

DataTuff PROFINET Cables

Cat5e and Cat6A Industrial Cables

Internationally rated PROFINET cables from Belden provide Ethernet connectivity using open standard technology to easily connect devices across all systems for efficient factory automation.

- +** **Flexible and future proof** - large variety of quad cable options for trailing or torsion applications including the new PROFINET Cat6A, Type C meeting requirements for extreme flexibility
- +** **Easy to install and use** - quad design compatible with Siemens Fast Connect connectors and Belden's entire PROFINET portfolio
- +** **Withstands harsh conditions** - UL standards, including CMX Outdoor and PLTC, allow cabling to be used in Class I Div II hazardous areas, as well as outdoors, maximizing uptime even in harsh environments

Key Features

- Cat5e and Cat6A cables covering data rates from 100 Mbit/s to 10 Gb/s
- Different industrial jacket materials: PVC, LSNH, TPE and PUR
- Available with solid or stranded conductors
- Shielded design
- Twisted Pair or Quad
- Foil and braid >85% coverage shield
- Temperature resistance of -40 °C to +80 °C
- Up to 5 million flexes (trailing)
- Up to 2 million flexes (torsion)
- Oil, abrasion and sunlight resistant designs
- Approved for CMX Outdoor, PLTC and a full range of other Underwriters Laboratories (UL), IEC and VDE standards

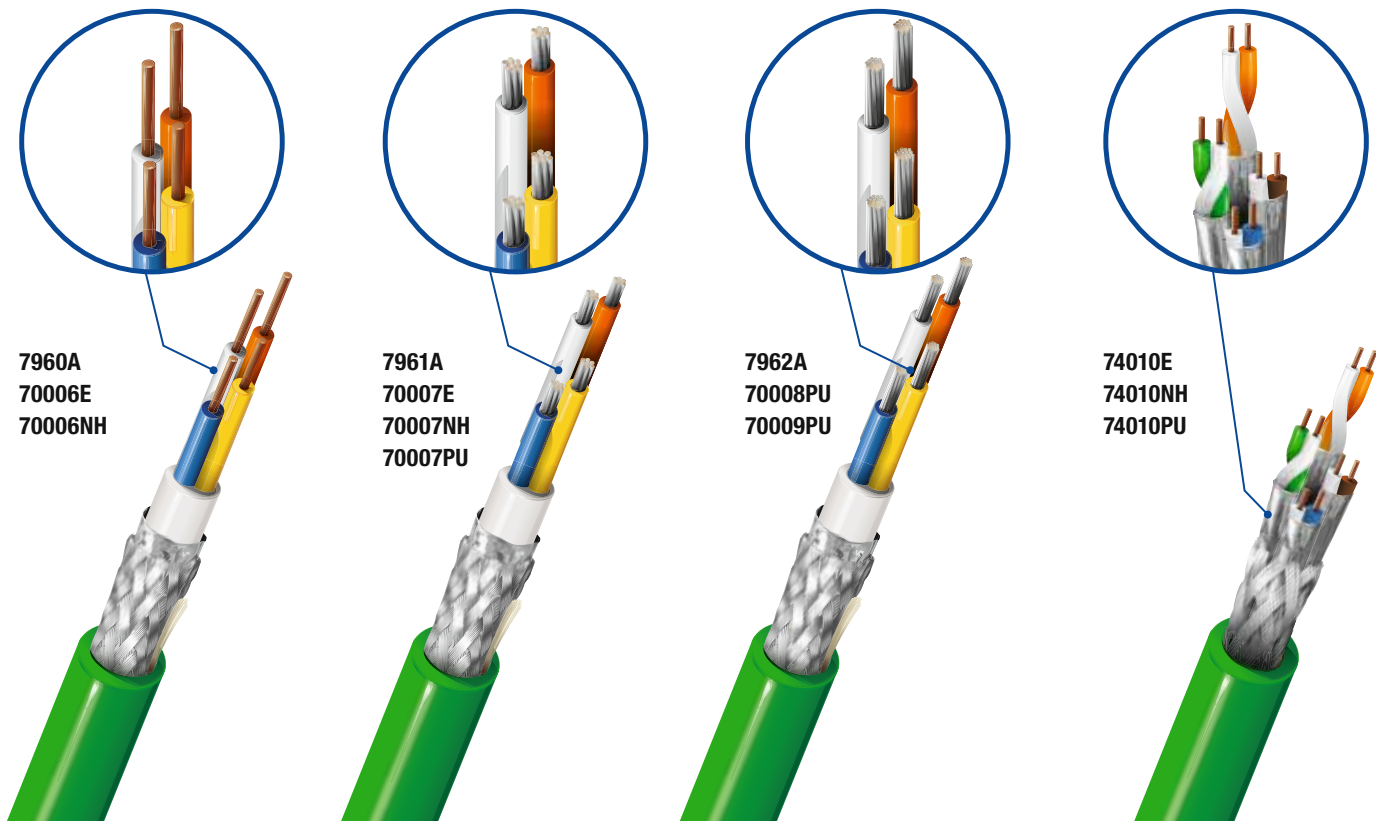


The new Type C cables complete Belden's PROFINET Solution package giving engineers a single source for all Ethernet-based devices and support services. Along with Hirschmann switches and Lumberg Automation connectivity components, Network engineers can now easily connect their devices across all systems for efficient automation.

**Be certain.
Belden.**

PROFINET Cat5e – 100 Mbit/s

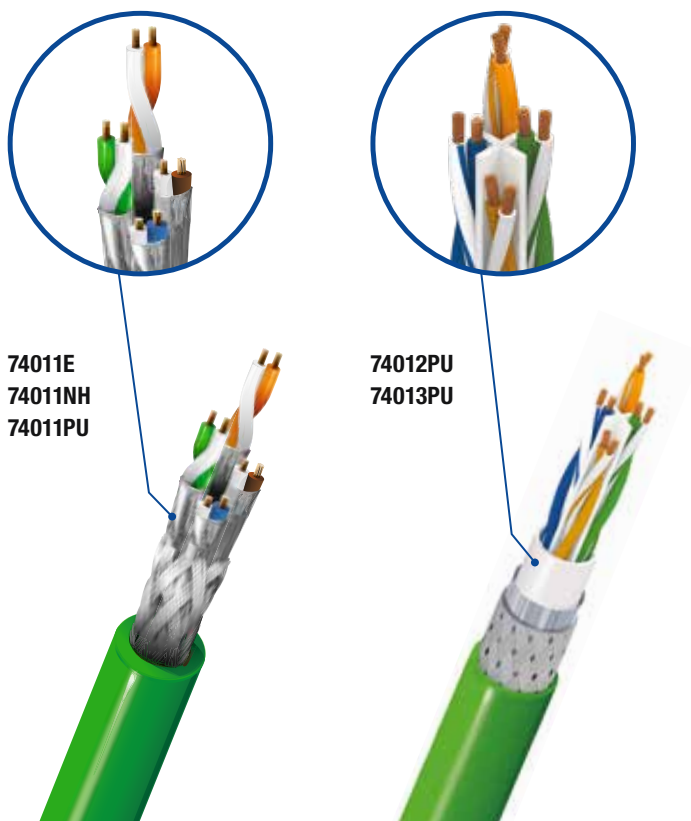
	7960A	70006E	70006NH	7961A	70007E	70007NH	70007PU	7962A	70008PU	70009PU
Product Type	Type A			Type B				Type C		
Conductor	<ul style="list-style-type: none"> • Solid 22 AWG • Bare copper • Solid conductor • Stationary applications 			<ul style="list-style-type: none"> • Stranded 22 AWG 7 x 0.25 mm • Tinned copper • Flexing – can be installed in panels or plant floors 				<ul style="list-style-type: none"> • Stranded 22 AWG 19 x 0.15 mm • Tinned copper 		
Shielding	Foil/Braid >85%			Foil/Braid >85%				Foil/Braid >85%		
Jacket Type	PVC		LSNH	PVC		LSNH	PUR Halogen free	TPE Weld-splatter resistant	PUR Halogen free	PUR Weld-splatter resistant Halogen free
UL Design	C(UL) CMG FT4	AWM 2464	AWM 21286	C(UL) CMG FT4	AWM 2464	AWM 21286	AWM 20549	C(UL) CM FT1	AWM 20549	AWM 20549
CMX Outdoor Rated	✓	-	-	✓	-	-	-	✓	-	-
Sunlight Resistant	✓	-	✓	✓	-	✓	✓	✓	✓	✓
Operating Temperature	-40 °C to +80 °C			-40 °C to +80 °C				-40 °C to +80 °C		
Oil Resistant	• IEC 60811:404			• IEC 60811:404				• IEC 60811:404		
Flame Ratings	<ul style="list-style-type: none"> • Bundle flame test: C(UL) CMG FT4 • IEEE 1202/383 • VW-1 • IEC 60332-1-2 	<ul style="list-style-type: none"> • Vertical flame test: IEC 60332-1-2 		<ul style="list-style-type: none"> • Bundle flame test: C(UL) CMG FT4 • IEEE 1202/383 • VW-1 • IEC 60332-1-2 	<ul style="list-style-type: none"> • Vertical flame test: IEC 60332-1-2 		<ul style="list-style-type: none"> • Horizontal flame test: CSA FT2 	<ul style="list-style-type: none"> • C(UL) CM • Vertical flame test: CSA FT1 	<ul style="list-style-type: none"> • Horizontal flame test: CSA FT2 	



PROFINET Cat6A – 10 Gb/s

	74010E	74010NH	74010PU	74011E	74011NH	74011PU	74012PU	74013PU
Product Type	Type A			Type B			Type C	
Conductor	<ul style="list-style-type: none"> • Solid 22 AWG • Bare copper • Solid conductor • Stationary applications 			<ul style="list-style-type: none"> • Stranded 23 AWG 7 x 0.22 mm • Bare copper • Flexing – can be installed in panels or plant floors 			<ul style="list-style-type: none"> • Stranded AWG 24/7 (7 x 0.2 mm) • Bare copper • HiFlex - 1 million cycles • Trailing and Torsion applications 	<ul style="list-style-type: none"> • Stranded AWG 24/19 (19 x 0.127 mm) • Bare copper • HiFlex - 2 million cycles • Trailing and Torsion applications
Shielding	Foil/Braid >85%			Foil/Braid >85%			Foil/Braid >90%	
Jacket Type	PVC	LSNH	PUR Halogen free	PVC	LSNH	PUR Halogen free	PUR Halogen free	PUR Halogen free
UL Design	AWM 20726	AWM 20851	AWM 21292	AWM 20726	AWM 20851	AWM 21292	AWM 20549	
CMX Outdoor Rated	-	-	-	-	-	-	-	-
Sunlight Resistant	-	✓	✓	-	✓	✓	✓	✓
Operating Temperature	-40 °C to +80 °C			-40 °C to +80 °C			-40 °C to +80 °C	
Oil Resistant	• IEC 60811:404			• IEC 60811:404			• IEC 60811:404	
Flame Ratings	• Vertical flame test: IEC 60332-1-2	• Vertical flame test: IEC 60332-1-2	• Horizontal flame test: CSA FT2	• Vertical flame test: IEC 60332-1-2	• Vertical flame test: IEC 60332-1-2	• Horizontal flame test: CSA FT2	• Horizontal flame test: CSA FT2	

- NEC type PLTC listed, which is approved for cable tray use in Class I Div II hazardous areas
- NEC type ITC per article 727 – ITC cables may carry up to 5 amps at 150 V, which is significantly greater than that allowed by PLTC
- 600 V AWM-rated for wiring equipment, such as motor control centers and switchgear



Belden PROFINET Selling Points

Why do we utilize a quad design?

The cable's quad design gives it a smaller diameter than other paired, 22 AWG PROFINET cables, making it more pliable while remaining compatible and easy to install with Siemens Fast Connect, Lumberg Automation connectors or Belden metal body plugs.

What is the advantage of the UL-PLTC rating?

- The PLTC rating specifically allows the cables to be run in existing cable trays with other power-limited cables, with no separate routing needed.
- With these ratings, network engineers can better insure their networks against hazards and harsh conditions, reducing risk and maximizing both network efficiency and reliability for mission-critical applications.

Belden Competence Center

As the complexity of communication and connectivity solutions has increased, so have the requirements for design, implementation and maintenance of these solutions. For users, acquiring and verifying the latest expert knowledge plays a decisive role in this. As a reliable partner for end-to-end solutions, Belden offers expert consulting, design, technical support, as well as technology and product training courses, from a single source: Belden Competence Center. In addition, we offer you the right qualification for every area of expertise through the world's first certification program for industrial networks. Up-to-date manufacturer's expertise, an international service network and access to external specialists guarantee you the best possible support for products.

Irrespective of the technology you use, you can rely on our full support – from implementation to optimization of every aspect of daily operations.



Always Stay Ahead with Belden

In a highly competitive environment, it is crucial to have reliable partners who add value to your business. When it comes to signal transmissions, Belden is the No. 1 solutions provider. We know your business and want to understand your specific challenges and goals to show how effective signal transmission solutions can push you ahead of the competition. By combining the strengths of our five leading brands, Belden, GarrettCom, Hirschmann, Lumberg Automation and Tofino Security, we are able to offer the integrated solution you need. Today, it may be a single cable, switch or connector, to solve a specific issue; tomorrow, it can be a complex range of integrated applications, systems and solutions. With the rise in smart, connected devices brought on by the Industrial Internet of Things (IIoT), together, we can make sure your infrastructure is ready to handle and make sense of the influx of data. Transform your business now with instant access to information, and make your vision a reality. Visit info.belden.com/iiot to learn more.

About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.

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