

NP 1044LE**Lumberg Automation™
Shielded Railway Connectors**

Maximum security thanks to compliance with the highest fire protection class including Hazard Level 2



The Shielded Railway Connectors from Lumberg Automation™ Comply with International Railway Standards EN 50155, IEC 61373 and DIN CLC/TS 50467 and with Fire Protection Class DIN CEN/TS 45545, DIN 5100 Making Them Suitable for a Wide Range of Applications.

- Fast and inexpensive installation thanks to molded and field-attachable connector types including individual cable lengths
- Due to their availability in different versions, the railway connectors can be used to meet a wide range of application requirements
- Industrial protection class IP67 and the robust design ensure maximum reliability and a long service life

Specially developed for use in the railway sector, these new shielded connectors comply with all the relevant international norms and standards. This was achieved by combining the tried-and-tested M12 connection technology with completely new materials.

The result: extremely reliable connectors that can be used anywhere in the world. What's more, these connectors are available as pre-assembled Industrial Ethernet cables for ProfiNet and in a field-attachable version, and can thus be used to provide optimum solutions for a variety of applications.

Applications

These shielded Lumberg Automation™ connectors are railroad approved and offer fast and reliable communication plus enhanced system performance in rail transport and local public transport systems. They are deployed in applications critical to the comfort and safety of passengers. These include the networking of control modules regulating doors, heating and air conditioning. They can also be used for reliable connection of IP cameras, passenger counting systems and information displays.

Benefits

The new shielded railway connectors are fast and inexpensive to install. They come with already molded cables or in field-attachable versions where the desired length of cable can be ordered at the same time. You can use the connectors flexibly to suit the requirements of your application. Thanks to industrial protection class IP67 and their robust design, they offer maximum reliability and a long service life.

**A new product to
serve your needs.
Be certain.**

Shielded Railway Connector with Fire Protection Rating Hazard Level 2

Compliant with all international railway norms and standards, the shielded connectors are simple and safe to install. The male and female connectors are equipped with spring-clamp terminals that make assembly considerably easier. Thanks to M12 connection technology, the IP67 industrial protection class and an extended operating temperature range of -40°C to +90°C, the connectors are capable of withstanding even extreme vibrations and are ideally suited for use in harsh environments. Two different versions are available to provide the optimum solution for a wide range of different applications.

They can be used
anywhere in the world
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The Advantages at a Glance

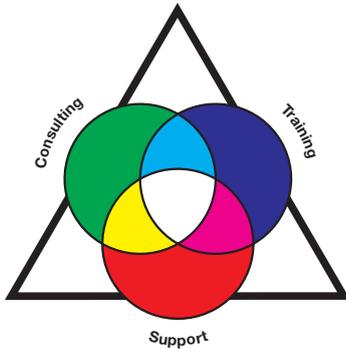
- Molded cable versions and field-attachable versions including cable
- Vibration-proof M12 connection technology
- Industrial protection class IP67
- Extended temperature range: -40°C to +90°C
- Simple handling thanks to male and female connectors with spring-clamp terminals
- Cat 5 and Cat 5e transmission properties according to ISO IEC 11801 and TIA/EIA-568-B.2
- Standards and approvals: EN 50155, IEC 61373, DIN CLC/TS 50467, DIN 5510, DIN CEN/TS 45545
- Can be ideally combined with OCTOPUS Industrial Ethernet switches from Hirschmann™ and Belden® railway cable





Technical Information

Product Description				
Type	0985 508 120/* M	0985 508 121/* M	0986 EFC 107	0986 EMC 105
	 	 	 	 
Description	M12 cordset single-ended, Industrial Ethernet data cable, Cat 5 (ProfiNet), single-ended molded with M12 male connector, 4 poles, D coding	M12 cordset double-ended, Industrial Ethernet data cable, Cat 5 (ProfiNet), double-ended molded with M12 male connectors, 4 poles, D coding	Field attachable connector, M12 female connector with threaded joint, shieldable, assembling with spring-type terminals, 4 poles, D coding	Field attachable connector, M12 male connector with threaded joint, shieldable, assembling with spring-type terminals, 4 poles, D coding
Technical Data				
Operating Temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +90°C	-40°C to +90°C
Housing/Molded Body	PA	PA	GD-ZnAl	GD-ZnAl
Insert	PBT	PBT	PBT	PBT
Contact	CuSn, gold-plated	CuSn, gold-plated	stainless steel, silver-plated, gold-plated	stainless steel, silver-plated, gold-plated
Receptacle Shell/Knurled Screw/-nut	CuZn, nickel-plated	CuZn, nickel-plated	CuZn, nickel-plated	CuZn, nickel-plated
Shield Sleeve	CuZn, tin-plated	CuZn, tin-plated	Shield contacting spring: CuBe, tined	Shield contacting spring: CuBe, tined
O-Ring	–	–	EPDM	EPDM
Mechanical Data				
Protection Class	IP67 (Only in locked position with its proper counterparts.)			
Mode of Connection	–	–	spring-type terminals	spring-type terminals
Connectable Conductor	–	–	max. 0.14 mm ² (with wire end ferrule) to 0.5 mm ²	max. 0.14 mm ² (with wire end ferrule) to 0.5 mm ²
Electrical Data				
Contact Resistance	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ
Nominal Current at 40°C	4 A	4 A	4 A	4 A
Nominal Voltage	60 V	60 V	60 V	60 V
Rated Voltage	250 V	250 V	250 V	250 V
Test Voltage	2.0 kV eff./60 s	2.0 kV eff./60 s	1.5 kV eff./60 s	1.5 kV eff./60 s
Insulation Resistance	>10 ⁹ Ω	>10 ⁹ Ω	>10 ⁹ Ω	>10 ⁹ Ω
Pollution Degree	3	3	3	3
Approvals				
Railway Standards	EN 50155, IEC 61373, DIN CLC/TS 50467			
Fire Protection	DIN CEN/TS 45545, DIN 5510			



The 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®, Hirschmann™ and Lumberg Automation™. Irrespective of the technology you use, you can rely on our full support – from the implementation to the 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 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 three leading brands, Belden®, 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.

We guarantee the superior performance of your mission-critical systems, even in the most demanding circumstances. If signal transmission is vital to your business, get in touch with the partner that delivers. Be certain. Belden.