BELDEN
SENDING ALL THE RIGHT SIGNALS®

Industrial Data Cabling Solutions

Signal Transmission Solutions for Reliable, Mission-Critical Applications

Be certain.
Belden.

BELDEN
SENDING ALL THE RIGHT SIGNALS®

Keep productivity high and downtime low with Belden® industrial cables. From industrial automation and process control to wind turbines and robotics, Belden has the cable that combines reliability, ruggedness, and performance.

Be Certain.

BELDEN
SENDING ALL THE RIGHT SIGNALS®

Belden has developed the most comprehensive line of industrial cabling solutions in the world today.

Industrial Wire & Cable

Nobody Does It Better

As a leader in the design and manufacturing of insulated wire and cable for over 110 years, Belden has evolved to a signal transmission solutions provider with a complete product portfolio including cable, connectivity, and networking products.

Signal transmission in industrial environments poses unique challenges, requiring products that are rugged, reliable, and designed specifically for high performance in difficult conditions. Designed and constructed for use in tough, demanding applications, Belden cables hold up to exposure to the harshest conditions: oil, chemicals, ozone, high temperature, physical abuse, and other demanding environments.

Your Challenges. Our Solutions

Increasingly, manufacturing productivity depends on automation and seamless data communication. To support the proliferation of your mission-critical signal transmissions, Belden offers a high-quality, high-availability line of industrial cabling and connectivity products.

Seamless Connectivity from the Sensor to the Enterprise

For the most reliable and robust factory networking, we also offer network switches, I/O modules, and other devices with our GarrettCom, and Lumberg Automation brands. From your petrochemical, automotive manufacturing, pharmaceutical, power generation, water treatment, pulp and paper, food and beverage, or general manufacturing plant to your remote manufacturing locations, various office sites or corporate headquarters—and everywhere within your enterprise—Belden has your particular signal transmission solution.

Be Certain with Belden

You need a signal transmission partner that elicits confidence in the availability, integrity, and performance of its signal transmission solutions for any application, in any type of environment. Only Belden ensures that its products will be available where and when you need them, that they will be of consistent high quality, and that any and all of your service needs will be met.

Belden has developed the most comprehensive line of industrial cabling solutions in the world today. Whether you are networking your factory floor or your process equipment and devices to their controllers and on to the control room, or relaying data between the control room, the engineering department, various office sites or remote manufacturing locations—or operating variable frequency motor drives, continuous motion equipment and other process equipment—Belden has the cabling solution you need.

Since productivity depends on seamless data communications, you can rely on Belden to maximize your uptime—dependably and continuously—no matter how tough your environment might be. Belden products provide the reliability and durability required in virtually every industrial application. No matter how great the challenge, there's a Belden cable product to meet the need.

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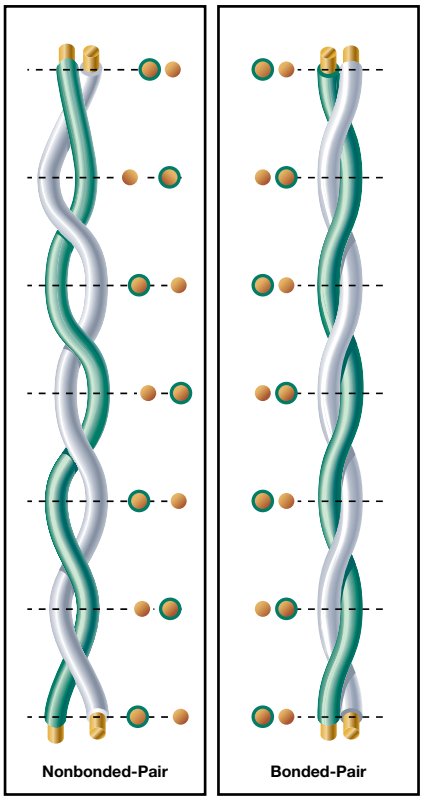
The Belden Difference

Product Breadth: Find the cable you need from our vast selection of configurations, shielding options, insulation and jacket materials, high-flex capabilities, and other options. From cables for industrial automation and Industrial Ethernet to hook-up wire and multi-conductor cable, connect with Belden.

Product Consistency: Manufactured in ISO certified manufacturing facilities, Belden's state-of-the-art processes ensure quality in each product. Product consistency for ease of termination and assembly is a mainstay of our products. Precise diameter control of insulation and jacket diameters along with concentric wall thickness ensure fast, reliable supplication in high-speed automated equipment.

Shielding: Belden meets the demand for shielding technology with innovative designs in foil and braid configurations for highly effective EMI and RFI protection, and 100% shield coverage for improved protection over a wide frequency range. Our patented Beldfoil design provides electrostatic shielding, while adding strength and extra insulation. The Beldfoil shield is lightweight, strong, flexible, and thin, yet extremely effective.

Bonded-Pair™ Technology:
For optimum performance of paired Industrial Ethernet cable, we bond the conductors in each pair along their longitudinal axis to guarantee uniform spacing throughout the cable. Maintaining a precise geometry is a key factor in maintaining consistent electrical performance by improving balance and return loss performance. The robust design of Bonded-Pair cables virtually eliminates concerns about stretching and bend radius. Bonded-Pair cables boast significantly higher maximum pulling tensions and tighter bend radii over the recommended guidelines to accommodate real-world installation issues.



Nonbonded pairs can lose the uniformity of twist that is essential to consistent electrical performance.

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Industrial Data Cabling Solutions

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Belden IndustrialTuff® Cables
Introduction

Tough Cables for Tough Environments

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

Depend on Belden

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

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

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

Innovative Technology

Bonded-Pair™ Cable

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

Shielding

Effective cable shielding for protection from noise interference remains critical with evolving industrial technology. Belden's shielding designs and testing methods ensure signal integrity and a dependable cable in the presence of electrical noise.

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

Armoring

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

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

Insulation and Jacket

Belden formulates many of its own insulation and jacket compounds. As a result, they provide superior performance under a variety of hostile environmental conditions.

Intrinsically Safe Wiring

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

Custom Capabilities

Most of our industrial cables are available from stock. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find an Industrial cable in this catalog section that meets your technical requirements, contact Technical Support at +31-77-3878-555.

Overall Jacket

Material
PUR
FRNC
PVC
CPE
TPE
HDPE

Armor

Material
Steel Wire
Aluminum Interlock
Steel Interlock
Aluminum Belclad®
Steel Belclad
Copper Belclad
Continuous Armor

PLC/DCS Cable Cross Reference Guide

PLC/DCS Manufacturer	System Name	Belden Part Number	
ABB/Bailey Controls	FOUNDATION Fieldbus	See Protocol listings on page 10	
	Industrial IT 800 X A	9880	Network Trunk Cable
	Infinet	9880	Network Trunk Cable
		9463	Blue Hose® (Standard)
	Masterpiece 200	9880	Network Trunk Cable
		9907	Thin Network Trunk Cable
	MICRO-DCI	3105A	1-Pair, RS-485
	MICROLINK	9860	Twinax, 16 AWG, 124 Ohm
	Modcell	3105A	1-Pair, RS-485
	PROFIBUS DP & PA	See Protocol listings on page 10	
Allen-Bradley/ Rockwell Automation	ControlNet™	See Protocol listings on page 10	
	DeviceNet™	See Protocol listings on page 10	
	DH, DH+, Remote I/O	9463	Blue Hose (Standard)
		9463F	Flexible Version (9463)
		129463	Aluminum Armor (9463)
		139463	Steel Armor (9463)
		189463	Continuous Armor (9463)
		9463DB	Direct Burial (9463)
		3072F	600V TC Rated (9463)
		89463	FEP 200°C, Plenum
	DH-485	3074F	600V Tray Cable
		3106A	1.5-Pair, RS-485 (PLTC)
		9842	2-Pair, RS-485
	Industrial Ethernet	See pages 11–14	
	Longline Communications	8723	Interface Cable
		88723	Plenum Version
Cutler-Hammer/ Westinghouse	I/Q System	9463	Blue Hose (Standard)
Emerson Process Management (Fisher/ Rosemont Systems) — Delta V	DeviceNet	See Protocol listings on page 10	
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 10	
	HART	See Protocol listings on page 10	
	Industrial Ethernet	See pages 11–14	
	MODBUS	See Protocol listings on page 10	
	PROFIBUS DP	See Protocol listings on page 10	
	Provox Plus	3091A*	RG-11 Quad Shield PVC
		3131A	RG-6 Quad Shield PVC
	RS-485	See Protocol listings on page 10	
GE Fanuc — I/O Bus	DeviceNet	See Protocol listings on page 10	
	9030, 9070	9182	Communications Bus
	PAC System	89182	Plenum Version
	INTERBUS®-S	See Protocol listings on page 10	
	MODBUS®	See Protocol listings on page 10	
	PROFIBUS	See Protocol listings on page 10	

PLC/DCS Manufacturer	System Name	Belden Part Number	
GE Fanuc — Sensor Device Networks	DeviceNet	See Protocol listings on page 10	
	SDS	See Protocol listings on page 10	
Honeywell	Access 4000 System	9248*	RG-6 PVC
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 10	
	IPC 620 System I/O	9271	Twinax, 25 AWG, 124 Ohm
	IPC 620 System	9729	Up to 4000 ft. (1220 m)
	Serial Interface	9182	Up to 10,000 ft. (3050 m)
		89182	Plenum
	Series C	RS-485	FOUNDATION Fieldbus Industrial Ethernet
	3000 UCN & LCN	3131A	RG-6 Quad Shield PVC
		3094A	RG-11 Quad Shield PVC
Honeywell Microswitch Division	Smart Distributed System	3086A	Mini
		3087A	Micro
		1346F	1 Pair 22 AWG, 1 Pair 24 AWG
		1348A	3 20 AWG
		1349A	3 20 AWG, 2 18 AWG
Invensys/ Foxboro	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 10	
	I/A Series Carrier Band	8233*	Small Trunk
		3095A	Plenum
		9290*	Drop Cable
	I/A Series Fieldbus	9207	Twinax
		89207	200°C, Plenum
		3073F	600V Tray Cable
	I/A Series Node Bus	9880	Trunk Cable
		89880	Plenum Version
	Industrial Ethernet	See pages 11–14	
Limitorque	DCC100	3105A	Actuator Bus Cable, 1-Pair, RS-485
Matsushita	FP Series C-NET	9207	Twinax, 20 AWG, Stranded, 100 Ohm
		9860	Twinax, 16 AWG, Solid, 124 Ohm
	FP Series MEWNET-F	9207	Twinax, 20 AWG, Stranded, 100 Ohm
		9860	Twinax, 16 AWG, Solid, 124 Ohm
	FP Series MEWNET-H	9248*	RG-6, 75 Ohm, 18 AWG
	FP Series MEWNET-TR	9207	Twinax, 20 AWG, Stranded, 100 Ohm
		9860	Twinax, 16 AWG, Solid, 124 Ohm
	FP Series MEWNET-W	9207	Twinax, 20 AWG, Stranded, 100 Ohm
		9806	4-Pair, RS-232, RS-422
	FP Series MEWNET-W2	9207	Twinax, 20 AWG, Stranded, 100 Ohm
		9860*	Twinax, 16 AWG, Solid, 124 Ohm
	FP Series TRNET	9207	Twinax, 20 AWG, Stranded, 100 Ohm
		9860	Twinax, 16 AWG, Solid, 124 Ohm

FEP = Fluorinated Ethylene-propylene

*For more information please see *Cabling Solutions for Industrial Applications* brochure.

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

PLC/DCS Manufacturer	System Name	Belden Part Number	
Mitsubishi Electric Automation	CC-Link	See Protocol listings on page 10	
	DeviceNet	See Protocol listings on page 10	
	Melsecnet II (10/10H)	1505A*	Precision RG-59/U Coax
		1505F*	High-Flex 1505A
		1506A*	Plenum Precision RG-59/U, Outdoor, Direct Burial
		8241*	Standard RG-59/U Coax
		8241F*	High-Flex 8241F
	MODBUS	See Protocol listings on page 10	
	PROFIBUS DP	See Protocol listings on page 10	
	Serial Communications	8777	Control and Instrumentation Interconnect Cable
Modicon/ Schneider AEG	Industrial Ethernet	See pages 11–14	
	MODBUS	8777	Modem Drop Cable, 22 AWG, 3-Pair
		8777NH	22 AWG, 3-Pair, LSNH
		8777LS	22 AWG, 3-Pair, Steel Wire Armor
		128777	Aluminum Armor (8777)
		138777	Steel Armor (8777)
		88777	FEP 200°C, Plenum
	MODBUS II	3092A	RG-6 Quad Shield PVC
		3132A	RG-6 Quad Shield, 150°C, Plenum
		3092F	RG-6 Quad Shield PVC, Flexible Version
		123092A	Aluminum Armor (3092A)
		133092A	Steel Armor (3092A)
	Remote I/O	3092A	RG-6 Quad Shield PVC
		3092F	RG-6 Quad Shield PVC, Flexible Version
		123092A	Aluminum Armor (3092A)
		133092A	Steel Armor (3092A)
		123092F	Aluminum Armor, RG-6 Quad Shield PVC
		3132A	RG-6 Quad Shield, 150°C, Plenum
		3094A	RG-11 Quad Shield PVC
		123094A	Aluminum Armor (3094A)
		133094A	Steel Armor (3094A)
		3095A	RG-11 Quad Shield, 150°C, Plenum
Omron	ComboBus/D (DeviceNet™)	See DeviceNet Protocol listings on page 10	
	ComboBus/S	9409*	18 AWG, 1-Pair, 300V PLTC Control
		9318*	18 AWG, 1-Pair, 300V PLTC Control, Shielded
		3073F	600V Tray Cable, Twinax
		89740*	18 AWG, 1-Pair, 300V, Control

PLC/DCS Manufacturer	System Name	Belden Part Number	
Omron *(continued)*	Controller Link	9207	Twinax
		89207	Twinax, 200°C, Plenum
		9815*	Twinax, 100 Ohm, Direct Burial
		3073F	600V Tray Cable, Twinax
	SYSBUS-2	3073F	600V Tray Cable, Twinax
	SYSMAC BUS	9841	22 AWG, 1-Pair, RS-485
		3105A	22 AWG, 1-Pair, RS-485
	SYSMAC LINK	9231*	RG-59U Coax
Phoenix Contact	DeviceNet	See Protocol listings on page 10	
	Industrial Ethernet	See pages 11–14	
	INTERBUS®-S	See Protocol listings on page 10	
	PROFIBUS DP FMS & PA	See Protocol listings on page 10	
Reliance/A-B	Auto Max Distributed Power	B9B012*	2-Fiber Breakout
		I100255*	2-Fiber Loose Tube PVC
		I100266*	2-Fiber Loose Tube CPE
	R-Net	9259*	RG-59 PVC
		89259*	RG-59, 200°C, Plenum
Rotork	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
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 10	
	Hiway	9860	Network Trunk Cable
	Industrial Ethernet	See pages 11–14	
	MODULNET	3094A	RG-11 Quad Shield PVC
		3131A	RG-6 Quad Shield PVC
	PROFIBUS DP & FMS (Purple)	See Protocol listings on page 10	
	PROFIBUS PA (Blue)	See Protocol listings on page 10	
	SINEC Series H1	9907	Thin Network Trunk Cable
		9880	Network Trunk Cable
	SINEC Series H2B	3131A	RG-6 Quad Shield
		3094A	RG-11 Quad Shield
	SINEC Series L1	3107A	2-Pair, RS-485
	SINEC Series L2	3079A	300V Twinax
	Thicknet Ethernet Trunk	9880	Network Trunk Cable
		129880	Aluminum Interlocked Armor Trunk
		139880	Steel Interlocked Armor Trunk
	Thinnet Ethernet Trunk	9907	Thin Network Trunk Cable

FEP = Fluorinated Ethylene-propylene

*For more information please see *Cabling Solutions for Industrial Applications* brochure.

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

PLC/DCS Manufacturer	System Name	Belden Part Number	
Smar	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 10	
	Industrial Ethernet	See pages 11–14	
	PROFIBUS DP FMS & PA	See Protocol listings on page 10	
	RS-485	See Protocol listings on page 10	
Square D/ Schneider AEG	FIP/Fieldbus	3079A	22 AWG, 1-Pair, Shielded
		123079A	Aluminum Armor (3079A)
	Industrial Ethernet	See pages 11–14	
	Model 50, RS-422 Cable	8760	18 AWG, 1-Pair, Shielded
		128760	Aluminum Armor (8760)
	Passport I/O – I/O Net	3105A	22 AWG, 1-Pair, RS-485
		123105A	Aluminum Armor (3105A)
		3106A	22 AWG, 1.5-Pair, RS-485
		123106A	Aluminum Armor (3106A)
	Power Logic	9841	24 AWG, 1-Pair, RS-485
		9842	24 AWG, 2-Pair, RS-485
Square D/ Schneider AEG	Seriplex®	3124A	CBL-1822-P20
		3125A	CBL-1622-P16
		3126A	CBL-162212-P16
		123124A	Aluminum Armor (3124A)
		123125A	Aluminum Armor (3125A)
		123126A	Aluminum Armor (3126A)
		9463	Blue Hose® (Standard)
		9463NH	20 AWG Twinax, FRNC
		9463LS	20 AWG Twinax, Steel Wire Armor, FRNC
		129463	Aluminum Armor (9463)
		139463	Steel Armor (9463)
		189463	Continuous Armor (9463)
		YR28826	Dual Version (9463)
		9463DB	Direct Burial (9463)
		YR29565	Various Color Jackets 9463)
	SY/Net Network Trunk Cable	3072F	600V TC Rated (9463)
		89463	FEP 200°C, Plenum
	SY/Net TNIM Cable	9272	20 AWG, 1-Pair, Shielded
		89272	FEP 200°C, Plenum

PLC/DCS Manufacturer	System Name	Belden Part Number	
Yokogawa— CENTUM	DeviceNet™	See Protocol listings on page 10	
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 10	
	HART	See Protocol listings on page 10	
	Industrial Ethernet	See pages 11–14	
	PROFIBUS	See Protocol listings on page 10	
	RS-485	See Protocol listings on page 10	
Yokogawa— FA-M3	DeviceNet	See Protocol listings on page 10	
	Industrial Ethernet	See pages 11–14	
	MODBUS	See Protocol listings on page 10	
	PROFIBUS	See Protocol listings on page 10	
	RS-485	See Protocol listings on page 10	
Yokogawa— STARDOM	DeviceNet	See Protocol listings on page 10	
	FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See Protocol listings on page 10	
	HART	See Protocol listings on page 10	
	Industrial Ethernet	See pages 11–14	
	PROFIBUS	See Protocol listings on page 10	
	RS-485	See Protocol listings on page 10	
Westinghouse	WDPF	9292*	RG-11 PVC

FEP = Fluorinated Ethylene-Propylene.

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

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*For more information please see *Cabling Solutions for Industrial Applications* brochure.

Protocol Cable Cross Reference Guide

System Name	Belden Part Number	
Industrial Ethernet	See pages 11–14	
FOUNDATION Fieldbus (Type SP50 ISA/IEC)	See pages 15–17	
	HSE	Copper See Industrial Ethernet
PROFIBUS DP	**3079A**	22 AWG 300V Twinax
	3079E	22 AWG 300V Twinax, Flex Version
	3079ALS	22 AWG, Steel Wire Armored, LSNH
	3079ANH	22 AWG, LSNH
	70101E	Solid Cond., PVC, IEC 60332-1, IEC61158-2
	70101NH	Solid Cond., LSNH, IEC 60332-1, IEC61158-2
	70101LS	Solid Cond., Steel Wire Armored, LSNH, IEC 60332-1, IEC61158-2
	70102E	Stranded Cond., PVC, IEC60332-1, IEC61158-2
	70101PE	Outdoor, PE, IEC61158-2
	70103E	Fast Connect, PVC, IEC 60332-1, IEC61158-2
	70104E	Fast Connect, PVC, UL AWM 20276
	70105PU	Trailing, PUR, IEC61158-2
	183079A	22 AWG, 300V, Twinax, Armored
PROFIBUS PA	**70001E**	18 AWG, 2-Conductor, PVC, IEC 60332-1
	70001NH	18 AWG, 2-Conductor, LSNH, IEC 60332-1
	70001LS	18 AWG, 2-Conductor, Steel Wire Armour, LSNH, IEC 60332-1
	70100E	18 AWG, 2-Conductor, PVC, IEC60332-1, IEC61158-2 part 21
	70100NH	18 AWG, 2-Conductor, LSNH, IEC60332-1, IEC61158-2 part 21
	70100LS	18 AWG, 2-Conductor, Steel Wire Armour, LSNH, IEC60332-1, IEC61158-2 part 21
	70110E	18 AWG, 2-Conductor, Steel Wire Armour, PVC, IEC 60332-1 , IEC 61158-2 , UL 1581, AWM 2464
CANopen RS-485/ HART	**9841**	1-Pair
	9841NH	1-Pair, LSNH
	9841LS	1-Pair, Low Smoke
	82841	1-Pair, Plenum
	89841	1-Pair, Plenum, High-Temperature
	9842	2-Pair
	9842NH	2-Pair, LSNH
	9842LS	2-Pair, Low Smoke
	82842	2-Pair, Plenum
	9843	3-Pair
	9843NH	3-Pair, LSNH
	9844	4-Pair
	9844NH	4-Pair, LSNH
	7200A	1-Pair, RS-485, Hi-Flex
	7201A	2-Pair, RS-485, Hi-Flex
	7202A	3-Pair, RS-485, Hi-Flex
	7203A	4-Pair, RS-485, Hi-Flex
	7206A	1-Pair, RS-485, Hi-Flex
	3105A	1-Pair, RS-485 (PLTC)
	3106A	1.5-Pair, RS-485 (PLTC)
	3107A	2-Pair, RS-485 (PLTC)
	3108A	3 Pair, RS-485 (PLTC)
	3109A	4 Pair, RS-485 (PLTC)
	123107A	2-Pair, RS-485, Aluminium Interlocked Armor
DeviceBus for ODVA DeviceNet	**1345F**	CL2 TPE (Thick)
	3082A	PVC (Thick)
	3082F	High-Flex (Thick)
	3082K	CL2 (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)

System Name	Belden Part Number	
DeviceBus for Honeywell Smart Distributed System (SDS)	**3086A**	1-Pair 16 AWG, 1-Pair 20 AWG
	3087A	2-Pair 22 AWG
	1346F	1-Pair 22 AWG, 1 Pair 24 AWG
	1348A	3 20 AWG
	1349A	3 20 AWG, 2 18 AWG
DeviceBus for Square D/Seriplex	**3124A**	1-Pair 18 AWG, 1-Pair 22 AWG
	3125A	1-Pair 16 AWG, 1-Pair 22 AWG
	3126A	1-Pair 16 AWG, 1-Pair 22 AWG, 1-Pair 12 AWG
	123124A	Aluminum Armor (3124A)
	123125A	Aluminum Armor (3125A)
	123126A	Aluminum Armor (3126A)
DeviceBus for Phoenix Contact INTERBUS-S	**3119A**	18 AWG/3c, 24 AWG/3-Pair, Composite
	3120A	24 AWG/3-Pair
ControlNet™	**3092A**	RG-6 PVC Quad Shield
	3092F	RG-6 PVC Quad Shield, Flex Version, Aluminum Braid
	3093A	RG-6 FEP Quad Shield, Plenum
	123092A	Aluminum Armor (3092A)
	133092A	Steel Armor (3092A)
	183092A	Continuous Armor (3092A)
ControlBus	**3092F**	RG-6 Quad Shield, High Flex
	3131A	RG-6 Quad Shield, Solid
	3132A	RG-6 Quad Shield, Plenum, Outdoor and Direct Burial
	3094A	RG-11 Quad Shield, Solid
	3095A	RG-11 Quad Shield, Plenum, Outdoor and Direct Burial
ControlBus Blue Hose Industrial Twinax/DataHighway (DH) and DataHighway Plus (DH+) Remote I/O	**9463**	20 AWG Twinax, Blue Hose
	9463DB	Direct Burial Blue Hose
	9463NH	20 AWG Twinax, FRNC
	9463LS	20 AWG Twinax Steel Wire Armor, FRNC
	9463F	High-Flex, Blue Hose
	89463	High-Temp, Plenum Blue Hose
	129463	Aluminum Armor (9463)
	139463	Steel Armor (9463)
	189463	Continuous Armor (9463)
ControlBus Twinax Cables	**9272**	20 AWG Stranded, 300V
	9250	18 AWG Stranded, RG-22B
	9207	20 AWG Stranded, PVC
	9207NH	20 AWG Stranded, LSNH
	9271	25 AWG Stranded, 300V
	9860	16 AWG Solid, PVC
	9182	22 AWG Stranded, PVC
	9182NH	22 AWG Stranded, LSNH
	9182LS	22 AWG Stranded, Steel Wire Armor, LSNH
	89182	22 AWG Stranded, Plenum, FEP
MODBUS	**8777**	22 AWG, 3-Pair, Modem Drop Cable
	128777	Aluminum Armor (8777)
	138777	Steel Armor (8777)
	82777	FEP 200°C, Plenum (8777)
	8777NH	22 AWG, 3-Pair, LSNH
	8777LS	22 AWG, 3-Pair, Steel Wire Armor
	3092A	18 AWG Solid, PVC
	3093A	18 AWG Solid, Plenum
	3092F	20 AWG High Flex
LonWorks	**7701NH**	22 AWG, 1-Pair, LSNH
	7702NH	22 AWG, 2-Pair, LSNH
	7703NH	24 AWG, 1-Pair, LSNH
	7704NH	24 AWG, 2-Pair, LSNH
	8471	16 AWG, 1-Pair, UL AWM 2598
	8471LS	16 AWG, 1-Pair, LSNH, IEC 60332-1
	8471NH	16 AWG 1-Pair, LSNH
	8917	16 AWG, 1-Cond, UL AWM 1015
	85102	16 AWG, 1-Pair, Tefzel® jacket

FEP = Fluorinated Ethylene-propylene • FRPO = Flame Retardant Polyolefin

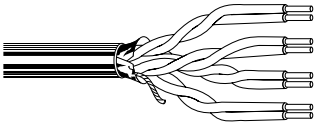
DataTuff® Industrial Ethernet Cables

Be Certain. Belden Understands Industrial Ethernet.

The Belden product portfolio covers all areas of the industrial environment, from the cabinet, through the telecommunications room to the factory floor, and ending on the actual machine. The comprehensive DataTuff® Industrial Ethernet cable and connectivity range ensures the highest level of reliability, quality and performance. Specifiers can choose from products suitable for indoor and outdoor applications, for use underground, and for other harsh conditions. Cordsets come with RJ45 and M12 connectors, and IP20, IP67 and IP68 protection.

The cabling meets all data rate requirements, ranging from 100 Mb/s, through 1 Gb/s, to 10 Gb/s.

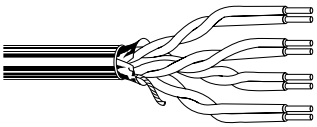
Permanent Installation



Part No.	Jacket	Shielding	Bonded Pairs
Industrial Ethernet			
100 Mb/s • Cat 5e • 24 AWG Solid Conductors • 2 Pair			
72001E	PVC	Foil + >80% Braid	—
72001NH	FRNC	Foil + >80% Braid	—
100 Mb/s • Cat 5e • 24 AWG Solid Conductors • 4 Pair			
7932A EtherNet/IP	PVC	—	✔
1 Gb/s • Cat 5e • 24 AWG Solid Conductors • 4 Pair			
74001E	PVC	Foil + >80% Braid	—
74001NH	FRNC	Foil + >80% Braid	—
7923A EtherNet/IP	PVC	—	✔
7935A EtherNet/IP	FRNC	—	✔
7929A EtherNet/IP	PVC	Foil	✔
10 Gb/s • Cat 7 • 23 AWG Solid Conductors • 4 Pair			
74004E	PVC	Foil + >65% Braid	—
74004NH	FRNC	Foil + >65% Braid	—
PROFINET			
100 Mb/s • Cat 5e • 22 AWG Solid Conductors • Quad Design			
70006E	PVC	Foil + >85% Braid	—
70006NH	FRNC	Foil + >85% Braid	—

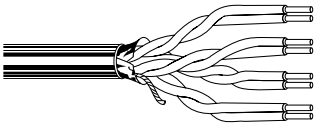
DataTuff® Industrial Ethernet Cables

Moderate Flexing



Part No.	Jacket	Shielding	Bonded Pairs
Industrial Ethernet			
100 Mb/s • Cat 5e • 26 AWG Stranded (7 x 34) Conductors • 2 Pair			
72002E	PVC	Foil + >80% Braid	—
72002NH	FRNC	Foil + >80% Braid	—
72002PU	Polyurethane	Foil + >80% Braid	—
1 Gb/s • Cat 5e • 26 AWG Stranded (7 x 34) Conductors • 4 Pair			
74002E	PVC	Foil + >80% Braid	—
74002NH	FRNC	Foil + >80% Braid	—
74002PU	Polyurethane	Foil + >80% Braid	—
1 Gb/s • Cat 5e • 24 AWG Stranded (7 x 32) Conductors • 4 Pair			
7924A	PVC	Foil + >80% Braid	✔
10 Gb/s • Cat 7 • 26 AWG Stranded (7 x 34) Conductors • Quads			
74005PU	Polyurethane	Foil + >65% Braid	—
PROFINET			
100 Mb/s • Cat 5e • 22 AWG (7 x 30) Stranded Conductors • Quad Design			
70007E	PVC	Foil + >85% Braid	—
70007NH	FRNC	Foil + >85% Braid	—
70007PU	Polyurethane	Foil + >85% Braid	—

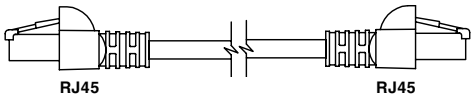
Continuous Flexing



Part No.	Jacket	Shielding	Bonded Pairs	Flex Cycles
Industrial Ethernet				
1 Gb/s • Cat 5e • 24 AWG Stranded (7 x 32) Conductors • 4 Pair				
7938A	TPE	Foil + >85% Braid	✔	10 million (trailing)
1 Gb/s • Cat 5e • 26 AWG Stranded (19 x 38) Conductors • 4 Pair				
74003PU	Polyurethane	Foil + >80% Braid	—	>2 million (trailing)
74009PU	Polyurethane	Foil + >80% Braid	—	>2 million (torsion)
PROFINET				
100 Mb/s • Cat 5e • 22 AWG Stranded (19 x 34) Conductors • Quad Design				
70008PU	Polyurethane	Foil + >85% Braid	—	>2 million (trailing)
70009PU	Polyurethane	Foil + >85% Braid	—	>2 million (torsion)

DataTuff® Industrial Ethernet Patch Cords

Permanent Installation



Industrial Ethernet

Part No.	Configuration*	Jacket	Shielding	Bonded Pairs
100 Mb/s • Cat 5e • 24 AWG Solid Conductors • 2 Pair				
CA00641	RJ45 – RJ45	PVC	Foil + >80% Braid	—
CA00642	RJ45 – RJ45	FRNC	Foil + >80% Braid	—
1 Gb/s • Cat 5e • 24 AWG Solid Conductors • 4 Pair				
CA00600	RJ45 – RJ45	PVC	Foil + >80% Braid	—
E501001 EtherNet/IP	RJ45 – RJ45	PVC	—	✔
E505001 EtherNet/IP	RJ45 – RJ45	PVC	Foil	✔
CA00643	RJ45 – RJ45	FRNC	Foil + >80% Braid	—
10 Gb/s • Cat 6A • 26 AWG Stranded (7 x 34) Conductors • 4 Pair				
CA00664	RJ45 – RJ45	PVC	Foil + >65% Braid	—
CA00666	RJ45 – RJ45	FRNC	Foil + >65% Braid	—

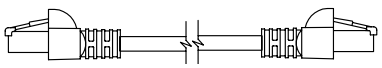
PROFINET

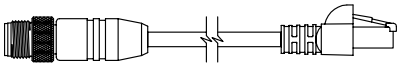
Part No.	Configuration*	Jacket	Shielding	Bonded Pairs
100 Mb/s • Cat 5e • 22 AWG Solid Conductors • Quad Design				
CA00656	RJ45 – RJ45	PVC	Foil + >85% Braid	—
CA00658	RJ45 – RJ45	FRNC	Foil + >85% Braid	—

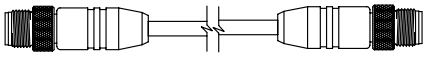
*Environmental Sealing: RJ45 – IP20

DataTuff® Industrial Ethernet Patch Cords

Moderate Flexing







Industrial Ethernet

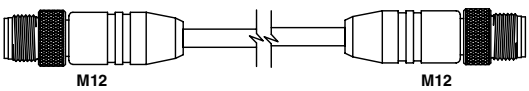
Part No.	Configuration*	Jacket	Shielding	Bonded Pairs
100 Mb/s • Cat 5e • 26 AWG Stranded (7 x 34) Conductors • 2 Pair				
CA00660	RJ45 – RJ45	PVC	Foil + >80% Braid	—
CA00661	RJ45 – RJ45	FRNC	Foil + >80% Braid	—
100 Mb/s • Cat 5e • 24AWG Stranded (7 x 32) Conductors • 2 Pair				
900 002 882	RJ45 – RJ45	TPE	Foil + >65% Braid	✔
900 001 991 *EtherNet/IP*	M12MD – RJ45	PVC	—	✔
900 001 973	M12MD – M12MD	PVC	—	✔
900 002 833	M12MD – M12MD	TPE	Foil + >65% Braid	✔
1 Gb/s • Cat 5e • 26 AWG Stranded (7 x 34) Conductors • 4 Pair				
CA00613	RJ45 – RJ45	PVC	Foil + >80% Braid	—
CA00630	RJ45 – RJ45	FRNC	Foil + >80% Braid	—
1 Gb/s • Cat 5e • 24 AWG Stranded (7 x 32) Conductors • 4 Pair				
900 001 896	RJ45 – RJ45	PVC	—	✔
E507001 *EtherNet/IP*	RJ45 – RJ45	PVC	Foil	✔
10 Gb/s • Cat 6A • 26 AWG Stranded (7 x 34) Conductors • 4 Pair				
CA00652	RJ45 – RJ45	Polyurethane	Foil + >65% Braid	—
CA00653	M12MX – RJ45	Polyurethane	Foil + >65% Braid	—
CA00654	M12MX – M12MX	Polyurethane	Foil + >65% Braid	—

PROFINET

Part No.	Configuration*	Jacket	Shielding	Bonded Pairs
100 Mb/s • Cat 5e • 22 AWG Stranded (7 x 30) Conductors • Quad Design				
CA00730	RJ45 – RJ45	PVC	Foil + >85% Braid	—
CA00735	RJ45 – RJ45	FRNC	Foil + >85% Braid	—

*Environmental Sealing: RJ45 – IP20
M12MX – IP67
M12MD – IP68

Continuous Flexing



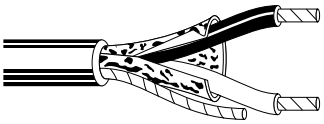
Ethernet

Part No.	Configuration*	Jacket	Shielding	Bonded Pairs
100 Mb/s • Cat 5e • 26 AWG Stranded (7 x 34) Conductors • 2 Pair				
0985 S4549 100	M12MD – M12MD	Polyurethane	Foil + >85% Braid	—

*Environmental Sealing: M12MD – IP68

FOUNDATION Fieldbus

FOUNDATION Fieldbus Type A



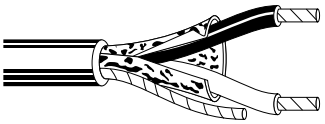
Part No.	AWG	Voltage	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
				Inch	mm		
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil® Shielding • Orange or Intrinsically Safe Blue PVC Jacket							
3076F	18	300	1	.253	6.43	-40 to +105	PLTC/ITC-ER CMG CMX-Outdoor CEC: CMG FT4 Sunlight Res Oil Res IEC 60332-3-24 (Cat C)
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil Shielding • LSNH Inner Jacket (Black and Blue) • Steel Wire Armour • Black LSNH Outer Jacket							
3076ELS	18	300	1	.295/.511	7.5/13	-45 to +80	NEC: CM • CEC: CM
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil Shielding • LSNH Jacket							
3076ENH	18	300	1	.295	7.5	-45 to +80	NEC: CM • CEC: CM
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil + 65% TC Braid Shielding • PVC Inner Jacket • Armor • Orange PVC Outer Jacket							
183076F	18	300	1	.562	14.30	-40 to +105	FOUNDATION Fieldbus Type A Continuously Corrugated Aluminum Armor NEC: CMX-Outdoor Sunlight Res Oil Res
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • TC Drain Wire • Individually Foil Shielded Pairs + Overall Beldfoil Shielding • Orange PVC Jacket							
1327A	18	300	2	.44	11.18	-40 to +105	PLTC/ITC-ER CMG CMX-Outdoor CEC: CMG FT4 Sunlight Res Oil Res IEC 60332-3-24 (Cat C)
1328A			5	.55	13.87		
1329A			8	.67	17.02		
1330A			12	.81	20.57		
1331A			16	.92	23.37		
1332A			20	1.02	25.91		
1333A			24	1.14	28.96		
1359A			50	1.61	40.90		
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil + 65% TC Braid Shielding • Orange or Intrinsically Safe Blue PVC Jacket							
1334A	18	300	1	.28	7.11	-50 to +105	PLTC/ITC-ER CMG CMX-Outdoor CEC: CMG FT4 Sunlight Res Oil Res IEC 60332-3-24 (Cat C)

Conductor Color Code: Blue, Orange, Numbered Pairs.

TC = Tinned Copper • PVC = Polyvinyl Chloride

FOUNDATION Fieldbus

FOUNDATION Fieldbus Type A



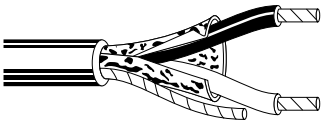
Part No.	AWG	Voltage	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
				Inch	mm		
Stranded (7 x 26) TC Conductors • Cross-Linked Polyolefin Insulation • TC Drain Wire • Individually Shielded Pairs and Overall Beldfoil® Shielding • Orange or Intrinsically Safe Blue PVC Jacket							
2100A	18	300	1	.319	8.10	-55 to +90	PLTC/ITC-ER CMG CMX-Outdoor CEC: CMG FT4 C(UL) CIC Type TC Sunlight Res Oil Res IEC 60332-3-24 (Cat C)
2101A			2	.512	13.00		
2102A			5	.677	17.20		
2103A			8	.800	20.32		
2104A			12	1.015	25.78		
2104A			16	1.126	28.60		
2106A			20	1.249	31.72		
2107A			24	1.389	35.28		
2108A			50	1.947	49.45		
Stranded (7 x 26) TC Conductors • Cross-Linked Polyolefin Insulation • TC Drain Wires • Individually Shielded Pairs and Overall Beldfoil Shielding • Orange or Intrinsically Safe Blue PVC Jacket							
2118A	18	600	1	.319	8.10	-55 to +90	TC-ER CMG CMX-Outdoor CEC: CMG FT4 C(UL) CIC Type TC Sunlight Res Oil Res IEC 60332-3-24 (Cat C)
2119A			2	.512	13.00		
2120A			5	.677	17.20		
2121A			8	.800	20.32		
2122A			12	1.015	25.78		
2123A			16	1.126	28.60		
2124A			20	1.249	31.72		
2125A			24	1.389	35.28		
2126A			50	1.947	49.45		
Stranded (7 x 24) TC Conductors • Polyolefin Insulation • TC Drain Wires • Individually Shielded Pairs and Overall Beldfoil Shielding • Orange PVC Jacket							
1360A	16	300	1	.40	10.16	-50 to +105	
1361A			2	.58	14.73	-40 to +105	PLTC/ITC-ER CMG CMX-Outdoor CEC: CMG FT4 Sunlight Res Oil Res IEC 60332-3-24 (Cat C)
1362A			5	.75	19.05		
1363A			8	.91	23.11		
1364A			12	1.11	28.19		
1365A			16	1.23	31.24		
1366A			20	1.39	35.31		
1367A			24	1.55	39.37		
Stranded (7 x 24) TC Conductors • Cross-Linked Polyolefin Insulation • TC Drain Wire • Individually Shielded Pairs and Overall Beldfoil Shielding • Orange or Intrinsically Safe Blue PVC Jacket							
2109A	16	300	1	.365	9.27	-55 to +90	PLTC/ITC-ER CMG CMX-Outdoor CEC: CMG FT4 C(UL) CIC Type TC Sunlight Res Oil Res IEC 60332-3-24 (Cat C)
2110A			2	.629	15.98		
2111A			5	.789	20.04		
2112A			8	.982	24.94		
2113A			12	1.186	30.12		
2114A			16	1.321	33.55		
2115A			20	1.469	37.31		
2116A			24	1.638	41.61		
2117A			36	1.952	49.58		

Conductor Color Code: Blue, Orange, Numbered Pairs.

TC = Tinned Copper • PVC = Polyvinyl Chloride

FOUNDATION Fieldbus

FOUNDATION Fieldbus Type A

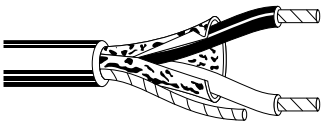


Part No.	AWG	Voltage	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
				Inch	mm		
Stranded (7 x 24) TC Conductors • Cross-Linked Polyolefin Insulation • TC Drain Wire • Individually Shielded Pairs and Overall Beldfoil Shielding • Orange or Intrinsically Safe Blue PVC Jacket							
2127A	16	600	1	.365	9.27	-55 to +90	TC-ER CMG CMX-Outdoor CEC: CMG FT4 C(UL) CIC Type TC Sunlight Res Oil Res IEC 60332-3-24 (Cat C)
2128A			2	.629	15.98		
2129A			5	.789	20.04		
2130A			8	.982	24.94		
2131A			12	1.186	30.12		
2132A			16	1.321	33.55		
2133A			20	1.469	37.31		
2134A			24	1.638	41.61		
2135A			36	1.952	49.58		
Stranded (7 x 24) TC Conductors • Polyolefin Insulation • TC Drain Wire • Overall Beldfoil® + 65% TC Braid Shielding • Orange or Intrinsically Safe Blue PVC Jacket							
1335A*	16	300	1	.34	8.64	-50 to +105	PLTC/ITC-ER CMG CMX-Outdoor CEC: CMG FT4 Sunlight Res Oil Res IEC 60332-3-24 (Cat C)
Stranded (7 x 22) TC Conductors • Polyolefin Insulation • TC Drain Wire • Overall Beldfoil + 65% TC Braid Shielding • Orange or Intrinsically Safe Blue PVC Jacket							
1336A*	14	300	1	.43	10.92	-50 to +105	PLTC/ITC-ER CMG CMX-Outdoor CEC: CMG FT4 Sunlight Res Oil Res IEC 60332-3-24 (Cat C)

*Although Type A specification references nominal 18 AWG, Belden 1335A and 1336A meet all other Type A requirements.

Conductor Color Code: Blue, Orange, Numbered Pairs.

FOUNDATION Fieldbus Type B and High Speed



Part No.	AWG	Voltage	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
				Inch	mm		
Stranded (7 x 30) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil Shielding • Orange PVC Jacket							
3077F	22	300	1	.196	4.97	-30 to +105	FOUNDATION Fieldbus Type B NEC: PLTC/ITC CM • CEC: CM FT1 Sunlight Res Oil Res
Stranded (7 x 30) TC Conductors • Foam High-Density Polyethylene Insulation• TC Drain Wire • Beldfoil Shield • Orange PVC Jacket							
3078F	22	300	1	.351	8.92	-40 to +75	FOUNDATION Fieldbus High Speed NEC: CM • CEC: CM Sunlight Res Oil Res
Stranded (7 x 30) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil Shielding • Steel Wire Armour • FRNC Jacket							
3077ELS	22	300	1	.295/.512*	7.50/13.00*	-30 to +105	FOUNDATION Fieldbus Type B NEC: PLTC/ITC CM • CEC: CM FT1
Stranded (7 x 30) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil Shielding • FRNC Jacket							
3077ENH	22	300	1	.295	7.50	-30 to +105	FOUNDATION Fieldbus Type B NEC: PLTC/ITC CM • CEC: CM FT1

*Inner jacket/outer jacket.

Conductor Color Code: Blue, Orange, Numbered Pairs.

TC = Tinned Copper • PVC = Polyvinyl Chloride

PROFIBUS

PROFIBUS DP

Part No.	AWG	Voltage	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
				Inch	mm		
Solid BC Conductors • High-Density Polyethylene Insulation (Red, Green) • Beldfoil® + 65% TC Braid Shielding • Chrome or Purple PVC Jacket							
3079A	22	300	1	.315	8.92	-30 to +75	NEC: CMG • CEC: CMG FT4 UL PLTC Sunlight Res Siemens Sinec L2 cable UL AWM 20201 (600V, 75°C)
Stranded BC Conductors • Foam Polyethylene Insulation (Red, Green) • Beldfoil + 65% TC Braid Shielding • Purple PVC Jacket							
3079E	22	300	1	.315	8.92	-30 to +75	NEC: CMG • CEC: CMG FT4 UL PLTC Sunlight Res UL AWM 20201 (600V, 75°C)
Solid BC Conductors • Foam Polyethylene Insulation (Red, Green) • Beldfoil + 65% TC Braid Shielding • PVC Inner Jacket • Armor • Purple PVC Outer Jacket							
183079A	22	300	1	.587	14.91	-30 to +60	NEC: CMG • CEC: CMG FT4 UL PLTC Continuously Corrugated Aluminum Armor 600V AWM Sunlight Res
Solid BC Conductors • Foamed Polyethylene Insulation • Overall Beldfoil + Overall 65% TC Braid Shielding • Foam Skin Polyethylene Insulation • Steel Wire Armour • Black FRNC Jacket							
3079ALS	22	300	1	.315/.488*	8.00/12.40*	-45 to +80	Armoured IEC60332-3-24
Solid BC Conductors • Foamed Polyethylene Insulation • Overall Beldfoil + Overall 65% TC Braid Shielding • Foam Skin Polyethylene Insulation • Black FRNC Jacket							
3079ANH	22	300	1	.315/.488*	8.00/12.40*	-45 to +80	IEC60332-3-24
Solid BC Conductors • Foamed Polyethylene Insulation • Overall Beldfoil + Overall 65% TC Braid Shielding • Violet PVC Jacket							
70101E	22	300	1	.307	7.8	-40 to +70	IEC60332-1 • IEC61158-2
Solid BC Conductors • Foamed Polyethylene Insulation • Overall Beldfoil + Overall 65% TC Braid Shielding • Violet LSNH Jacket							
70101NH	22	300	1	.307	7.8	-40 to +70	IEC60332-1 • IEC61158-2
Solid BC Conductors • Foamed Polyethylene Insulation • Overall Beldfoil + Overall 65% TC Braid Shielding • Single Steel Wire Armour • Black LSNH Jacket							
70101LS	22	300	1	.472	12.0	-40 to +70	IEC60332-1 • IEC61158-2
Stranded (7 x 30) BC Conductors • Foamed Polyethylene Insulation • Overall Beldfoil + Overall 65% TC Braid Shielding • Single Steel Wire Armour Coverage >95% • Violet PVC Jacket							
70102E	22	300	1	.307	7.8	-40 to +70	IEC60332-1 • IEC61158-2
Outdoor • Solid BC Conductors • Foamed Polyethylene Insulation • Overall Beldfoil + Overall 65% TC Braid Shielding • Black PE Jacket							
70101PE	22	300	1	.307	7.8	-40 to +70	Outdoor IEC61158-2
Fast Connect • Solid BC Conductors • Foamed Polyethylene Insulation • Overall Beldfoil + Overall 65% TC Braid Shielding • Violet PVC Jacket							
70103E	22	300	1	.323	8.2	-40 to +70	IEC60332-1 • IEC61158-2
Fast Connect • Solid BC Conductors • Foamed Polyethylene Insulation • Overall Beldfoil + Overall 70% TC Braid Shielding • Violet PVC Jacket							
70104E	22	300	1	.323	8.2	-40 to +70	UL AWM 20276 IEC60332-1 • IEC61158-2
Trailing • Stranded (19 x 32) • Foamed Polyethylene Insulation • Overall Beldfoil® + Overall 65% TC Braid Shielding • Violet PUR Jacket							
70105PU	24	300	1	.307	7.8	-40 to +70	IEC61158-2

*Inner jacket/outer jacket.

BC = Bare Copper • TC = Tinned Copper • PVC = Polyvinyl Chloride

PROFIBUS

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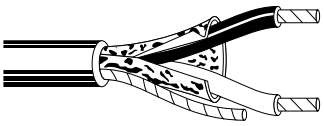
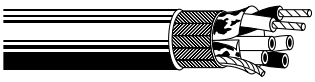


Part No.	AWG	Voltage	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
				Inch	mm		
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil Shielding • Black or Blue PVC Jacket							
70001E	18	300	1	.295	7.5	-45 to +75	IEC 60332-1
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil Shielding • Black or Blue LSNH Jacket							
70001NH	18	300	1	.295	7.5	-45 to +70	IEC 60332-1
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • TC Drain Wire • Beldfoil Shielding • Steel Wire Armour • LSNH Inner Jacket (Black or Blue) • LSNH Outer Jacket							
70001LS	18	300	1	.511	13	-45 to +70	IEC 60332-1
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • Foil Aluminium/Polyester Drain Wire • Beldfoil Shielding • Orange PVC Jacket							
70100E	18	300	1	.295	7.5	-40 to +70	IEC60332-1 • IEC61158-2
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • Foil Aluminium/Polyester Drain Wire • Beldfoil Shielding • Orange LSNH Jacket							
70100NH	18	300	1	.295	7.5	-40 to +70	IEC60332-1 • IEC61158-2
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • Foil Aluminium/Polyester Drain Wire • Beldfoil Shielding • Single Steel Wire Armour Coverage >95% • Orange LSNH Jacket							
70100LS	18	300	1	.511	13	-40 to +70	IEC60332-1 • IEC61158-2
Stranded (7 x 26) TC Conductors • Polyolefin Insulation • Foil Aluminium/Polyester Drain Wire • Foil + >70% Braid • Single Steel Wire Armour Coverage >95% • Orange LSNH Jacket							
70110E	18	300	1	.307	7.8	-30 to +75	IEC 60332-1 • IEC 61158-2 UL 1581 • UL AWM 2464

BC = Bare Copper • TC = Tinned Copper • PVC = Polyvinyl Chloride

CANopen RS-485

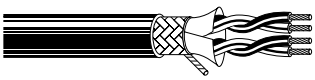
Non-Plenum • Overall Foil/Braid Shield • RS-485 • DMX512



Part No.	Pairs	Color Code	OD (Nom)		Insulation Thickness		Jacket Thickness		Capacitance				Additional Features/Ratings
									Cond. - Cond.		Cond. - Shield		
			Inch	mm	Inch	mm	Inch	mm	pF/Ft	pF/m	pF/Ft	pF/m	
24 AWG • Polyethylene/PVC													
Stranded (7 x 32) TC Conductors • Polyethylene Insulation • Overall Beldfoil® + 90% TC Braid Shield • 24 AWG Stranded TC Drain Wire • Chrome PVC Jacket													
9841	1	Chart 5	.232	5.89	.023	.58	.035	.89	12.8	42.0	23.0	75.5	NEC: CM • CEC: CM UL AWM Style 2919 (30V, 80°C) ANSI E1.11 DMX512 120 Ω Nom. Impedance 66%Velocity of Prop. Conductor DCR (Nom): 24.0 Ω /1000' (78.7 Ω/km)
9842	2	Chart 5	.340	8.64									
9843	3	Chart 5	.360	9.14	.022	.56	.035	.89					
9844	4	Chart 5	.390	9.91									
24 AWG • Polyethylene/LSNH													
Stranded (7 x 32) TC Conductors • Polyethylene Insulation • Overall Beldfoil® + 90% TC Braid Shield • 24 AWG Stranded TC Drain Wire • Chrome FRNC/LSNH Jacket													
9841NH	1	Chart 5	.232	5.89	.023	0.58	.035	.89	12.8	42.0	23.0	75.5	IEC332-3-24 ANSI E1.11 DMX512 120 Ω Nom. Impedance 66%Velocity of Prop. Conductor DCR (Nom): 24.0 Ω/1000' (78.7 Ω/km)
9842NH	2	Chart 5	.341	8.65									
9843NH	3	Chart 5	.358	9.10	.022	0.56	.035	.89					
9844NH	4	Chart 5	.390	9.91									
24 AWG • Polyethylene/LSNH • Armored													
Stranded (7 x 32) TC Conductors • Polyethylene Insulation • Chrome FRNC/LSNH Inner Jacket• Overall Beldfoil® + 90% TC Braid Shield • 24 AWG Stranded TC Drain Wire • Steel Wire Armor • Black Sunlight-Resistant FRNC/LSNH Outer Jacket													
9841LS	1	Chart 5	.405	10.30	.023	0.58	.035/.051*	.89/1.30*	12.8	42.0	23.0	75.5	IEC332-3-24 ANSI E1.11 DMX512 120 Ω Nom. Impedance 66%Velocity of Prop. Conductor DCR (Nom): 24.0 Ω/1000' (78.7 Ω/km)
9842LS	2	Chart 5	.516	13.10	.022	0.56							

*Inner jacket/outer jacket

Plenum • Overall Foil/ Braid Shield • RS-485

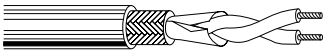


- NEC: CMP
- CEC: CMP FT6

Part No.	Pairs	Color Code	OD (Nom)		Insulation Thickness		Jacket Thickness		Capacitance				Additional Features/Ratings
									Cond. - Cond.		Cond. - Shield		
			Inch	mm	Inch	mm	Inch	mm	pF/Ft	pF/m	pF/Ft	pF/m	
24 AWG • FEP/Flamarrest®													
Stranded (7 x 32) TC Conductors • Foam FEP Insulation • Overall Beldfoil + 90% TC Braid Shield • 24 AWG Stranded TC Drain Wire • Natural Flamarrest Jacket													
82841	1	Chart 5	.204	5.18	.025	.64	.015	.38	12	39.4	22	72.2	Plenum 300V 120 Ω Nom. Impedance 76%Velocity of Prop. Conductor DCR (Nom): 24.0 Ω /1000' (78.7 Ω/km)
82842	2	Chart 5	.273	6.93	.019	.48	.015	.38					
24 AWG • FEP/FEP													
Stranded (7 x 32) TC Conductors • Foam FEP Insulation • Overall Beldfoil + 90% TC Braid Shield • 24 AWG Stranded TC Drain Wire • Red FEP Jacket													
89841	1	Chart 5	.202	5.13	.025	.64	.014	.36	12	39.4	22	72.2	Plenum 300V 120 Ω Nom. Impedance 76%Velocity of Prop. Conductor DCR (Nom): 24.0 Ω /1000' (78.7 Ω/km)
89842	2	Chart 5	.305	7.75	.023	.58	.014	.36					

CANopen RS-485

Paired Cable • Shielded



- 24 AWG (41 x 40) BC Conductors
- Foam Polyethylene Insulation with Skin
- Overall Beldfoil® + 85% TC Braid Shield
- Green PVC Jacket
- 24 AWG (41 x 40) TC Drain Wire
- NEC: CM
- CEC: CM
- -20°C to +60°C
- -5°C to +60°C Flexing

Part No.	Pairs	OD (Nom)		Capacitance (Max)		Additional Features/ Ratings
		Inch	mm	pF/Ft	pF/m	
24 AWG (41 x 40) BC Conductors • Foam Polyethylene Insulation with Skin • Overall Beldfoil + 85% TC Braid Shield • 24 AWG (41 x 40) TC Drain Wire • Green PVC Jacket						
120 Ohm Impedance • RS-232 and RS-485						
7200A	1	.240	6.10	15.0	49.2	Oil Res II
7201A	2	.322	8.18			
7202A	3	.347	8.81			
7203A	4	.362	9.20			

Conductor Color Coding: One-Pair Cable: White, Blue

Multi-Pair Configurations: 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

PLTC Cable

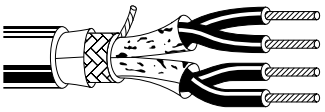
Part No.	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
		Inch	mm		
22 AWG (7 x 30) Stranded TC Conductors • Datalene® Insulation • TC Drain Wire • Overall Beldfoil® + 90% TC Braid Shielding • Black PVC Jacket					
3105A	1.0	.284	7.21	-20 to +60	NEC CM • CEC CM FT1 UL PLTC Sunlight Res Oil Res II 300V 3015A and 3107A are DMX512 Type 3106A: Single conductor is under the braid shield; pair is under the Beldfoil shield Also available with CPE jacket
3106A	1.5	.300	7.62		
3107A	2.0	.356	9.04		
3108A	3.0	.420	10.67		
3109A	4.0	.448	11.38		
22 AWG (7 x 30) Stranded TC Conductors • Datalene Insulation • TC Drain Wire • Overall Beldfoil + 90% TC Braid Shielding • Armor • Black PVC Jacket					
123107A	2.0	.650	16.51	-40 to +60	Aluminum Interlocked Armor NEC CM • CEC CMG FT4 UL PLTC Sunlight Res Oil Res II 300V

DeviceBus® for ODVA DeviceNet™

DeviceNet Communications Rate Table

Communications Rate (kb/s)	Maximum Distance							
	3082A, 3082F, 3083A, 7897A		3082K, 7896A		7895A		3084F, 3084A, 3085A, 7900A	
	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
125	1640	500	1378	420	984	300	328	100
250	820	250	656	200	820	250	328	100
500	328	100	246	75	328	100	328	100

DeviceBus Cables



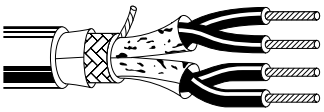
Part No.	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
	mm	Inch	mm		
15 (19 x 28) and 18 (19 x 30) AWG Stranded TC Conductors • FEP (Data), PVC/Nylon (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • Gray PVC Jacket					
7897A	2 1 pair data 1 pair power	.460	11.7	-20 to +75	ODVA Class 1 Thick, High Velocity, 600V UL TC-ER Sunlight Res Oil Res
16 (19 x 29) and 18 (19 x 30) AWG Stranded TC Conductors • FR Polypropylene (Data), PVC/Nylon (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • Gray PVC Jacket					
7896A	2 1 pair data 1 pair power	.525	13.34	-20 to +75	ODVA Class 1 Cable V, 600V UL TC-ER Sunlight Res Oil Res
16 (19 x 29) and 18 (19 x 30) AWG Stranded TC Conductors • FR Polypropylene (Data), PVC/Nylon (Power) Insulation • Unshielded • Gray PVC Jacket					
7900A	2 1 pair data 1 pair power	.430	10.92	-20 to +75	ODVA Class 1 Cable IV, Drop Cable, 600V UL TC-ER CEC: FT1 Sunlight Res Oil Res
15 (19 x 28) and 18 (19 x 30) AWG Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • Gray or Red PVC Jacket					
3082A	2 1 pair data 1 pair power	.480	12.19	-20 to +75	ODVA Class 2 Thick, 300V NEC: CMG • CEC: CMG FT4 C(UL) AWM I/II A UL AWM 20201 (600V) UL PLTC-ER Sunlight Res Oil Res
15 (65 x 33) and 18 (65 x 36) AWG Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • Gray or Red PVC Jacket					
3082F	2 1 pair data 1 pair power	.480	12.19	-20 to +75	ODVA Class 2 Thick, 300V High Flex NEC: CMG • CEC: CMG FT4 C(UL) AWM I/II A UL AWM 20201 (600V) UL PLTC-ER Sunlight Res Oil Res

Conductor Color Coding: Data: Blue, White
Power: Red, Black

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

DeviceBus® for ODVA DeviceNet™

DeviceBus Cables

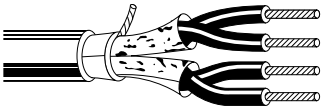


Part No.	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
	mm	Inch	mm		
15 (65 x 33) and 18 (65 x 36) AWG Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • Gray TPE Jacket					
1345F	2 1 pair data 1 pair power	.480	12.19	-30 to +75	ODVA Class 2 Thick, 300V High Flex NEC: CMG • CEC: CMG FT4 C(UL) AWM I/II A UL AWM 20201 (600V) Sunlight Res Weldsplatter Resistant Oil Res I UL PLTC-ER Sunlight Res Oil Res
15 (19 x 28) and 18 (19 x 30) AWG Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • Yellow CPE Jacket					
3083A	2 1 pair data 1 pair power	. 475	12.07	-30 to +75	ODVA Class 2 Thick, 300V NEC: CMG • CEC: CMG FT4 UL PLTC Sunlight Res Oil Res
22 (19 x 34) and 24 (19 x 36) AWG Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • PVC (Power), FPE (Data) Insulation • Gray PVC Jacket					
3084A	2 1 pair data 1 pair power	.280	7.11	-20 to +75	ODVA Class 2 Thin, 300V NEC: CMG CL2 • CEC: CMG FT4, C(UL) AWM I/II A Sunlight Res Oil Res
22 (155 x 44) and 24 (105 x 44) AWG Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • PVC (Power), FPE (Data) Insulation • Gray PVC Jacket					
3084F	2 1 pair data 1 pair power	.275	6.00	-20 to +75	Class 2 Thin, 300V High Flex NEC: CMG CL2 • CEC: CMG FT4, C(UL) AWM I/II A Sunlight Res Oil Res
22 (19 x 34) and 24 (19 x 36) AWG Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • Yellow CPE Jacket					
3085A	2 1 pair data 1 pair power	.280	7.11	-30 to +75	ODVA Class 2 Thin, 300V NEC: CL2 CMG • CEC: CMG FT4 Sunlight Res Oil Res
20 (19 x 32) and 18 AWG (19 x 30) Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • Individually Foil Shielded Pairs + Overall 65% TC Braid Shielding • Gray PVC Jacket					
7895A	2 1 pair data 1 pair power	.378	9.60	-20 to +75	OVDA Class 2 Cable III, 300V NEC: CMG • CEC: CMG FT4 UL AWM 20201 (600V) UL PLTC Sunlight Res Oil Res

Conductor Color Coding: Data: Blue, White
Power: Red, Black

TC = Tinned Copper • FEP = Fluorinated Ethylene Propylene • FPE = Foam Polyethylene • PVC = Polyvinyl Chloride

DeviceBus® for Honeywell Smart Distributed System



Part No.	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
		Inch	mm		
22 AWG (19 x 34) Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • TC Drain Wire • Individually Beldfoil® Shielded Pairs • Gray PVC Jacket					
3087A	2 1 pair data 1 pair power	.290	7.37	-40 to +80	Micro Cable, Drop NEC: CL2 UL AWM 2464 (30V, 60°C) CSA AWM I/II A FT1
16 AWG (19 x 29) and 20 AWG (19 x 32) Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • TC Drain Wire • Individually Beldfoil Shielded Pairs • Gray PVC Jacket					
3086A	2 1 pair data 1 pair power	.398	10.11	-40 to +80	Mini Cable, Trunk NEC: CL2 UL AWM 2464 (30V, 60°C) CSA AWM I/II A FT1
22 AWG (154 x 44) and 24 AWG (105 x 44) Stranded TC Conductors • Foam Polyethylene (Data), PVC (Power) Insulation • TC Drain Wire • Individual Beldfoil + 65% TC Braid Shielding • Gray TPE Jacket					
1346F	2 1 pair data 1 pair power	.275	6.99	-30 to +75	Class 2 Thin, 300V NEC: CMG CL2• CEC: CMG FT4 Sunlight Res Oil Res I Weldsplatter Resistant C(UL) AWM I/II A
20 AWG (7 x 28) Stranded BC Conductors • Foam High-Density Polyethylene Insulation • TC Drain Wire • Overall Beldfoil + 78% TC Braid Shielding • Red PVC Jacket					
1348A	3 Cond.	.303	7.70	-30 to +60	3 Conductor, 300V NEC: CM • CEC: CM
3 20 AWG (7 x 28) and 2 18 AWG (7 x 26) Stranded BC Conductors • Foam High-Density Polyethylene Insulation • TC Drain Wire • PVC Inner Jacket • Beldfoil + 78% TC Braid Shielding • Red PVC Outer Jacket					
1349A*	5 Cond.	.512	13.00	-30 to +60	5 Conductor, 300V NEC: CM • CEC: CM

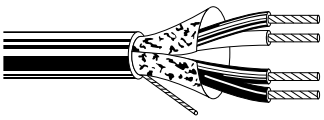
*3 Conductors Are Shielded, 2 Are Unshielded.

Conductor Color Code: Power Pairs: Red, Black
Data Pairs: Blue, White
Conductors: Blue, Yellow, White

BC = Bare Copper • TC = Tinned Copper • PVC = Polyvinyl Chloride

DeviceBus® for Square D/Seriplex® and Phoenix Contact INTERBUS®-S

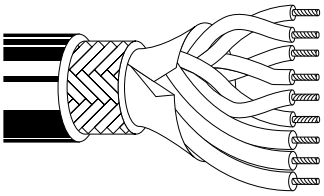
Square D/Seriplex



Part No.	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
		Inch	mm		
18 AWG (16 x 30) and 22 (7 x 30) Stranded TC Conductors • Foam High-Density Polyethylene (Data), PVC (Power) Insulation • TC Drain Wire • Overall Beldfoil® Shielding • Orange PVC Jacket					
3124A	2	.308	7.82	-20 to +75	Seriplex CBL 1822-P18 NEC: CL2 CM • CEC: CM UL AWM 20201 (600V, 75°C)
18 AWG (16 x 30) and 22 (7 x 30) Stranded TC Conductors • Foam High-Density Polyethylene Insulation • TC Drain Wire • Overall Beldfoil Shielding • Orange PVC Jacket					
3125A	2	.368	10.11	-20 to +75	Seriplex CBL 1622-P1 NEC: CL2 CM • CEC: CM 300V, 75°C
12 AWG (65 x 30), 16 AWG (26 x 30) and 22 (7 x 30) Stranded TC Conductors • Foam High-Density Polyethylene Insulation • TC Drain Wire • Overall Beldfoil Shielding • Orange PVC Jacket					
3126A	3	.486 x .363	12.34 x 9.22	-20 to +75	Seriplex CBL 162212-P16 NEC: CL2 CM • CEC: CM 300V, 75°C

Conductor Color Coding: 16/18 AWG: Red, Black
22 AWG: White, Green
12 AWG: Black/White, Red/White

Phoenix Contact INTERBUS-S



Part No.	Conductors	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
		Inch	mm		
18 AWG (7 x 26) and 24 (7 x 33) Stranded TC Conductors • Polyethylene (Data), PVC (Power) Insulation • TC Drain Wire • Overall Beldfoil + 90% TC Braid Shielding • Green Polyurethane Jacket					
3119A	3 Cond. Pwr 3 Pr. Data	.333	8.46	-40 to +80	UL AWM 20333 (300V, 80°C)
Stranded 24 AWG (7 x 32) TC Conductors • PE Insulation • Overall Beldfoil + 90% TC Braid Shielding • Green Polyurethane Jacket					
3120A	3 Pr.	.277	7.04	-40 to +80	UL AWM 20333 (300V, 80°C)

TC = Tinned Copper • PE = Polyethylene • PVC = Polyvinyl Chloride

ControlNet™

RG6/U Type Quad Shielded Coaxial

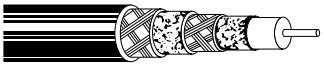
Part No.	Core Dia.		OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
	Inch	mm	Inch	mm		
18 AWG Solid BC-Covered Steel Conductor • Foam Polyethylene Insulation • Duobond® IV* Quad Shield • PVC Jacket (Black or Intrinsically Safe Blue)						
3092A	.180	4.57	.298	7.57	-30 to +75	Impedance: 75 Ω NEC: CMR CL2R • CEC: CMG FT4
18 AWG Solid BC-Covered Steel Conductor• Foam FEP Insulation • Duobond IV* Quad Shield • Fluorocopolymer Jacket (Black or Intrinsically Safe Blue)						
3093A	.170	4.32	.274	6.96	-20 to +150	Plenum Rated Impedance: 75 Ω NEC: CMP • CEC: CMP FT6
20 AWG Stranded (105 x 40) BC Conductor • Duobond IV* Quad Shield • Foam Polyethylene Insulation • Black PVC Jacket						
3092F	.183	4.65	.303	7.70	-40 to +75	High Flex Impedance: 75 Ω NEC: CMR CL2R • CEC: CMG FT4
18 AWG Solid BC-Covered Steel Conductor • Foam Polyethylene Insulation • PVC Inner Jacket • Duobond IV* Quad Shield • Armor • Black PVC Sunlight-Resistant Outer Jacket						
123092A	.180	4.57	.620	15.75	-40 to +75	Aluminum Interlocked Armor Impedance: 75 Ω NEC: CM • CEC: CMG FT4, HL
18 AWG Solid BC-Covered Steel Conductor • Duobond IV* Quad Shield • Armor • Foam Polyethylene Insulation • PVC Inner Jacket • Black PVC Outer Jacket						
183092A	.180	4.57	.570	14.48	-30 to +75	Continuously Corrugated Aluminum Armor Impedance: 75 Ω NEC: CM CL2

*Duobond IV is a four-layer shield: (1) Duobond II Foil, (2) TC Braid (94%), (3) Duofoil® Foil, (4) TC Braid (90%).

BC = Bare Copper • PVC = Polyvinyl Chloride

ControlBus™

Quad Shielded Coaxial



Part No.	Core Dia.		OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
	Inch	mm	Inch	mm		
20 AWG Stranded (105 x 40) BC Conductor • Foam Polyethylene Insulation • Duobond® IV Quad Shielding • Black PVC Jacket						
3092F	.183	4.65	.303	7.70	-40 to +75	High Flex Impedance: 75 Ω RG-6/U Type NEC: CMR CL2R • CEC: CMG FT4 IEEE 802.4 MAP/IEEE 802.7 Mini-MAP
18 AWG Solid BC-Covered Steel Conductor • Gas-Injected Foam Polyethylene Insulation • Duobond IV Quad Shielding • Gray PVC Jacket						
3131A	.189	4.57	.300	7.62	-30 to +75	Impedance: 75 Ω RG-6/U Type NEC: CMR CL2R • CEC: CMG FT4
18 AWG Solid BC-Covered Steel Conductor • Foam FEP Insulation • Duobond IV Quad Shielding • Gray Fluorocopolymer Jacket						
3132A	.170	4.32	.274	6.96	-20 to +150	Plenum Impedance: 75 Ω Outdoor and Direct Burial RG-6/U Type NEC: CMP • CEC: CMP FT6 IEEE 802.4 MAP/IEEE 802.7 Mini-MAP
14 AWG Solid BC-Covered Steel Conductor • Gas-Injected Foam Polyethylene Insulation • Duobond IV Quad Shielding • Gray PVC Jacket						
3094A	.280	7.11	.407	10.34	-30 to +80	Impedance: 75 Ω RG-11/U Type NEC: CMR CLR2 • CEC: CMG FT4 IEEE 802.4 MAP
14 AWG Solid BC-Covered Steel Conductor • Foam FEP Insulation • Duobond IV Quad Shielding • Gray Fluorocopolymer Jacket						
3095A	.280	7.11	.387	9.83	-20 to +150	Plenum Impedance: 75 Ω Outdoor and Direct Burial RG-11/U Type NEC: CMP • CEC: CMG FT6 IEEE 802.4 MAP

*Duobond IV is a four-layer shield: (1) Duobond II Foil, (2) 94% TC Braid, (3) Duofoil® Foil, (4) 90% TC Braid.

BC = Bare Copper • FEP = Fluorinated Ethylene Propylene • PVC = Polyvinyl Chloride

ControlBus™

Blue Hose® Industrial Twinax

Part No.	Voltage	Nominal OD		Operating Temperature (°C)	Additional Features/ Ratings
		Inch	mm		
20 AWG Stranded (7 x 28) TC Conductors • Polyethylene Insulation • Overall Beldfoil® + 55% TC Braid Shielding • Blue Sunlight-Resistant PVC Jacket					
9463	300V	.238	6.05	-40 to +80	NEC: CM CL2 • CEC: CM UL AWM 2464 MSHA Approved*
20 AWG Stranded (42 x 36) TC Conductors • Polyethylene Insulation • Overall Beldfoil + 85% TC Braid Shielding • Blue Sunlight-Resistant PVC Jacket					
9463F	300V	.154	3.91	-40 to +80	High Flex NEC: CM CL2 • CEC: CM UL AWM 2464 MSHA Approved*
20 AWG Stranded (42 x 36) TC Conductors • Polyethylene Insulation • Overall Beldfoil + 85% TC Braid Shielding • Blue Sunlight-Resistant FRNC Jacket					
9463NH	300V	.25	6.35	-45 to +80	IEC60332-3-24
20 AWG Stranded (42 x 36) TC Conductors • Polyethylene Insulation • Overall Beldfoil + 85% TC Braid Shielding • Steel Wire Armor • Black FRNC Jacket					
9463LS	300V	.42	10.75	-45 to +80	IEC60332-3-24
20 AWG Stranded (7 x 28) TC Conductors • Polyethylene Insulation • Overall Beldfoil + 55% TC Braid Shielding • Blue Sunlight-Resistant LDPE Jacket					
129463	300V	.563	14.30	-40 to +60	Aluminum Armored NEC: CM CL2 • CEC: CM, HLBCD
139463		.563	14.30	-40 to +60	Steel Armored NEC: CM CL2 • CEC: CM, HLBCD
189463		.500	12.70	-20 to +60	Corrugated Armored UL PLTC
20 AWG Stranded (7 x 28) TC Conductors • Low-Density Polyethylene Insulation • Overall Beldfoil + 55% TC Braid Shielding • Polyethylene Jacket					
9463DB	300V	.154	3.91	-55 to +80	Continuously Flooded Direct Burial
Stranded (7 x 28) TC Conductors • FEP Insulation • Overall Beldfoil + 55% TC Braid Shielding • Blue Sunlight-Resistant FEP Jacket					
89463	300V	.151	3.83	-70 to +200	Plenum NEC: CMP CL2P • CEC: CMP FT6

Conductor Color Codes: Blue, Clear.

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

TC = Tinned Copper • FEP = Fluorinated Ethylene Propylene • LDPE = Low-Density Polyethylene • PVC = Polyvinyl Chloride

ControlBus™

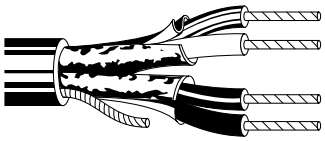
Twinax Cables

Part No.	Core Dia.		OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
	Inch	mm	Inch	mm		
20 AWG Stranded (7 x 28) TC Conductors • Polyethylene Insulation (Blue, Clear) • 93% TC Braid Shielding • Blue PVC Jacket						
9272	.156	3.96	.244	6.20	-20 to +60	Impedance: 78 Ω NEC: CM • CEC: CM UL AWM Style 2092 (300V, 60°C)
18 AWG Stranded (7 x 26) BC Conductors • Polyethylene Insulation (Clear, Clear) • Polyethylene Inner Jacket • 95% TC Double Braid Shielding • Black Non-contaminating PVC Outer Jacket						
9250	.285	7.24	.416	10.57	-40 to +80	Impedance: 95 Ω RG-22B/U Type VW-1 One Conductor Has Tinned Center Strand
20 AWG Stranded (7 x 28) One TC, One BC Conductor • Polyethylene Insulation (Natural, Natural) • Polyethylene Inner Jacket • Duofoil® + TC Braid (86%) Shielding • Black PVC Outer Jacket						
9207	.236	5.99	.330	8.38	-30 to +75	Impedance: 100 Ω NEC: CMG CL2 • CEC: CMG FT4
20 AWG Stranded (7 x 28) One TC, One BC Conductor • Polyethylene Insulation (Natural, Natural) • Polyethylene Inner Jacket • Duofoil® + 86% TC Braid Shielding • Black FRNC Outer Jacket						
9207NH	0.236	5.99	.34	8.6	-45 to +80	IEC 60332-3-24
25 AWG Stranded (7 x 33) TC Conductors • Polyethylene Insulation (Blue, Clear) • Beldfoil® • Blue PVC Jacket						
9271	.170	4.32	.240	6.10	-20 to +60	Impedance: 124 Ω NEC: CM • CEC: CM UL AWM 2092 (300V, 60°C)
16 AWG Solid BC Conductors • Foam Polyethylene Insulation (Blue, Clear) • Duofoil + 90% TC Braid Shielding • Black PVC Jacket						
9860	.322	8.18	.440	11.18	-20 to +60	Impedance: 124 Ω NEC: CMX • CEC: CMX UL AWM 2448 (30V, 60°C) VW-1
22 AWG stranded (19 x 34) TC Conductors • Datalene® Insulation (Black, Yellow) • Duofoil Shielding • Black PVC Jacket • Stranded TC Drain Wire						
9182	.275	6.98	.345	8.76	-20 to +60	Impedance: 150 Ω NECL CL2X CMX • CEC: CMX UL AWM 2668 (30V, 60°C) VW-1
22 AWG Stranded (19 x 34) TC Conductors • Datalene® Insulation (Black, Yellow) • Duofoil Shielding • Black FRNC Jacket • Stranded TC Drain Wire						
9182NH	.275	6.98	.345	8.76	-45 to +80	IEC 60332-3-24
22 AWG Stranded (19 x 34) TC Conductors • Datalene Insulation (Black, Yellow) • Duofoil Shielding • Steel Wire Armor • Black FRNC Jacket • Stranded TC Drain Wire						
9182LS	.275	6.98	.56	14.25	-45 to +80	IEC 60332-3-24
22 AWG stranded (19 x 34) TC Conductors • Foam FEP Insulation (Black, Yellow) • Duofoil Shielding • Black FEP Jacket • Stranded TC Drain Wire						
89182	.278	7.06	.307	7.80	-70 to +200	Impedance: 150 Ω Plenum Rated NEC: CMP CL2P • CEC: CMP FT6

BC = Bare Copper • TC = Tinned Copper • FEP = Fluorinated Ethylene Propylene • PVC = Polyvinyl Chloride

MODBUS

Shielded Twisted Pair Cables



Part No.	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
		Inch	mm		
22 AWG • Datalene/PVC					
Stranded (7 x 30) TC Conductors • Polyolefin Insulation • TC Drain Wire • Individually Beldfoil Shielded Pairs • Chrome PVC Jacket					
8777	3	.273	6.93	-20 to +80	NEC: CM • CEC: CM UL AWM 2919 (30V, 80°C)
Stranded (7 x 30) TC Conductors • Polyolefin Insulation • TC Drain Wire • Individually Beldfoil Shielded Pairs • Chrome FRNC Jacket					
8777NH	3	.273	6.93	-45 to +80	IEC 60332-3-24
Stranded (7 x 30) TC Conductors • Polyolefin Insulation • TC Drain Wire • Individually Beldfoil Shielded Pairs • Steel Wire Armor • Black FRNC Jacket					
8777LS	3	.55	13.9	-45 to +80	IEC 60332-3-24

Conductor Color Coding: Red/Black, White/Black, Green/Black

Part No.	Pairs	Color Code	OD (Nom)		Insulation Thickness		Jacket Thickness		Capacitance				Additional Features/Ratings
									Cond. - Cond.		Cond. - Shield		
			Inch	mm	Inch	mm	Inch	mm	pF/Ft	pF/m	pF/Ft	pF/m	
22 AWG • FEP/Flamarrest®													
Stranded (7 x 30) TC Conductors • FEP Insulation • Individually Beldfoil® Shielded Pairs • 22 AWG TC Drain Wire • Natural Flamarrest Jacket													
82777	3	Chart 3	.237	6.02	.011	.28	.017	.43	35	115	76	249	Plenum NEC: CMP • CEC: CMP FT6 46 Ω Nom. Impedance 62%Velocity of Prop. Conductor DCR (Nom): 14.7 Ω /1000' (48.2 Ω/km)

RG6/U Type Quad Shielded Coaxial

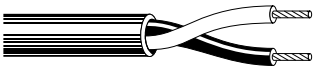
Part No.	Core Dia.		OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
	Inch	mm	Inch	mm		
18 AWG Solid BC-Covered Steel Conductor • Foam Polyethylene Insulation • Duobond® IV* Quad Shield • PVC Jacket (Black or Intrinsically Safe Blue)						
3092A	.180	4.57	.298	7.57	-30 to +75	Impedance: 75 Ω NEC: CMR CL2R • CEC: CMG FT4
18 AWG Solid BC-Covered Steel Conductor• Foam FEP Insulation • Duobond IV* Quad Shield • Fluorocopolymer Jacket (Black or Intrinsically Safe Blue)						
3093A	.170	4.32	.274	6.96	-20 to +150	Plenum Rated Impedance: 75 Ω NEC: CMP • CEC: CMP FT6
20 AWG Stranded (105 x 40) BC Conductor • Duobond IV* Quad Shield • Foam Polyethylene Insulation • Black PVC Jacket						
3092F	.183	4.65	.303	7.70	-40 to +75	High Flex Impedance: 75 Ω NEC: CMR CL2R • CEC: CMG FT4

LonWorks

Paired Cable
300 V • 80°C

Part No.	Pairs	Color Code	OD (Nom)		Insulation Thickness		Jacket Thickness		Additional Features
			Inch	mm	Inch	mm	Inch	mm	
22 AWG BC Conductors • Foamed Polyethylene Insulation • White LSNH Jacket									
Unshielded									
7701NH	1	White-Blue, Blue-White	.138	3.5	.009	.23	.018	.45	—
7702NH	2	Orange-White, White-Orange	.205	5.2	.009	.23	.020	.50	—
Overall Beldfoil® Shield									
7703NH	1	White-Blue, Blue-White	.181	4.6	.015	.4	.018	.45	—
7704NH	2	Orange-White, White-Orange	.256	6.5	.011	.3	.020	.50	—

Backbone Cable
Plenum • 300V, 80°C • Unshielded



Part No.	Pairs	Color Code	OD (Nom)		Insulation Thickness		Jacket Thickness		Additional Features/ Ratings
			Inch	mm	Inch	mm	Inch	mm	
Stranded TC Conductors • PVC Insulation • Chrome PVC jacket									
16 AWG • 19 x 29 • PVC/PVC									
8471	1	Black-White	.274	6.96	.023	.58	.032	.81	NEC: CMG • CEC: CMG FT4 UL AWM Style 2598
Stranded BC Conductors • Polyethylene Insulation • Unshielded • LSNH Inner Jacket • Steel Wire Armor • Chrome LSNH Outer Jacket									
16 AWG • 19 x 29 • Armored • Polyethylene/LSNH									
8471LS	1	Black-White	.413	10.5	.022	.58	.035/.051	.89/1.3	IEC60332-3-24
16 AWG • 19 x 29 • PVC/FRNC									
8471NH	1	Black-White	.28	7.1	.023	.58	.035	.89	IEC 60332-3-24

High-Temperature Backbone Cable

300V, 150°C • Unshielded

- VW-1

Part No.	Conductors	Color Code	OD (Nom)		Insulation Thickness		Jacket Thickness	
			Inch	mm	Inch	mm	Inch	mm
Stranded (19 x 29) TC Conductors • Cabled • ETFE Insulation • Clear ETFE Jacket								
16 AWG • 19 x 29 • ETFE/ETFE								
85102	2	Chart 2R	.211	5.36	.014	.36	.019	.48

DataTray® 600V Twinaxial

DataTray® 600V Twinax

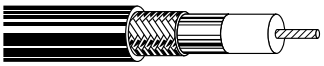
Part No.	Core Dia.		OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
	Inch	mm	Inch	mm		
18 AWG Stranded (7 x 26) TC Conductors • Flame-retardant Polyolefin Insulation (Natural, Blue) • Overall Beldfoil® + 55%TC Braid Shield • Blue Sunlight-resistant PVC Jacket • TC Drain Wire						
3072F	.192	4.88	.324	8.23	-40 to +75	Impedance: 78 Ω NEC: CMG, ITC, TC, PLTC • CEC: CMG FT4 UL TC MSHA Approved*
3073F	.246	6.25	.388	9.86	-40 to +75	Impedance: 100 Ω NEC: CMG, ITC, TC, PLTC • CEC: CMG FT4 UL TC
3074F	.328	8.33	.460	11.86	-40 to +75	Impedance: 124 Ω NEC: CMG, ITC, TC, PLTC • CEC: CMG FT4 UL TC

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

TC = Tinned Copper • PVC = Polyvinyl Chloride

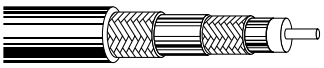
Coaxial Ethernet

Thinnet 10Base2 Ethernet



Part No.	AWG	Core Dia.		OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
		Inch	mm	Inch	mm		
Stranded (19 x 32) TC Conductor • Foam Polyethylene Insulation • Duobond® II Foil + 93% TC Braid Shielding • Gray PVC Jacket							
9907	20	.102	2.59	.185	4.70	-40 to +80	Impedance: 50 Ω RG-58 Type NEC: CM CL2 • CEC: CM UL AWM Style 1354 (30V, 60°C)
Stranded (19 x 32) TC Conductor • Foam FEP Insulation • Duobond II Foil + 93% TC Braid Shielding • Gray Fluorocopolymer Jacket							
89907	20	.095	2.41	.160	4.06	-20 to +150	RG-58A/U Type Plenum Rated Impedance: 50 Ω NEC: CMP CL2P • CEC: CMP FT6 Outdoor and Direct Burial

Thicknet 10Base5 Ethernet



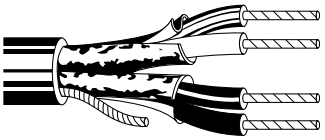
Part No.	AWG	Core Dia.		OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
		Inch	mm	Inch	mm		
Solid BC Conductor • Foam Polyethylene Insulation • Duobond IV Quad Shielding • Yellow PVC Jacket							
9880	12	.243	6.17	.405	10.29	-40 to +60	Impedance: 50 Ω NEC: CM CL2 • CEC: CM UL AWM Style 1478 (30V, 60°C)
Solid BC Conductor • Foam FEP Insulation • Duobond IV Quad Shielding • Orange Fluorocopolymer Jacket							
89880	12	.245	6.22	.375	9.53	-25 to +150	Plenum Rated Impedance: 50 Ω NEC: CMP CL2P • CEC: CMP FT6 Outdoor and Direct Burial

*Duobond IV is a four-layer shield: (1) Duobond II Foil, (2) TC Braid (94%), (3) Duofoil® Foil, (4) TC Braid (90%).

BC = Bare Copper • TC = Tinned Copper • FEP = Fluorinated Ethylene Propylene • PVC = Polyvinyl Chloride

Shielded Twisted-Pair

Interconnect Paired Cables



Part No.	Pairs	OD (Nom)		Operating Temperature (°C)	Additional Features/Ratings
		Inch	mm		
24 AWG (7 x 32) Stranded TC Conductors • Datalene® Insulation • TC Drain Wire • Individually Beldfoil® Shielded Pairs • Chrome PVC Jacket					
9729	2	.266	6.76	-20 to +80	NEC: CM • CEC: CM UL AWM 2493 (300V, 60°C)
24 AWG (7 x 32) Stranded TC Conductors • Datalene® Insulation • TC Drain Wire • Individually Beldfoil® Shielded Pairs • Chrome FRNC Jacket					
9729NH	2	.31	7.9	-45 to +80	IEC 60332-3-24
24 AWG (7 x 32) Stranded TC Conductors • Datalene® Insulation • TC Drain Wire • Individually Beldfoil Shielded Pairs • Steel Wire Armor • Black FRNC Jacket					
9729LS	2	.49	12.5	-45 to +80	IEC 60332-3-24
22 AWG (7 x 30) Stranded TC Conductors • Polyolefin Insulation • TC Drain Wire • Individually Beldfoil Shielded Pairs • Chrome PVC Jacket					
8723	2	.168	4.27	-20 to +75	NEC: CM • CEC: CM • 300V, 60°C Pairs Cabled On Common Axis to Reduce Diameter
22 AWG (7 x 30) Stranded TC Conductors • Polyolefin Insulation • TC Drain Wire • Individually Beldfoil Shielded Pairs • Chrome FRNC Jacket					
8723NH	2	.18	4.55	-45 to +80	IEC 60332-3-24
22 AWG (7 x 30) Stranded TC Conductors • Polyolefin Insulation • TC Drain Wire • Individually Beldfoil Shielded Pairs • Steel Wire Armor • Black FRNC Jacket					
8723LS	2	.35	8.8	-45 to +80	IEC 60332-3-24
22 AWG (7 x 30) Stranded TC Conductors • Red FEP Insulation • TC Drain Wire • Individually Beldfoil Shielded • Red FEP and Jacket					
88723	2	.148	3.76	-70 to +200	Plenum NEC: CMP • CEC: CMP NFPA 262
18 AWG (16 x 30) Stranded TC conductors • Polyolefin Insulation • TC Drain Wire • Overall Beldfoil Shielding • Chrome PVC Jacket					
8760	1	.222	5.64	-20 to +60	NEC: CM • CEC: CM UL AWM 2092 (300V, 60°C)
18 AWG (16 x 30) Stranded TC Conductors • Polyolefin Insulation • TC Drain Wire • Overall Beldfoil Shielding • Chrome FRNC Jacket					
8760NH	1	.24	6	-45 to +80	IEC 60332-3-24
18 AWG (16 x 30) Stranded TC Conductors • Polyolefin Insulation • TC Drain Wire • Overall Beldfoil Shielding • Steel Wire Armor • Black FRNC Jacket					
8760LS	1	.4	10.4	-45 to +80	IEC 60332-3-24

Conductor Color Coding: 9279: Red/Black, White/Black
8777: Red/Black, White/Black, Green/Black
8723, 88723: Red/Black, Green/White
8760: Black/Clear

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

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