FL PD 1001 T GT - Ethernet module

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	DN18
Product key	DNN142
GTIN	4046356076036
Weight per piece (including packing)	440.2 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

Note on application

Note on application	Only for industrial use

Utilization restriction

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

Material specifications

Color (Housing)	white aluminium (RAL 9006)
Housing material	Metal

Mounting

Mounting type	DIN rail mounting

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

Product type	Power over Ethernet devices
Type	Stand-alone
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

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

Electrical properties

Local diagnostics	24 V Output voltage Green LED
	PoE PoE detection Yellow LED
Test section	PoE-IN / 24V-Out 2.25 kV DC 1 min
	PoE-IN / Eth-Out 2.25 kV DC 1 min
	PoE-IN/functional ground 2.25 kV DC 1 min
	24 V supply / functional ground 2.25 kV DC 1 min
	Functional ground/Eth-Out 2.25 kV DC 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 mm² ... 1.5 mm²
Connection cross section AWG	24 ... 12

Environmental and real-life conditions

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

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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

Noise immunity	EN 61000-6-2:2005

Noise emission

Standards/regulations	EN 61000-6-4

System properties

Functionality

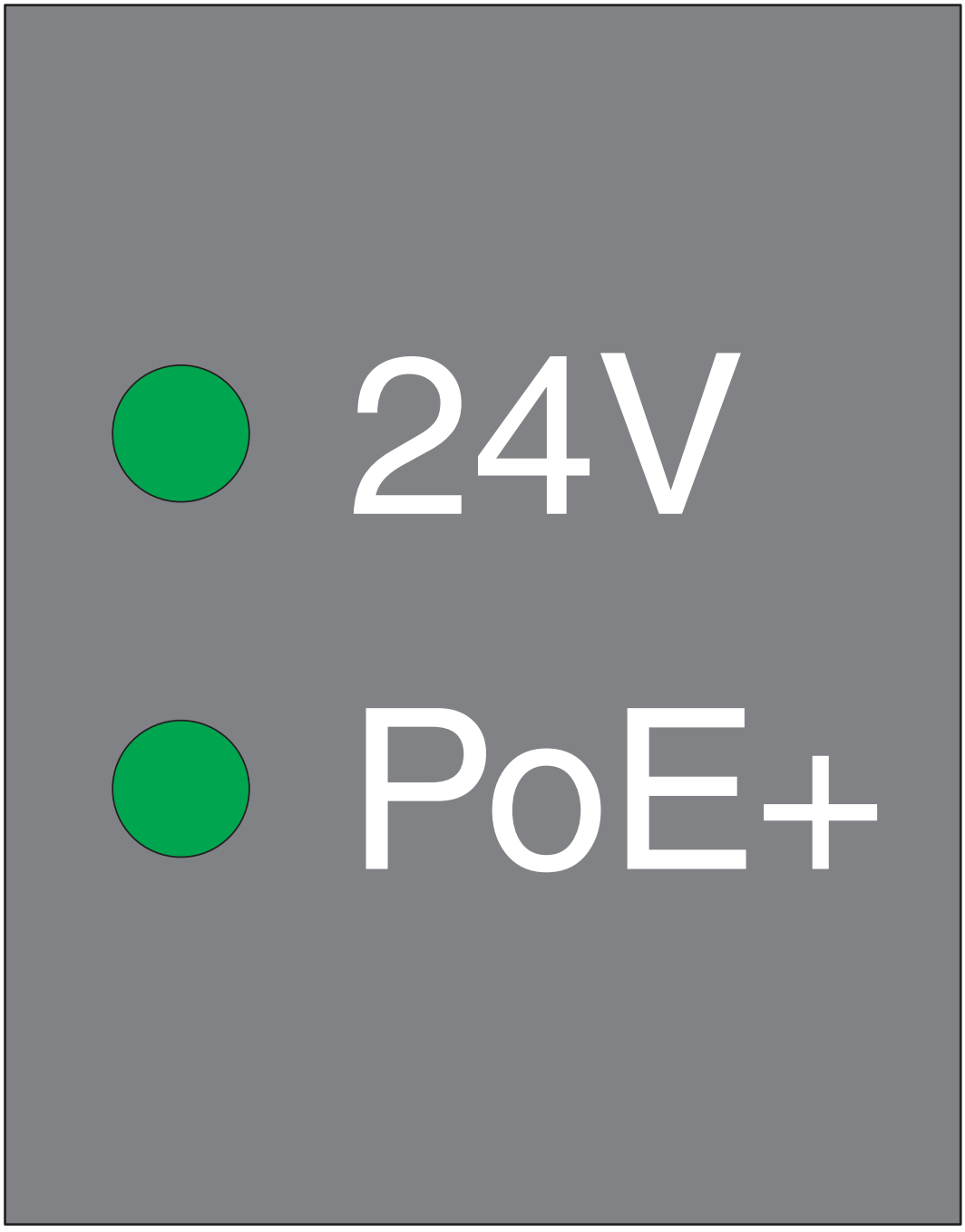
Basic functions	PD, conforms to IEEE 802.3af/at

Signaling

Status display	LEDs: POE, 24 V DC

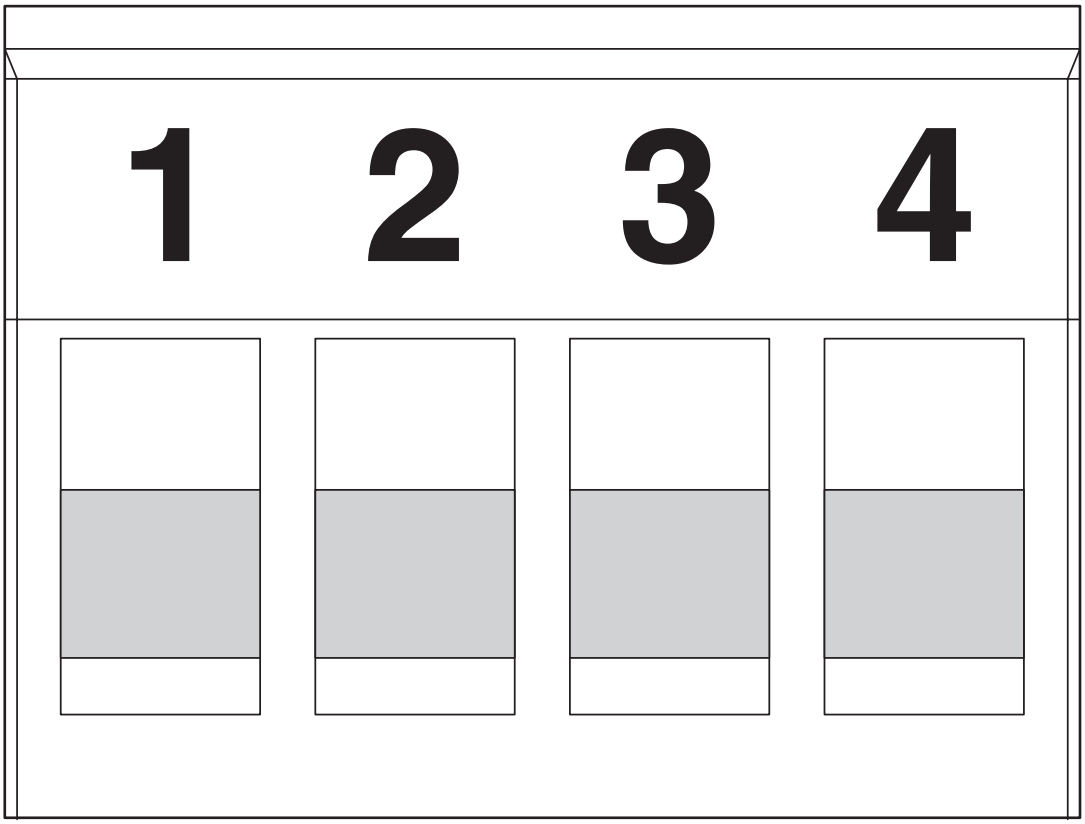
Drawings

Schematic diagram



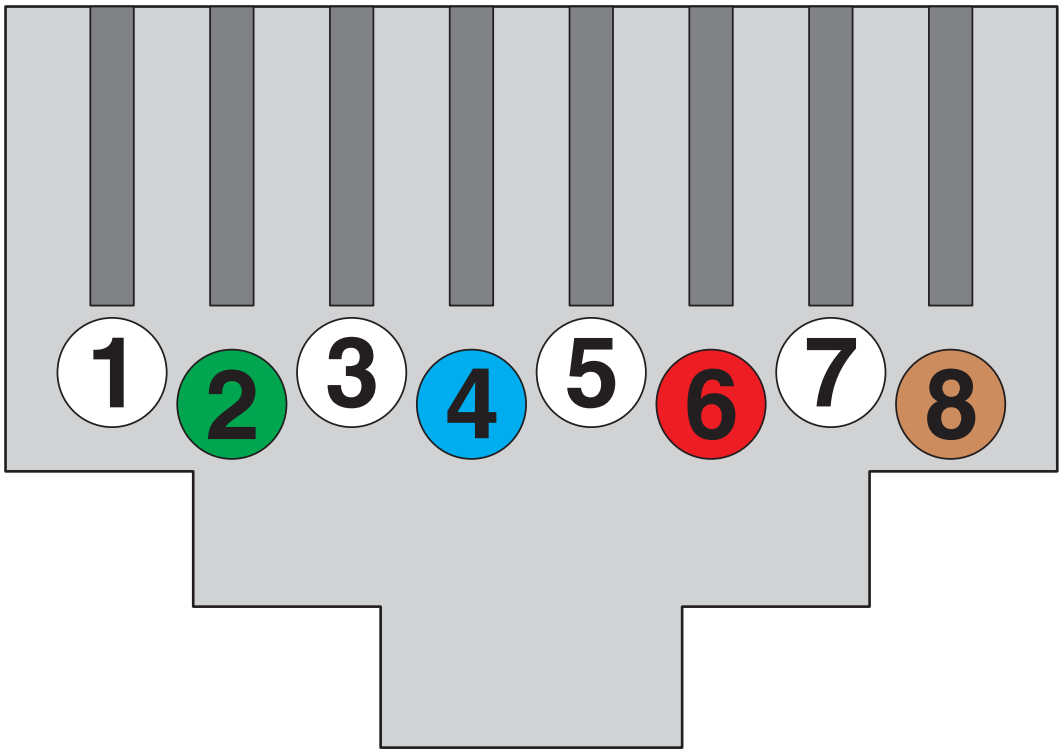
24 V status and output voltage indicator (green)
on: 24 V output voltage available
off: 24 V output voltage not available
PoE+: Types of the connected PSE signal (green/orange)
Green: Type 1 PSE, i.e., min. 12.95 W available at the input
Orange: Type 2 PSE, i.e., min. 25.50 W available at the input

Schematic diagram



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

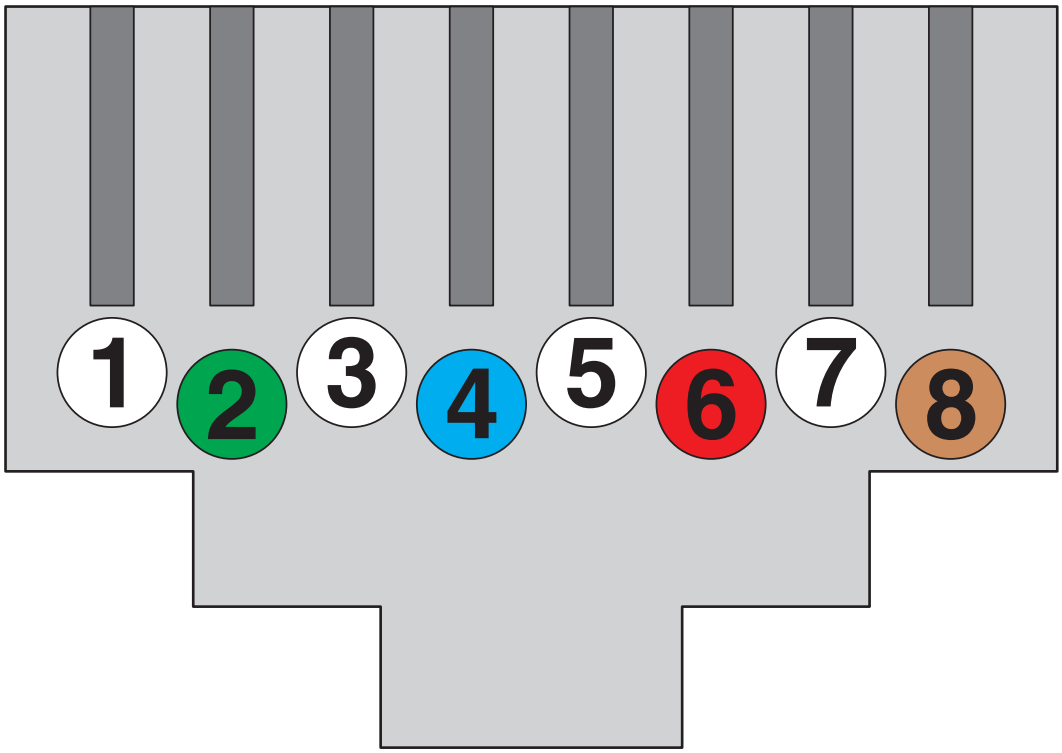
Schematic diagram



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

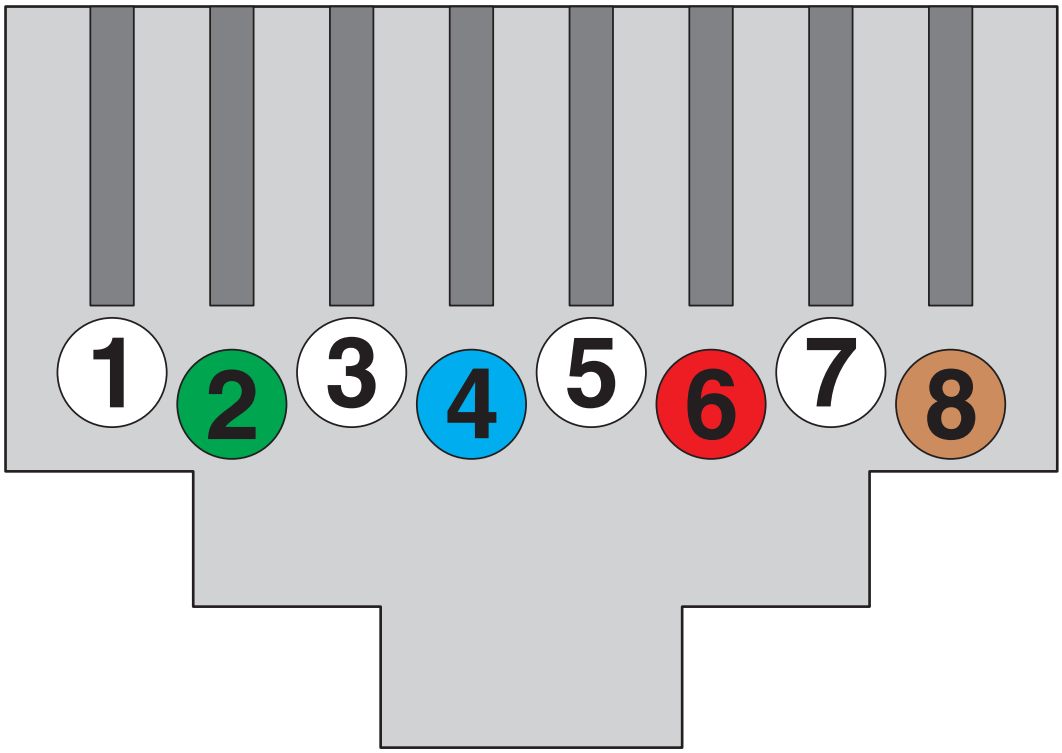


Assignment of the LAN sockets:

Pin 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)

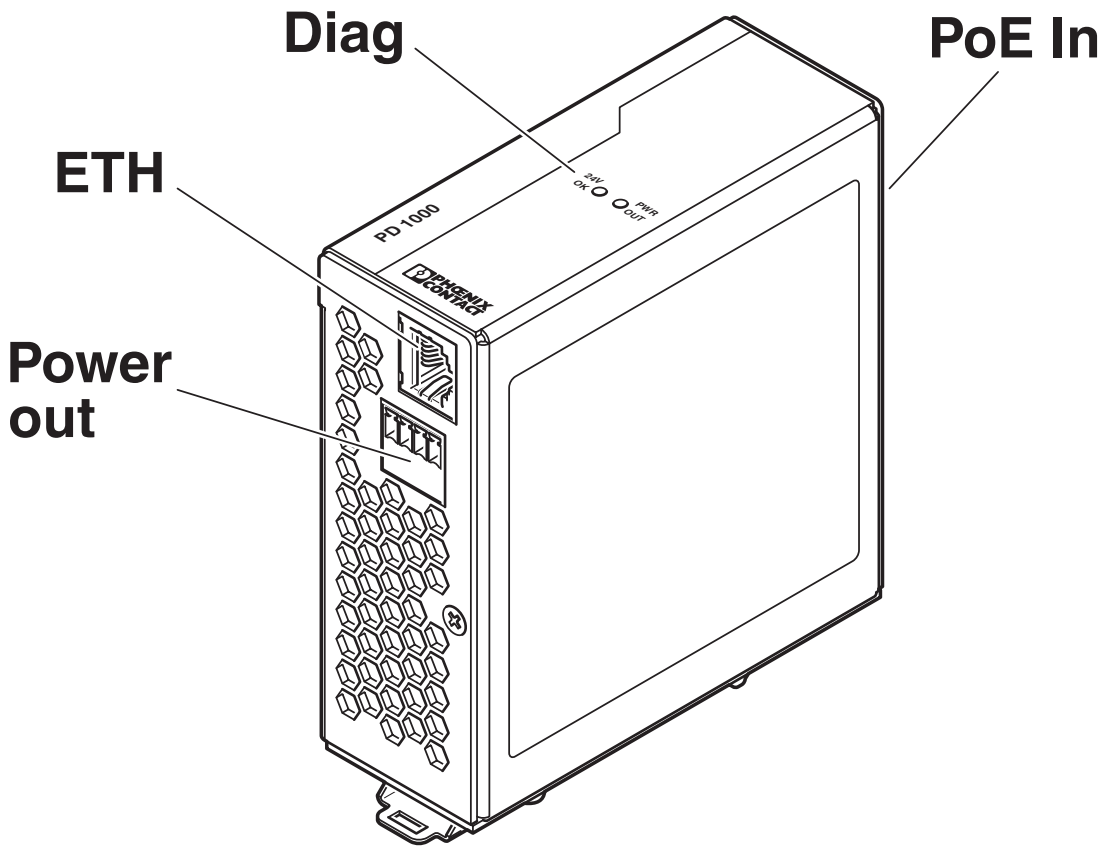
Schematic diagram



Assignment of the LAN sockets:

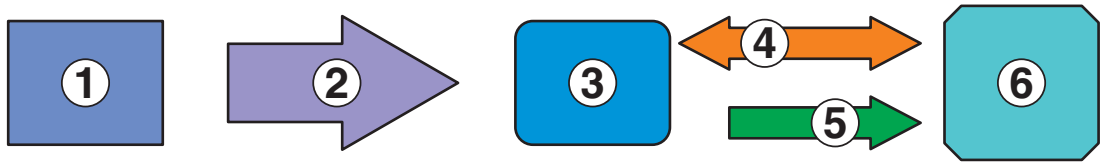
Pin	PoE / PoE+
1	+/- (alt. A)
2	+/- (alt. A)
3	+/- (alt. A)
4	+/- (alt. B)
5	+/- (alt. B)
6	+/- (alt. A)
7	+/- (alt. B)
8	+/- (alt. B)

Schematic diagram



Device connections

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

Classifications

ECLASS

ECLASS-13.0	19170401
ECLASS-15.0	19170401

ETIM

ETIM 10.0	EC000734

UNSPSC

UNSPSC 21.0	43222600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	972eddca-5370-496c-8e69-7b6f7115f422

EF3.1 Climate Change

CO2e kg	3.466 kg CO2e

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