

Ethernet module - FL PD 1001 T GT



2891042

<https://www.phoenixcontact.com/us/products/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

Commercial Data

Item number	2891042
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	C23
Product Key	DNN142
Catalog Page	Page 344 (C-6-2019)
GTIN	4046356076036
Weight per Piece (including packing)	462 g
Weight per Piece (excluding packing)	420 g
Customs tariff number	85176200
Country of origin	DE

Technical Data

Dimensions

Width	40 mm
Height	100 mm
Depth	109 mm

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Material specifications

Housing material	Metal
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Mounting

Mounting type	DIN rail mounting
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Interfaces

Ethernet (RJ45)

Connection method	RJ45
Transmission speed	10/100/1000 Mbps
Transmission physics	Copper
Transmission length	100 m (Total)
No. of channels	1 (RJ45 ports)
No. of channels	1

Ethernet

Connection method	RJ45
Transmission speed	10/100/1000 Mbps
Transmission length	up to 100 m (complete system)
No. of channels	1 (RJ45 ports)

Product properties

Type	Stand-Alone
Product type	Power over Ethernet devices
Operating mode	Mode transparent
MTTF	1344.41 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	520.19 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	52.81 Years (SN 29500 standard, temperature 70°C, operating cycle 100%)

Insulation characteristics

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Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Electrical properties

Local diagnostics	24 V Output voltage Green LED
	PoE PoE detection Yellow LED
Test section	for one minute 1500 V AC 1 min.
Transmission medium	Copper

Supply

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

Connection data

Conductor connection

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

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)
Vibration (operation)	in acc. with IEC 60068-2-6: 5g, 150 Hz
Air pressure (operation)	86 kPa ... 108 kPa
Air pressure (storage/transport)	66 kPa ... 108 kPa (3500 m above sea level)

EMC data

Conformance with EMC directives	IEC 61000-6-2 IEC 61000-4-2 (ESD) Criterion A
	IEC 61000-4-3 (immunity to radiated interference) Criterion A
	IEC 61000-4-4 (burst) Criterion A
	IEC 61000-4-5 (surge) Criterion A
	IEC 61000-4-6 (immunity to conducted interference) Criterion A
	EN 55022 (emitted interference) Criterion A
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2:2005

LED signaling

Status display	LEDs: POE, 24 V DC
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Drawings

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

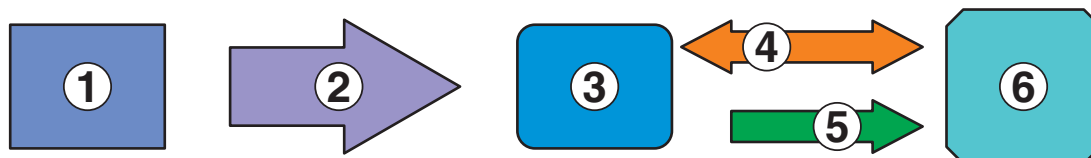
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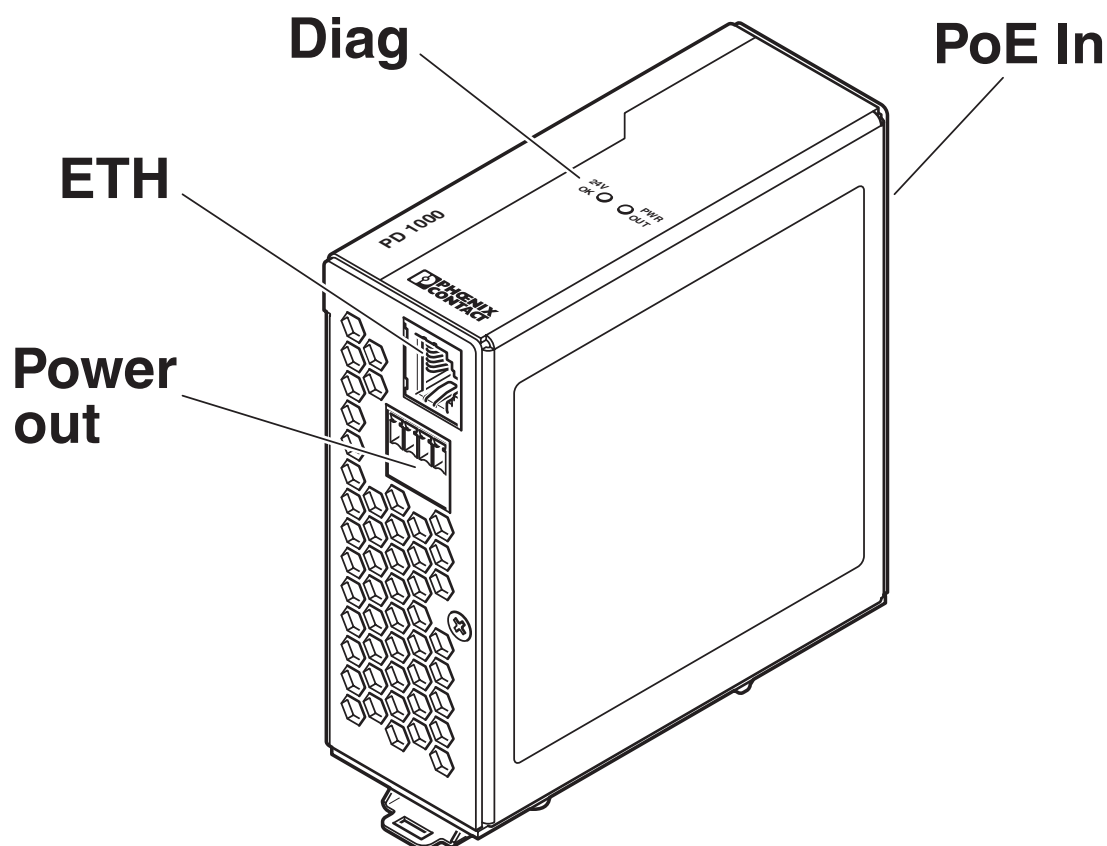
Block diagram



PoE splitter

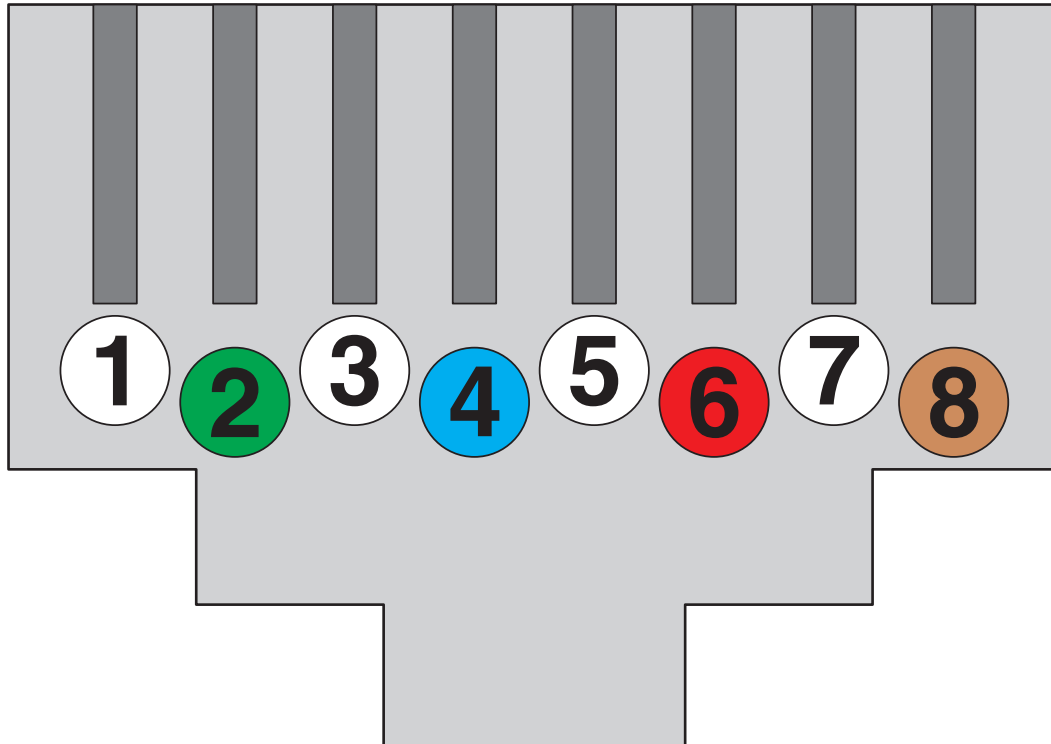
- 1) Power Sourcing Equipment (PSE)
- 2) Power over Ethernet connection
- 3) PoE splitter (PD)
- 4) Data
- 5) Voltage
- 6) Termination device

Schematic diagram



Device connections

Schematic diagram



Assignment of the LAN sockets:

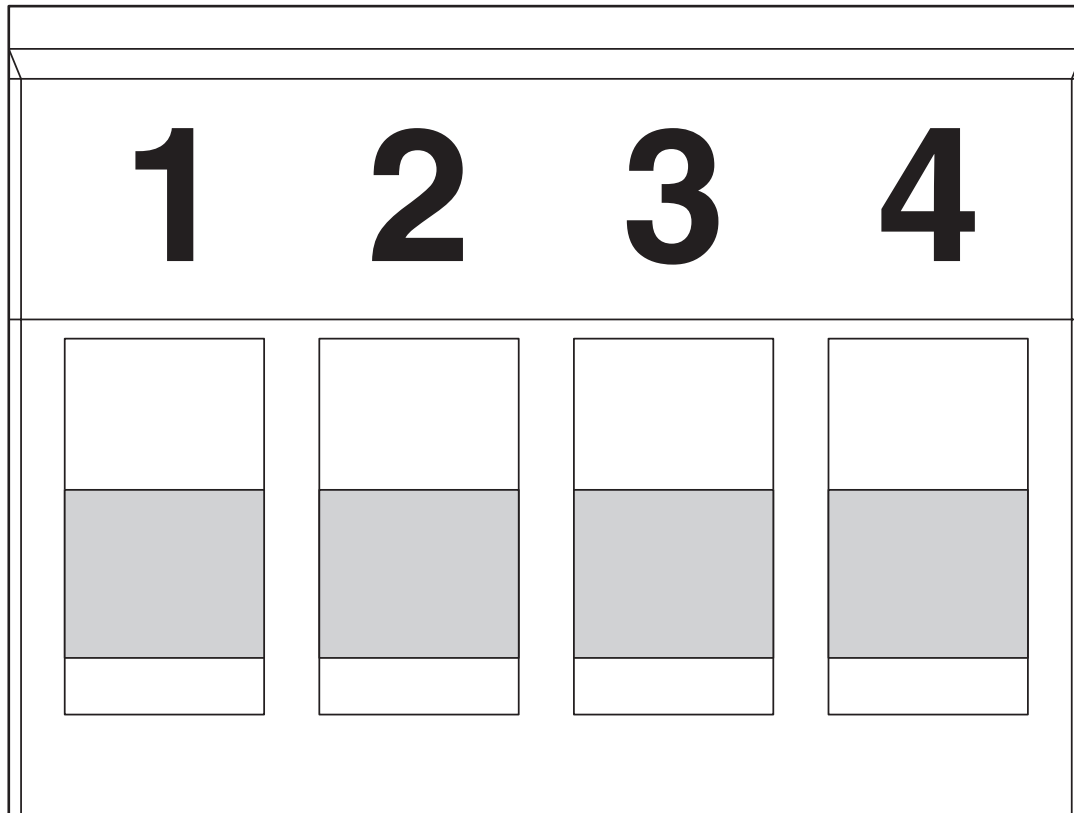
Pin assignment, 1000 Mbit

- 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



Voltage output

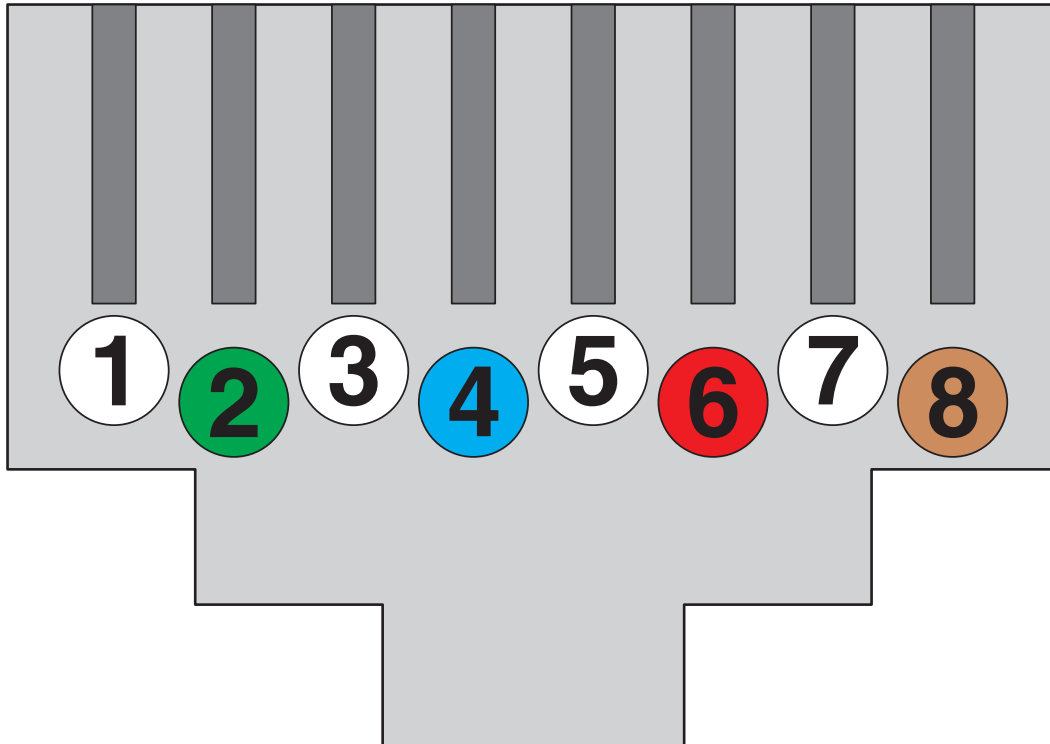
1 24 V DC

2 GND

3 24 V DC

4 GND

Schematic diagram

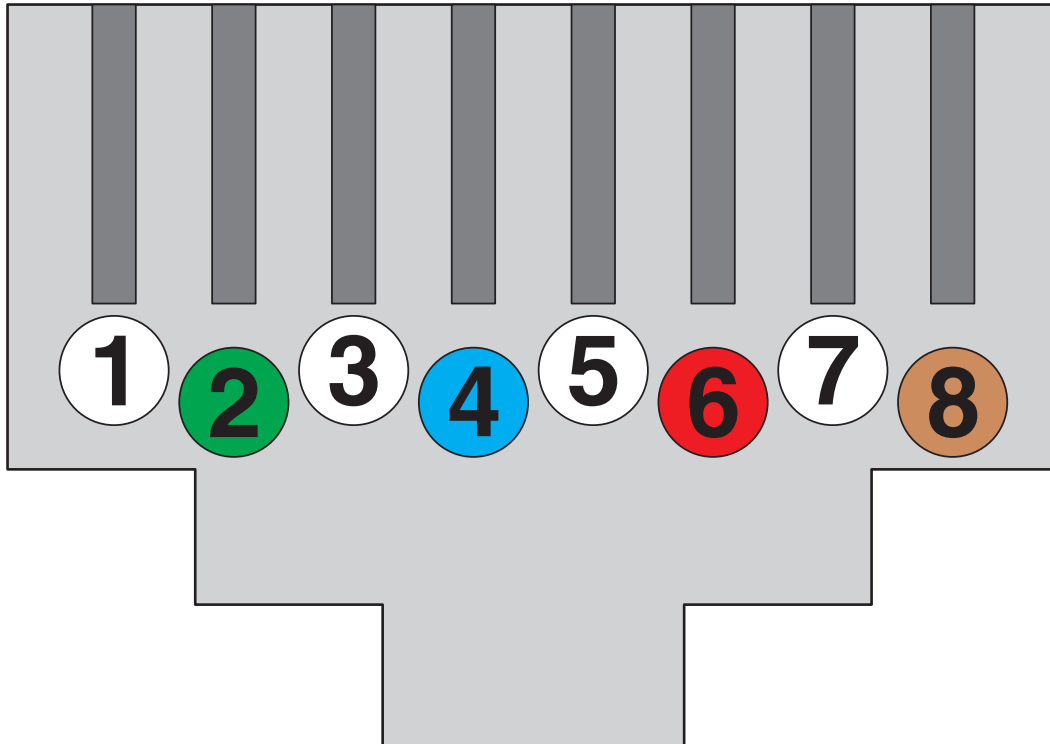


Assignment of the LAN sockets:

Pin assignment, 10/100 Mbit

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

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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Classifications

ECLASS

ECLASS-9.0	19170106
ECLASS-10.0.1	19170401
ECLASS-11.0	19170401

ETIM

ETIM 8.0	EC000734
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UNSPSC

UNSPSC 21.0	43222600
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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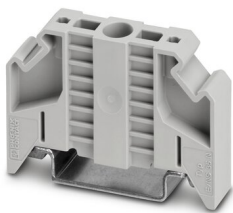
Accessories

End clamp

End clamp - E/NS 35 N - 0800886

<https://www.phoenixcontact.com/us/products/0800886>

End clamp, width: 9.5 mm, color: gray



Patch cable

Patch cable - FL CAT5 PATCH 0,3 - 2832250

<https://www.phoenixcontact.com/us/products/2832250>

Patch cable, CAT5, assembled, 0.3 m



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DIN rail adapter

DIN rail adapter - FL DIN RA - 2891053

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The FL DIN RA is installed in a standard, 19-inch rack (EIA-310-D, IEC 60297-3-100) to allow DIN rail mounted equipment to be rack mounted.



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