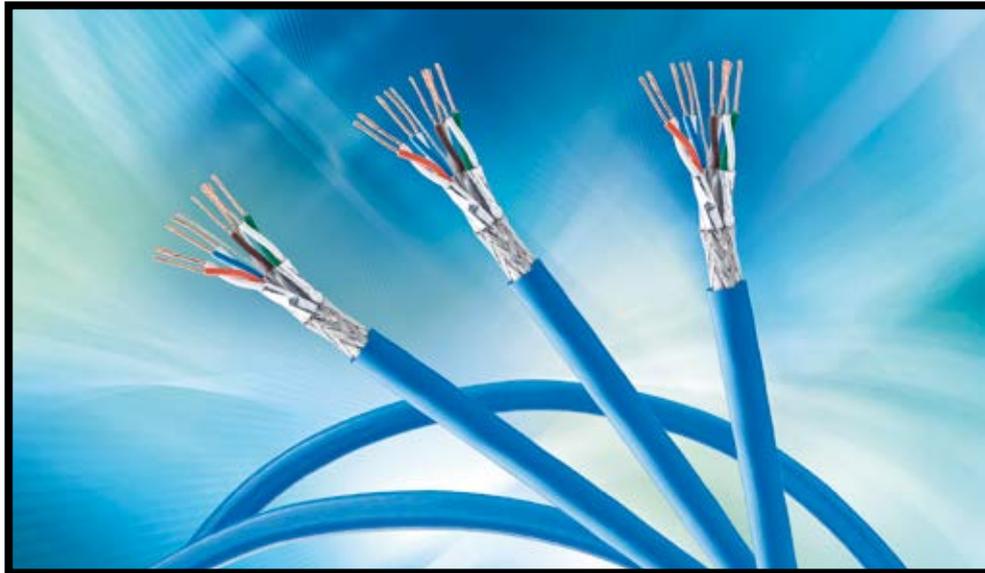


PB 136E

Cat 7 Railway Approved Ethernet Data Cable

Belden's new railway approved high temperature Cat 7 Ethernet data cable extends the RailTuff™ range of reliable data communication products for the transportation sector.



New data cable supports a superior travel experience by delivering additional bandwidth for expanded Ethernet applications

- Provides sufficient bandwidth for new or expanded applications
- Is the only Cat 7 data cable in the market to meet the high heat standard of Class TX
- Designed for railway use, this new cable meets all required standards

The new RailTuff BE43802, a Cat 7 Ethernet data cable designed specifically for the passenger railway market, integrates network communications, passenger safety and operational efficiency signal transmissions.

Applications

Train builders and designers are now specifying data networks that can support increased bandwidth and data transfer rates in order to future-proof passenger and operator service systems.

The new cable is designed for the transmission of data and signals using Ethernet technology, for on-board applications; effectively future proofing the on board Ethernet backbone and enabling compliance with the new series of IEC standards; IEC EN 61375 "Train Communication Network (TCN)" and IEC EN 62580 "On-board Multimedia and Telematic Subsystems for Railways".

Key areas of application include:

- Train Consist Network (TCN)
- Passenger information and entertainment
- Multimedia Services

- Security and surveillance
- Train diagnostics
- Fare collection and ticketing
- Communications Based Train Control (CBTC)

Your Benefits

The new RailTuff Cat 7 railway cable enables operators to integrate more services and supports the drive to deliver a superior travel experience. Its transmission performance of 10,000 mbps provides higher bandwidth for increased data transfer for expanded network applications.

As the only Cat 7 railway approved data patch cable that exceeds the +85°C short term temperature requirement in Class TX of the EN 50155:2007 railway applications standard, the Belden BE43802 is safe for use in passenger railways. The cable's highly stranded conductor offers increased flex life through a unique cable design.

The Belden BE43802 fully complements our RailTuff range of Ethernet data cables for transportation and passenger data communication networks. Other products are the BE43769 for 100 mbps and the BE43800 for 1,000 mbps.

A new product to serve your needs. Be certain.

This is the Only Cat 7 Railway Approved Data Patch Cable with the Heat Resistance to Meet the Temperature Requirements of Class TX (EN 50155:2007)

The halogen-free, flame and oil resistant Belden® Cat 7 Railway approved cable is unique because it uses a 19 stranded conductor and has an operating temperature up to +90°C. This exceeds the +85°C short term temperature requirement of the Class TX EN 50155:2007 railway applications standard.

The cable's highly stranded conductor offers increased flex life and the unique cable design supporting improved operational efficiency whilst assuring passenger safety and comfort.

Belden BE43802 is constructed for reliable Cat 7 transmission performance. The high 19 strand conductor provides added flexibility and flex life; the small bend radius allows optimal installation within limited space applications.

Benefits at a Glance

- A distinctive blue cable jacket for ease of identification after installation
- Cat 7 Patch Cable 10 Gigabit signal transmission for enhanced system performance, reduced costs and increased functionality
- Highly stranded copper conductor (AWG 24/19) with a combination of braid and foil shielding for superior strength. Consistent system performance thanks to S/FTP, individually foil-screened pairs and high overall braid coverage with Belden Beldfoil® for increased electromagnetic interference (EMI)
- Small bending radius, cable has ability to bend without affecting signal transmission for ease of and optimal installation within limited space
- Halogen-free, oil resistant and flame retardant performance
- Approved to international railway standards
- High operating temperature, exceeding the Class TX EN 50155:2007 railway applications standard
- Customized cable design to withstand vibration, EMI and mechanical stress for maximum reliability



The new BE43802 is a key component in the total Belden Cat 7 Railway solution



Meeting International Railway Standards

Belden BE43802 data cables are designed and manufactured in accordance with the following international railway standards:

- EN 50155:2007
 - Railway applications
 - Class TX (-40°C to +85°C)
- EN 45545-2:2013
 - Fire protection on railway vehicles
 - Class R15 and R16 (Hazard Level 1-3)
 - IEC 60332-1-2
 - Toxicity test: EN 50305
 - Flame test: EN 50266-2-5
 - IEC 60332-3-25 Cat D
 - EN 61034-2
 - NF X70-100-1 & NF X70-100-2
- DIN 5510-2
 - Preventive fire protection in railway vehicles
 - Protection Level 1-4
 - IEC 60332-1-2
 - IEC 50266-2-5 Cat D
- ISO/IEC 11801 2nd edition IEC 61156-6



Ethernet Based Solutions

Belden cable used in conjunction with EN 50155 approved Lumberg Automation™ M12 X-coded field-installable connectors and Hirschmann™ OCTOPUS switches provide complete Belden Ethernet based solutions with:

- Improved service-levels and system performance

Reduced integration risk

- Superior safety, security and reliability
- Reduced installation and maintenance time
- Lower operational costs
- Future expandability



Hirschmann™ OCTOPUS Train-BP managed IP67 switch guarantees high-availability data communication in trains

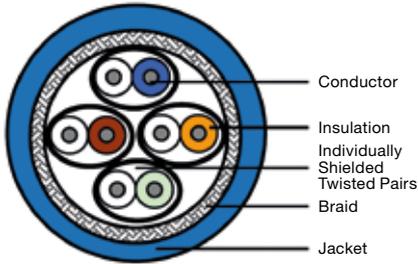


Lumberg Automation™ Shielded Railway Connectors 0986 EMC 105 and 0986 EFC 107



An Ethernet backbone provides the necessary high bandwidth to transmit data, voice and video-streaming. This delivers information and entertainment to passengers and supports video surveillance systems.

Belden® RailTuff™ Ethernet Data Cables



BE43802

Product Data

Belden Item Code	Transmission Performance	Conductor	Cable Jacket Material	Cable Jacket Color	Cable Outer Diameter	Screen	Cable Construction
BE43769	100 Mbps	AWG 22/19	Premium FRNC, Insulation and Jacket cross-linked (by e-beam)	Black	6.7 +/- 0.3 mm	Foil and Braid (Aluminium/ polyester)	SF/UTP 2PR (Quad)
BE43800	1000 Mbps	AWG 26/19					SF/UTP 4PR
BE43802	10,000 Mbps	AWG 24/19		Blue	8.1 +/- 0.3 mm	S/FTP 4PR	



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 number one 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 four leading brands, Belden®, GarrettCom®, Hirschmann™ and Lumberg Automation™, 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.

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.

For more information, visit us at www.beldensolutions.com and follow us on [Twitter@BeldenInc](https://twitter.com/BeldenInc).