

Ethernet module - FL PD 1001 T GT - 2891042

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Factoryline Power over Ethernet splitter (PD) for separating power and data according to IEEE 802.3af and at, no configuration required, can be used with 10, 100, 1000 Mbps networks, 24 V DC output voltage

Product Description

Power over Ethernet splitter (PD) for separating power and data according to IEEE 802.3af and IEEE 802.3at. The Power over Ethernet splitter, which is suitable for industrial applications, enables the decoupling of Ethernet data with up to 1000 Mbps of the transmitted energy. The 24 V DC voltage is supplied to the PoE splitter in line with the application. Depending on the type of connected PoE supply (802.3af/802.3at), 10.5 W or 21.5 W are available to the terminal device on the splitter. This means that terminal devices without PoE interface such as WLAN or Bluetooth access points, IP phones or IP cameras can be easily connected to a PoE interface.

Your advantages

- Compact housing
- IEEE 802.3af, at

Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356076036

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	40 mm
Height	100 mm
Depth	109 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
Air pressure (operation)	86 kPa ... 108 kPa

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Ambient conditions

Air pressure (storage/transport)	66 kPa ... 108 kPa (3500 m above sea level)
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Interfaces

Interface	Ethernet (RJ45)
No. of ports	1 (RJ45 ports)
Transmission physics	Copper
Transmission speed	10/100/1000 Mbps
Transmission length	100 m (Total)
Interface	Ethernet
No. of ports	1 (RJ45 ports)
Connection method	RJ45
Transmission speed	10/100/1000 Mbps
Transmission length	up to 100 m (complete system)

Function

Basic functions	PD, conforms to IEEE 802.3af/at
Status and diagnostic indicators	LEDs: POE, 24 V DC

Network expansion parameters

Maximum conductor length (twisted pair)	100 m
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Supply voltage

Supply voltage	48 V DC (via PoE)
Supply voltage range	44 V DC ... 57 V DC

General

Mounting type	DIN rail
Type AX	Stand-alone
Net weight	320 g
Housing material	Metal
MTTF	1344.41 Years (SN 29500 standard, temperature 25 °C, operating cycle 21 % (5 days a week, 8 hours a day))
	520.19 Years (SN 29500 standard, temperature 40 °C, operating cycle 34.25 % (5 days a week, 12 hours a day))
	52.81 Years (SN 29500 standard, temperature 70 °C, operating cycle 100 % (7 days a week, 24 hours a day))

Connection data

Conductor cross section	0.14 mm ² ... 1.5 mm ²
Connection cross section AWG	24 ... 12

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	30g
Type of test	Free fall in acc. with IEC 60068-2-32

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Standards and Regulations

Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2:2005
Vibration (storage/transport)	5g, 150 Hz, in acc. with IEC 60068-2-6
Vibration (operation)	in acc. with IEC 60068-2-6: 5g, 150 Hz

Environmental Product Compliance

	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

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Schematic diagram



24 V status and output voltage indicator (green)
on: 24 V output voltage available
off: 24 V output voltage not available
PoE+: Types of the connected PSE signal (green/orange)
Green: Type 1 PSE, i.e., min. 12.95 W available at the input
Orange: Type 2 PSE, i.e., min. 25.50 W available at the input

Block diagram

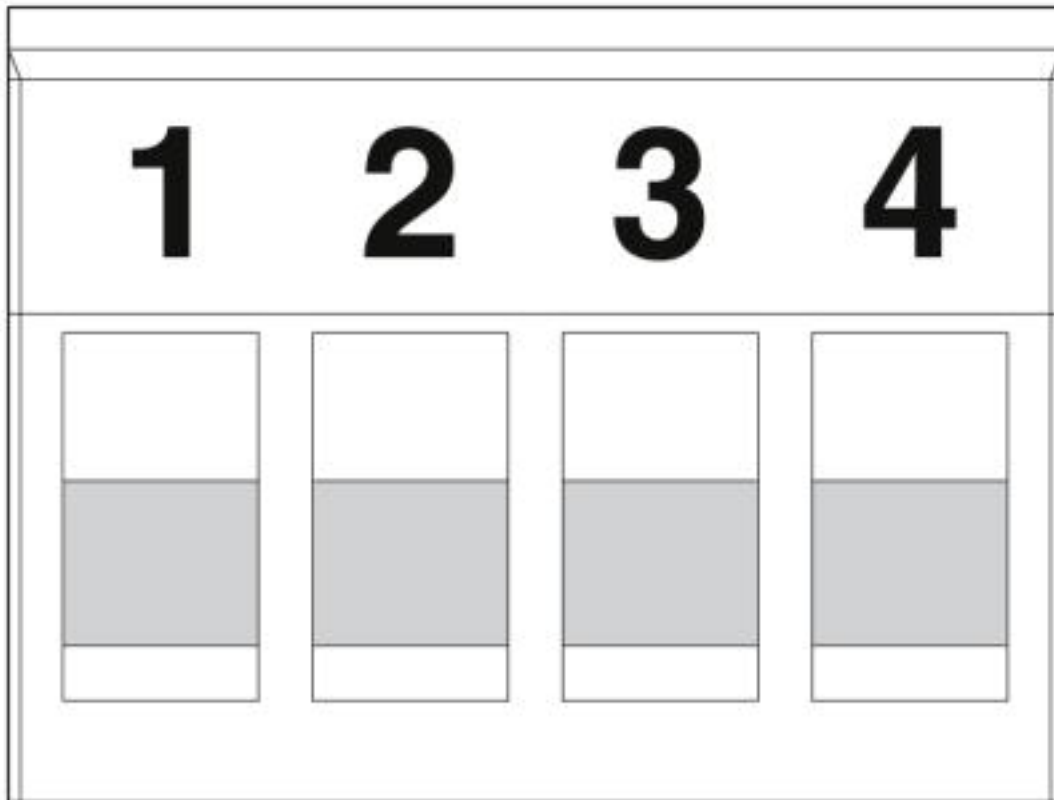


PoE splitter
1) Power Sourcing Equipment (PSE)

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- 2) Power over Ethernet connection
- 3) PoE splitter (PD)
- 4) Data
- 5) Voltage
- 6) Termination device

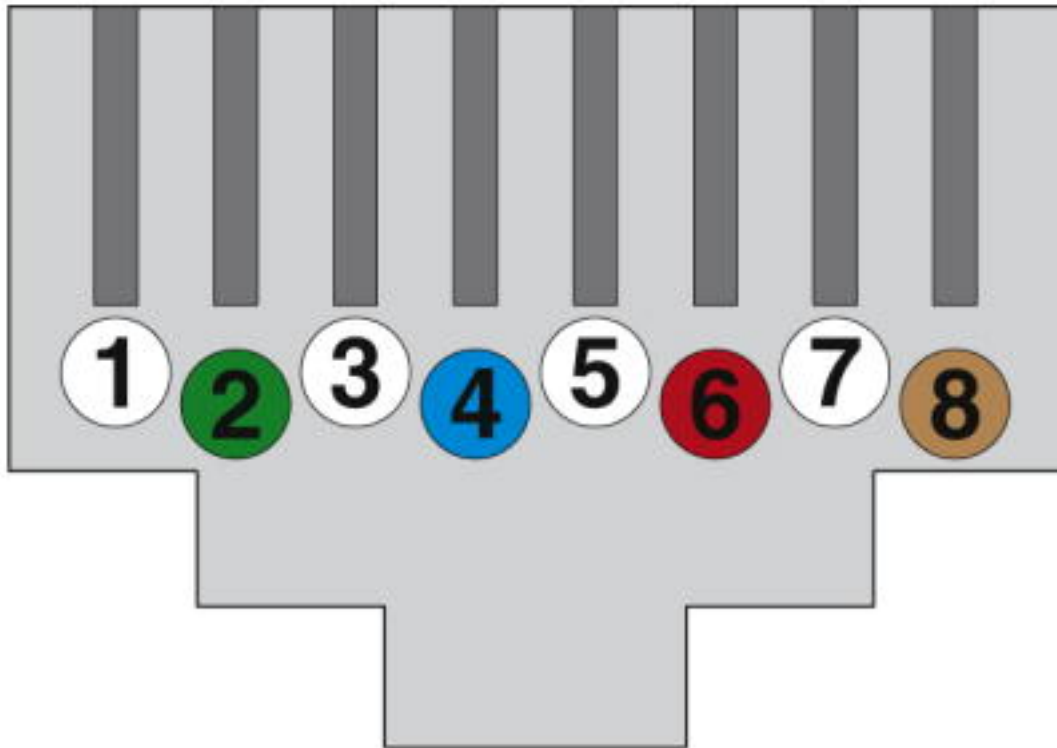
Schematic diagram



Voltage output
1 24 V DC
2 GND
3 24 V DC
4 GND

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Schematic diagram



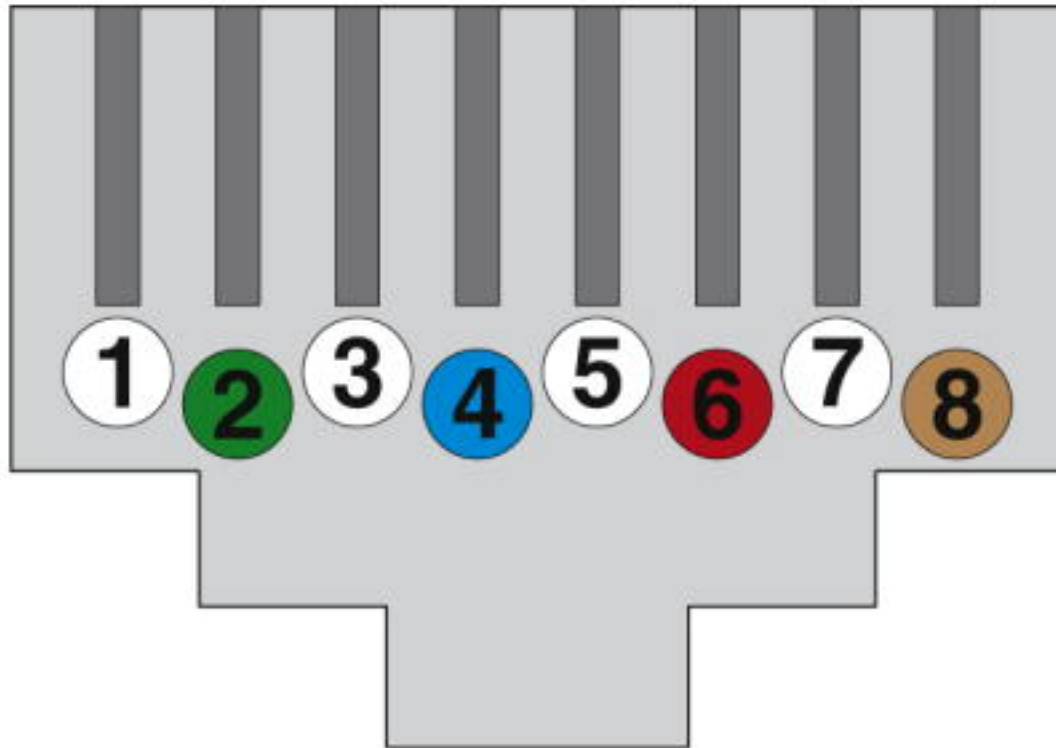
Assignment of the LAN sockets:

Pin assignment, 10/100 Mbit

- 1 TD+ (transmit)
- 2 TD- (transmit)
- 3 RD+ (receive)
- 4 -
- 5 -
- 6 RD- (receive)
- 7 -
- 8 -

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Schematic diagram



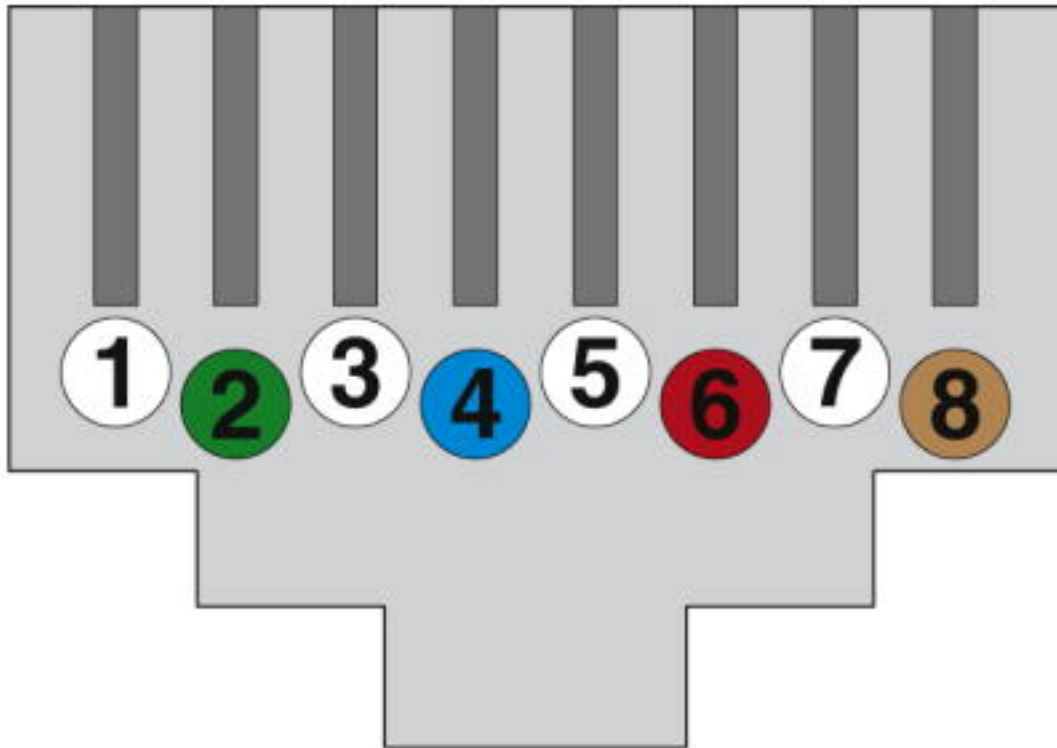
Assignment of the LAN sockets:

Pin assignment, 1000 Mbit

- 1 DA+ (bidirectional)
- 2 DA- (bidirectional)
- 3 DB+ (bidirectional)
- 4 DC+ (bidirectional)
- 5 DC- (bidirectional)
- 6 DB- (bidirectional)
- 7 DD+ (bidirectional)
- 8 DD- (bidirectional)

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Schematic diagram



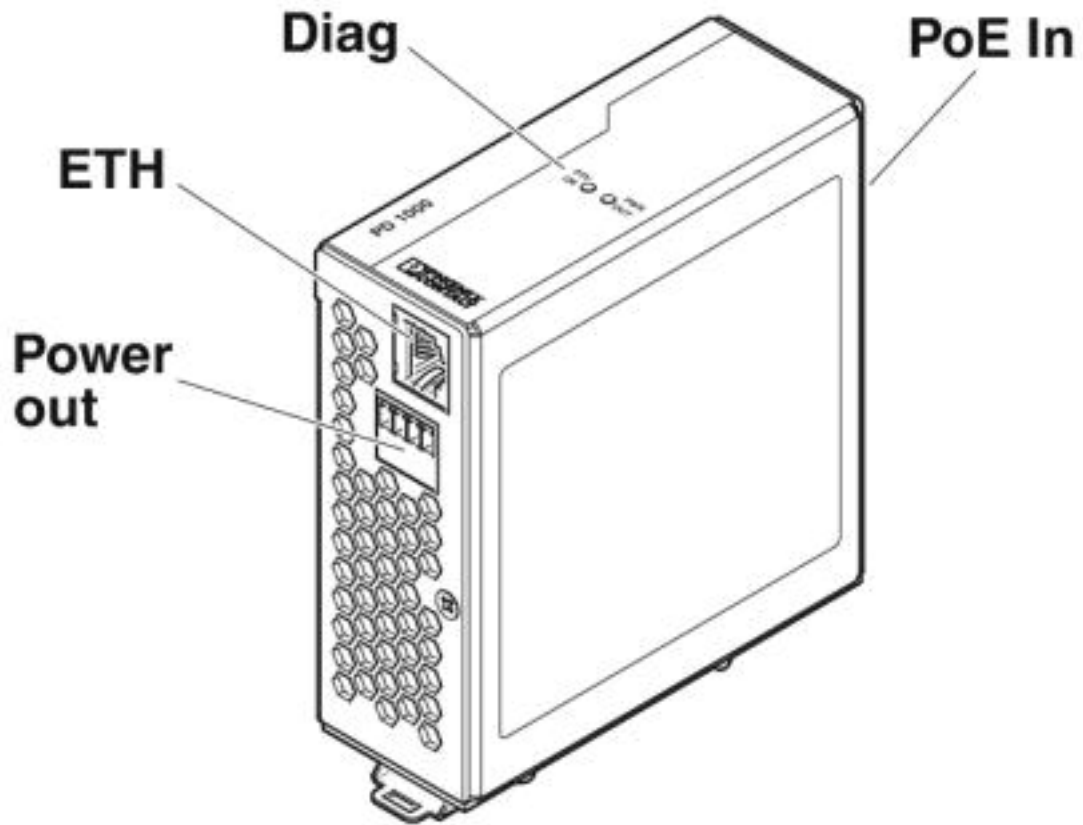
Assignment of the LAN sockets:

Pin PoE / PoE+

- 1 +/- (alt. A)
- 2 +/- (alt. A)
- 3 +/- (alt. A)
- 4 +/- (alt. B)
- 5 +/- (alt. B)
- 6 +/- (alt. A)
- 7 +/- (alt. B)
- 8 +/- (alt. B)

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Schematic diagram



Device connections

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