



Industrial Cables

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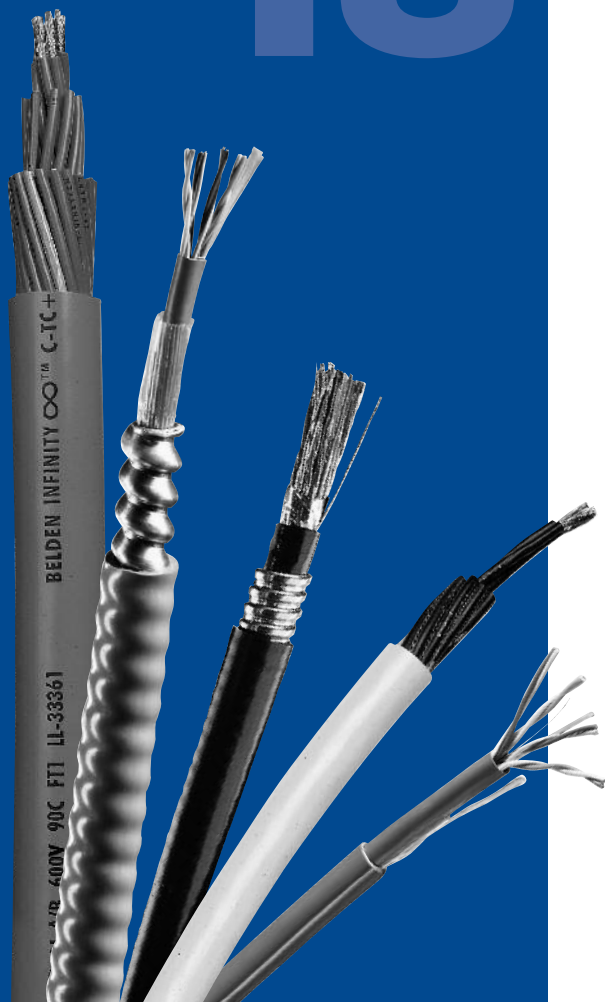


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ControlNet™ is a ControlNet International trademark.
ODVA DeviceNet™ is an Open DeviceNet Vendor Association Inc. trademark.
Seriplex® is a Square D/Schneider AEG registered trademark.

Introduction



Tough Cables that Keep Performing.

High performance cabling solutions have changed the face of modern production facilities, manufacturing processes and the industrial infrastructure. Today, industry depends on reliability and demands long life, superb performance, often in the toughest of environments – in practice, that means peace of mind to get on with the job.

Key applications

- Programmable logic controllers
- Human machine interfaces
- Remote I/O
- 4-20 mA systems (PLTC & TC instrumentation)

IndustrialTuff™

This is the world's most comprehensive line of industrial cabling solutions – whether for networking factory floor equipment, hardware and controllers or relaying data between the control room, the engineering department and remote manufacturing sites or a combination of all the above. Belden industrial cables are designed to provide reliable communication between corporate headquarters and the plant, management and employees and everywhere in between.

Industrial Solutions

• Industrial Ethernet: Networking Cables with Installable Performance™

The reliability of an industrial ethernet network fully depends on the cable infrastructure. Transmission errors can result in lost production time – and even downtime or safety issues. Belden understands the critical nature and demands of each industry and has designed its industrial ethernet cables to provide top performance for different, often very demanding, industrial applications.

Belden's patented bonded-pair cable constructions are included in the range of industrial ethernet products. Bonded-pair technology means installable performance – where cables are designed to withstand the pulling, bending, kinking, coiling and crushing that routinely takes place during installation.

• Industrial Data Solutions®

Belden's full range of Industrial Data Solutions® includes cables for all types of bus applications such as Profibus, Fieldbus, DeviceNet™, ControlNet™, InterBus-S®.

Belden practically invented Blue Hose® twinax cables from the original IBM specification; today these are the dominant call-out for PLC and DCS applications.

ControlBus quad shielded coax cables are for ControlNet™ applications – all Belden industrial coax cables provide the dependability for long-lasting performance. Also available is a full range of cables for Profibus and Fieldbus applications, as well as DeviceBus cables for ODVA DeviceNet™ systems.

In addition, Belden offers a wide range of Variable Frequency Drive (VFD) cables, Control and Instrumentation cables and the Infinity® line of flexible automation cables.

• Diverse Manufacturing Facilities

Belden cables can have many different characteristics to meet the requirements of different industrial cabling applications. The cables are resistant to:

- Effects of temperature
- UV sunlight
- Oils
- Gasoline
- Other chemical solvents

• Belden Infinity® Flexible Automation Cable

Belden Infinity is used when the application requires highly flexible cables offering exceptional life and performance.

- Reduced Cable Memory

Belden Infinity's unique design and neutralized cabling, results in cables that are relaxed, with almost no memory.

- Greater Flex Life

Belden Infinity cables offer superior flexibility and are able to handle the vigorous motions and high speeds encountered in automated equipment.

- Greater System Uptime

Belden Infinity cables combine specialized manufacturing techniques with precision copper stranding and rugged insulation and jacketing compounds to maximize flex life and reliability.

- No Talc Problems

Unlike the potentially harmful talc used in other cables, Belden's non-toxic, non-irritating slipper compound facilitates flexing and also complies with OSHA regulations. It's safer for employees and operators and is less likely to contaminate solder joints or mechanical compounds.

- CE Conformity

All Belden Infinity cables are CE marked per the Conformité Européenne low voltage directive, allowing trade of product in Europe.

- Custom Designs

Other designs available upon request.

• Armoring Capabilities

Belden offers both steel wire armor and interlocking (steel or aluminum) armor for extra protection against crushing and abrasion. Other solutions can be tailored to particular requirements.

To Specify Part Number:

1	2	3456
Overall Jacket Type	Armor Type	Core Trade Number

Overall Jacket Type

Code	Material
1	PVC
3	CPE
4	TPE
5	HDPE
6	Oil Res II
7	Haloarrest®

Armor Type

Code	Material
2	Aluminum Interlock
3	Steel Interlock
8	Continuous Corrugated Aluminum

Availability

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, see our U.S. Master Catalog or contact technical support at +31-77-3875-414 or techsupport.venlo@belden.com.

Corresponding Literature

Product Bulletins

CB001: Belden's instrumentation & control capabilities

NP158: Blue Hose® cables

Introduction



NP159: DeviceBus® cables for DeviceNet™ applications
 NP164: Profibus® cables for Fieldbus applications
 NP165: Seriplex® cables
 NP177: Cable preparation tool for bonded-pair cables
 NP185: Multimedia cables for analog & digital system controllers

NP195: IndustrialTuff® ControlBus® Low-loss coax cables
 NP196: Industrial Fieldbus cables
 NP218: Infinity® cables for factory automated systems
 NP224: Cables for variable-frequency AC motor drive applications
 NP231: Belden expands the DataTuff® Category 5e and 6

PLC/DCS Cable Cross Reference Guide

PLC/DCS Manufacturer	System Name	Belden Part No.
ABB / Bailey Controls	Infinet	9880 Network Trunk Cable
		9463 Blue Hose® (Standard)
		9463LS Steel Wire Armor (9463)
		9463NH Low-Smoke, Halogen-Free (9463)
	Masterpiece 200	9880 Network Trunk Cable
		9907 Thin Network Trunk Cable
Allen-Bradley / Rockwell Automation	MICRO-DCI	3105A 1 Pair, RS-485
	MICROLINK	9860 Twinax, 16 AWG, 124 Ohm
		9860LS Steel Wire Armor (9860)
		9860NH Low-Smoke, Halogen-Free (9860)
	Modcell	3105A 1 Pair, RS-485
	ControlNet™	See Protocol Listings on page 18.5
Cutler-Hammer / Westinghouse	DeviceNet™	See Protocol Listings on page 18.5
	DH	9463 Blue Hose® (Standard)
		9463LS Steel Wire Armor (9463)
		9463NH Low-Smoke, Halogen-Free (9463)
		9463F Flexible Version (9463)
		129463 Aluminum Armor (9463)
		139463 Steel Armor (9463)
		189463 Cast Aluminum (9463)
		YR28826 Dual Version (9463)
		9463DB Direct Burial (9463)
		YR29565 Various Color Jackets (9463)
		3072F 600V TC Rated (9463)
		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, NH, LS
		9842LS Steel Wire Armor (9842)
Emerson Process Management (Fisher/Rosemount Controls)	Fieldbus (Type SP50 ISA/IEC)	9842NH Low-Smoke, Halogen-Free (9842)
		YM39500 Flexible Version (3106A)
	Longline Communications	8723 Interface Cable
		88723 Plenum Version
	IMPACC System	YR29090 Proprietary Trunk Cable
	I/Q System	9463 Blue Hose® (Standard)
GE Fanuc	Genius I/O System	9463LS Steel Wire Armor (9463)
		9463NH Low-Smoke, Halogen-Free (9463)
	Fieldbus (Type SP50 ISA/IEC)	See Protocol Listings on page 18.5
		See Protocol Listings on page 18.5
Honeywell	Provox Plus	3094A RG-11 Quad Shield PVC
		3131A RG-6 Quad Shield PVC
	Access 4000 System	YR29841 PLTC Version
		9182 Communications Bus
	Fieldbus (Type SP50 ISA/IEC)	89182 Plenum Version
		See Protocol Listings on page 18.5
Honeywell	IPC 620 System	9271 Twinax, 25 AWG, 124 Ohm
		9729 Up to 1220 m (4000 ft.)
	Serial Interface	9182 Up to 3049 m (10000 ft.)
		89182 Plenum
	3000 UCN & LCN	3131A RG-6 Quad Shield PVC
		9094A RG-11 Quad Shield PVC

* Fluorinated Ethylene-Propylene

PLC/DCS Manufacturer	System Name	Belden Part No.
Honeywell Micro-switch Division	Smart Distributed System	3086A Mini
		3087A Micro
Invensys/Foxboro	Fieldbus (Type SP50 ISA/IEC)	See Protocol Listings on page 18.5
		See Protocol Listings on page 18.5
	I/A Series	Carrier Band
		8233 Small Trunk
	I/A Series	Fieldbus
		9290 Plenum
Limitorque	DCC 100	9207 Twinax
		9207NH Low-Smoke, Halogen-Free (9207)
	Node Bus	89207 200°C, Plenum
		3073F 600V Tray Cable
	Actuator Bus Cable, 1 Pair, RS-485	9880 Trunk Cable
		89880 Plenum Version
Matsushita	FP Series	C-NET
		9207 Twinax, 20 AWG, Stranded, 100 Ohm
		9207NH Low-Smoke, Halogen-Free (9207)
		9860 Twinax, 16 AWG, Solid, 124 Ohm
	MEWNET-F	9860LS Steel Wire Armor (9860)
		9860NH Low-Smoke, Halogen-Free (9860)
	MEWNET-H	9207 Twinax, 20 AWG, Stranded, 100 Ohm
		9207NH Low-Smoke, Halogen-Free (9207)
	MEWNET-TR	9860 Twinax, 16 AWG, Solid, 124 Ohm
		9860LS Steel Wire Armor (9860)
		9860NH Low-Smoke, Halogen-Free (9860)
	MEWNET-W	9207 Twinax, 20 AWG, Stranded, 100 Ohm
		9207NH Low-Smoke, Halogen-Free (9207)
	MEWNET-W2	9806 4 Pair, RS-232, RS-422
		9207 Twinax, 20 AWG, Stranded, 100 Ohm
		9207NH Low-Smoke, Halogen-Free (9207)
	TRNET	9860 Twinax, 16 AWG, Solid, 124 Ohm
		9860LS Steel Wire Armor (9860)
		9860NH Low-Smoke, Halogen-Free (9860)
		See Protocol Listings on page 18.5
Mitsubishi	DeviceNet™	See Protocol Listings on page 18.5
		See Protocol Listings on page 18.5
	CC-Link	1348A Three-Conductor
		1349A Three-Conductor + Power
	Melsecnet (II) 10/10H	1505A Precision RG-59/U Coax
		1505F High Flex (1505A)
Mitsubishi	Profibus DP & FMS	1506A Plenum Precision Rg-59/U, Outdoor, Direct Burial
		8241 Standard RG-59/U Coax
	Serial Communications	8241F High Flex (8241F)
		See Protocol Listings on page 18.5
	Control and Instrumentation Interconnect Cable	8777 Steel Wire Armor (8777)
		8777LS Low-Smoke, Halogen-Free (8777)

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

PLC/DCS Cable Cross Reference Guide

(continued)



PLC/DCS Manufacturer	System Name	Belden Part No.
Modicon/ Schneider AEG	Modbus	8777 Modem Drop Cable, 22 AWG, 3 Pair 8777LS Steel Wire Armor (8777) 8777NH Low-Smoke, Halogen-Free (8777) 128777 Aluminum Armor (8777) 138777 Steel Armor (8777) 88777 FEP* 200°C, Plenum
		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)
		YM29560 24 AWG, 1 Pair, RS-485 YC39000 Aluminum Armor (YM29560) YC39222 Steel Armor (YM29560) YQ29258 24 AWG, 1 Pair, 150°C, Plenum
		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
		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
	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) 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
		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) 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
		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) 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
		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) 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
		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) 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
	Remote I/O	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) 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
		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) 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
		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) 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
		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) 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
		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) 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	AS Interface	See Protocol Listings on page 18.5
	CompoBus/D (DeviceNet™)	See DeviceNet™ Protocol listings on page 18.5
	CompoBus/S	9409 1 Pair, 18 AWG, 300V PLTC Control 9318 1 Pair, 18 AWG, 300V PLTC Control, Shielded 3073F 600V Twinax Tray Cable 3076ENH Fieldbus, Low-Smoke, Halogen-Free 89740 1 Pair, 18 AWG, 300V Control
	Controller Link	9207 Twinax 9207NH Low-Smoke, Halogen-Free (9207) 89207 Twinax, 200°C, Plenum 9815 100 Ohm Twinax, Direct Burial 3073F 600V Twinax Tray Cable
	SYSBUS-2	3073F 600V Tray Cable Twinax
	SYSMAC BUS	9841 24 AWG, 1 Pair, RS-485 9841LS Steel Wire Armor (9841) 9841NH Low-Smoke, Halogen-Free (9841) 3105A 22 AWG, 1 Pair, RS-485
	SYSMAC LINK	9231 Coax
	DeviceNet™	See Protocol Listings on page 18.5
	InterBus®-S	See Protocol Listings on page 18.5
	Profibus DP FMS & PA	See Protocol Listings on page 18.5
Reliance/A-B	Auto Max Distributed Power	MTB6002 2 Fiber Breakout 1100255 2 Fiber Loose Tube PVC 1100266 2 Fiber Loose Tube CPE
	R-Net	9259 RG-59 PVC 89259 RG-59, 200°C, Plenum
Rotork	Pakscan II E RS-485	3105A 22 AWG, 1 Pair, RS-485
Siemens/Moore	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
	Hiway	9860 Network Trunk Cable 9860LS Steel Wire Armor (9860) 9860NH Low-Smoke, Halogen-Free (9860)

* Fluorinated Ethylene-Propylene

PLC/DCS Manufacturer	System Name	Belden Part No.
Siemens/Moore (continued)	MODULNET	3094A RG-11 Quad Shield PVC 3131A RG-6 Quad Shield PVC
	Profibus DP & FMS (Purple)	See Protocol Listings on page 18.5
	Profibus PA (Blue)	See Protocol Listings on page 18.5
	SINEC Series	H1 9907 Thin Network Trunk Cable 9880 Network Trunk Cable
		H2B 3131A RG-6 Quad Shield 3094A RG-11 Quad Shield
	SINEC Series	L1 31071A 2 Pair, RS-485
		L2 3079A 300V Twinax 3079ALS Steel Wire Armor (3079A) 3079ANH Low-Smoke, Halogen-Free (3079A) 3079E Stranded Conductor (3079A)
	Thicknet Ethernet Trunk	9880 Network Trunk Cable 129880 Aluminum Interlocked Armor Trunk 139880 Steel Interlocked Armor Trunk See Protocol listings on page 18.5
	Thinnet Ethernet Trunk	9907 Thin Network Trunk Cable See Protocol listings on page 18.5
	Fieldbus (Type SP50 ISA/IEC)	See Protocol Listings on page 18.5
Smar	Profibus DP, FMS & PA	See Protocol Listings on page 18.5
	RS-485	See Protocol Listings on page 18.5
	Fieldbus	See Protocol Listings on page 18.5
Square D/ Schneider AEG	FIP/Fieldbus	3079A 22 AWG, 1 Pair, Shielded 3079ALS Steel Wire Armor (3079A) 3079ANH Low-Smoke, Halogen-Free (3079A) 3079E Stranded Conductor (3079A) 123079A Aluminum Armor (3079A)
	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 9841LS Steel Wire Armor (9841) 9841NH Low-Smoke, Halogen-Free (9841) 9842 24 AWG, 2 Pair, RS-485 9842LS Steel Wire Armor (9842) 9842NH Low-Smoke, Halogen-Free (9842)
		9841 24 AWG, 1 Pair, RS-485 9841LS Steel Wire Armor (9841) 9841NH Low-Smoke, Halogen-Free (9841) 9842 24 AWG, 2 Pair, RS-485 9842LS Steel Wire Armor (9842) 9842NH Low-Smoke, Halogen-Free (9842)
	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)
		3124A CBL-1822-P20 3125A CBL-1622-P16 3126A CBL-162212-P16 123124A Aluminum Armor (3124A) 123125A Aluminum Armor (3125A) 123126A Aluminum Armor (3126A)
		3124A CBL-1822-P20 3125A CBL-1622-P16 3126A CBL-162212-P16 123124A Aluminum Armor (3124A) 123125A Aluminum Armor (3125A) 123126A Aluminum Armor (3126A)
		3124A CBL-1822-P20 3125A CBL-1622-P16 3126A CBL-162212-P16 123124A Aluminum Armor (3124A) 123125A Aluminum Armor (3125A) 123126A Aluminum Armor (3126A)
	SY/Net Network Trunk Cable	9463 Blue Hose® (Standard) 9463F Flexible Version (9463) 129463 Aluminum Armor (9463) 139463 Steel Armor (9463) 189463 Cast Aluminum (9463) YR28826 Dual Version (9463) 9463DB Direct Burial (9463) YR29565 Various Color Jackets (9463) 3072F 600V TC Rated (9463) YR41194 Low-Smoke, Halogen-Free YR28764 Super Thick (PLTC) 89463 FEP* 200°C, Plenum
		9463 Blue Hose® (Standard) 9463F Flexible Version (9463) 129463 Aluminum Armor (9463) 139463 Steel Armor (9463) 189463 Cast Aluminum (9463) YR28826 Dual Version (9463) 9463DB Direct Burial (9463) YR29565 Various Color Jackets (9463) 3072F 600V TC Rated (9463) YR41194 Low-Smoke, Halogen-Free YR28764 Super Thick (PLTC) 89463 FEP* 200°C, Plenum
		9463 Blue Hose® (Standard) 9463F Flexible Version (9463) 129463 Aluminum Armor (9463) 139463 Steel Armor (9463) 189463 Cast Aluminum (9463) YR28826 Dual Version (9463) 9463DB Direct Burial (9463) YR29565 Various Color Jackets (9463) 3072F 600V TC Rated (9463) YR41194 Low-Smoke, Halogen-Free YR28764 Super Thick (PLTC) 89463 FEP* 200°C, Plenum
		9463 Blue Hose® (Standard) 9463F Flexible Version (9463) 129463 Aluminum Armor (9463) 139463 Steel Armor (9463) 189463 Cast Aluminum (9463) YR28826 Dual Version (9463) 9463DB Direct Burial (9463) YR29565 Various Color Jackets (9463) 3072F 600V TC Rated (9463) YR41194 Low-Smoke, Halogen-Free YR28764 Super Thick (PLTC) 89463 FEP* 200°C, Plenum
	SY/Net TNIM Cable	9272 20 AWG, 1 Pair, Shielded 89272 FEP* 200°C, Plenum
Yokogawa	Fieldbus (Type SP50 ISA/IEC)	See Protocol Listings on page 18.5
Westinghouse	WDPF	9292 RG-11 PVC

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

InterBus® is a Phoenix Contact trademark.

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

Industrial Communications Protocol

Cross Reference



System Name	Belden Part No.
AS Interface	3999E Yellow Bus Cable
ControlNet™	3092A RG-6 PVC Quad Shield 3092F RG-6 PVC Quad Shield, Flex Version, Aluminum Braid YR28890 RG-6 PVC Flex Version, Copper Braid 3093A RG-6 FEP* Quad Shield, Plenum
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)
Ethernet – Fiber Optic	See Industrial Ethernet Fiber Optic Cable Selection Guide on page 18.36
Ethernet – Thicknet	9880 10 Base 5 Network Trunk Cable 89880 Plenum (9880)
Ethernet – Thinnet	9907 10 Base 2 Network Trunk Cable 89907 Plenum (9907)
Ethernet – Twisted Pair	See DataTuff® Industrial Ethernet Cable Selection Guide on page 18.36
Fieldbus (Type SP50 ISA/IEC)	3076F Type A, H1 1900 m (31.25K) 3076ELS Steel Wire Armor (3076F) 3076ENH Low-Smoke, Halogen-Free (3076F) 3077F Type B, H1 1200 m (31.25K) 3077ELS Steel Wire Armor (3077F) 3077ENH Low-Smoke, Halogen-Free (3077F) 3078F High-Speed (1.0 + 2.5 mbits/s) HSE Copper & Fiber (See Cables for Industrial Ethernet)
Hart	3105A 1 Pair, RS-485 3106A 1.5 Pair, RS-485 3107A 2 Pair, RS-485
InterBus®-S	3119A 18/3C, 24/3 Pair, Composite 3120A 24/3 Pair
Profibus DP & FMS (Purple)	3079A 300V Twinax 3079ALS Steel Wire Armor (3079A) 3079ANH Low-Smoke, Halogen-Free (3079A) 3079E Stranded Conductor (3079A)
Profibus PA (Blue)	3076F 18 AWG, 2 Conductors, Type A 3076ELS Steel Wire Armor (3076F) 3076ENH Low-Smoke, Halogen-Free (3076F)
RS-485/HART/CAN	9841 1 Pair 9841LS Steel Wire Armor (9841) 9841NH Low-Smoke, Halogen-Free (9841) 9842 2 Pair 9842LS Steel Wire Armor (9842) 9842NH Low-Smoke, Halogen-Free (9842) 9843 3 Pair 9843NH Low-Smoke, Halogen-Free (9843) 9844 4 Pair 3105A 1 Pair (PLTC) 3106A 1.5 Pair (PLTC) 3107A 2 Pair (PLTC) 3108A 3 Pair (PLTC) 3109A 4 Pair (PLTC)

* Fluorinated Ethylene-Propylene

ControlNet™ is a ControlNet International trademark.

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

InterBus® is a Phoenix Contact trademark.

Industrial Data Solutions® – Industrial Ethernet



DataTuff® Industrial Ethernet Cable Selection Guide (See Pages 18.7 – 18.11 for Product Detail.)

Part No.	Pulling Tension	Shielding		Conductor		Installation	Environmental Issues		Industrial Grade Jacket						
		Un-shielded	Shielded*	Solid	Stranded* Flexibility	Installation Stress Resistance†	Oil Resistance	UV Sun-light Resistance	Gasoline Resistance	HI/LO Temp	Heavy	Upjacket	Armored	PVC	LSHN/ FRNC
Category 5e															
BEB1212	—	●		●		●	●	●			●				●
BEB3212	—		●	●		●	●	●			●				●
7923A	40	●		●		●	●	●			●			●	
7929A	35		●	●		●	●	●			●			●	
7921A	75		●	●		●	●	●			●			●	
11700A	40	●		●		●	●	●				●		●	
121700A	40	●		●		●	●	●					●	●	
7924A	40	●			●	●	●	●			●			●	
7928A	40	●		●		●	●	●	●	●	●			●	
7918A	35	●		●			●	●			●			●	
7919A	25		●	●			●	●			●			●	
Category 6															
7927A	45	●		●		●	●	●			●			●	
7931A	40	●		●		●	●	●	●	●	●			●	
11872A	45	●		●		●						●		●	
121872A	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.

Cable that Meets the Requirements of EN50170-2-2:1996 for Communications up to 12 Mbaud

Baud Rate (k baud)	9.6	19.2	93.75	187.5	500.0	1500.0	12000.0
Maximum Trunk Length (m)	1200	1200	1200	1000	400	200	100

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	400	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	328	100	328	100	328	100	328	100	328	100	328	100	328	100	328	100

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

Industrial Data Solutions® – Industrial Ethernet Cables

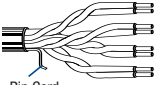
Category 5e DataTuff® Twisted Pair Cables
Heavy Duty Sunlight- and Oil-Resistant Jackets



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Freq. MHz	Max. Atten. dB/100m	Min. PSUM			Input Imp. (Ω)	Min. RL dB
			ft.	m	lbs.	kg		inch	mm		inch	mm			NEXT dB	ACR dB/100m	ELFEXT dB/100m		

Cat 5e • 24 AWG • Bonded-Pair • Solid 0.5 mm Bare Copper • Rip Cord

Polyethylene Insulation • Industrial Grade Sunlight- and Oil-Resistant FRNC/LSNH Jacket (Black and Grey)

	BEB1212 IEC 60332-1		1000	305	20.1	9.1	0.51 mm 24 AWG Solid BC	0.037	0.95	Bonded-Pair Unshielded	0.217	5.50	1	2.0	62.3	60.3	60.8	100 ± 15	20.0
			1640	500	33.1	15.0							4	4.1	53.3	49.2	48.7	100 ± 15	23.0
													10	6.3	47.3	41.0	40.8	100 ± 15	25.0
													16	8.0	44.3	36.2	36.7	100 ± 15	25.0
													25	10.1	41.3	31.2	32.8	100 ± 15	25.0
													62.5	16.5	35.4	18.9	24.8	100 ± 15	21.5
													100	21.3	32.3	11.0	20.8	100 ± 15	20.1

Rip Cord

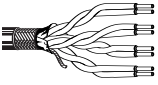
4-Pair
EtherNet/IP Compliant

Color Code: see chart below
Burning Energy: 400 kJ/m
RJ-45 Compatible, -25°C Cold Bend

Verified to ISO/IEC 11801 (2nd Edition), EN-50173-1, TIA/EIA-568-B.2, Category 5e
U.S. Patents 5,606,151 and 5,734,126
Jacket sequentially marked at 1 m intervals.

Cat 5e • 24 AWG • Bonded-Pair • Solid 0.5 mm Bare Copper • Overall Beldfoil® Shield + 40 % TC Braid • 26 AWG TC Drain Wire

Polyethylene Insulation • Industrial Grade Sunlight- and Oil-Resistant FRNC/LSNH Jacket (Black, Grey and Blue)

	BEB3212 IEC 60332-1		1000	305	30.9	14.0	0.51 mm 24 AWG Solid BC	0.041	1.05	Bonded-Pair Overall Beldfoil® + Overall 40% TC Braid + Drain Wire (26 AWG TC)	0.262	6.65							
			1640	500	50.7	23.0													see above

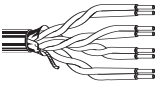
4-Pair
EtherNet/IP Compliant

Color Code: see chart below
Burning Energy: 575 kJ/m
RJ-45 Compatible, -25°C Cold Bend

Verified to ISO/IEC 11801 (2nd Edition), EN-50173-1, Category 5e
U.S. Patents 5,606,151 and 5,734,126
Jacket sequentially marked at 1 m intervals.

Enhanced Cat 5e • 24 AWG • Bonded-Pair • Solid 0.5 mm Bare Copper • Overall Beldfoil® Shield • 24 AWG Tinned Copper Drain Wire

Polyolefin Insulation • Industrial Grade Sunlight- and Oil-Resistant Black PVC Jacket (Black and Blue)

	7929A	NEC: CMR CMX-Outdoor CEC: CMR FT4	1000	305	37.0	16.8	0.51 mm 24 AWG Solid BC	0.045	1.14	Bonded-Pair Overall Beldfoil® + Drain Wire (24 AWG TC)	0.265	6.73	1	2.0	62.3	60.3	60.8	100 ± 15	20.0
			2000	610	72.1	32.7							4	4.1	53.3	49.2	48.7	100 ± 15	23.0
													10	6.5	47.3	40.8	40.8	100 ± 15	25.0
													16	8.2	44.3	36.1	36.7	100 ± 15	25.0
													31.25	11.7	39.9	28.2	30.9	100 ± 15	23.6
													62.5	17.0	35.4	18.4	24.8	100 ± 15	21.5
													100	22.0	32.3	10.3	20.8	100 ± 15	20.1
													200	32.4	27.8	1.0	14.7	100 ± 15	15.0

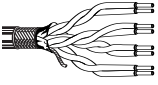
4-Pair

Color Code: see chart below
RJ-45 Compatible, -25°C Cold Bend
610 m put-up available in Black only.

Third party verified to TIA/EIA-568-B.2, Category 5e
U.S. Patents 5,606,151 and 5,734,126
Shield is bonded to jacket inner wall for electrical stability. Jacket sequentially marked at 0.6 m intervals.

Enhanced Cat 5e • 24 AWG • Bonded-Pair • Solid 0.5 mm BC • Overall Beldfoil® Shield + 70 % TC Braid • 24 AWG Spiral Drain Wire

Polyolefin Insulation • Industrial Grade Sunlight- and Oil-Resistant Black PVC Jacket (Black, Red, Blue and Teal)

	7921A	NEC: CMR CMX-Outdoor CEC: CMR FT4	1000	305	54.9	24.9	0.51 mm 24 AWG Solid BC	0.047	1.19	Bonded-Pair Overall Beldfoil® + Overall 70% TC Braid + Drain Wire (24 AWG TC)	0.330	8.38	1	2.0	62.3	60.3	60.8	100 ± 15	20.0
			2000	610	106.0	48.1							4	4.1	53.3	49.2	48.7	100 ± 15	23.6
													10	6.5	47.3	40.8	40.8	100 ± 15	26.0
													16	8.2	44.3	36.1	36.7	100 ± 15	26.0
													31.25	11.7	39.9	28.2	30.9	100 ± 15	25.0
													62.5	17.0	35.4	18.4	24.8	100 ± 15	23.5
													100	22.0	32.3	10.3	20.8	100 ± 15	22.5

4-Pair

Color Code: see chart below
-25°C Cold Bend
610 m put-up available in Black only.

Third party verified to TIA/EIA-568-B.2, Category 5e
U.S. Patents 5,606,151 and 5,734,126
Jacket sequentially marked at 0.6 m intervals.

TC = Tinned Copper • BC = Bare Copper • ACR = Attenuation Crosstalk Ratio • ELFEXT = Equal Level Far-end Crosstalk •
NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • DCR = DC resistance

Color Code

Pair No.	Color
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 Cables

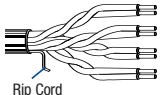
Category 5e DataTuff® Twisted Pair Cables

Heavy Duty Sunlight- and Oil-Resistant Jackets



De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Freq. MHz	Max. Atten. dB/100m	Min. PSUM			Input Imp. (Ω)	Min. RL dB
			ft.	m	lbs.	kg		inch	mm		inch	mm			NEXT dB	ACR dB/100m	ELFEXT dB/100m		

Enhanced Cat 5e • 24 AWG • Solid 0.5 mm Bare Copper • Rip Cord

Polyolefin Insulation • Industrial Grade Sunlight- and Oil-Resistant PVC Jacket (Black and Blue)																							
	7918A	NEC:	1000	305	28.0	12.7	0.51 mm	0.037	0.94	Non- Bonded-Pair Unshielded	0.230	5.84	1	2.0	62.3	60.3	60.8	100 ± 15	20.0				
		CMR	2000	610	52.0	23.6	24 AWG						4	4.1	53.3	49.2	48.7	100 ± 15	23.0				
		CMX-Outdoor					Solid BC						10	6.5	47.3	40.8	40.8	100 ± 15	25.0				
		CEC:											16	8.2	44.3	36.1	36.7	100 ± 15	25.0				
		CMR FT4											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				
4-Pair																	200	32.4	27.8	1.0	14.7	100 ± 25	15.0
Cable passes -40°C Cold Bend per UL1581 Installation Temperature: -25°C to +75°C Operating Temperature: -40°C to +75°C* 610 m put-up available in Black only.										RJ-45 Compatible Third party verified to TIA/EIA-568-B.2, Category 5e Jacket sequentially marked at 0.6 m intervals. Color Code: see chart below													

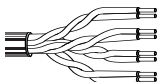
Enhanced Cat 5e • 24 AWG • Solid 0.5 mm Bare Copper • Overall Beldfoil® Shield • 24 AWG Tinned Copper Drain Wire

Polyolefin Insulation • Industrial Grade Sunlight- and Oil-Resistant Black PVC Jacket																			
Shielded	7919A	NEC:	1000	305	35.1	15.9	0.51 mm	0.042	1.07	Non-	0.265	6.73	1	2.0	62.3	60.3	60.8	100 ± 15	20.0
		CMR	2000	610	68.1	30.9	24 AWG			Bonded-Pair			4	4.1	53.3	49.2	48.7	100 ± 15	23.0
		CMX-Outdoor					Solid BC			Overall Beldfoil®			10	6.5	47.3	40.8	40.8	100 ± 15	25.0
		CEC:								+ Drain Wire			16	8.2	44.3	36.1	36.7	100 ± 15	25.0
		CMR FT4								(24 AWG TC)			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
4-Pair		Cable passes -40°C Cold Bend per UL1581 Installation Temperature: -25°C to +75°C Operating Temperature: -40°C to +75°C* 610 m put-up available in Black only.										RJ-45 Compatible Third party verified to TIA/EIA-568-B.2, Category 5e • P-07-KA060004-MSHA** Shield is bonded to jacket inner wall for electrical stability. Jacket sequentially marked at 0.6 m intervals. Color Code: see chart below							

Enhanced Cat 5e • 24 AWG • Bonded-Pair • Solid 0.5 mm Bare Copper • Overall Beldfoil® Shield • 24 AWG Tinned Copper Drain Wire

Polyolefin Insulation • Industrial Grade Sunlight- and Oil-Resistant PVC Jacket (Black, Red and Teal)																			
Shielded	7933A	NEC:	1000	305	32.0	14.5	0.51 mm	0.038	0.97	Bonded-Pair Overall Beldfoil® + Drain Wire (24 AWG TC)	0.227	5.77	1	2.0	62.3	60.3	60.8	100 ± 15	20.0
		CMR FT4	2000	610	64.8	29.4	24 AWG						4	4.1	53.3	49.2	48.7	100 ± 15	23.6
		CEC:					Solid BC						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
																			
2-Pair																			
Cable passes -40°C Cold Bend per UL1581 Installation Temperature: -25°C to +75°C Operating Temperature: -40°C to +75°C* 610 m put-up available in Black only.										M-12 or RJ-45 Compatible Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126 Shield is bonded to jacket inner wall for electrical stability. Jacket sequentially marked at 0.6 m intervals. Color Code: see chart below									
EtherNet/IP Compliant																			

Enhanced Cat 5e • 24 AWG • Bonded-Pair • Solid 0.5 mm Bare Copper

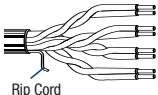
Plenum • FEP Insulation • Sunlight-, Oil- and Gas-Resistant Black FEP Jacket																							
Compliant	7928A	NEC:	1000	305	24.0	10.9	0.51 mm	0.036	0.91	Bonded-Pair Unshielded	0.187	4.57	1	2.0	65.3	63.3	60.8	100 ± 12	20.0				
High & Low Temp		Limited					24 AWG						4	4.0	56.3	52.3	48.7	100 ± 12	23.6				
Oil Res I & II		Combustible					Solid BC						10	6.4	50.3	43.9	40.8	100 ± 12	26.0				
Gas Res		FHC 25/50											16	8.1	47.3	39.1	36.7	100 ± 12	26.0				
		CMP											31.25	11.6	42.9	31.3	30.9	100 ± 15	25.0				
		CEC:											62.5	16.8	38.4	21.6	24.8	100 ± 15	23.5				
		CMP FT6											100	21.7	35.3	17.1	20.8	100 ± 15	22.5				
																	350	44.3	27.2	–	9.9	100 ± 22	17.0
																							
4-Pair		Cable passes -70°C Cold Bend per UL1581 Installation Temperature: -55°C to +150°C Operating Temperature: -70°C to +150°C*										RJ-45 Compatible • Jacket sequentially marked at 0.6 m intervals. Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126 Color Code: see chart below											
Ethernet/IP Compliant																							

TC = Tinned Copper • BC = Bare Copper • ACR = Attenuation Crosstalk Ratio • ELFEXT = Equal Level Far-end Crosstalk • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • DCR = DC resistance • * Subject to length de-rating. • ** Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration Certification.

Color Code

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

Industrial Data Solutions® – Industrial Ethernet Cables**Category 5e DataTuff® Twisted Pair Cables****Heavy Duty Sunlight- and Oil-Resistant Jackets**

De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Freq. MHz	Max. Atten. dB/100m	Min. PSUM			Input Imp. (Ω)	Min. RL dB
			ft.	m	lbs.	kg		inch	mm		inch	mm			NEXT dB	ACR dB/100m	ELFEXT dB/100m		
Enhanced Cat 5e • 24 AWG • Bonded-Pair • Solid 0.5 mm Bare Copper • Twisted Pairs • Rip Cord																			
Polyolefin Insulation • Industrial Grade Sunlight- and Oil-Resistant PVC Jacket (Black, Red or Teal)																			
	7923A	NEC:	1000	305	28.0	12.7	0.51 mm	0.038	0.97	Bonded-Pair	0.230	5.84	1	2.0	65.3	68.3	60.8	100 ± 12	20.0
		CMR	2000	610	54.0	24.5	24 AWG			Unshielded			4	4.0	56.3	52.3	48.7	100 ± 12	23.6
		CMX-Outdoor					Solid BC						8	5.7	51.8	46.1	42.7	100 ± 12	25.4
		CEC:											10	6.4	50.3	43.9	40.8	100 ± 12	26.0
		CMR FT4											16	8.1	47.3	39.1	36.7	100 ± 12	26.0
													25	10.3	44.3	34.1	32.1	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
																			
Rip Cord																			
4-Pair																			
Cable passes -40°C Cold Bend per UL1581							RJ-45 Compatible												
Installation Temperature: -25°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												
Operating Temperature: -40°C to +75°C*							P-07-KA060003-MSHA**												
610 m put-up available in Black only.							Jacket sequentially marked at 0.6 m intervals.												
Ethernet/IP. Compliant																			

Enhanced Cat 5e • 24 AWG • Bonded-Pair • Solid 0.5 mm Bare Copper • Rip Cord														
Polyolefin Insulation • PVC Inner Jacket • Industrial Grade PVC Outer Jacket (Black, Grey, Red, Teal or Blue)														
Upjacketed	11700A	NEC:	1000	305	39.0	17.7	0.51 mm	0.038	0.97	Bonded-Pair	0.285	7.24	see above	
		CMR	3000	914	117.3	53.2	24 AWG			Unshielded				
		CMX-Outdoor					Solid BC							
		CEC:									Upjacketed O.D.	0.200	5.08	
		CMR FT4												
														
Rip Cord														
4-Pair														
Cable passes -40°C Cold Bend per UL1581							RJ-45 Compatible							
Installation Temperature: -25°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							
Operating Temperature: -40°C to +75°C*							P-07-KA060005-MSHA**							
914 m put-up available in Black only.							Outer jacket is sunlight- and oil-resistant. Jacket sequentially marked at 0.6 m intervals.							
Ethernet/IP Compliant														

Enhanced Cat 5e • 24 AWG • Bonded-Pair • Solid 0.5 mm Bare Copper • Polyester Wrap • Rip Cord														
Polyolefin Insulation • PVC Inner Jacket • Interlocked AL Armor • Industrial Grade PVC Outer Jacket (Black or Grey)														
Interlocked AL Armor	121700A	NEC:	1000	305	158.7	72.0	0.51 mm	0.038	0.97	Bonded-Pair	0.530	13.46	see above	
		CM	3000	914	464.3	210.6	24 AWG			Unshielded				
		CEC:					Solid BC							
		HL												
		CMG FT4									Upjacketed O.D.	5.08		
											0.200			
														
Rip Cord														
4-Pair CMG														
Cable passes -40°C Cold Bend per UL1581							RJ-45 Compatible							
Installation Temperature: -25°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							
Operating Temperature: -40°C to +75°C*							Verified to TIA/EIA-568-B.2, Category 5e							
914 m put-up available in Black only.							Outer jacket is sunlight- and oil-resistant. Jacket sequentially marked at 1 m intervals.							

TC = Tinned Copper • BC = Bare Copper • ACR = Attenuation Crosstalk Ratio • ELFEXT = Equal Level Far-end Crosstalk •
 NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • DCR = DC resistance

* Subject to length de-rating. ** Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration Certification.

Color Code

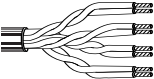
Pair No.	Color
1	White/Blue Stripe, Blue
2	White/Orange Stripe, Orange
3	White/Green Stripe, Green
4	White/Brown Stripe, Brown

Industrial Data Solutions® – Industrial Ethernet Cables

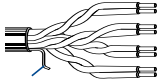
Category 5e DataTuff® Twisted Pair Cables

Heavy Duty Sunlight- and Oil-Resistant Jackets

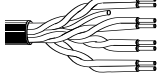


De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Freq. MHz	Max. Atten. dB/100m	Min. PSUM			Input Imp. (Ω)	Min. RL dB
			ft.	m	lbs.	kg		inch	mm		inch	mm			NEXT dB	ACR dB/100m	ELFEXT dB/100m		
Enhanced Cat 5e • 24 AWG • Bonded-Pair • Stranded (7x32) 0.6 mm Tinned Copper																			
Polyolefin Insulation • Industrial Grade Sunlight- and Oil-Resistant PVC Jacket (Black, Red or Teal)																			
 4-Pair	7924A	NEC:	1000	305	30.0	13.6	0.61 mm	0.039	0.99	Bonded-Pair	0.242	6.15	1	2.4	65.3	62.9	60.8	100 ± 12	20.0
		CMR	2000	610	58.0	26.3	24 AWG			Unshielded			4	4.8	56.3	51.5	48.7	100 ± 12	23.6
		CMX-Outdoor					(7x32) TC						8	6.8	51.8	45.0	42.7	100 ± 12	25.4
		CEC:											10	7.7	50.3	42.6	40.8	100 ± 12	26.0
		CMR FT4											16	9.7	47.3	37.5	36.7	100 ± 12	26.0
													25	12.4	44.3	31.9	32.8	100 ± 15	25.5
													31.25	13.9	42.9	29.0	30.9	100 ± 15	25.0
													62.5	20.2	38.4	18.3	24.8	100 ± 15	23.5
													100	26.0	35.3	9.2	20.8	100 ± 15	22.5
													155	33.2	32.5	–	16.9	100 ± 18	19.0
													200	38.4	30.8	–	14.7	100 ± 20	19.0
													250	43.7	29.3	–	12.8	100 ± 20	18.0
													350	53.2	27.2	–	9.9	100 ± 22	17.0
Cable passes -40°C Cold Bend per UL1581 Installation Temperature: -25°C to +75°C Operating Temperature: -40°C to +75°C* 610 m put-up available in Black only.										RJ-45 Compatible Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151; 5,734,126 and 5,763,823 Jacket sequentially marked at 0.6 m intervals. Color Code: see chart below									

Enhanced Cat 5e • 22 AWG • Bonded-Pair • Solid 0.6 mm Bare Copper • Rip Cord

Polyolefin Insulation • Industrial Grade Sunlight- and Oil-Resistant Black PVC Jacket																			
 Rip Cord 4-Pair	7922A	NEC:	1000	305	46.3	21.0	0.64 mm	0.048	1.22	Bonded-Pair	0.301	7.65	1	2.0	65.3	63.3	60.8	100 ± 12	20.0
		PLTC	2000	610	92.6	42.0	22 AWG			Unshielded			4	4.0	56.3	52.3	48.7	100 ± 12	23.0
		CMR					Solid BC						8	5.7	51.8	46.1	42.7	100 ± 12	24.5
		CMX-Outdoor											10	6.4	50.3	43.9	40.8	100 ± 12	25.0
		CEC:											16	8.1	47.3	39.1	36.7	100 ± 12	25.0
		CMR FT4											25	10.3	44.3	34.1	32.8	100 ± 15	24.3
													31.25	11.6	42.9	31.3	30.9	100 ± 15	23.6
													62.5	16.8	38.4	21.6	24.8	100 ± 15	21.5
													100	21.7	35.3	17.1	20.8	100 ± 15	20.1
													155	27.7	32.5	4.7	16.9	100 ± 18	19.0
													200	32.0	30.8	3.0	14.7	100 ± 20	19.0
													250	36.4	29.3	—	12.8	100 ± 20	18.0
													350	44.3	27.2	—	9.9	100 ± 22	17.0
Cable passes -25°C Cold Bend per UL1581 Installation Temperature: -10°C to +75°C Operating Temperature: -25°C to +75°C*										Third party verified to TIA/EIA-568-B.2, Category 5e U.S. Patents 5,606,151 and 5,734,126 Jacket sequentially marked at 0.6 m intervals. Color Code: see chart below									

Cat 6 • 23 AWG • Bonded-Pair • Solid 0.6 mm Bare Copper

Plenum • FEP Insulation • Sunlight-, Oil- and Gas-Resistant Black FEP Jacket																			
High & Low Temp	7931A	NEC:	1000	305	35.1	15.9	0.57 mm	0.038	0.97	Bonded-Pair	0.214	5.44	1	2.0	72.3	70.3	64.8	100 ± 15	20.0
Oil Res I & II		Limited					23 AWG			Unshielded			10	6.0	57.3	51.3	44.8	100 ± 15	25.0
Gas Res		Combustible					Solid BC						20	8.5	52.8	44.3	38.7	100 ± 15	25.0
		FHC 25/50											31.25	10.7	49.9	39.2	34.9	100 ± 15	23.6
		CMP											62.5	15.4	45.4	30.0	28.8	100 ± 15	21.5
		CEC:											100	19.8	42.3	22.5	24.8	100 ± 15	20.1
		CMP FT6											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
																			
4-Pair																			
Cable passes -70°C Cold Bend per UL1581 Installation Temperature: -55°C to +150°C Operating Temperature: -70°C to +150°C*										RJ-45 Compatible Third party verified to TIA/EIA-568-B.2-1, Category 6 • U.S. Patents 5,606,151 and 5,734,126 Jacket sequentially marked at 0.6 m intervals. Color Code: see chart below									

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

Color Code

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

Heavy Duty Sunlight- and Oil-Resistant Jackets



Enhanced Cat 6 • 23 AWG • Bonded-Pair • Solid 0.6 mm Bare Copper • Rip Cord																			
Polyolefin Insulation • PVC Inner Jacket • Industrial Grade PVC Outer Jacket (Black and Grey)																			
Upjacketed	11872A	NEC:	1000	305	66.1	30.0	0.57 mm	0.041	1.04	Bonded-Pair	0.475	12.07	1	1.9	72.3	70.0	64.8	100 ± 12	20.0
		CM					23 AWG			Unshielded	x	x	4	3.7	63.3	59.0	52.7	100 ± 12	23.0
		CEC:					Solid BC				0.265	6.73	10	5.9	57.3	51.0	44.8	100 ± 12	25.0
		CM											16	7.5	54.3	46.0	40.7	100 ± 12	25.0
		FT1																	
											Upjacketed O.D.	31.25	10.6	49.9	39.0	34.9	100 ± 15	25.0	
											0.365	9.27	62.5	15.4	45.4	30.0	28.8	100 ± 15	21.5
											x	x	100	19.8	42.3	25.0	24.8	100 ± 15	21.0
											0.165	4.19	155	25.1	39.5	14.0	20.9	100 ± 15	21.0
													200	29.0	37.9	10.0	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
Cable passes -25°C Cold Bend per UL1581										RJ-45 Compatible									
Installation Temperature: -10°C to +75°C										Verified to TIA/EIA-568-B.2-1, Category 6									
Operating Temperature: -25°C to +75°C*										U.S. Patents 5,606,151, 5,734,126 and 5,821,467									
										Jacket sequentially marked at 0.6 m intervals.									
* Value provided for information only.																			

BC = Bare Copper • ACR = Attenuation Crosstalk Ratio • ELFX = Equal Level Far-end Crosstalk • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • DCR = DC resistance
* Subject to length de-rating.

Pair No.	Color
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 Cables

Coaxial Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

Thinnet 10Base2 Ethernet • 20 AWG • Stranded (19x32) 0.9 mm Tinned Copper • Duobond® II • 93 % Tinned Copper Braid**Ethernet • Foam HDPE Insulation • Grey PVC Jacket**

30V 60°C	9907	NEC:	500	152	12.6	5.7	0.94 mm	0.102	2.59	Duobond® II	0.185	4.70	50	80%	25.4	83.3	1	0.4	1.4
UL AWM Style 1354		CL2	U-1000	U-305	25.1	11.4	20 AWG			+ 93% TC							10	1.3	4.3
		CM	1000	305	25.1	11.4	(19x32) TC			Braid							50	2.9	9.5
		CEC:	1640	500	41.0	18.6	47.9 Ω/km*			19.0 Ω/km***							100	4.2	13.8
		CM	3280	1000	82.2	37.3	28.9 Ω/km**										200	6.1	20.0
																	400	8.9	29.2
																	700	12.1	39.7
																	900	13.9	45.6
																	1000	14.8	48.6

DEC Part No. 17-01248-00

Plenum • Ethernet • Foam FEP Insulation • Grey Fluorocopolymer Jacket

300V 150°C	89907	NEC:	† 500	152	12.6	5.7	0.94 mm	0.095	2.41	Duobond® II	0.160	4.06	50	80%	25.4	83.3	1	0.4	1.4
		CL2P	† 1000	305	24.0	10.9	20 AWG			+ 93% TC							10	1.3	4.3
		CMP	† 2500	762	60.2	27.3	(19x32) TC			Braid							50	2.9	9.5
		CEC:					47.9 Ω/km*			19.0 Ω/km***							100	4.2	13.8
		CMP					28.9 Ω/km**										200	6.1	20.0
																	400	9.2	30.2
																	700	12.9	42.3
																	900	15.0	49.2
																	1000	16.0	52.5

RG-58/U Type

DEC Part No. 17-01248-00

Suitable for outdoor and direct burial applications.

Thicknet 10Base5 Ethernet • 12 AWG • Solid 2.1 mm Bare Copper • Duobond® IV Quad Shield**Ethernet • Foam PE Insulation • Yellow PVC Jacket**

30V 60°C	9880	NEC:	500	152	66.1	30.0	2.05 mm	0.243	6.17	Duobond® IV	0.405	10.29	50	78%	25.9	85.3	1	0.2	0.6
UL AWM Style 1478		CL2	1000	305	131.2	59.5	12 AWG			Quad Shield							5	0.4	1.2
		CM	1640	500	220.2	99.9	Solid BC			5.0 Ω/km***							10	0.5	1.7
		CEC:					9.7 Ω/km*										50	1.2	3.9
		CM					4.7 Ω/km**										100	1.7	5.6
																	200	2.6	8.4
																	400	3.9	12.8
																	700	5.5	18.1
																	900	6.5	21.3
																	1000	6.9	22.6

DEC Part No. 17-00451-00

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

Plenum • Foam FEP Insulation • Orange Fluorocopolymer Jacket

150°C	89880	NEC:	1000	305	134.3	60.9	2.05 mm	0.245	6.22	Duobond® IV	0.375	9.53	50	78%	25.9	85.3	see above		
		CL2P	†† 1640	500	225.1	102.1	12 AWG			Quad Shield									
		CMP					Solid BC			5.0 Ω/km***									
		CEC:					9.7 Ω/km*												
		CMP FT6					4.7 Ω/km**												

DEC Part No. 17-00324-00

Ring-band stripes marked every 2.5 m to aid users in tap placement. Suitable for outdoor and direct burial applications.

* DC loop resistance • ** DC resistance inner conductor • *** DC resistance outer conductor • TC = Tinned Copper • BC = Bare Copper • DCR = DC resistance

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

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

Duobond® II and Duobond® IV see technical information page 23.13.

Industrial Data Solutions® – Industrial Twinax

Blue Hose® Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranded) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

20 AWG • Stranded (7x28) 1.0 mm Tinned Copper • Overall Beldfoil® + 55 % Tinned Copper Braid • 20 AWG Tinned Copper Drain Wire

Polyethylene Insulation • Blue Sunlight-Resistant PVC Jacket																				
 Z-Fold®	300V 80°C	9463	NEC:	100	31	4.2	1.9	0.96 mm	0.076	1.92	Overall	0.238	6.05	78	66%	19.7	64.6	1	0.6	2.0
	UL AWM Style 2464		CM CL2	U-500	U-152	18.5	8.4	20 AWG			Beldfoil®							10	2.1	6.9
			CEC:	500	152	18.5	8.4	(7x28) TC			+ Overall							50	5.0	16.4
			CM	U-1000	U-305	37.0	16.8				55% TC Braid							100	7.5	24.6
				1000	305	37.0	16.8				+ Drain Wire							200	11.0	36.1
				† 6000	1829	233.9	106.1				(20 AWG TC)							400	16.0	52.5
			† 10000	3048	370.8	168.2														

Color Code: Clear, Blue
305 m, 1829 m and 3048 m put-ups also
available in Brown, Orange or Violet.

Allen-Bradley P/N 1770-CD
P-7K-SC-182141-MSHA*
CPE jacket optional.

Polyethylene Insulation • Blue FRNC/LSNH Jacket																			
 Z-Fold®	300V 80°C	9463NH	IEC	1000	305	37.5	17.0	0.96 mm	0.077	1.96	Overall	0.250	6.35	78	66%	19.7	64.6	see above	
			332-3C	1640	500	64.6	29.3	20 AWG			Beldfoil®								
			BS 7655	3280	1000	117.5	53.3	(7x28) TC			+ Overall								
											55% TC Braid								

Color Code: Clear, Blue

Polyethylene Insulation • Blue FRNC/LSNH Inner Jacket • Steel Wire Armor • Blue FRNC/LSNH Outer Jacket																			
 Z-Fold®	300V 80°C	9463LS	IEC	1640	500	249.1	113.0	0.96 mm	0.077	1.96	Overall	0.250	6.35	78	66%	19.7	64.6	see above	
	Steel Wire Armor		332-3C	3280	1000	537.9	244.0	20 AWG			Beldfoil®	0.423	10.75						
			BS 7655	4920	1500	925.9	420.0	(7x28) TC			+ Overall								
											55% TC Braid								

Color Code: Clear, Blue

Polyethylene Insulation • Blue Sunlight-Resistant LDPE Jacket																			
 Z-Fold®	300V 80°C	9463DB		1000	305	33.1	15.0	0.96 mm	0.076	1.92	Overall	0.240	6.10	78	66%	19.7	64.6	see above	
	Flooded			5000	1524	155.2	70.4	20 AWG			Beldfoil®								
	Direct Burial							(7x28) TC			+ Overall								

Color Code: Clear, Blue

Allen-Bradley P/N 1770-CD

20 AWG • Stranded (42x36) 1.0 mm Tinned Copper • Overall Beldfoil® + 85 % Tinned Copper Braid

Polyethylene Insulation • Blue Sunlight-Resistant PVC Jacket																			
 Z-Fold®	300V 60°C	9463F	NEC:	1000	305	42.1	19.1	0.97 mm	0.075	1.91	Overall	0.243	6.17	78	66%	19.7	64.6	see above	
	UL AWM Style 2464		CM CL2	5000	1524	205.2	93.1	20 AWG			Beldfoil®								
			CEC:					(42x36) TC			+ Overall								
			CM								85% TC Braid								

High-Flex

Color Code: Clear, Blue

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

TC = Tinned Copper • DCR = DC resistance

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

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

Industrial Data Solutions® – Industrial Twinax

Blue Hose® Cables



De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

20 AWG • Stranded (7x28) 1.0 mm Tinned Copper • Overall Beldfoil® + 76 % Tinned Copper Braid • 20 AWG Tinned Copper Drain Wire

Plenum • FEP Insulation • Blue FEP Jacket																				
	300V 200°C	89463	NEC:	1000	305	34.0	15.4	0.96 mm	0.073	1.85	Overall	0.203	5.16	78	66%	19.7	64.6	1	0.6	2.0
	High Temperature		CMP CL2P	2500	762	90.2	40.9	20 AWG			Beldfoil®							10	2.1	6.9
			CEC:					(7x28) TC			+ Overall							50	5.0	16.4
			CMP FT6								76% TC Braid							100	7.5	24.6
											+ Drain Wire							200	11.0	36.1
											(20 AWG TC)							400	16.0	52.5

Color Code: Clear, Blue

Allen-Bradley P/N 1770-CD

20 AWG • Stranded (7x28) 1.0 mm Tinned Copper • Beldfoil® • 55 % Tinned Copper Braid • 20 AWG Tinned Copper Drain Wire

Polyethylene Insulation • Blue PVC Inner Jacket • Aluminum Interlocked Armor • Blue Sunlight-Resistant PVC Outer Jacket																			
 	300V 60°C	129463	NEC:	1000	305	122.4	55.5	0.96 mm	0.076	1.92	Overall	*0.238	*6.05	78	66%	19.7	64.6		see above
	Aluminum Armored		CM CL2	6000	1829	925.9	420.0	20 AWG			Beldfoil®	**0.563	**14.30						
			CEC:					(7x28) TC			+ Overall								
			CM								55% TC Braid								
			CMG FT4								+ Drain Wire								
			HLBCD								(20 AWG TC)								
			(Haz Loc)																

* Over Armor

Color Code: Clear, Blue

Allen-Bradley P/N 1770-CD

** Under Armor

Polyethylene Insulation • Blue PVC Inner Jacket • Steel Armor • Blue Sunlight-Resistant PVC Outer Jacket																			
 	300V 60°C	139463	NEC:	1000	305	220.5	100.0	0.96 mm	0.076	1.92	Overall	*0.238	*6.05	78	66%	19.7	64.6		see above
	Steel Armored		CM CL2	6000	1829	1491.2	676.4	20 AWG			Beldfoil®	**0.563	**14.30						
			CEC:					(7x28) TC			+ Overall								
			CM								55% TC Braid								
			CMG FT4								+ Drain Wire								
			HLBCD								(20 AWG TC)								
			(Haz Loc)																

* Over Armor

Color Code: Clear, Blue

Allen-Bradley P/N 1770-CD

** Under Armor

Polyethylene Insulation • Blue PVC Inner Jacket • Continuously Corrugated Aluminum Armor • Blue Sunlight-Resistant PVC Outer Jacket																			
 	300V 60°C	189463	NEC:	2000	610	258.2	117.1	0.96 mm	0.076	1.92	Overall	*0.238	*6.05	78	66%	19.7	64.6		see above
	Continuously Armored		PLTC					20 AWG			Beldfoil®	**0.500	**12.70						
								(7x28) TC			+ Overall								
											55% TC Braid								
											+ Drain Wire								
											(20 AWG TC)								

* Over Armor

Color Code: Clear, Blue

Allen-Bradley P/N 1770-CD

** Under Armor

TC = Tinned Copper • DCR = DC resistance

Industrial Data Solutions® – Industrial Twinax

Twinaxial Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

20 AWG • Stranded (7x28) 1.0 mm One Tinned, One Bare Copper • Duofoil® • 86 % Tinned Copper Braid

Polyethylene Insulation • Polyethylene Inner Jacket • Black PVC Outer Jacket																				
	75°C	9207	NEC:	100	31	7.1	3.2	0.96 mm	0.083	2.11	Overall Duofoil® + Overall 86% TC Braid	0.330	8.38	100	66%	14.5	47.6	1	0.3	1.0
			CMG CL2	U-500	U-152	34.2	15.5	20 AWG										10	1.2	3.9
			CEC:	500	152	34.6	15.7	(7x28) TC + BC										50	2.8	9.2
			CMG FT4	1000	305	68.1	30.9											100	4.1	13.5
				1640	500	111.8	50.7											200	6.4	21.0
				2000	610	136.2	61.8											400	10.2	33.5
				3280	1000	220.2	99.9													
				5000	1524	350.8	159.1													

Color Code: Clear, Clear

IBM P/N 7362211

CPE jacket optional

Polyethylene Insulation • Black FRNC/LSNH Jacket																		
80°C		9207NH	IEC 332	1000	305	44.3	20.1	0.96 mm	0.077	1.96	Overall Duofoil® + Overall 86% TC Braid	0.339	8.60	100	66%	14.5	47.6	see above
			BS 7655	1640	500	69.9	31.7	20 AWG										
				3280	1000	143.7	65.2	(7x28) TC + BC										

Color Code: Clear, Clear

16 AWG • Solid 1.3 mm Bare Copper • Duofoil® • 90 % Tinned Copper Braid

Foam Polyethylene Insulation • Black PVC Jacket																					
	30V 60°C	9860	NEC:	500	152	52.0	23.6	1.29 mm	0.161	4.09	Overall Duofoil® + Overall 90% TC Braid	0.440	11.18	124	78%	10.9	35.8	1	0.2	0.6	
	UL AWM Style 2448		CMX	1000	305	103.2	46.8	16 AWG										10	0.7	2.3	
			CEC:	2000	610	202.4	91.8	Solid BC											50	1.8	5.9
			CMX																100	2.9	9.5
																		200	4.1	13.5	
																		400	6.2	20.3	

Color Code: Clear, Blue

CPE jacket optional

Foam Polyethylene Insulation • Black FRNC/LSNH Jacket																		
	80°C	9860NH	IEC 332	1640	500	183.0	83.0	1.29 mm	0.161	4.09	Overall Duofoil® + Overall 90% TC Braid	0.441	11.20	124	78%	10.9	35.8	see above
			BS 7655	3280	1000	354.9	161.0	16 AWG										
								Solid BC										

Color Code: Clear, Blue

Foam Polyethylene Insulation • FRNC/LSNH Chrome Inner Jacket • Steel Wire Armor • Black FRNC/LSNH Outer Jacket																		
	80°C	9860LS	IEC	1640	500	581.8	263.8	1.29 mm	0.161	4.09	Overall Duofoil® + Overall 90% TC Braid	*0.441	*11.20	124	78%	10.9	35.8	see above
			332-3C	3280	1000	1262.6	572.7	16 AWG										
			BS 7655					Solid BC										

Color Code: Clear, Blue

* Under Armor

** Over Armor

TC = Tinned Copper • DCR = DC resistance
Duofoil® see technical information page 23.13.

Industrial Data Solutions® – Industrial Twinax

Twinaxial Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m	
22 AWG • Stranded (19x34) 0.8 mm Tinned Copper • Duofoil® • 22 AWG Tinned Copper Drain Wire																				
Datalene® Insulation • Black PVC Jacket																				
	30V 60°C	9182	NEC:	U-500	U-152	22.5	10.2	0.78 mm	0.137	3.49	Overall Duofoil® + Drain Wire (22 AWG TC)	0.345	8.76	150	78%	8.8	28.9	1	0.4	1.3
	UL AWM Style 2668		CL2X CMX	500	152	22.9	10.4	22 AWG										10	1.2	3.9
			CEC:	1000	305	44.1	20.0	(19x34) TC										50	2.7	8.9
			CMX															100	4.3	14.1
																		200	6.2	20.3
																	400	8.8	28.9	
VW-1																				
Color Code: Black, Yellow																				
Dual version: YR41609 CPE jacket optional.																				
Datalene® Insulation • Black FRNC/LSNH Jacket																				
	300V 80°C	9182NH	IEC 332-1	1000	305	50.3	22.8	0.78 mm	0.136	3.45	Overall Duofoil® + Drain Wire (22 AWG TC)	0.346	8.80	150	78%	8.8	28.9	1	0.4	1.3
			BS 7655	1640	500	80.0	36.3	22 AWG										5	0.9	2.8
				3280	1000	150.1	68.1	(19x34) TC										10	1.2	3.9
																		20	1.7	5.6
																		50	2.7	8.9
																	100	4.3	14.1	
																	200	6.2	20.3	
																	400	8.8	28.9	
Color Code: Black, Yellow																				
Plenum • Foam FEP Teflon® Insulation • Black FEP Teflon® Jacket																				
	89182	NEC:	100	31	6.4	2.9	0.78 mm	0.139	3.53	Overall Duofoil® + Drain Wire (22 AWG TC)	0.307	7.80	150	78%	8.8	28.9	1	0.4	1.3	
		CMP	† 500	152	28.0	12.7	22 AWG											10	1.2	3.9
		CL2P	† 1000	305	53.1	24.1	(19x34) TC											50	2.7	8.9
		CEC:																100	4.3	14.1
		CMP FT6																200	6.2	20.3
																	400	8.8	28.9	
Color Code: Black, Yellow																				

TC = Tinned Copper • DCR = DC resistance

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

Duofoil® see technical information page 23.13.

Teflon® is a DuPont trademark.

Industrial Data Solutions® – Industrial Twinax

DataTray® 600V Twinaxial Cables



De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m
18 AWG • Stranded (7x26) 1.2 mm Tinned Copper • Beldfoil® • 55 % Tinned Copper Braid • 20 AWG Tinned Copper Drain Wire																			
Flame-Retardant Polyolefin Insulation • Blue Sunlight-Resistant PVC Jacket																			
 600V 75°C UL Type TC	3072F	NEC:	250	76	17.6	8.0	1.22 mm	0.096	2.44	Overall	0.324	8.23	78	65%	19.5	64.0	1	0.5	1.7
		CMG, ITC	500	152	35.1	15.9	18 AWG			Beldfoil®							10	2.0	6.6
		TC, PLTC	1000	305	69.0	31.3	(7x26) TC			+ Overall							50	3.8	12.4
		CEC:	2500	762	170.2	77.2				55% TC Braid							100	5.4	17.6
		CMG FT4	5000	1524	345.2	156.6				+ Drain Wire							200	7.6	24.8
			10000	3049	710.5	322.3				(20 AWG TC)							400	10.7	35.1
Z-Fold®																			
VW-1																			
Color Code: Natural, Blue																			
For CPE jacketed version order Part No. YM45044 P-MSHA-C-7K-1827*																			
Flame-Retardant Polyolefin Insulation • Blue Sunlight-Resistant PVC Jacket																			
 600V 75°C UL Type TC	3073F	NEC:	250	76	20.9	9.5	1.22 mm	0.123	3.12	Overall	0.388	9.86	100	65%	15.3	50.2	1	0.4	1.3
		CMG, ITC	1000	305	85.1	38.6	18 AWG			Beldfoil®							10	1.3	4.4
		TC, PLTC	5000	1524	420.4	190.7	(7x26) TC			+ Overall							50	3.0	9.7
		CEC:								55% TC Braid							100	4.2	13.8
		CMG FT4								+ Drain Wire							200	5.9	19.5
										(20 AWG TC)							400	7.5	24.7
Z-Fold®																			
Color Code: Natural, Blue																			
CPE jacket optional.																			
Flame-Retardant Polyolefin Insulation • Blue Sunlight-Resistant PVC Jacket																			
 600V 75°C UL Type TC	3074F	NEC:	500	152	62.6	28.4	1.22 mm	0.164	4.17	Overall	0.460	11.68	124	65%	12.3	40.3	1	0.3	1.1
		CMG, ITC	1000	305	121.0	54.9	18 AWG			Beldfoil®							10	1.1	3.5
		TC, PLTC	2500	762	300.3	136.2	(7x26) TC			+ Overall							50	2.4	7.8
		CEC:								55% TC Braid							100	3.4	11.1
		CMG FT4								+ Drain Wire							200	4.8	15.7
										(20 AWG TC)							400	6.8	22.2
Z-Fold®																			
Color Code: Natural, Blue																			
CPE jacket optional.																			

TC = Tinned Copper • DCR = DC resistance

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

Industrial Data Solutions® – Industrial Coax

ControlNet™ Quad Shielded Coax



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

18 AWG • Solid 1.0 mm Copper-Covered Steel • Duobond® IV Quad Shield**Foam Polyethylene Insulation • PVC Jacket (Black or Intrinsically Safe Blue)**

	3092A	NEC:	500	152	20.1	9.1	1.02 mm	0.180	4.57	Duobond® IV Quad Shield 11.8 Ω/km***	0.298	7.57	75	82%	16.2	53.1	1	0.3	1.1
		CL2R CMR	1000	305	39.0	17.7	18 AWG										2	0.4	1.2
		CEC:	2000	610	78.0	35.4	Solid CCS										5	0.5	1.5
		CMG FT4	2500	762	92.6	42.0	103.6 Ω/km*										10	0.6	1.9
							91.8 Ω/km**										20	0.9	2.8
																	50	1.4	4.5

RG-6/U Type

Sweep tested 5 MHz to 50 MHz.

CPE jacket optional.

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

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

	3093A	NEC:	1000	305	40.1	18.2	1.02 mm	0.170	4.32	Duobond® IV Quad Shield 11.8 Ω/km***	0.274	6.96	75	82%	16.3	53.5	1	0.4	1.2
		CMP	† 2000	610	80.0	36.3	18 AWG										2	0.4	1.2
		CEC:	† 2500	762	95.0	43.1	Solid CCS										5	0.5	1.6
		CMP FT6					103.6 Ω/km*										10	0.6	2.1
							91.8 Ω/km**										20	0.9	3.1
																	50	1.5	4.9

RG-6/U Type

Sweep tested 5 MHz to 50 MHz.

Blue available as standard in 305 m only.

Allen-Bradley P/N 1786

Suitable for outdoor and direct burial applications

18 AWG • Stranded (105x40) 1.0 mm Bare Copper • Duobond® IV Quad Shield**Foam Polyethylene Insulation • Black PVC Jacket**

	3092F	NEC:	1000	305	44.1	20.0	1.02 mm	0.183	4.65	Duobond® IV Quad Shield 11.8 Ω/km***	0.303	7.70	75	79%	17.0	55.8	1	0.4	1.2
		CL2R CMR	5000	1524	220.0	99.8	18 AWG										2	0.5	1.5
		CEC:					(105x40) BC										5	0.8	2.6
		CMR FT4					46.2 Ω/km*										10	1.2	3.9
							34.4 Ω/km**										20	2.0	6.6
																	50	3.2	10.5

RG-6/U Type

Sweep tested 5 MHz to 400 MHz.

Allen-Bradley P/N 1786

IEEE 802.4 MAP/IEEE 802.7 Mini-MAP.

CPE jacket optional.

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

123092F – Aluminum Armor

133092F – Steel Armor

* DC loop resistance • ** DC resistance inner conductor • *** DC resistance outer conductor • BC = Bare Copper • CCS = Copper-Covered Steel • DCR = DC resistance
 † Final put-up length may vary 0% to +10% from length shown.

Duobond® IV see technical information page 23.13.

ControlNet™ is a ControlNet International trademark.

Industrial Data Solutions® – Industrial Coax

ControlBus™ Quad Shielded Coax



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m
18 AWG • Solid 1.0 mm Copper-Covered Steel • Duobond® IV Quad Shield																			
Gas-Injected Foam Polyethylene Insulation • Grey PVC Jacket																			
	3131A	NEC:	1000	305	41.0	18.6	1.02 mm	0.180	4.57	Duobond® IV Quad Shield 11.8 Ω/km***	0.300	7.62	75	82%	16.2	53.1	1	0.3	1.1
		CL2R CMR	2500	762	100.1	45.4	18 AWG										2	0.4	1.2
		CEC:					Solid CCS										5	0.5	1.5
		CMG FT4					103.6 Ω/km*										10	0.6	1.9
							91.8 Ω/km**										20	0.9	2.8
																	50	1.4	4.5
																	100	2.0	6.5
																	200	2.8	9.3
																	300	3.5	11.4
																	400	4.1	13.3
Sweep tested 5 MHz to 400 MHz.																	CPE jacket optional.		
IEEE 802.4 MAP/IEEE 802.7 Mini-MAP																	Tap marks every 2.6 m to aid users in installation.		
Plenum • Foam FEP Insulation • Grey Fluorocopolymer Jacket																			
	3132A	NEC:	1000	305	36.2	16.4	1.02 mm	0.170	4.32	Duobond® IV Quad Shield 11.8 Ω/km***	0.274	6.96	75	82%	16.3	53.5	1	0.4	1.2
		CMP					18 AWG										2	0.4	1.2
		CEC:					Solid CCS										5	0.5	1.6
		CMG FT6					103.6 Ω/km*										10	0.6	2.1
							91.8 Ω/km**										20	0.9	3.1
																	50	1.5	4.9
																	100	2.1	7.0
																	200	3.0	9.8
																	300	3.7	12.0
																	400	4.2	13.9
Sweep tested 5 MHz to 400 MHz.																	Tap marks every 2.6 m to aid users in installation.		
IEEE 802.4 MAP/IEEE 802.7 Mini-MAP																	Suitable for outdoor and direct burial applications.		
14 AWG • Solid 1.6 mm Copper-Covered Steel • Duobond® IV Quad Shield																			
Gas-Injected Foam Polyethylene Insulation • Grey PVC Jacket																			
	3094A	NEC:	500	152	35.5	16.1	1.63 mm	0.280	7.11	Duobond® IV Quad Shield 4.9 Ω/km***	0.407	10.34	75	82%	16.2	53.1	1	0.2	0.5
		CL2R CMR	1000	305	61.9	28.1	14 AWG										2	0.2	0.6
		CEC:	2500	762	140.2	63.6	Solid CCS										5	0.3	0.9
		CMG FT4					41.0 Ω/km*										10	0.4	1.2
							36.1 Ω/km**										20	0.5	1.8
																	50	0.8	2.7
																	100	1.2	3.8
																	200	1.6	5.3
																	300	2.0	6.5
																	400	2.3	7.5
Sweep tested 5 MHz to 400 MHz.																	CPE jacket optional.		
IEEE 802.4 MAP																	Tap marks every 2.6 m to aid users in installation.		
Plenum • Foam FEP Insulation • Grey Fluorocopolymer Jacket																			
	3095A	NEC:	1000	305	76.1	34.5	1.63 mm	0.280	7.11	Duobond® IV Quad Shield 12.8 Ω/km***	0.387	9.83	75	82%	16.5	54.1	1	0.2	0.6
		CMP					14 AWG										2	0.2	0.7
		CEC:					Solid CCS										5	0.3	0.9
		CMG FT6					48.9 Ω/km*										10	0.4	1.3
							36.1 Ω/km**										20	0.6	2.0
																	50	1.2	3.9
																	100	1.7	5.6
																	200	2.5	8.2
																	300	3.0	10.0
																	400	3.5	11.5
Sweep tested 5 MHz to 400 MHz.																	Tap marks every 2.6 m to aid users in installation.		
IEEE 802.4 MAP																	Suitable for outdoor and direct burial applications.		

* DC loop resistance • ** DC resistance inner conductor • *** DC resistance outer conductor • CCS = Copper-Covered Steel • DCR = DC resistance
Duobond® IV see technical information page 23.13.

Industrial Data Solutions® – Industrial Data

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



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m
FOUNDATION Fieldbus/PROFIBUS PA • 18 AWG • Stranded (7x26) 1.2 mm Tinned Copper • Beldfoil® • 20 AWG Tinned Copper Drain Wire																			
Polyolefin Insulation • PVC Jacket (Orange and Blue)																			
Type A 300V 75°C (31.25 kbits/sec)	3076F	NEC: PLTC CM ITC CEC: CM	250 500 1000 2500 † 5000	76 152 305 762 1524	10.6 18.5 34.2 85.1 170.4	4.8 8.4 15.5 38.6 77.3	1.22 mm 18 AWG (7x26) TC	0.088	2.24	Overall Beldfoil® + Drain Wire (20 AWG TC)	0.253	6.43	100 @ 31.25 KHz	66%	24.0	78.7	0.039	0.1	0.26
																			
Shorting Fold		Color Code: Orange, Blue Fieldbus: Orange jacket Profibus PA: Intrinsically safe Blue jacket. Blue available as standard in 305 m put-up only. CPE jacket optional.																	
		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																	
Polyolefin Insulation • FRNC/LSNH Jacket (Blue and Orange)																			
300V 80°C	3076ENH	IEC 332-3C BS 7655	1640 3280	500 1000	98.3 191.1	44.6 86.7	1.22 mm 18 AWG (7x26) TC	0.088	2.24	Overall Beldfoil® + Drain Wire (20 AWG TC)	0.295	7.50	100	66%	24.4	80.0	0.01 0.039 0.1 0.5 1.0	0.1 0.2 0.2 0.6 1.0	0.4 0.5 0.8 2.1 3.2
																			
Shorting Fold		Color Code: White, Black																	
Polyolefin Insulation • FRNC/LSNH Inner Jacket (Black and Blue) • Steel Wire Armor • Black FRNC/LSNH Outer Jacket																			
300V 80°C	3076ELS	IEC 332-3C BS 7655	1640 3280	500 1000	394.8 737.0	179.1 334.3	1.22 mm 18 AWG (7x26) TC	0.088	2.24	Overall Beldfoil® + Drain Wire (20 AWG TC)	*0.295 **0.512	*7.50 **13.00	100	66%	24.4	80.0	see above		
																			
Shorting Fold		* Under Armor ** Over Armor																	
FOUNDATION Fieldbus • 22 AWG • Stranded (7x30) 0.8 mm Tinned Copper • Beldfoil® • 20 AWG Tinned Copper Drain Wire																			
Polyolefin Insulation • Orange PVC Jacket																			
Type B 300V 150°C (31.25 kbits/sec)	3077F	NEC: PLTC CM ITC CEC: CM	† 500 † 1000	152 305	11.0 22.9	5.0 10.4	0.76 mm 22 AWG (7x30) TC	0.059	1.50	Overall Beldfoil® + Drain Wire (20 AWG TC)	0.196	4.97	100 @ 31.25 KHz	66%	23.5	77.1	0.039	0.1	0.5
																			
Shorting Fold		Color Code: Orange, Blue CPE and LSZH jacketed versions also available.																	
		123077F – Version with Aluminum Interlocked Armor 133077F – Version with Steel Interlocked Armor																	
Polyolefin Insulation • FRNC/LSNH Jacket (Blue and Orange)																			
300V 80°C	3077ENH	IEC 332-3C BS 7655	1640 3280	500 1000	86.9 168.2	39.4 76.3	0.76 mm 22 AWG (7x30) TC	0.059	1.50	Overall Beldfoil® + Drain Wire (20 AWG TC)	0.295	7.50	100	66%	25.9	85.0	0.01 0.039 0.1 0.5 1.0	0.2 0.2 0.3 1.1 1.6	0.6 0.7 0.9 3.5 5.1
																			
Shorting Fold		Color Code: White, Black																	
Polyolefin Insulation • FRNC/LSNH Inner Jacket (Black and Blue) • Steel Wire Armor • Black FRNC/LSNH Outer Jacket																			
300V 80°C	3077ELS	IEC 332-3C BS 7655	1640 3280	500 1000	381.8 741.8	173.2 336.5	0.76 mm 22 AWG (7x30) TC	0.059	1.50	Overall Beldfoil® + Drain Wire (20 AWG TC)	*0.295 **0.512	*7.50 **13.00	100	66%	25.9	85.0	see above		
																			
Shorting Fold		* Under Armor ** Over Armor																	
		Color Code: White, Black																	

TC = Tinned Copper • DCR = DC resistance

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

Industrial Data Solutions® – Industrial Data

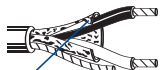
DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

FOUNDATION Fieldbus • 22 AWG • Stranded (7x30) 0.8 mm Tinned Copper • Beldfoil® • 20 AWG Tinned Copper Drain Wire

FHDPE Insulation • Orange PVC Jacket																			
High Speed 300V 75°C (1.0 & 2.5 Mbits/sec)	3078F	NEC:	250	76	9.9	4.5	0.76 mm	0.121	3.07	Overall Beldfoil® + Drain Wire (20 AWG TC)	0.351	8.92	150 @ 1 MHz	78%	8.5	27.9	0.25	0.2	0.6
		PLTC CM	500	152	22.9	10.4	22 AWG										0.625	0.3	0.9
		CEC:	1000	305	44.1	20.0	(7x30) TC										1.25	0.3	1.1
		CM	2500	762	115.1	52.2											3.125	0.6	1.8



Shorting Fold

Color Code: Orange, Blue
CPE and LSZH jacketed versions also available.

123078F – Version with Aluminum Interlocked Armor
133078F – Version with Steel Interlocked Armor

DataBus® PROFIBUS • DP EN50170-2-2

De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

Profibus DP • 22 AWG • Solid 0.6 mm Bare Copper • Beldfoil® • 65 % Tinned Copper Braid

FHDPE Insulation • Chrome and Violet PVC Jacket																			
300V 75°C	3079A	NEC:	1000	305	56.0	25.4	0.64 mm	0.099	2.52	Overall Beldfoil® + Overall 65% TC Braid	0.315	8.00	150	78%	8.5	27.9	0.2	0.3	0.9
		PLTC CMG	2000	610	112.0	50.8	22 AWG										4	0.7	2.2
		CEC:	3600	1098	201.5	91.4	Solid BC										16	1.4	4.5
		CMG FT4															100	3.8	12.3



Color Code: Red, Green
Siemens Sinec L2 cable
UL AWM 20201 (600V)

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

Profibus DP • 22 AWG • Stranded (7x30) 0.8 mm Bare Copper • Beldfoil® • 65 % Tinned Copper Braid

FR-FPE Insulation • Violet PVC Jacket																			
300V 75°C	3079E	NEC:	1000	305	44.1	20.0	0.76 mm	0.099	2.52	Overall Beldfoil® + Overall 65% TC Braid	0.315	8.00	150	78%	8.5	27.9	0.2	0.3	1.1
		PLTC CMG	1640	500	73.9	33.5	22 AWG										4	0.8	2.7
		CEC:	3280	1000	144.4	65.5	(7x30) BC										16	1.6	5.4
		CMG FT4																	



Color Code: Red, Green
For CPE jacketed version order Part No. YR45047

Cellular Polyolefin Insulation • Violet FRNC/LSNH Jacket																			
300V 80°C	3079ANH	IEC	1000	305	214.1	97.1	0.64 mm	0.099	2.52	Overall Beldfoil® + Overall 65% TC Braid	0.315	8.00	150	78%	8.8	29.0	0.2	0.3	0.9
		332-3C	1640	500	358.2	162.5	22 AWG										4	0.7	2.2
		BS 7655	3280	1000	711.2	322.6	Solid BC										16	1.4	4.5
																	100	3.8	12.3



Color Code: Red, Green

Cellular Polyolefin Insulation • Black PVC Jacket • Steel Wire Armor																			
300V 80°C	3079ALS	IEC	1640	500	102.5	46.5	0.64 mm	0.099	2.52	Overall Beldfoil® + Overall 65% TC Braid	*0.315	*8.00	150	78%	8.5	27.9	0.2	0.3	0.9
		332-3C	3280	1000	183.0	83.0	22 AWG										4	0.7	2.2
		BS 7655					Solid BC										16	1.4	4.5



* Under Armor
** Over Armor

Color Code: Red, Green

TC = Tinned Copper • BC = Bare Copper • DCR = DC resistance

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DeviceBus® for ODVA DeviceNet™ Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Color Code	Nominal OD		Component	Description	Shielding Material & Nom. DCR	Insulation Material & Colors	Component Jacket Material & Colors	Insulation OD	
			ft.	m	lbs.	kg		inch	mm						inch	mm
600V Class 1 Thick • 15 AWG and 18 AWG • Stranded Tinned Copper • Beldfoil® • 18 AWG TC Drain Wire • Overall 65 % TC Braid																
PVC/Nylon Insulation (Power) • FEP Insulation (Data) • Grey Sunlight/Oil-Resistant PVC Jacket																
High Velocity Thick 600V 75°C	7897A	NEC: TC-ER	500	152	69.7	31.6	Red, Black	0.461	11.70	Power	2-Conductor 15 AWG 1.7 mm (19x28) TC	Individual Beldfoil®	PVC/Nylon		0.099	2.51
			1000	305	135.1	61.3										
			2000	610	274.3	124.4										
							Blue, White		Data	2-Conductor 18 AWG 1.24 mm (19x30) TC VOP: 75 % 120 Ohm	Individual Beldfoil®	FEP		0.146	3.71	
Meter marks on jacket to aid users in installation. Allen-Bradley P/N 1485 CPI-A																
600V Class 1 ODVA Cable V • 16 AWG and 18 AWG • Stranded TC • Beldfoil® • 16 AWG TC Drain Wire • Overall 65 % TC Braid																
PVC/Nylon Insulation (Power) • F-R Polypropylene Insulation (Data) • Grey Sunlight/Oil-Resistant PVC Jacket																
600V 75°C	7896A	NEC: TC-ER	500	152	89.1	40.4	Red, Black	0.525	13.34	Power	2-Conductor 16 AWG 1.47 mm (19x29) TC	Individual Beldfoil®	PVC/Nylon		0.101	2.57
			1000	305	168.0	76.2										
			2000	610	339.9	154.2										
							Blue, White		Data	2-Conductor 18 AWG 1.24 mm (19x30) TC VOP: 64 % 120 Ohm	Individual Beldfoil®	F-R PP		0.182	4.62	
C(UL) AWM I/II A/B																
Meter marks on jacket to aid users in installation. Allen-Bradley P/N 1485 CPI-A																
600V Class 1 ODVA IV • 16 AWG and 18 AWG • Stranded Tinned Copper • Unshielded																
PVC/Nylon Insulation (Power) • F-R Polypropylene Insulation (Data) • Grey Sunlight/Oil-Resistant PVC Jacket																
Drop 600V 75°C	7900A	NEC: TC-ER	500	152	50.9	23.1	Red, Black	0.430	10.92	Power	2-Conductor 16 AWG 1.47 mm (19x29) TC	Unshielded	PVC/Nylon		0.101	2.57
			1000	305	104.9	47.6										
							Blue, White		Data	2-Conductor 18 AWG 1.24 mm (19x30) TC VOP: 64 % 120 Ohm	Unshielded	F-R PP		0.098	2.49	
Meter marks on jacket to aid users in installation. Allen-Bradley P/N 1485 CPI-C																
600V Class 2 Thick • 15 AWG and 18 AWG • Stranded Tinned Copper • Beldfoil® • 18 AWG TC Drain Wire • Overall 65 % TC Braid																
PVC Insulation (Power) • FPE Insulation (Data) • Sunlight/Oil-Resistant PVC Jacket (Grey and Red)																
Thick 75°C UL AWM 20201	3082A	NEC: CMG PLTC-ER CEC: CMG FT4	500	152	71.0	32.2	Red, Black	0.480	12.19	Power	2-Conductor 15 AWG 1.7 mm (19x28) TC	Individual Beldfoil®	PVC		0.109	2.77
			1000	305	138.0	62.6										
			2000	610	280.0	127.0										
							Blue, White		Data	2-Conductor 18 AWG 1.24 mm (19x30) TC VOP: 75 % 120 Ohm	Individual Beldfoil®	FPE		0.150	3.81	
C(UL) AWM I/II A																
Meter marks on jacket to aid users in installation. Allen-Bradley P/N 1485 CPI-A 152 m and 610 m put-ups not available in Red.																

TC = Tinned Copper • DCR = DC resistance

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DeviceBus® for ODVA DeviceNet™ Cables



De- scription	Part No.	UL NEC / C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Color Code	Nominal OD		Component	Description	Shielding Material & Nom. DCR	Insulation Material & Colors	Component Jacket Material & Colors	Insulation OD			
			ft.	m	lbs.	kg		inch	mm						inch	mm		
300V Class 2 Thick • 15 AWG and 18 AWG • Stranded Tinned Copper • Beldfoil® • 18 AWG TC Drain Wire • Overall 65 % TC Braid																		
PVC Insulation (Power) • FPE Insulation (Data) • Grey Sunlight/Oil-Resistant PVC Jacket																		
High-Flex Thick 75°C UL AWM 20201	3082F	NEC:	500	152	72.5	32.9	Red, Black	0.480	12.19	Power	2-Conductor 15 AWG 1.7 mm (65x33) TC	Individual Beldfoil®	PVC		0.109	2.77		
		CMG	1000	305	140.0	63.5												
		PLTC-ER CEC: CMG FT4	2000	610	284.0	128.8												
											Blue, White	Data	2-Conductor 18 AWG 1.2 mm (65x36) TC VOP: 75 % 120 Ohm	Individual Beldfoil®	FPE		0.153	3.89
C(UL) AWM I/II A																		
Meter marks on jacket to aid users in installation. Allen-Bradley P/N 1485 CPI-A 152 m and 610 m put-ups not available in Red.																		
PVC Insulation (Power) • FPE Insulation (Data) • Yellow CPE Jacket																		
Thick 75°C	3083A	NEC:	1000	305	136.9	62.1	Red, Black	0.475	12.07	Power	2-Conductor 15 AWG 1.7 mm (19x28) TC	Individual Beldfoil®	PVC		0.109	2.77		
		CMG	2000	610	278.0	126.1												
		PLTC CEC: CMG FT4																
											Blue, White	Data	2-Conductor 18 AWG 1.24 mm (19x30) TC VOP: 75 % 120 Ohm	Individual Beldfoil®	FPE		0.150	3.81
Meter marks on jacket to aid users in installation. Allen-Bradley P/N 1485 CPI-A																		
300V Class 2 Thin • 22 AWG and 24 AWG • Stranded Tinned Copper • Beldfoil® • 22 AWG TC Drain Wire • Overall 65 % TC Braid																		
PVC Insulation (Power) • FPE Insulation (Data) • Grey Sunlight/Oil-Resistant PVC Jacket																		
Thin 75°C	3084A	NEC:	500	152	22.0	10.0	Red, Black	0.280	7.11	Power	2-Conductor 22 AWG 0.78 mm (19x34) TC	Individual Beldfoil®	PVC		0.072	1.83		
		CL2 CMG	1000	305	47.0	21.3												
		CEC: CMG FT4	2000	610	96.1	43.6												
											Blue, White	Data	2-Conductor 24 AWG 0.61 mm (19x36) TC VOP: 75 % 120 Ohm	Individual Beldfoil®	FPE		0.077	1.96
C(UL) AWM I/II A																		
Meter marks on jacket to aid users in installation. Allen-Bradley P/N 1485 CPI-C 305 m put-up also available in Red.																		
PVC Insulation (Power) • FPE Insulation (Data) • Grey Sunlight/Oil-Resistant PVC Jacket																		
High-Flex Thin 75°C	3084F	NEC:	500	152	22.0	10.0	Red, Black	0.275	6.99	Power	2-Conductor 22 AWG 0.76 mm (154x44) TC	Individual Beldfoil®	PVC		0.062	1.57		
		CL2 CMG	1000	305	47.0	21.3												
		CEC: CMG FT4	2000	610	96.1	43.6												
											Blue, White	Data	2-Conductor 24 AWG 0.58 mm (105x44) TC VOP: 75 % 120 Ohm	Individual Beldfoil®	FPE		0.081	2.06
C(UL) AWM I/II A																		
Meter marks on jacket to aid users in installation. Allen-Bradley P/N 1485 CPI-C																		

TC = Tinned Copper • DCR = DC resistance

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DeviceBus® for ODVA DeviceNet™ Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Color Code	Nominal OD		Component	Description	Shielding Material & Nom. DCR	Insulation Material & Colors	Component Jacket Material & Colors	Insulation OD		
			ft.	m	lbs.	kg		inch	mm						inch	mm	
300V Class 2 Thin • 22 AWG and 24 AWG • Stranded Tinned Copper • Beldfoil® • 22 AWG TC Drain Wire • Overall 65 % TC Braid																	
PVC Insulation (Power) • FPE Insulation (Data) • Yellow CPE Jacket																	
	Thin 75°C	3085A	NEC:	500	152	25.1	11.4	Red, Black	0.280	7.11	Power	2-Conductor 22 AWG 0.78 mm (19x34) TC	Individual Beldfoil®	PVC		0.072	1.83
			CL2 CMG	1000	305	47.2	21.4										
			CEC: CMG FT4	2000	610	96.1	43.6										

TC = Tinned Copper • DCR = DC resistance

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

Industrial Data Solutions® – Industrial Data

DeviceBus® for Honeywell Smart Distributed System Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Color Code	Nominal OD		Compo- nent	Description	Shielding Material & Nom. DCR	Insulation Material & Colors	Component Jacket Material & Colors	Insulation OD		
			ft.	m	lbs.	kg		inch	mm						inch	mm	
22 AWG • Stranded Tinned Copper • Each Pair Individually Beldfoil® Shielded • 22 AWG Tinned Copper Drain Wire																	
PVC Insulation (Power) • FPE Insulation (Data) • Grey PVC Jacket																	
30V 80°C	3087A UL AWM Style 2464	NEC:	500	152	19.0	8.6	Blue, Brown	0.290	7.37	Power	2-Conductor	Individual Beldfoil®	PVC		0.050	1.27	
		CL2	1000	305	41.0	18.6					22 AWG						
		CEC:	2000	610	84.0	38.1					0.78 mm (19x34) TC						
		FT1															
								Black, White			Data	2-Conductor 22 AWG 0.78 mm (19x34) TC VOP: 76% 120 Ohm	Individual Beldfoil®	FPE		0.098	2.49
CSA AWM I/II A Micro Cable (Drop)							Honeywell Smart Distributed System										
16 AWG and 20 AWG • Stranded Tinned Copper • Each Pair Individually Beldfoil® Shielded • 20 AWG Tinned Copper Drain Wire																	
PVC Insulation (Power) • FPE Insulation (Data) • Grey PVC Jacket																	
30V 80°C	3086A UL AWM Style 2464	NEC:	500	152	43.4	19.7	Blue, Brown	0.398	10.11	Power	2-Conductor	Individual Beldfoil®	PVC		0.090	2.29	
		CL2	1000	305	88.0	39.9					16 AWG						
		CEC:									1.47 mm (19x29) TC						
		FT1															
								Black, White			Data	2-Conductor 20 AWG 0.94 mm (19x32) TC VOP: 76% 120 Ohm	Individual Beldfoil®	FPE		0.120	3.05
CSA AWM I/II A Mini Cable (Trunk)							Honeywell Smart Distributed System										

TC = Tinned Copper • DCR = DC resistance

DeviceBus® for Square D/Seriplex® Cables



For more information, contact Belden Technical Support +31-77-3875-414 • www.belden-emea.com

Industrial Data Solutions® – Industrial Data

DeviceBus® for Phoenix Contact InterBus®-S Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Color Code	Nominal OD		Compo- nent	Description	Shielding Material & Nom. DCR	Insulation Material & Colors	Component Jacket Material & Colors	Insulation OD	
			ft.	m	lbs.	kg		inch	mm						inch	mm

18 AWG and 24 AWG • Stranded Tinned Copper • Overall Beldfoil® + 90 % Tinned Copper Braid

PVC Insulation (Power) • Polyethylene Insulation (Data) • Green Polyurethane Jacket

	300V 80°C 3119A UL AWM Style 20233		500 1000	152 305	35.5 71.0	16.1 32.2	Red, Blue and Green (with Yellow Stripe)	0.333 8.46		Control	3-Conductor 18 AWG 1.22 mm (7x26) TC	Unshielded	PVC		0.066 1.68	
							White/Brown, Pink/Grey, Yellow/Green			Power	3-Pair 24 AWG 0.61 mm (7x32) TC VOP: 66 % 100 Ohm	Unshielded	PE		0.056 1.42	

De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm			pF/ft.	pF/m	

24 AWG • Stranded (7x32) 0.6mm Tinned Copper • Overall Beldfoil® + 90 % Tinned Copper Braid

Polyethylene Insulation • Green Polyurethane Jacket

	300V 80°C 3120A UL AWM Style 20233		500 1000	152 305	26.0 48.9	11.8 22.2	0.61 mm 24 AWG (7x32) TC	0.056 1.42		Overall Beldfoil® + Overall 90 % TC Braid	0.277 7.04		100	66 %	15.4 50.5		White/Brown, Pink/Grey, Yellow/Green

3-Pair

TC = Tinned Copper • DCR = DC resistance

InterBus® is a Phoenix Contact trademark.

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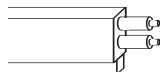
ASI Bus Flatcable



De- scription	Part No.	UL NEC / C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

16 AWG • Stranded (84x0.15) 1.5 mm Tinned Copper**PVC Insulation • Yellow TPE-O Jacket**

300V 80°C	3999E		328	100	63.9	29.0	1.5 mm 16 AWG (84x0.15) TC	0.096	2.45	Unshielded	0.157 x 0.394	4.00 x 10.00							
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2-Conductor

Color Code: Blue, Brown

Industrial Data Solutions® – Industrial Data

EIA Industrial RS-485 PLTC/CM

De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm				pF/ft.	pF/m

22 AWG • Stranded (7x30) 0.8 mm Tinned Copper • Twisted Pair • Beldfoil® • 90 % Tinned Copper Braid • 22 AWG Tinned Copper Drain Wire**Datalene® Insulation • Black UV Resistant Jacket (CPE Jacket Optional)**

300V Oil Res II		NEC: CM PLTC CEC: CM FT1					0.76 mm 22 AWG (7x30) TC	0.087	2.21	Overall Beldfoil® + Overall 90% TC Braid + Drain Wire (22 AWG TC)			120	78%				
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3105A	1-Pair	500	152	23.0	10.4						0.284	7.21			CDR/CDR	20.9	68.6	see chart
	DMX512 Type	1000	305	50.0	22.7										CDR/SCR	11.0	36.1	below
		† 5000	1524	255.2	115.8													

For CPE jacketed version order Part No. YR44345.

3106A	1.5-Pair*	500	152	27.1	12.3						0.300	7.62			CDR/CDR	20.9	68.6	White/Orange,
		1000	305	51.1	23.2										CDR/SCR	11.0	36.1	Orange/White
		† 5000	1524	260.4	118.1													Blue/White

For CPE jacketed version order Part No. YR46721.

3107A	2-Pair	1000	305	69.1	31.3						0.356	9.04			CDR/CDR	20.9	68.6	see chart
	DMX512 Type	4000	1,219	300.2	136.2										CDR/SCR	11.0	36.1	below
		† 5000	1524	385.3	174.8													

For CPE jacketed version order Part No. YR46792.

3108A	3-Pair	1000	305	93.0	42.2						0.420	10.67			CDR/CDR	20.9	68.6	see chart
		2000	610	184.0	83.5										CDR/SCR	11.0	36.1	below

For CPE jacketed version order Part No. YR45287.

3109A	4-Pair	1000	305	107.2	48.6						0.420	10.67			CDR/CDR	20.9	68.6	see chart
		2000	610	218.2	99.0										CDR/SCR	11.0	36.1	below

For CPE jacketed version order Part No. YR44768.

TC = Tinned Copper • DCR = DC resistance

† Final put-up length may vary 0 % to +10 % from length shown. • * All conductors are under the braid shield; one pair is under the Beldfoil shield.

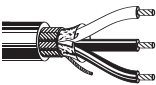
Color Code

Pair No.	Color
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

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CC-Link Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m
20 AWG • Stranded (7x28) 1.0 mm Bare Copper • Beldfoil® • 78 % Tinned Copper Braid • 22 AWG Tinned Copper Drain Wire																			
Foam HDPE Insulation • Red PVC Jacket																			
60°C	1348A	NEC: CM CEC: CM	1000 2000	305 610	57.1 114.2	25.9 51.8	0.96 mm 20 AWG (7x28) BC	0.094	2.39	Overall Beldfoil® + Overall 78 % TC Braid + Drain Wire (22 AWG TC)	0.303	7.70	110	75 %	18.3	60.0	1 5	0.5 1.1	1.6 3.5
																			
3 CDR			Color Code: Blue, White, Yellow																

De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Color Code	Nominal OD		Compo- nent	Description	Shielding Material & Nom. DCR	Insulation Material & Colors	Component Jacket Material & Colors	Insulation OD	
			ft.	m	lbs.	kg		inch	mm						inch	mm
Power Limited Tray Cable • 16 AWG and 22 AWG • Stranded Tinned Copper • Overall Beldfoil® • 22 AWG Tinned Copper Drain Wire																
PVC Insulation (Power) • Foam HDPE Insulation (Data) • Red UV Resistant PVC Jacket																
105°C	1349A	NEC: PLTC CM CEC: CM	1000	305	126.1	57.2	White, Black	0.512	13.00	Power	2-Conductor 18 AWG 1.22 mm (7x26) TC	Unshielded	PVC	—	0.091	2.31
							Blue, White and Yellow			Data	3-Conductor 20 AWG 0.96 mm (7x28) TC VOP: 76 % 110 Ohm	Beldfoil® 78% TC + Drain Wire	HDPE	PVC	0.098	2.49

TC = Tinned Copper • BC = Bare Copper • DCR = DC resistance

Industrial Data Solutions® – Industrial Data

LonWorks Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

22 AWG • Solid 0.6 mm Bare Copper • Twisted Pair

Foam Polyethylene Insulation • White FRNC/LSNH Jacket

80°C	7701NH	IEC	1000	305	10.6	4.8	0.64 mm	0.046	1.17	Unshielded	0.138	3.50	100	68%	14.0	46.0	1	0.4	1.3
		332-3C	1640	500	17.6	8.0	22 AWG										1	0.5	1.5
		BS 7655					Solid BC										4	0.9	3.1
																	10	1.5	4.9
																	16	1.9	6.3
																	20	2.1	6.9



1-Pair

Color Code: White/Blue, Blue/White

Foam Polyethylene Insulation • White FRNC/LSNH Jacket

80°C	7702NH	IEC	1000	305	19.6	8.9	0.64 mm	0.046	1.14	Unshielded	0.205	5.20	100	68%	14.0	46.0	see above		
		332-3C					22 AWG												
		BS 7655					Solid BC												



2-Pair

Color Code: White/Blue, Blue/White, Orange/White, White/Orange

22 AWG • Solid 0.6 mm Bare Copper • Twisted Pair • Beldfoil® • 24 AWG Tinned Copper Drain Wire

Foam Polyethylene Insulation • White FRNC/LSNH Jacket

80°C	7703NH	IEC	1000	305	17.9	8.1	0.64 mm	0.061	1.55	Overall Beldfoil® + Drain Wire (24 AWG TC)	0.181	4.60	100	68%	24.4	80.0	1	0.5	1.8
		332-3C					22 AWG										1	0.6	2.0
		BS 7655					Solid BC										4	1.1	3.6
																	10	1.7	5.5
																	16	2.1	7.0
																	20	2.4	7.8



1-Pair

Color Code: White/Blue, Blue/White

Foam Polyethylene Insulation • White FRNC/LSNH Jacket

	7704NH	IEC	1000	305	27.1	12.3	0.64 mm	0.053	1.35	Overall Beldfoil® + Drain Wire (24 AWG TC)	0.256	6.50	100	68%	12.2	40.0	see above		
		332-3C	1640	500	44.3	20.1	22 AWG												
		BS 7655	3346	1020	88.6	40.2	Solid BC												



2-Pair

Color Code: White/Blue, Blue/White, Orange/White, White/Orange

16 AWG • Stranded (19x29) 1.5 mm Tinned Copper • Twisted Pair

PVC Insulation • Chrome PVC Jacket

UL AWM	8471	NEC:	U-500	U-152	20.1	9.1	1.47 mm	0.105	2.67	Unshielded	0.274	6.96
Style 2598		CMG	500	152	20.1	9.1	16 AWG					
		CEC:	U-1000	U-305	39.0	17.7	(19x29) TC					
		CMG FT4	1000	305	40.1	18.2						



1-Pair

Color Code: Black, White

TC = Tinned Copper • BC = Bare Copper • DCR = DC resistance

Industrial Data Solutions® – Industrial Data

LonWorks Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm	

16 AWG • Stranded (19x29) 1.5 mm Tinned Copper • Twisted Pair**Polyethylene Insulation • Chrome FRNC/LSNH Jacket**

Part 1	8471NH	IEC 60332	1000	305	60.5	27.5	1.47 mm	0.105	2.67	Unshielded	0.280	7.10	Black, White
			1640	500	66.1	30.0	16 AWG						
			3280	1000	132.3	60.0	(19x29) TC						



1-Pair

Polyethylene Insulation • FRNC/LSNH Inner Jacket • Steel Wire Armor • Chrome FRNC/LSNH Outer Jacket

Part 1	8471LS	IEC 60332	1000	305	248.9	112.9	1.47 mm	0.032	0.81	Unshielded	0.413	10.50	Black, White
			1640	500	407.9	185.0	16 AWG						
			3280	1000	815.7	370.0	(19x29) TC						



1-Pair

Tefzel® Insulation • Clear Tefzel® Jacket

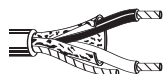
300V RMS 80° VW-1	85102		500	152	20.1	9.1	1.47 mm	0.015	0.38	Unshielded	0.211	5.36	Black, White
			1000	305	33.1	15.0	16 AWG						
							(19x29) TC						



1-Pair

16 AWG • Stranded (19x29) 1.5 mm Tinned Copper • Twisted Pair • Beldfoil® • 18 AWG Tinned Copper Drain Wire**Polyethylene Insulation • Chrome PVC Jacket**

300V RMS 80° UL AWM Style 20253	8719	NEC: CM CL2 CEC: CM	U-500 500 U-1000 1000 2000 5000 10000	U-152 152 U-305 305 610 1524 3049	24.5 24.5 47.2 49.2 100.3 245.6 431.0	11.1 11.1 21.4 22.3 45.5 111.4 195.5	1.47 mm 16 AWG (19x29) TC	0.032	0.81	Overall Beldfoil® + Drain Wire (18 AWG TC)	0.313	7.95	Black, Clear
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1-Pair

TC = Tinned Copper • DCR = DC resistance

Tefzel® is a DuPont trademark.

Industrial Data Solutions® – Industrial Data

Low-Capacitance Computer Cables for EIA RS-485 Applications



De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance			Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm				pF/ft.	pF/m	

24 AWG • Stranded (7x32) 0.6 mm Tinned Copper • Overall Beldfoil® + 90 % Tinned Copper Braid • 24 AWG Tinned Copper Drain Wire

Polyethylene Insulation • Chrome PVC Jacket

30V 80°C UL AWM Style 2919	NEC: CM CEC: CM						0.61 mm 24 AWG (7x32) TC	0.068	1.73	Overall Beldfoil® + Overall 90% TC Braid + Drain Wire (24 AWG TC)			120	66%	CDR/CDR CDR/SCR	12.8 23.0	42.0 75.5	see chart 5 (Tech Info Section)
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DMX 512

9841	1-Pair	100	31	4.9	2.2						0.232	5.89						
		500	152	20.1	9.1													
		1000	305	40.1	18.2													
9842	2-Pair	100	31	5.7	2.6						0.340	8.64						
		500	152	29.5	13.4													
		1000	305	57.1	25.9													
9843	3-Pair	100	31	7.1	3.2						0.360	9.14						
		500	152	34.6	15.7													
		1000	305	67.2	30.5													
9844	4-Pair	500	152	43.0	19.5						0.390	9.91						
		1000	305	83.1	37.7													

Polyethylene Insulation • Chrome FRNC/LSNH Jacket

80°C	IEC 332-3C BS 7655						0.61 mm 24 AWG (7x32) TC	0.068	1.73	Overall Beldfoil® + Overall 90% TC Braid + Drain Wire (24 AWG TC)			120	66%	CDR/CDR CDR/SCR	12.8 23.0	42.0 75.5	see chart 5 (Tech Info Section)
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9841NH	1-Pair	1000	305	38.1	17.3						0.232	5.90						
		1640	500	65.0	29.5													
		3280	1000	124.8	56.6													
9842NH	2-Pair	1000	305	64.4	29.2						0.341	8.65						
		1640	500	102.7	46.6													
		3280	1000	196.4	89.1													
9843NH	3-Pair	1000	305	69.0	31.3						0.358	9.10						

Polyethylene Insulation • Chrome FRNC/LSNH Inner Jacket • Steel Wire Armor • Black Sunlight-Resistant FRNC/LSNH Jacket

80°C	IEC 332-3C BS 7655						0.61 mm 24 AWG (7x32) TC	0.068	1.73	Overall Beldfoil® + Overall 90% TC Braid + Drain Wire (24 AWG TC)			120	66%	CDR/CDR CDR/SCR	12.8 23.0	42.0 75.5	see chart 5 (Tech Info Section)
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9841LS	1-Pair	1000	305	154.1	69.9						*0.232	*5.90						
		1640	500	276.9	125.6						**0.406	**10.30						
		3280	1000	624.3	283.2													
9842LS	2-Pair	1000	305	195.5	88.7						*0.341	*8.65						
		1640	500	335.1	152.0						**0.516	**13.10						
		3280	1000	648.2	294.0													

* Under Armor
** Over Armor

TC = Tinned Copper • DCR = DC resistance

Industrial Data Solutions® – Interconnect Cables

Shielded Twisted Pair Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm			pF/ft.	pF/m	

24 AWG • Stranded (7x32) 0.6 mm Tinned Copper • Twisted Pair • Beldfoil® • 24 AWG Tinned Copper Drain Wire

Datalene® Insulation • Chrome PVC Jacket																		
300V 60°C	9729	NEC:	100	31	4.4	2.0	0.61 mm	0.061	1.55	Individual Beldfoil®	0.266	6.76	100	76%	CDR/CDR	12.5	41.0	Red, Black
UL AWM Style 2493		CM	500	152	20.5	9.3	24 AWG			+ Drain Wire					CDR/SCR	23.2	76.1	White, Black
		CEC:	1000	305	39.0	17.7	(7x32) TC											
		CM	10000	3049	390.4	177.1												



Z-Fold®

2-Pair

Datalene® Insulation • Black FRNC/LSNH Jacket • Color Coded Foils (Red, Green)																							
300V 80°C	9729NH	IEC	1000	305	44.1	20.0	0.61 mm	0.061	1.55	Individual	0.335	8.50	100	76%	CDR/CDR	12.5	41.0	Red, Black					
		332-3C	1640	500	74.5	33.8	24 AWG																White, Black
		BS 7655	3280	1000	137.3	62.3	(7x32) TC									+ Drain Wire (24 AWG TC)							



Z-Fold®

2-Pair

Datalene® Insulation • Chrome FRNC/LSNH Inner Jacket • Steel Wire Armor • Black Sunlight-Resistant FRNC/LSNH Jacket • Color Coded Foils (Red, Green)																		
300V 80°C	9729LS	IEC	1640	500	347.2	157.5	0.61 mm	0.061	1.55	Individual	*0.335	*8.50	100	76%	CDR/CDR	12.5	41.0	Red, Black
		332-3C	3280	1000	672.4	305.0	24 AWG			Beldfoil®	**0.512	**13.00			CDR/SCR	23.2	76.1	White, Black
		BS 7655					(7x32) TC			+ Drain Wire (24 AWG TC)								



Z-Fold®

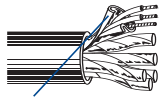
2-Pair

* Under Armor

** Over Armor

22 AWG • Stranded (7x30) 0.8 mm Tinned Copper • Twisted Pair • Beldfoil® • 22 AWG Tinned Copper Drain Wire

Polypropylene Insulation • Chrome PVC Jacket																		
30V 80°C	8777	NEC:	100	31	4.6	2.1	0.76 mm	0.050	1.27	Individual	0.273	6.93	50	66%	CDR/CDR	30.0	98.0	Red, Black
UL AWM Style 2919		CM	250	76	11.0	5.0	22 AWG			Beldfoil®					CDR/SCR	55.0	180.0	White, Black
		CEC:	U-500	U-152	20.9	9.5	(7x30) TC			+ Drain Wire								Green, Black
		CM	500	152	20.9	9.5				(22 AWG TC)								



Z-Fold®

3-Pair

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

Polypropylene Insulation • Chrome FRNC/LSNH Jacket • Color Coded Foils (Red, Green, Blue)																		
300V 80°C	8777NH	IEC	1000	305	50.7	23.0	0.76 mm	0.050	1.27	Individual	0.276	7.00	50	66%	CDR/CDR	30.0	98.4	Red, Black
		332-3C	1640	500	78.5	35.6	22 AWG			Beldfoil®					CDR/SCR	55.0	180.4	White, Black
		BS 7655	3280	1000	151.5	68.7	(7x30) TC			+ Drain Wire (22 AWG TC)								Green, Black



Z-Fold®

3-Pair

TC = Tinned Copper • DCR = DC resistance

Industrial Data Solutions® – Interconnect Cables

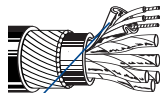
Shielded Twisted Pair Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance			Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm				pF/ft.	pF/m	

22 AWG • Stranded (7x30) 0.8 mm Tinned Copper • Twisted Pair • Beldfoil® • 22 AWG Tinned Copper Drain Wire**Polyethylene Insulation • Chrome FRNC/LSNH Inner Jacket • Steel Wire Armor • Black Sunlight-Resistant FRNC/LSNH Jacket • Color Coded Foils (Red, Green, Blue)**

300V 80°C	8777LS	IEC	1640	500	290.3	131.7	0.76 mm	0.050	1.27	Individual Beldfoil®	*0.276	*7.00	50	66%	CDR/CDR	30.0	98.4	Red, Black
		332-3C	3280	1000	712.5	323.2	22 AWG			+ Drain Wire	**0.425	**10.80			CDR/SCR	55.0	180.4	Green, White
		BS 7655					(7x30) TC			(22 AWG TC)								Green, Black



Z-Fold®

3-Pair

* Under Armor
** Over Armor

22 AWG • Stranded (7x30) 0.8 mm Tinned Copper • Twisted Pair • Beldfoil® • 24 AWG Tinned Copper Drain Wire**Polypropylene Insulation • Chrome PVC Jacket**

300V RMS	8723	NEC:	100	31	2.2	1.0	0.76 mm	0.046	1.17	Individual Beldfoil®	0.168	4.27	45	66%	CDR/CDR	35.0	115.0	Red, Black
60°C		CM	U-500	U-152	10.6	4.8	22 AWG			+ Drain Wire					CDR/SCR	62.0	203.0	Green, White
		CEC:	500	152	9.9	4.5	(7x30) TC			(24 AWG TC)								
		CM	U-1000	U-305	20.1	9.1												
			1000	305	20.1	9.1												
			1640	500	32.8	14.9												
			U-2000	U-610	40.1	18.2												
			2000	610	40.1	18.2												
			3280	1000	65.7	29.8												
			5000	1524	95.0	43.1												
			10000	3049	200.4	90.9												



2-Pair

For Plenum version of 8723, see 88723, 87723 or 82723
Pairs cabled on common axis to reduce diameter.

Polypropylene Insulation • Chrome FRNC/LSNH Jacket

300V 80°C	8723NH	IEC	1000	305	23.1	10.5	0.76 mm	0.046	1.17	Individual Beldfoil®	0.179	4.55	45	66%	CDR/CDR	35.0	114.8	Red, Black
		332-3C	1640	500	36.8	16.7	22 AWG			+ Drain Wire					CDR/SCR	62.0	203.4	Green, White
		BS 7655	3280	1000	75.0	34.0	(7x30) TC			(24 AWG TC)								



2-Pair

Pairs cabled on common axis to reduce diameter.

Polypropylene Insulation • Chrome FRNC/LSNH Inner Jacket • Steel Wire Armor • Black Sunlight-Resistant FRNC/LSNH Jacket

300V 80°C	8723LS	IEC	1640	500	168.7	76.5	0.76 mm	0.046	1.17	Individual Beldfoil®	*0.179	*4.55	45	66%	CDR/CDR	35.0	114.8	Red, Black
		332-3C	3280	1000	350.1	158.8	22 AWG			+ Drain Wire	**0.346	**8.80			CDR/SCR	62.0	203.4	Green, White
		BS 7655					(7x30) TC			(24 AWG TC)								



2-Pair

* Under Armor
** Over Armor

Plenum • FEP Insulation • Red FEP Jacket

300V RMS	88723	NEC:	100	31	3.3	1.5	0.76 mm	0.046	1.17	Individual Beldfoil®	0.148	3.76	40	69%	CDR/CDR	35.0	115.0	Red, Black
Non-conduit		CMP	500	152	11.0	5.0	22 AWG			+ Drain Wire					CDR/SCR	67.0	220.0	Green, White
		CEC:	1000	305	20.9	9.5	(7x30) TC			(24 AWG TC)								
		CMP FT6																



Z-Fold®

2-Pair

TC = Tinned Copper • DCR = DC resistance

Industrial Data Solutions® – Interconnect Cable

Shielded Twisted Pair Cables



De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance			Color Code	
			ft.	m	lbs.	kg		inch	mm		inch	mm			pF/ft.	pF/m			
18 AWG • Stranded (16x30) 1.2 mm Tinned Copper • Twisted Pair • Beldfoil® • 20 AWG Tinned Copper Drain Wire																			
Polyethylene Insulation • Chrome PVC Jacket																			
 Shorting Fold	300V 60°C	8760	NEC:	250	76	6.8	3.1	1.2 mm	0.082	2.08	Overall	0.222	5.64	—	—	CDR/CDR	24.0	79.0	Black, Clear
	UL AWM Style 2092	CM	U-500	U-152	13.0	5.9	18 AWG			Beldfoil®						CDR/SCR	44.0	144.0	
		CEC:	500	152	13.0	5.9	(16x30) TC			+ Drain Wire									
		CM	U-1000	U-305	26.0	11.8				(20 AWG TC)									
			1000	305	26.0	11.8													
			2000	610	50.0	22.7													
			5000	1524	135.1	61.3													
		10000	3049	260.1	118.0														
1-Pair			For Plenum version of 8760, see 88760, 87760 or 82760.																
Polyethylene Insulation • Chrome FRNC/LSNH Jacket																			
 Shorting Fold	300V 80°C	8760NH	IEC	1000	305	34.6	15.7	1.2 mm	0.082	2.08	Overall	0.236	6.00	60	66%	CDR/CDR	24.0	78.7	Black, Clear
		332-3C	1640	500	54.2	24.6	18 AWG			Beldfoil®						CDR/SCR	44.0	144.4	
		BS 7655	3280	1000	110.5	50.1	(16x30) TC			+ Drain Wire									
										(20 AWG TC)									
1-Pair																			
Polyethylene Insulation • Chrome FRNC/LSNH Inner Jacket • Steel Wire Armor • Black Sunlight-Resistant FRNC/LSNH Jacket																			
 Shorting Fold	300V 80°C	8760LS	IEC	1640	500	270.1	122.5	1.2 mm	0.082	2.08	Overall	*0.236	*6.00	60	66%	CDR/CDR	24.0	78.7	Black, Clear
		332-3C	3280	1000	610.5	276.9	18 AWG			Beldfoil®	**0.409	**10.40				CDR/SCR	44.0	144.4	
		BS 7655					(16x30) TC			+ Drain Wire									
										(20 AWG TC)									
1-Pair																			
* Under Armor																			
** Over Armor																			

TC = Tinned Copper • DCR = DC resistance

Industrial Data Solutions® – Industrial Fiber

Tactical Mobile Fiber

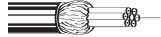


De- scription	Part No.	No. of Fibers	Standard Lengths		Standard Unit Weight		Fiber Size µm	Nom. Buffer / Tube OD		Strength Members	Nominal OD		Central Element mm	Pulling Tension N	Crush Re- sistance kN/m	Energy kJ/m	Bending Radii Cable (mm)	
			ft.	m	lbs.	kg		inch	mm		inch	mm					static	dyna- mic

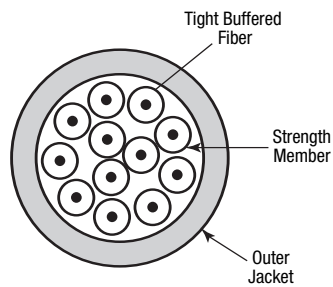
GMMT • Intex Mobile • Tight Buffer • Designed for Despooling and Respooling • A/I-VQ(ZN)H

Dry Construction • PUR Jacket (Orange or Black)

70°C	6888	2100	Ø 280 ± 15	Longitudinal watertightness Swellable Reinforced Yarn	no
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GMMTx04	4	143.5	65.1	0.23	5.8	800	4	580	58	87
GMMTx06	6	175.9	79.8	0.25	6.3	950	4	725	63	95
GMMTx08	8	217.6	98.7	0.28	7.0	1100	4	890	70	105



Color Code: see chart page 16.23

Optical characteristics see page 16.21.

Industrial Ethernet Fiber Optic Cable Selection Guide

This chart is meant to help users to select the right cable. Refer to cable specifications for details. See www.belden-emea.com for fiber optic cable recommendations and technical data sheets.

Part No.	Jacket Material	No. of Fibers	Description	Outer Diameter	
				inch	mm

Fiber (9/125) Micron, Single-mode, OS1
Central Loose Tube, Steel Wire Armor, Improved Rodent Protection

GOWA904	PE	4	Outdoor, T12	0.421	10.7
GOWA908	PE	8	Outdoor, T12	0.421	10.7
GOWA912	PE	12	Outdoor, T12	0.421	10.7
GUWA908	FRNC	8	Universal, T12	0.421	10.7
GUWA912	FRNC	12	Universal, T12	0.421	10.7
GUWB924	FRNC	24	Universal, T24	0.543	13.8
GOWB924	FRNC	24	Outdoor, T24	0.543	13.8

Fiber (50/125) Micron, Multimode, OM2
Central Loose Tube, Steel Wire Armor, Improved Rodent Protection

GOWA204	PE	4	Outdoor, T12	0.421	10.7
GOWA206	PE	6	Outdoor, T12	0.421	10.7
GOWA212	PE	12	Outdoor, T12	0.421	10.7
GUWA204	FRNC	4	Universal, T12	0.421	10.7
GUWA208	FRNC	8	Universal, T12	0.421	10.7
GUWA212	FRNC	12	Universal, T12	0.421	10.7

Part No.	Jacket Material	No. of Fibers	Description	Outer Diameter	
				inch	mm

Fiber (62.5/125) Micron, Multimode, OM1
Central Loose Tube, Steel Wire Armor, Improved Rodent Protection

GOWA106	PE	6	Outdoor, T12	0.421	10.7
GOWA112	PE	12	Outdoor, T12	0.421	10.7
GUWA104	FRNC	4	Universal, T12	0.421	10.7
GUWA108	FRNC	8	Universal, T12	0.421	10.7
GUWA112	FRNC	12	Universal, T12	0.421	10.7
GUWB124	FRNC	24	Universal, T24	0.543	13.8

Belden Infinity® Flexible Automation Cables

300V Flex Data Cables (1 Million Flex Cycles#)



De- scription	Part No.	UL NEC / C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance			Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm			pF/ft.	pF/m		
Flex Data • 24 AWG • Stranded (41x40) 0.6 mm BC • Twisted Pair • Overall Beldfoil® Shield + Overall 85% TC Braid • 24 AWG TC Drain Wire																		
Foam Polyethylene Insulation with Skin • Bright Green Oil-Resistant PVC Jacket																		
300V 80°C		NEC: CM CEC: CM					0.58 mm 24 AWG (41x40) BC	0.071	1.80					—				
																		
	7200A	1-Pair	500 1000	152 305	17.0 38.1	7.7 17.3					0.240	6.10	120		CDR/CDR	15 49	White, Blue	
	RS-232, RS-485																	
	7201A	2-Pair	500 1000	152 305	31.1 60.0	14.1 27.2					0.322	8.18	120		CDR/CDR	15 49	see chart 5 (Tech Info Section)	
	RS-232, RS-485																	
	7202A	3-Pair	500 1000	152 305	33.5 68.1	15.2 30.9					0.347	8.81	120		CDR/CDR	15 49	see chart 5 (Tech Info Section)	
	RS-232, RS-485																	
	7203A	4-Pair	500 1000	152 305	39.0 79.1	17.7 35.9					0.362	9.20	120		CDR/CDR	15 49	see chart 5 (Tech Info Section)	
	RS-232, RS-485																	
	7205A	1-Pair	500 1000	152 305	17.4 38.1	7.9 17.3					0.232	5.89	100		CDR/CDR	14 46	White, Blue	
	RS-232, RS-422																	
	7206A	1-Pair	1000	305	59.1	26.8					0.302	7.67	150		CDR/CDR	10 33	White, Blue	
	RS-232, RS-485																	
Temp. Rating: -20° to 60°C (-5°C to 60°C flexing)																		

TC = Tinned Copper • BC = Bare Copper • DCR = DC resistance

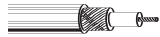
Based on proper installation techniques in a C-track cable guide.

Belden Infinity® Flexible Automation Cables300V Flex Data Cables (1 Million Flex Cycles[#])

De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material 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/ 100 m

Sub-Mini Type • 30 AWG • Stranded (7x38) 0.3 mm Tinned Cadmium Bronze • 95 % Tinned Copper French Braid®**Foam Polyethylene Insulation • Matte Blue Belflex® Jacket**

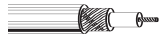
30V 80°C	7500A	CEC:	† 250	76	3.1	1.4	0.31 mm	0.056	1.42	French Braid®	0.110	2.79	75	78%	16.7	54.8	2.2	0.9	2.95
UL AWM Style 1354	FT1		† 500	152	5.1	2.3	30 AWG			+ 95% TC							5	1.4	4.59
			† 1000	305	9.0	4.1	(7x38) TCB			43.6 Ω/km***							10	2.0	6.56
							379.9 Ω/km*										30	3.4	11.16
							354.3 Ω/km**										50	4.4	14.44
																	100	6.4	21.00



CSA AWM I/II A/B

Mini Type • 25 AWG • Stranded (19x38) 0.5 mm Bare Copper • 95 % Tinned Copper French Braid®**Foam Polyethylene Insulation • Matte Blue Belflex® Jacket**

30V 80°C	7501A	CEC:	† 500	152	7.5	3.4	0.48 mm	0.090	2.29	French Braid®	0.146	3.71	75	77%	17.7	58.1	2.2	0.6	1.97
UL AWM Style 1354	FT1		† 1000	305	14.1	6.4	25 AWG			+ 95% TC							5	0.9	2.95
							(19x38) BC			29.9 Ω/km***							10	1.3	4.27
							144.7 Ω/km*										30	2.2	7.22
							114.8 Ω/km**										50	2.9	9.52
																	100	4.2	13.78



CSA AWM I/II A/B

RG-59 Type • 22 AWG • Stranded (19x34) 0.8 mm Bare Copper • 95 % Tinned Copper French Braid®**Foam Polyethylene Insulation • Matte Blue Belflex® Jacket**

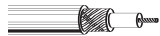
30V 80°C	7502A	CEC:	† 250	76	10.6	4.8	0.79 mm	0.146	3.71	French Braid®	0.242	6.15	75	79%	18.0	59.1	2.2	0.4	1.31
UL AWM Style 1354	FT1		† 500	152	18.1	8.2	22 AWG			+ 95% TC							5	0.5	1.64
			† 1000	305	34.0	15.4	(19x34) BC			21.0 Ω/km***							10	0.8	2.63
							65.0 Ω/km*										30	1.4	4.59
							44.0 Ω/km**										50	1.8	5.91
																	100	2.7	8.86



CSA AWM I/II A/B

RG-6/U Type • 18 AWG • Stranded (7x15x40) 1.0 mm Bare Copper • 95 % Tinned Copper French Braid®**Foam Polyethylene Insulation • Matte Blue Belflex® Jacket**

30V 80°C	7503A	CEC:	† 250	76	12.1	5.5	1.02 mm	0.185	4.70	French Braid®	0.275	6.99	75	80%	17.3	56.8	2.2	0.3	0.98
UL AWM Style 1354	FT1		† 500	152	20.9	9.5	18 AWG			+ 95% TC							5	0.4	1.31
			† 1000	305	40.1	18.2	(7x15x40) BC			36.1 Ω/km***							10	0.6	1.97
							62.7 Ω/km*										30	1.1	3.61
							26.6 Ω/km**										50	1.5	4.92
																	100	2.2	7.22



CSA AWM I/II A/B

RG-11 Type • 16 AWG • Stranded (7x37x40) 1.7 mm Bare Copper • 95 % Tinned Copper French Braid®**Foam Polyethylene Insulation • Matte Blue Belflex® Jacket**

30V 80°C	7504A	CEC:	† 1000	305	84.0	38.1	1.65 mm	0.285	7.24	French Braid®	0.405	10.29	75	81%	17.3	56.8	2.2	0.2	0.66
UL AWM Style 1354	FT1						16 AWG			+ 95% TC							5	0.3	0.98
							(7x37x40) BC			11.8 Ω/km***							10	0.4	1.31
							23.3 Ω/km*										30	0.8	2.63
							11.5 Ω/km**										50	1.0	3.28
																	100	1.5	4.92



CSA AWM I/II A/B

TC = Tinned Copper • BC = Bare Copper • DCR = DC resistance

* DC loop resistance • ** DC resistance inner conductor • *** DC resistance outer conductor

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

Based on proper installation techniques in a C-track cable guide.