable passes -25°C Cold Bend per UL1581 • Installation Temperature: -10°C to +75°C • Operating Temperature: -25°C to +75°C**										250	36.4	29.3	—	12.8	100±20	18.0
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										350	44.3	27.2	—	9.9	100±22	17.0

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:	4	1000	304.8	30.0	13.6	.242	6.15	1	2.4	65.3	62.9	60.8	100±12	20.0
		CMR,		2000 †	609.6	58.0	26.3			4	4.8	56.3	51.5	48.7	100±12	23.6
		CMX-								8	6.8	51.8	45.0	42.7	100±12	25.4
		Outdoor								10	7.7	50.3	42.6	40.8	100±12	26.0
		CEC:								16	9.7	47.3	37.5	36.7	100±12	26.0
		CMR FT4								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
†2000 ft. put-up available in Black only. • RJ-45 Compatible • Jacket sequentially marked at 2 ft. intervals										250	43.7	29.3	—	12.8	100±20	18.0
Cable passes -40°C Cold Bend per UL1581 • Installation Temperature: -25°C to +75°C • Operating Temperature: -40°C to +75°C**										350	53.2	27.2	—	9.9	100±22	17.0
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  Drain Wire	7933A new	NEC:	2	1000	304.8	32.0	14.5	.227	5.77	1	2.0	62.3	60.3	60.8	100±15	20.0
		CMR		2000 ▲	609.6	64.8	29.4			4	4.1	53.3	49.2	48.7	100±15	23.6
		CEC:								10	6.5	47.3	40.8	40.8	100±15	26.0
		CMR FT4								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  Drain Wire	7929A	NEC:	4	1000	304.8	37.0	16.8	.265	6.73	1	2.0	62.3	60.3	60.8	100±15	20.0
		CMR,		2000 ▲	609.6	72.0	32.7			4	4.1	53.3	49.2	48.7	100±15	23.0
		CMX-								10	6.5	47.3	40.8	40.8	100±15	25.0
		Outdoor								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
		CEC:								62.5	17.0	35.4	18.4	24.8	100±15	21.5
		CMR FT4								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  Drain Wire	7921A	NEC:	4	1000	304.8	55.0	24.9	.330	8.38	1	2.0	62.3	60.3	60.8	100±15	20.0
		CMR,		2000 ▲	609.6	106.0	48.1			4	4.1	53.3	49.2	48.7	100±15	23.6
		CMX-								10	6.5	47.3	40.8	40.8	100±15	26.0
		Outdoor								16	8.2	44.3	36.1	36.7	100±15	26.0
		CEC:								31.25	11.7	39.9	28.2	30.9	100±15	25.0
		CMR FT4								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.

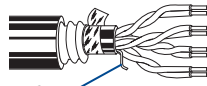
Industrial Data Solutions® — Industrial Ethernet

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	1000	304.8	159.0	72.0	.530	13.46	1	2.0	65.3	63.3	60.8	100±12	20.0
					3000 †	914.4	459.0	210.6			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

†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

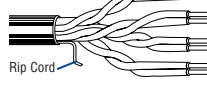
AL Interlocked Armor • Polyolefin Insulation • PVC Inner Jacket • .045" Industrial Grade PVC Outer Jacket (Black or Blue)

	Interlocked AL Armor -40°C Cold Impact	121700R	NEC: CM CEC: HL CMG FT4	4	1000	304.8	159.0	72.0	.530	13.46	(Same as above)					
					3000	914.4	459.0	210.6								
					5000 †	1524.0	690.0	313.0								

†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

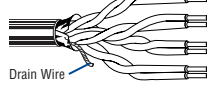
Cat 5e • 24 AWG Solid Bare Copper Conductors • Twisted Pairs • Rip Cord • See Color Code Chart (below)**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant PVC Jacket** (Black or Blue)

	7918A	NEC: CMR, CMX-Outdoor CEC: CMR FT4	4	1000	304.8	28.0	12.7	.230	5.84	1	2.0	62.3	60.3	60.8	100±15	20.0
				2000 ††	609.6	52.0	23.6			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 • 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

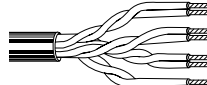
Cat 5e • 24 AWG Solid BC • Twisted Pairs • Overall Beldfoil® Shield (100% Coverage) • 24 AWG Stranded TC Drain Wire • See Color Code Chart**Polyolefin Insulation • .030" Industrial Grade Sunlight- and Oil-resistant PVC Jacket** (Black or Blue)

	7919A	NEC: CMR, CMX-Outdoor CEC: CMR FT4	4	1000	304.8	35.0	15.9	.265	6.73	1	2.0	62.3	60.3	60.8	100±15	20.0
				2000 †	609.6	68.0	30.9			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 • 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**

	7930A	NEC: CMR, CMX-Outdoor CEC: CMR FT4	4	1000	304.8	29.0	13.2	.240	6.09	1	2.5	62.3	59.8	60.8	100±15	20.0
				2000	609.6	56.0	25.4			4	4.9	53.3	48.4	48.7	100±15	23.0
										10	7.8	47.3	39.5	40.8	100±15	25.0
										16	9.9	44.3	34.4	36.7	100±15	25.0
										31.25	14.1	39.9	25.8	30.9	100±15	23.6
										62.5	20.4	35.4	15.0	24.8	100±15	21.5
										100	26.4	32.3	5.9	20.8	100±15	20.1
										200	38.9	27.8	—	14.7	100±25	15.0

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

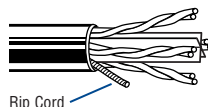
Industrial Data Solutions® — Industrial Ethernet

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**

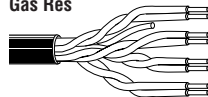
	7927A	NEC: CMR CEC: CMR FT4	4	1000	304.8	44.0	20.0	.251	6.38	1	1.9	80.3	78.5	70.8	100±12	20.0
				2000	609.6	88.0	39.9	x	x	10	5.7	65.3	59.6	50.8	100±12	25.0
								.339	8.61	31.25	10.2	57.9	47.7	40.9	100±15	25.0
										62.5	14.7	53.4	38.7	34.9	100±15	25.0
										100	18.9	50.3	31.4	30.8	100±15	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**

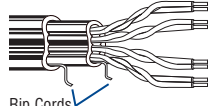
	7931A	NEC: Limited Combustible FHC 25/50 CMP CEC: CMP FT6	4	1000	304.8	35.0	15.9	.214	5.44	1	2.0	72.3	70.3	64.8	100±15	20.0
										10	6.0	57.3	51.3	44.8	100±15	25.0
										20	8.5	52.8	44.3	38.7	100±15	25.0
										31.25	10.7	49.9	39.2	34.9	100±15	23.6
										62.5	15.4	45.4	30.0	28.8	100±15	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)**

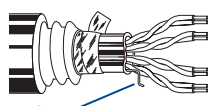
	11872A	NEC: CM CEC: CM FT1	4	1000	304.8	66.0	30.0	.475	12.07	1	1.9	72.3	70	64.8	100±12	20.0
								x	x	4	3.7	63.3	59	52.7	100±12	23.0
								.265	6.73	10	5.9	57.3	51	44.8	100±12	25.0
										16	7.5	54.3	46	40.7	100±12	25.0
										31.25	10.6	49.9	39	34.9	100±15	23.6
										62.5	15.4	45.4	30	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
										350	39.8	34.2	—	13.9	100±22	17.0
										400†	43.0	33.3	—	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)**

	121872A	NEC: CM CEC: HL 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
										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
										350	39.8	34.2	—	13.9	100±22	17.0
										400†	43.0	33.3	—	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.

Jacket Material	PVC or CPE
Strength Member	Aramid Yarn
Jacket Color	Orange

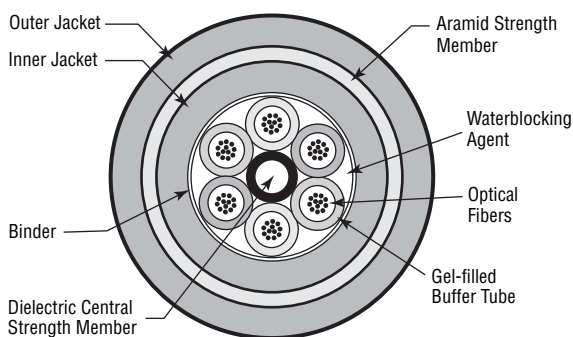
Ratings

Riser	
UL Type	OFNR
cUL Type	OFN FT4
Flame Resistance	IEEE 383-2003

Specifications

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

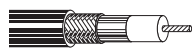
Industrial Data Solutions® — Industrial Ethernet

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

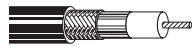
Thinnet 10Base2 Ethernet • 20 AWG Stranded (19x32) .037" TC Conductor • Duobond® II (100% Coverage) + TC Braid (93% Coverage)

Foam Polyethylene Insulation • Gray PVC Jacket

	9907	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
		CL2	U-1000	U-304.8	25.0	11.4	(19x32)			+ 93%							10	1.30	4.3
		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

Plenum • Foam FEP Insulation • Gray Fluorocopolymer Jacket

	89907	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

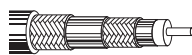
RG-58/U Type

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)

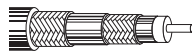
Foam Polyethylene Insulation • Yellow PVC Jacket

	9880	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
		CL2	1000	304.8	131.0	59.5	(solid)			(Duobond II							5	.37	1.21
		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.

Plenum • Foam FEP Insulation • Orange Fluorocopolymer Jacket

	89880	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	Blue Hose Standard Data Highway Cable 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	600V Data Highway Cable — UL Type TC 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	High-Flex Cable 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*	Dual Blue Hose Cable 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*	Dual Armored Data Highway Cable 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	Gel-Filled Direct Burial Cable 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	Plenum Cable 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*	Thick-Wall, Heavy-Duty Cable — UL Type PLTC 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*	Low Smoke, Zero Halogen Cable 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	Aluminum Interlocked Armor Blue Hose Cable 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	Steel Interlocked Armor Blue Hose Cable 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	Continuously Corrugated Aluminum Armor Blue Hose Cable 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*	Colored Blue Hose 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.

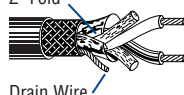
Industrial Data Solutions® — Industrial Twinax

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)

Blue Hose UL AWM Style 2464 (300V 80°C) Z- Fold® 	9463	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
		CM CL2	U-500	U-152.4	18.5	8.4	(7x28)			+55%							10	2.1	6.9
		CEC:	500	152.4	18.5	8.4	.038"			TC Braid							50	5.0	16.4
		CM	U-1000	U-304.8	37.0	16.8	Tinned			4.1Ω/M'							100	7.5	24.6
			1000*	304.8	37.0	16.8	Copper			13.4Ω/km							200	11.0	36.1
			6000*†	1828.8	222.0	100.9	9.5Ω/M'										400	16.0	52.5

10000*† 3048.0 370.0 168.0 31.0Ω/km

CPE jacket optional.

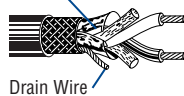
Allen-Bradley P/N 1770-CD • P-7K-SC-182141-MSHA*

*1000 ft. and 6000 ft. put-ups also available in Brown, Orange or Purple.

†10000 ft. put-up available in Brown or Orange only.

†Final put-up length may vary ±10% from length shown.)

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

Flooded Direct Burial Blue Hose 300V 80°C Z- Fold® 	9463DB	—	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
			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)

High-Flex Blue Hose UL AWM Style 2464 (300V 60°C) Z- Fold® 	9463F	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
		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)

High Temperature Blue Hose 300V 200°C Z- Fold® 	89463	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
		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

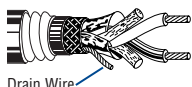
Blue Hose® and Other Twinaxial Cables

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)

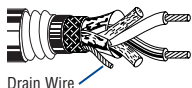
Aluminum Armored Blue Hose 300V 60°C	129463	NEC:	1000†	304.8	122.0	55.5	20 AWG	.154	3.91	Beldfoil	Inner Jacket:	78	66%	19.7	64.6	1	.6	2.0
		CM CL2	6000†	1828.8	924.0	420.0	(7x28)			+55%	.238	6.05				10	2.1	6.9
		CEC:					.038"			TC Braid						50	5.0	16.4
		CM,					Tinned			4.1Ω/M'	Overall:					100	7.5	24.6
		CMG FT4, HLBCD (Haz Loc)					Copper			13.4Ω/km	.563	14.30				200	11.0	36.1
							9.5Ω/M'									400	16.0	52.5
							31.0Ω/km											



*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)

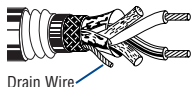
Steel Armored Blue Hose 300V 60°C	139463	NEC:	1000†	304.8	220.0	100.0	20 AWG	.154	3.91	Beldfoil	Inner Jacket:	78	66%	19.7	64.6	1	.6	2.0
		CM CL2	6000†	1828.8	1488.0	676.4	(7x28)			+55%	.238	6.05				10	2.1	6.9
		CEC:					.038"			TC Braid						50	5.0	16.4
		CM,					Tinned			4.1Ω/M'	Overall:					100	7.5	24.6
		CMG FT4, HLBCD (haz loc)					Copper			13.4Ω/km	.563	14.30				200	11.0	36.1
							9.5Ω/M'									400	16.0	52.5
							31.0Ω/km											



*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)

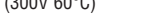
Continuously Armored Blue Hose 300V 60°C	189463	NEC:	2000†	609.6	258.0	117.1	20 AWG	.154	3.91	Beldfoil	Inner Jacket:	78	66%	19.7	64.6	1	.6	2.0
		PLTC					(7x28)			+55%	.238	6.05				10	2.1	6.9
							.038"			TC Braid						50	5.0	16.4
							Tinned			4.1Ω/M'	Overall:					100	7.5	24.6
							Copper			13.4Ω/km	.500	12.70				200	11.0	36.1
							9.5Ω/M'									400	16.0	52.5
							31.0Ω/km											



*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)

UL AWM Style 2092 (300V 60°C) 	9272	NEC:	100	30.5	4.5	2.0	20 AWG	.156	3.96	93%	.244	6.20	78	66%	19.7	64.6	1	.6	2.0
		CM	U-500	U-152.4	20.5	9.3	(7x28)			TC Braid							10	2.1	6.9
		CEC:	500	152.4	20.0	9.1	.038"			Shield							50	5.0	16.4
		CM	U-1000	U-304.8	41.0	18.6	Tinned			3.4Ω/M'	For Plenum version of 9272, see 89272. CPE jacket optional.					100	7.5	24.6	
			1000	304.8	40.0	18.2	Copper			11.2Ω/km						200	11.0	36.1	
							9.5Ω/M'										400	16.0	52.5
							31.0Ω/km												



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

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



††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	9207	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	9271	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
							31.8Ω/M'										400	9.6	31.5
							104.3Ω/km												

Shorting Fold



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	9860	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	9182	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)

	89182	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 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)

Foam Polyethylene Insulation • PVC Jacket (Black or Intrinsically Safe Blue)

	3092A	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

Sweep tested 5 MHz to 50 MHz.
CPE jacket optional.

Allen-Bradley P/N 1786

Plenum • Foam FEP Insulation • Fluorocopolymer Jacket (Black or Intrinsically Safe Blue*)

	3093A	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
		CMG 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

Sweep tested 5 MHz to 50 MHz.

*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)

Foam Polyethylene Insulation • Black PVC Jacket

	3092F	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

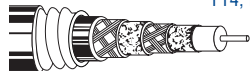
123092F — Aluminum Armor
133092F — Steel Armor

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)

Aluminum Interlocked Armor • Foam Polyethylene Insulation • PVC Inner Jacket • Black PVC Sunlight Resistant Outer Jacket

	123092A new	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
		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

Sweep tested 5 MHz to 50 MHz.

CPE jacket optional.

133092A — Steel Armor

Allen-Bradley P/N 1786

Jacket sequentially marked at 1 meter intervals.

Continuously Corrugated Aluminum Armor • Foam Polyethylene Insulation • PVC Inner Jacket • Black PVC Outer Jacket

	183092A new	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
		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

Sweep tested 5 MHz to 50 MHz.

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
RG-6/U Type • 20 AWG Stranded (105x40) Bare Copper Conductor • Duobond® IV* Quad Shield (100% Coverage)																			
Foam Polyethylene Insulation • Black PVC Jacket																			
	High-Flex 3092F	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	225.0	102.2	(105x40)			Quad							2	.47	1.5
		CEC:					.040"			Shield							5	.80	2.6
		CMG					Bare			3.6Ω/M'							10	1.20	3.9
		FT4					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.

Sweep tested 5 MHz to 400 MHz.
CPE jacket optional.

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)

Gas-Injected Foam Polyethylene Insulation • Gray PVC Jacket																			
	3131A	NEC:	1000	304.8	41.0	18.6	18 AWG	.180	4.57	Duobond IV	.300	7.62	75	82%	16.2	53.1	1	.35	1.1
		CL2R CMR	2500	762.0	100.0	45.4	(solid)			Quad							2	.38	1.2
		CEC:					.040"			Shield							5	.45	1.5
		CMR FT4					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

IEEE 802.4 MAP/IEEE 802.7 Mini-MAP.

Tap marks every 2.6 meters to aid users in installation.

Plenum • Foam FEP Insulation • Gray Fluorocopolymer Jacket																			
	150°C 3132A	NEC:	1000	304.8	36.0	16.3	18 AWG	.170	4.32	Duobond IV	.274	6.96	75	82%	16.3	53.5	1	.36	1.2
		CMP					(solid)			Quad							2	.38	1.2
		CEC:					.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

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)

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

Plenum • Foam FEP Insulation • Gray Fluorocopolymer Jacket																			
	150°C 3095A	NEC:	1000	304.8	76.0	34.5	14 AWG	.280	7.11	Duobond IV	.387	9.83	75	82%	16.5	54.1	1	.17	.6
		CMP					(solid)			Quad							2	.22	.7
		CEC:					.064"			Shield							5	.28	.9
		CMP FT6					BCCS			3.9Ω/M'							10	.40	1.3
							11.0Ω/M'			12.8Ω/km							20	.60	2.0
							36.1Ω/km										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		PLTC CM	500	152.4	18.5	8.4	(7x26)			Beldfoil			31.25 KHz						
(31.25 KBits/sec)		ITC	1000	304.8	37.0	16.8	.048"			Shield									
		CEC:	2500	762.0	85.0	38.6	Tinned			7.5Ω/M'									
		CM	5000†	1524.0	170.0	77.2	Copper			24.6Ω/km									
							7.5Ω/M'												
							24.6Ω/km												



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		PLTC CM	1000†	304.8	23.0	10.4	(7x30)			Beldfoil			31.25 KHz						
(31.25 KBits/sec)		ITC					.030"			Shield									
		CEC:					Tinned			11.4Ω/M'									
		CM					Copper			37.4Ω/km									
							17.1Ω/M'												
							56.0Ω/km												



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		PLTC CM	500	152.4	23.0	10.4	(7x30)			Beldfoil			1 MHz				.625	.26	.85
(1.0 & 2.5 MBits/sec)		ITC	1000	304.8	44.0	20.0	.030"			Shield							1.250	.34	1.12
		CEC:	2500	762.0	115.0	52.2	Tinned			3.3Ω/M'							3.125	.55	1.81
		CM					Copper			11.1Ω/km									
							17.1Ω/M'												
							56.1Ω/km												



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	.315	8.00	150	78%	8.5	27.9	.2	.27	.9
		PLTC CMG	2000	609.6	112.0	50.8	(solid)			+ 65%							4.0	.67	2.2
		CEC:	3600	1097.6	201.6	91.4	.026"			TC Braid							16.0	1.37	4.5
		CMG FT4					Bare			Shield							100.0	3.75	12.3
							Copper			(100%							300.0	6.52	21.4
							16.0Ω/M'			Coverage)									
							52.5Ω/km			3.9Ω/M'									
										12.8Ω/km									

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

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

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	.315	8.00	150	78%	8.5	27.9	.2	.34	1.1
		PLTC CMG	1640	500.0	73.8	33.5	Stranded			+ 65%							4.0	.81	2.7
		CEC:	3280	1000.0	144.3	65.5	(7x30)			TC Braid							16.0	1.64	5.4
		CMG FT4					Bare			Shield									
							Copper			(100%									
							16.0Ω/M'			Coverage)									
							52.5Ω/km			3.9Ω/M'									
										12.8Ω/km									

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																		
High Velocity Thick 600V 75°C	7897A	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	Red&Black									
			2000	609.6	274.0	124.4	3.6Ω/M'	Foil										
							11.8Ω/km	+ Overall										
							(2)18 AWG TC	65%	Data Pair:									
							(19x30)	TC Braid	Blue&White			120	75%	12.0	39.4	.125	.13	.43
							6.9Ω/M'	1.8Ω/M'								.500	.25	.82
							22.6Ω/km	5.9Ω/km								1.000	.40	1.31



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																		
600V 75°C	7896A	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	Red&Black									
			2000	609.6	340.0	154.2	4.9Ω/M'	Foil										
							16.1Ω/km	+ Overall										
							(2)18 AWG TC	65%	Data Pair:									
							(19x30)	TC Braid	Blue&White			120	64%	14.7	48.2	.125	.13	.43
							6.9Ω/M'	1.8Ω/M'								.500	.25	.82
							22.6Ω/km	5.9Ω/km								1.000	.40	1.31



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																		
Drop 600V 75°C	7900A	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:					4.9Ω/M'											
		FT1					16.1Ω/km											
							(2)18 AWG TC		Data Pair:									
							(19x30)		Blue&White			120	64%	14.7	48.2	.125	.13	.43
							6.9Ω/M'									.500	.25	.82
							22.6Ω/km									1.000	.40	1.31



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

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

BELDEN

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

Belden114@CableCon.kr / 0707-434-7704 / Fax. 02-744-0909 / www.CableCon.co.kr

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	3082A	NEC: CMG, PLTC-ER CEC: CMG FT4	500 [†] 1000 2000 [†]	152.4 304.8 609.6	71.0 138.0 280.0	32.2 62.6 127.0	(2)15 AWG TC (19x28) 3.6Ω/M' 11.8Ω/km (2)18 AWG TC (19x30) 6.9Ω/M' 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M' 5.9Ω/km	Power Pair: Red&Black Data Pair: Blue&White	.480	12.19	—	—	—	—	—	—	—
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[†]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	3082F	NEC: CMG, PLTC-ER CEC: CMG FT4	500 [†] 1000 2000 [†]	152.4 304.8 609.6	72.5 140.0 284.0	32.9 63.5 128.8	(2)15 AWG TC (65x33) 3.6Ω/M' 11.8Ω/km (2)18 AWG TC (65x36) 6.9Ω/M' 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M' 5.9Ω/km	Power Pair: Red&Black Data Pair: Blue&White	.480	12.19	—	—	—	—	—	—	—
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[†]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	3083A	NEC: CMG, PLTC CEC: CMG FT4	1000 2000	304.8 609.6	137.0 278.0	62.1 126.1	(2)15 AWG TC (19x28) 3.6Ω/M' 11.8Ω/km (2)18 AWG TC (19x30) 6.9Ω/M' 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M' 5.9Ω/km	Power Pair: Red&Black Data Pair: Blue&White	.475	12.07	—	—	—	—	—	—	—
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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	3084A	NEC: CL2 CMG CEC: CMG FT4	500 1000 [†] 2000	152.4 304.8 609.6	22.0 47.0 96.0	10.0 21.3 43.6	(2)22 AWG TC (19x34) 17.5Ω/M' 57.4Ω/km (2)24 AWG TC (19x36) 91.9Ω/km	100% Individual Foil + Overall 65% TC Braid 28.0Ω/M' 10.5Ω/km	Power Pair: Red&Black Data Pair: Blue&White 3.2Ω/M'	.280	7.11	—	—	—	—	—	—	—
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[†]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	3084F	NEC: CL2 CMG CEC: CMG FT4	500 1000 2000	152.4 304.8 609.6	22.0 47.0 96.0	10.0 21.3 43.6	(2)22 AWG TC (154x44) 17.5Ω/M' 57.4Ω/km (2)24 AWG TC (105x44) 28.0Ω/M' 91.9Ω/km	100% Individual Foil + Overall 65% TC Braid 3.2Ω/M' 10.5Ω/km	Power Pair: Red&Black Data Pair: Blue&White	.275	6.99	—	—	—	—	—	—	—
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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	3085A	NEC: CL2 CMG CEC: CMG FT4	500 1000 2000	152.4 304.8 609.6	25.0 47.0 96.0	11.4 21.4 43.6	(2)22 AWG TC (19x34) 17.5Ω/M' 57.4Ω/km (2)24 AWG TC (19x36) 28.0Ω/M' 91.9Ω/km	100% Individual Foil + Overall 65% TC Braid 3.2Ω/M' 10.5Ω/km	Power Pair: Red&Black Data Pair: Blue&White	.280	7.11	—	—	—	—	—	—	—
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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.

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

BELDENFor more information, contact **Belden Technical Support: 1-800-BELDEN-1 • www.belden.com****Belden114@CableCon.kr / 0707-434-7704 / Fax. 02-744-0909 / www.CableCon.co.kr**

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

300V Class 2 ODVA Cable III • 20 and 18 AWG Stranded TC Cond. • Indiv. Foil Shielded (100% Coverage) + Overall TC Braid (65% Coverage)**PVC Insulation (Power) • FPE Insulation (Data) • Gray Sunlight/Oil-resistant PVC Jacket**

Mid 75°C	7895A	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								
												120	75%	12.0	39.4	.125 .500 1.000	.29 .50 .70	.95 1.64 2.30

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

Class 2 300V 75°C	3082K	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							
												120	75%	14.7	48.2	.125 .500 1.000	.13 .25 .40	.43 .82 1.31

Allen-Bradley P/N 1485 CPI-G

PVC Insulation • Black Sunlight-resistant PVC Jacket

Class 1 Power 600V 75°C	3082KP	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							
																.125 .500 1.000	.13 .25 .40	.43 .82 1.31

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	3087A	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:									
							17.5Ω/M'		Black&White			120	76%	12.0	39.4	.125	.23	.76
							57.4Ω/km									.500	.42	1.38
																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	3086A	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:									
							11.8Ω/km		Black&White			120	76%	12.0	39.4	.125	.18	.59
							(2)20 AWG TC									.500	.35	1.15
							(19x32)									1.000	.47	1.54
							.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															
UL AWM Style 20201 (600V 75°C)	3124A	NEC: CL2 CM CEC: CM	1000	304.8	47.0	21.3	(2)18 AWG (16x30) .040" TC 6.8Ω/M' 21.3Ω/km (2)22 AWG (7x30) .030" TC 18.1Ω/M' 59.4Ω/km	100% Overall Beldfoil Shield 10.7Ω/M' 35.1Ω/km	Power Cdrs: Red&Black Data Cdrs: White&Green	.308	7.82	—	—	20.0	65.6
															
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															
300V 75°C	3125A	NEC: CL2 CM CEC: CM	500 1000	152.4 304.8	31.5 63.0	14.3 28.6	(2)16 AWG (26x30) .060" TC 4.5Ω/M' 14.8Ω/km (2)22 AWG (7x30) .030" TC 18.1Ω/M' 59.4Ω/km	100% Overall Beldfoil Shield 10.7Ω/M' 35.1Ω/km	Power Cdrs: Red&Black Data Cdrs: White&Green	.368	9.35	—	—	28.0	91.9
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															
300V 75°C	3126A	NEC: CL2 CM CEC: CM	1000	304.8	112.0	50.8	(2)16 AWG (26x30) .060" TC 4.5Ω/M' 14.7Ω/km (2)22 AWG (7x30) .030" TC 18.1Ω/M' 59.4Ω/km (2)12 AWG (65x30) .090" TC 1.8Ω/M' 5.9Ω/km	100% Overall Beldfoil Shield 10.7Ω/M' 35.1Ω/km	Control Cdrs: Red&Black Data Cdrs: White&Green Power Cdrs: Black&White, Red&White	.486 x .363	12.34 x 9.22	—	—	28.0	91.9
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.

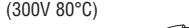
Industrial Data Solutions® — Industrial Data

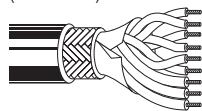
DeviceBus® for Phoenix Contact InterBus®-S



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	100%	Power: Red, Blue, Green w/ Yellow Stripe	.333	8.46	—	—	—	—	
				1000	304.8	71.0	32.2	.060" TC	Overall								TC Braid
								6.6Ω/M'									
								21.7Ω/km	2.7Ω/M'	Data:							
								(3pr)24 AWG	8.9Ω/km	Pink&Gray, White&Brown, Yellow&Green			100	66%	15.4	50.5	
								.024" TC									
								23.4Ω/M'									
								76.8Ω/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%	Pink&Gray, White&Brown, Yellow&Green	.277	7.04	100	66%	15.4	50.5
			1000	304.8	49.0	22.2	TC 26.0Ω/M' 85.3Ω/km	Overall Beldfoil + 90% TC Braid 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.

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
22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • Overall Beldfoil® Shield (100% Coverage) + TC Braid (90% Coverage) • Drain Wire▲																		
Datalene® Insulation • Black UV Resistant PVC Jacket (CPE jacket optional)																		
	Oil Res II 300V	3105A▼	NEC: CM PLTC CEC: CM FT1	1	See Chart (below)	500 1000 5000 †	152.4 304.8 1523.9	23.0 50.0 255.0	10.4 22.7 115.8	14.7Ω/M' 48.2Ω/km	2.8Ω/M' 9.2Ω/km	.284 7.21	120	78%	11.0	36.1	20.9	68.6
															For CPE jacketed version order Part No. YR44345			
		3106A	NEC: CM PLTC CEC: CM FT1	1.5*	White/Orange, Orange/White, Blue/White	500 1000 5000 †	152.4 304.8 1523.9	27.0 51.0 260.0	12.3 23.2 118.1	14.7Ω/M' 48.2Ω/km	2.8Ω/M' 9.2Ω/km	.300 7.62	120	78%	11.0	36.1	20.9	68.6
															For CPE jacketed version order Part No. YR46721			
		3107A▼	NEC: CM PLTC CEC: CM FT1	2	See Chart (below)	1000 4000 5000 †	304.8 1219.2 1523.9	69.0 300.0 385.0	31.3 136.2 174.8	14.7Ω/M' 48.2Ω/km	1.8Ω/M' 5.9Ω/km	.356 9.04	120	78%	11.0	36.1	20.9	68.6
														For CPE jacketed version order Part No. YR46792				
		3108A	NEC: CM PLTC CEC: CM FT1	3	See Chart (below)	1000 2000	304.8 609.6	93.0 184.0	42.2 83.5	14.7Ω/M' 48.2Ω/km	1.5Ω/M' 4.9Ω/km	.420 10.67	120	78%	11.0	36.1	20.9	68.6
														For CPE jacketed version order Part No. YR45287				
		3109A	NEC: CM PLTC CEC: CM FT1	4	See Chart (below)	1000 2000	304.8 609.6	107.0 218.0	48.6 99.0	14.7Ω/M' 48.2Ω/km	1.4Ω/M' 4.6Ω/km	.420 10.67	120	78%	11.0	36.1	20.9	68.6
														For CPE jacketed version order Part No. YR44768				

▼3015A and 3107A are DMX512 Type.

[▼]3015A and 3107A are DMX512 Type.[★]22 AWG stranded tinned copper drain wire.

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

[▲]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.

[▲]All conductors are under the braid shield; one pair is under the Beldfoil shield.**Color Code Chart**

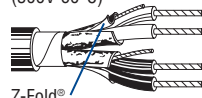
Pair No.	Color Combination
1	White/Blue Stripe Blue/White Stripe
2	White/Orange Stripe Orange/White Stripe
3	White/Green Stripe Green/White Stripe
4	White/Brown Stripe Brown/White Stripe

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)	9729	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 25.4	100	76%	12.5	41.0	23.2	76.1
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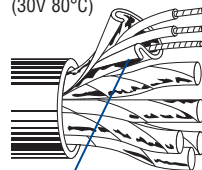


Z-Fold®

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)	8777	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 12.7	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	8723	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 4.5 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 11.4	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	88723	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 10.2	40	69%	35	115	67	220
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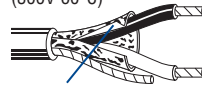


Z-Fold®

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)	8760	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	— 14.3	—	—	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.