

LAN Port Protector

Product Datasheet

Network Adapter with Overtension Auto-Release



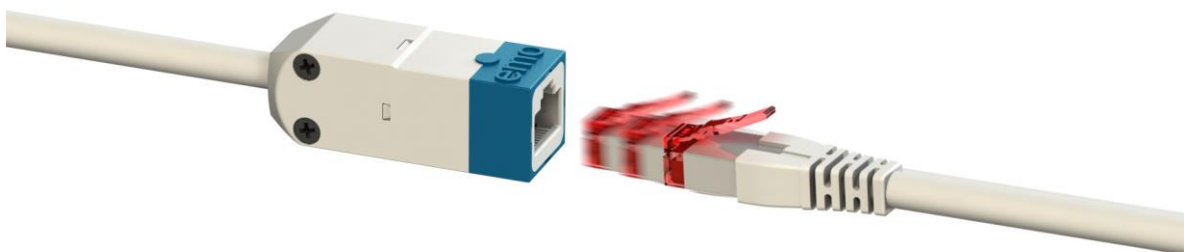
! The network adapter LAN Port Protector does not replace a network isolator and doesn't provide overvoltage protection between the network and the connected terminal equipment.

1 FEATURES AND ADVANTAGES

1.1 OVERVIEW

- Protection of network jacks by Overtension Auto-Release (OTAR)
- High Performance Gigabit Ethernet
- ISO 11801 Class D Ethernet Performance attainable
- RoHS compliant
- 100% inspection by our Quality Control

1.2 OVERTENSION AUTO-RELEASE (OTAR)



The Overtension auto-release (OTAR) system incorporated into the LANPP offers a mechanical protection to the Ethernet interface. Mechanical damage, due to excessive tensile or lateral forces, is a common cause of failure for Ethernet sockets. These forces act upon RJ45 sockets and their supporting circuit boards, potentially damaging them beyond repair.

Such forces can arise, for example, when movable Ethernet devices are moved further than their connecting Ethernet cable naturally allows, or when people accidentally trip over attached patch cables. When the LAN Port Protector is plugged into an Ethernet socket of a device to be protected, the socket is protected against such hazards. The OTAR socket of the connected LAN Port Protector simply releases the Ethernet cable automatically when applied tensile forces exceed a defined limit.

2 TECHNICAL DRAWINGS

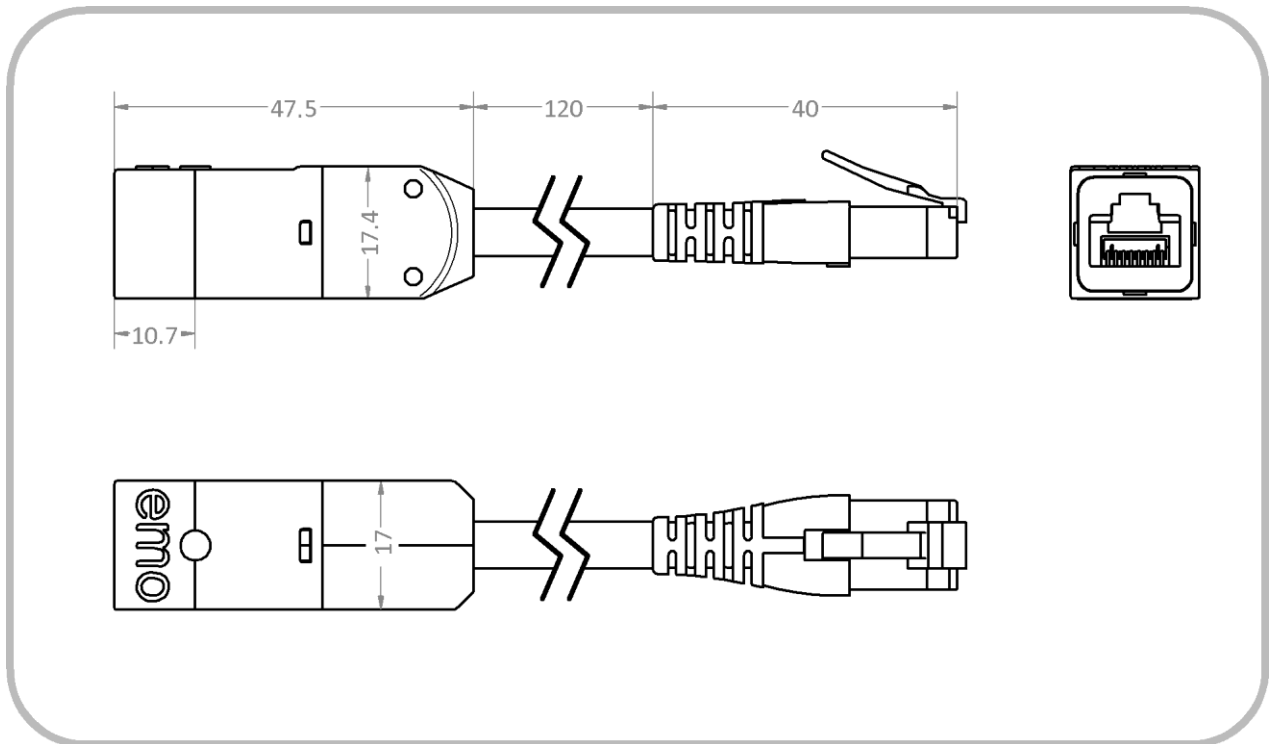


Figure 1. Technical drawing for LAN Port Protector. All dimensions are in millimetres.

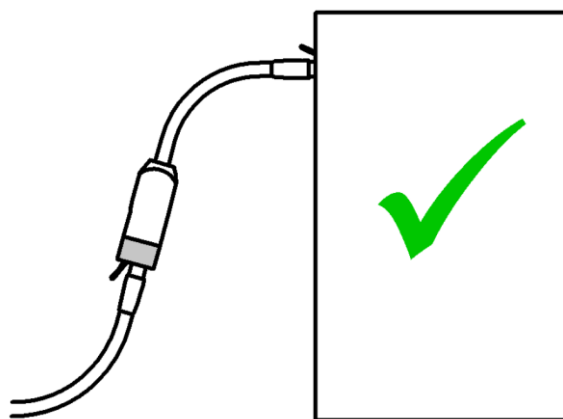


Figure 2: Installation recommendations

3 SAFETY NOTICE

- The adapter LAN Port Protector is not a network isolator and provides the Overtension Auto-release exclusively. It does not provide protection from overvoltage between the network and the connected terminal equipment.
- When used as directed, LAN Port Protectors are maintenance-free.
- If damaged or heavily contaminated with dust or fluids the LAN Port Protector needs to be replaced.

4 SPECIFICATIONS

4.1 GENERAL

Category	Standards or Test Criteria	Property
Designation		LAN Port Protector
Housing Colour		White / Gentian blue
Housing Material		Plastic
Construction		Standalone
Cable Length	Flexible cable segment between plug and housing	120 mm
Minimum Bending Radius		25 mm
Mounting Arrangement		Free-hanging
Input Interface		RJ45 Jack, straight
Output Interface		RJ45 Plug, cable
Pull-out-force of OTAR	Depends on type of plug, condition of plug and temperature	Typical 6-20N
Weight	Netto, ca.	approximately 20 g
Protection Rating	EN 60529	IP40
Mating Cycles: Correct min.:	RJ45 plug in RJ45 socket	1000 cycles
	Mismatched max.:	with RJ11 / RJ12 / RJ25
Mean Time To Failure (MTTF)	SN 29500 Standard Temperature: 25°C Duty cycle: 100% (24 hours, 7 days)	4,590 years
	SN 29500 Standard Temperature: 40°C Duty cycle: 100% (24 hours, 7 days)	4,260 years

4.2 ETHERNET PERFORMANCE

Category	Standards or Test Criteria	Property
Transmission Speeds and Supported Network Protocols	10 Mbit/s, 10Base-T (IEEE802.3 Cl.14)	✓
	100 Mbit/s, 100Base-Tx (IEEE802.3 Cl.25)	✓
	1000 Mbit/s, 1000Base-T (IEEE802.3 Cl.40)	✓
Performance Category	ISO 11801, Permanent Link (PL)	Class D
Insertion Loss (absolute)		0.1 dB @ 100 MHz
Return Loss (absolute)		30.0 dB @ 100 MHz

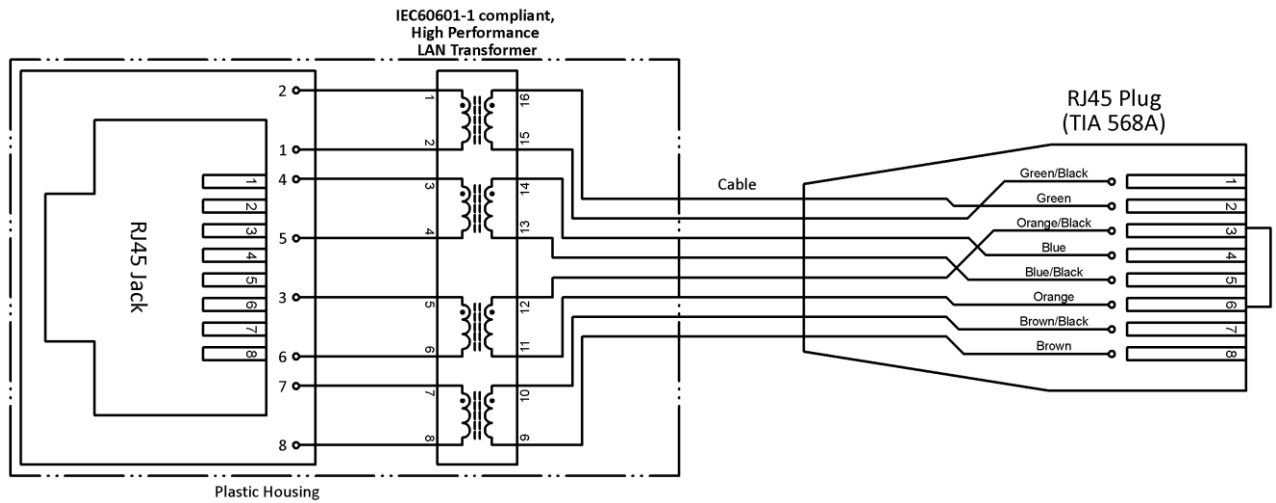
4.3 OPERATING CONDITIONS AND AREA OF APPLICATION

Category	Standards or Test Criteria	Property
Temperature		Minimum: -10°C
		Maximum: +60°C
Air Humidity	Non-condensing	Minimum: 10%
		Maximum: 90%
Air Pressure		Minimum: 700 hPa
		Maximum: 1,060 hPa
Altitude		Maximum: 3,200 m

4.4 ENVIRONMENTAL CONDITIONS: STORAGE AND TRANSPORTATION

Category	Standards or Test Criteria	Property
Temperature		Minimum: -40°C
		Maximum: +70°C
Air Humidity	Non-condensing	Minimum: 10%
		Maximum: 90%
Air Pressure		Minimum: 500 hPa
		Maximum: 1,060 hPa

5 SCHEMATIC DIAGRAM



6 ENVIRONMENTAL PROTECTION INFORMATION

This device contains electronic components. At the end of its service life it is to be returned to the manufacturer for disposal.

7 QUALITY

EMO Systems operates a certified quality management system for development and production in accordance with ISO 9001 and ISO 13485. Prior to delivery, each LAN Port Protector is subjected to a comprehensive quality inspection.

8 CONTACT AND SUPPORT

Please find our up-to-date contact details on our website:

<http://www.emosystems.de/en/contact>

Or send us an e-mail at the following address:

support@emosystems.de

9 LEGAL NOTIFICATION

The information provided above in this datasheet has been compiled with all due care, and is believed to be accurate and reliable. However, we cannot guarantee that the information contained is completely free from error.

The end user is responsible and liable for the proper use of this product; EMO Systems GmbH assumes no liability. We reserve the right to make changes to this datasheet without notice.