

New Product Bulletin

PB00034

DataTuff Cat 5e PROFINET Cables from Belden

New AWM design, UL and IEC rated, quad design PROFINET cables from Belden provide Ethernet connectivity using open standard technology to easily connect devices across all systems for efficient factory automation.



Equipped with quad design, CMX Outdoor, Power Limited Tray Cables (PLTC) and a full range of other Underwriters Laboratories (UL), IEC and VDE standards, Belden PROFINET cables make it easier to install the network, maximizing uptime even in the most demanding indoor or outdoor environments.

- Flexible – cable options for trailing or torsion applications, ruggedized with UL and IEC ratings, and allowing up to 2 and 5 million flexes
- 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

Complete PROFINET Solution Package

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

**Be certain.
Belden.**

Design Elements at a Glance

	7960A	70006E	70006NH	7961A	70007E	70007NH	70007PU	7962A	70008PU	70009PU
Product Type	Type A			Type B				Type C		
Conductor	Solid 22 AWG Bare Copper			Stranded 22 AWG 7 x 0.25 mm Tinned Copper				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	TPE (Weld-Splatter Resistant)	PUR	
CMX Outdoor Rated	✓	-	-	✓	-	-	-	✓	-	-
Sunlight Resistant	✓	-	✓	✓	-	✓	✓	✓	✓	✓
Operating Temperature	-40°C to +80°C		-40°C to +70°C	-40°C to +80°C		-25°C to +70°C	-40°C to +80°C	-40°C to +80°C		
Oil Resistant	• Class 43 • IEC 60811-2-1	• IEC 60811-2-1	• VDE 60811-2-1	• Class 43 • IEC 60811-2-1	• IEC 60811-2-1			• IEC 60811-2-1		
Flame Ratings	• C(UL) CMG FT4 • IEEE1202/383 • VW-1 • IEC 60332-1-2	• IEC 60332-1		• C(UL) CMG FT4 • IEEE1202/383 • VW-1 • IEC 60332-1-2	• IEC 60332-1			• C(UL) CM • FT1	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 150V, which is significantly greater than that allowed by PLTC
- 600V 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, 22AWG 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.

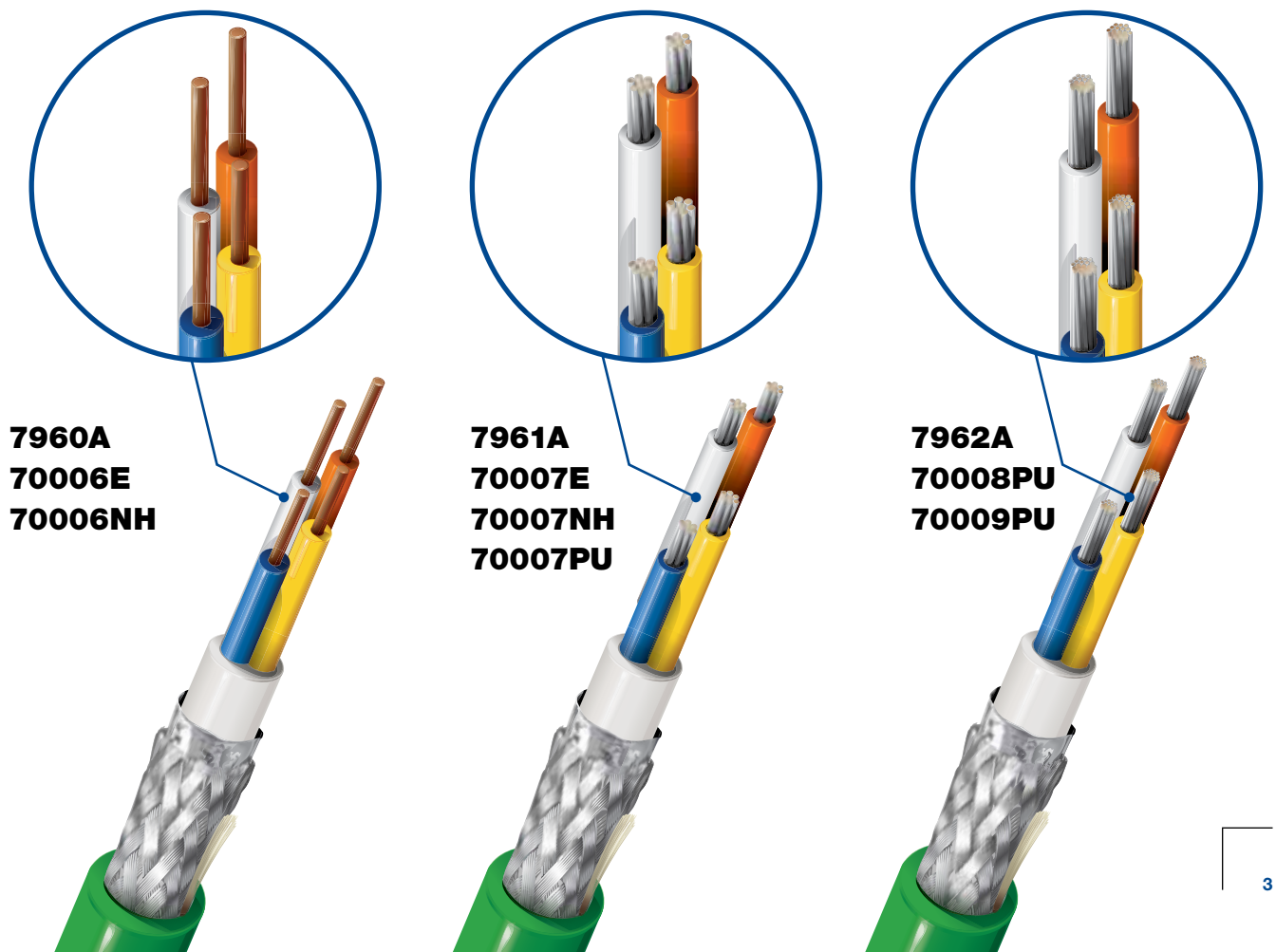
What is the advantage of the UL-PLTC rating on all three products?

- 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.



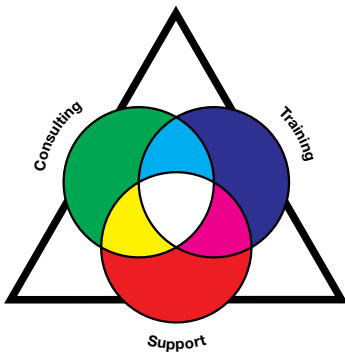
Benefits at a Glance

	7960A	70006E	70006NH	7961A	70007E	70007NH	70007PU	7962A	70008PU	70009PU
Product Type	Type A			Type B				Type C		
Flexibility/ Common Installations	Good <ul style="list-style-type: none"> • Solid Conductor • Stationary applications 			Better <ul style="list-style-type: none"> • Stranded 22 AWG 7 x 0.25 mm • Flexing - can be installed in panels or plant floors 				Best <ul style="list-style-type: none"> • Stranded 22 AWG 19 x 0.15 mm along with TPE Jacket • High Flex - Rated for 5 million flexes 	Best <ul style="list-style-type: none"> • Stranded 22 AWG 19 x 0.15 mm along with PUR Jacket • High Flex - Rated for more than 5 million flexes, trailing/drag-chain application 	Best <ul style="list-style-type: none"> • Stranded 22 AWG 19 x 0.15 mm along with PUR Jacket • High Flex - Rated for more than 2 million flexes, torsion application
Shielding	Best <ul style="list-style-type: none"> • Foil / Braid • High Noise Resistance 			Best <ul style="list-style-type: none"> • Foil / Braid • High Noise Resistance 				Best <ul style="list-style-type: none"> • Foil / Braid • High Noise Resistance 		
Jacket Type	Good <ul style="list-style-type: none"> • PVC 		Good <ul style="list-style-type: none"> • LSNH • Flame retardant, low smoke when burned 	Good <ul style="list-style-type: none"> • PVC 		Good <ul style="list-style-type: none"> • Flame retardant, low smoke when burned 	Best <ul style="list-style-type: none"> • PUR • Outstanding resistance to abrasion, high flex and high tolerance to solvents 	Best <ul style="list-style-type: none"> • TPE • Weld-Splatter Resistant, Highly Flexible 	Best <ul style="list-style-type: none"> • PUR • Outstanding resistance to abrasion, high flex and high tolerance to solvents • UL AWM 20549 	Best <ul style="list-style-type: none"> • PUR • Outstanding resistance to abrasion, high flex and high tolerance to solvents



Always Stay Ahead with Belden

In a highly competitive environment, it is crucial to have reliable partners who are able to add value to your business. When it comes to signal transmissions, Belden is the No. 1 solutions provider. We understand your business and want to know your specific challenges and targets to see 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 solution you need. Today, it may be a single cable, a switch or a connector, thus solving a specific issue; tomorrow, it can be a complex range of integrated applications, systems and solutions.



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 play 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 from Belden, GarrettCom, Hirschmann, Lumberg Automation and Tofino Security. Irrespective of the technology you use, you can rely on our full support – from implementation to optimization of every aspect of daily operations.

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 and has manufacturing capabilities in North and South America, Europe and Asia. For more information, visit us at www.belden.com; follow us on Twitter [@BeldenInc](https://twitter.com/BeldenInc).