

SCX 2POE 2LX - Industrial Ethernet Switch

1108543

<https://www.phoenixcontact.com/us/products/1108543>



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Smart Ethernet Box for connecting PoE end devices, two PoE ports, two uplink ports (SFP slots), integrated managed switch, surge protection, and splice tray, supply voltage 100 ... 240 V AC, wall or mast mounting

Product description

The Smart Ethernet Box is used to connect PoE end devices such as IP cameras to a video server. You can use the Smart Ethernet Box to supply voltage to PoE end devices and other external devices. The Smart Ethernet Box is a manageable outdoor PoE switch with a power supply unit, a wiring space for the AC voltage supply, replaceable surge protective modules, and an area with an integrated 24 V DC supply and a DIN rail for mounting additional devices. The Smart Ethernet Box integrates the functions of conventional connection boxes equipped with standard DIN rail devices in a compact device. This saves you time during planning and installation. Numerous management and monitoring functions ensure reliable operation of the system.

Your advantages

- Cost savings with an all-in-one solution that provides all functions in a single device
- Significant time savings with adapter for wall and mast mounting
- Minimal wiring effort
- Replaceable surge protection
- A wide range of alarm messages via SNMP, such as in the event of sabotage attempts or defective surge protection
- Advanced PoE management for reliable operation of IP cameras
- Quick and easy startup and configuration via web-based management or the FL Network Manager software
- Integrated splice tray for safe storage of fiber connections and fiber reserves
- Resistant to salt spray

Commercial data

Item number	1108543
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN08
Product key	DNC371
GTIN	4063151013196
Weight per piece (including packing)	4,968 g
Weight per piece (excluding packing)	4,390 g
Customs tariff number	85176200
Country of origin	DE

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Technical data

Dimensions

Dimensional drawing	
Width	284 mm
Height	364 mm
Depth	121 mm

Notes

Note on application

Note on application	Only for industrial use
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Material specifications

Color (Housing)	light gray (RAL 7035)
Material (Housing)	Polycarbonate
Material (Cable gland)	Polyamide
Material (Cable gland seal)	Neoprene
Flammability rating according to UL 94	V0 (Housing, a vertically clamped sample is extinguished within 10 seconds, no flaming droplets of molten plastic, smoldering for a maximum of 60 seconds) V2 (Cable gland; a vertically tensioned sample is extinguished within 30 seconds; flaming droplets are permitted)

Mounting

Mounting type	Panel mounting
	Mast mounting

Interfaces

Basic functions	Store-and-forward switch, complies with IEEE 802.3
Data: Ethernet / Fast Ethernet / Gigabit Ethernet	
Transmission speed	10/100/1000 Mbps
Connection method	RJ45 jack
Note on the connection method	Auto negotiation and autocrossing
No. of channels	2 (RJ45 PoE ports)
Transmission length	100 m (per segment)
Transmission medium	Copper

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Maximum output power	165 W (>55°C derating, see data sheet)
	155 W (If switching output is active, >55°C derating)
	90 W (per port POE1/2, >50°C derating, see data sheet)

Data: Ethernet / Fast Ethernet / Gigabit Ethernet

Transmission speed	100/1000 Mbps (depending on the SFP module used)
Connection method	SFP
Note on the connection method	The SFP modules are available as accessories
No. of channels	2 (SFP ports)
Transmission length	< 80 km (depending on the SFP module used)
Transmission medium	depending on the SFP module used

Data: Configuration interface

Connection method	RJ45 jack
No. of channels	1 (RJ45 port)

Data: Switching output

Connection method	Push-in spring connection
No. of channels	1 (Push-in Technology)
Single conductor/terminal point, rigid	0.2 mm ² ... 1.5 mm ²
Single-wire/terminal point, flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 0.75 mm ² (Stripping length 8 mm)
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ² (Stripping length 8 mm)
Max. AWG conductor cross-section, flexible	16
Min. AWG conductor cross-section, flexible	24
Stripping length	10 mm
Load/output load current output	no inductive load
Output nominal voltage	24 V DC ±10 % (Supply for devices within the Smart Ethernet Box)
Output current	300 mA (typical)

Product properties

Product type	Switch
Product family	Smart Ethernet Box
MTTF	547 Years (SN 29500 standard, temperature 25°C, operating cycle 21%) 272 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%) 113 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
Basic functions	Store-and-forward switch, complies with IEEE 802.3

Insulation characteristics

Protection class	I (Protective grounding of all conductive housing parts)
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Insulation characteristics

Overvoltage category	III (With protection modules plugged in)
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	II (Without protection modules)
Pollution degree	2

Switch functions

Diagnostic functions	RMON History LLDP (Link Layer Discovery Protocol) SNMP traps N:1-Portmirroring ACD (Address Conflict Detection)
Basic functions	Store-and-forward switch, complies with IEEE 802.3
Filter functions	Port prioritization VLAN (up to 32 VLANs)
IP parameterization	DHCP client BootP Static IP address
MAC address table	8k
Management	Web-based management (HTTP/HTTPS) SNMPv2/v3 Command Line Interface (Telnet, SSH)
Redundancy	RSTP (Rapid Spanning Tree Protocol in accordance with IEEE 802.1D-2004) Large Tree Support FRD (Fast Ring Detection)
Additional functions	Jumbo frames
Time synchronization	SNTP (Simple Network Time Protocol)

Security functions

Basic functions	Store-and-forward switch, complies with IEEE 802.3
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	FRD (Fast Ring Detection)
Additional functions	Jumbo frames

Time synchronization	SNTP (Simple Network Time Protocol)
Security functions	

Basic functions	Store-and-forward switch, complies with IEEE 802.3
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Electrical properties	
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Maximum power dissipation for nominal condition	min. 7 W (at 230 V AC, standby mode)
Rated insulation voltage	3 kV AC (Input / output, IEC/EN 60950-1)

Supply	
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Supply voltage range	100 V AC ... 240 V AC -15 % ... +10 % (Single-phase)
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Connection data	
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Supply	
Connection method	Push-in spring connection
Conductor cross-section flexible, with ferrule without plastic sleeve	0.2 mm ² ... 4 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.2 mm ² ... 4 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
Single conductor/terminal point, rigid	1 mm ² ... 6 mm ²
Single-wire/terminal point, flexible	0.2 mm ² ... 6 mm ²
Conductor cross-section, flexible [AWG]	24 ... 10
Stripping length	10.00 mm

Environmental and real-life conditions	
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Ambient conditions	
Degree of protection	IP65 (in accordance with DIN EN 60529: Complete touch protection, dust cannot enter, spray water from any direction)
Impact strength	IK10 (in accordance with IEC 62262: Impact energy of 20 J, corresponds to 5 kg from a height of 40 cm)
Ambient temperature (operation)	-40 °C ... 70 °C (>50°C derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	2000 m
Permissible humidity (operation)	10 % ... 95 % (non-condensing)

Standards and regulations	
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Other resistance	UV-resistant in accordance with UL746C, f1 listing/rating (Outdoor housing, subject to 1,000 hour xenon weather testing, 7-day water submergence test)
	Resistant to salt spray in accordance with IEC 60068-2-11 (96 h in 5% salt spray)

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Standards/regulations	IEC 62444
Standard designation	Strain relief
Standards/regulations	IEC 61249-2-21
Standard designation	Halogen-free (housing, bromine: <900 ppm, chlorine: <900 ppm, total halogen content: <1,500 ppm)
Standards/regulations	DIN EN 45545-2, requirement set R22, hazard level HL3
Standard designation	Fire protection

Approvals

CE

Certificate	CE-compliant
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UL, USA/Canada

Identification	Listed
	UL 61010-1, 3rd Edition
	UL 61010-2-201, 2nd Edition
	CAN/CSA C22.2 No. 61010-1-12
	CSA C22.2 No. 61010-2-201:18

Corrosive gas test

Identification	ISA-S71.04-1985 G3 Harsh Group A
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EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise immunity	EN 61000-6-2

Noise emission

Standards/regulations	EN 61000-6-4, Class B, domain of use: residential and small commercial
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Electrostatic discharge

Standards/regulations	EN 61000-4-2
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Electrostatic discharge

Contact discharge	± 6 kV
Discharge in air	± 8 kV
Indirect discharge	± 6 kV
Comments	Criterion B

Electromagnetic HF field

Standards/regulations	EN 61000-4-3
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Electromagnetic HF field

Frequency range	80 MHz ... 3 GHz (80% amplitude modulation with 1 kHz)
Field intensity	10 V/m
Comments	Criterion A

Fast transients (burst)

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Standards/regulations	EN 61000-4-4
Fast transients (burst)	
Input	± 2.2 kV (1 minute)
Signal	± 2.2 kV (1 minute)
Comments	Criterion B
Surge current load (surge)	
Standards/regulations	EN 61000-4-5
Surge current load (surge)	
Input	± 1 kV (AC supply, line to line) ± 2 kV (AC supply, line to ground)
Conducted interference	
Standards/regulations	EN 61000-4-6
Conducted interference	
Frequency range	0.15 MHz ... 80 MHz (80% amplitude modulation with 1 kHz)
Comments	Criterion A
Voltage	10 V
Emitted interference	
Standards/regulations	EN 61000-6-4
Comments	Class B, domain of use: residential and small commercial
Criteria	
Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

System properties

Functionality	
Basic functions	Store-and-forward switch, complies with IEEE 802.3

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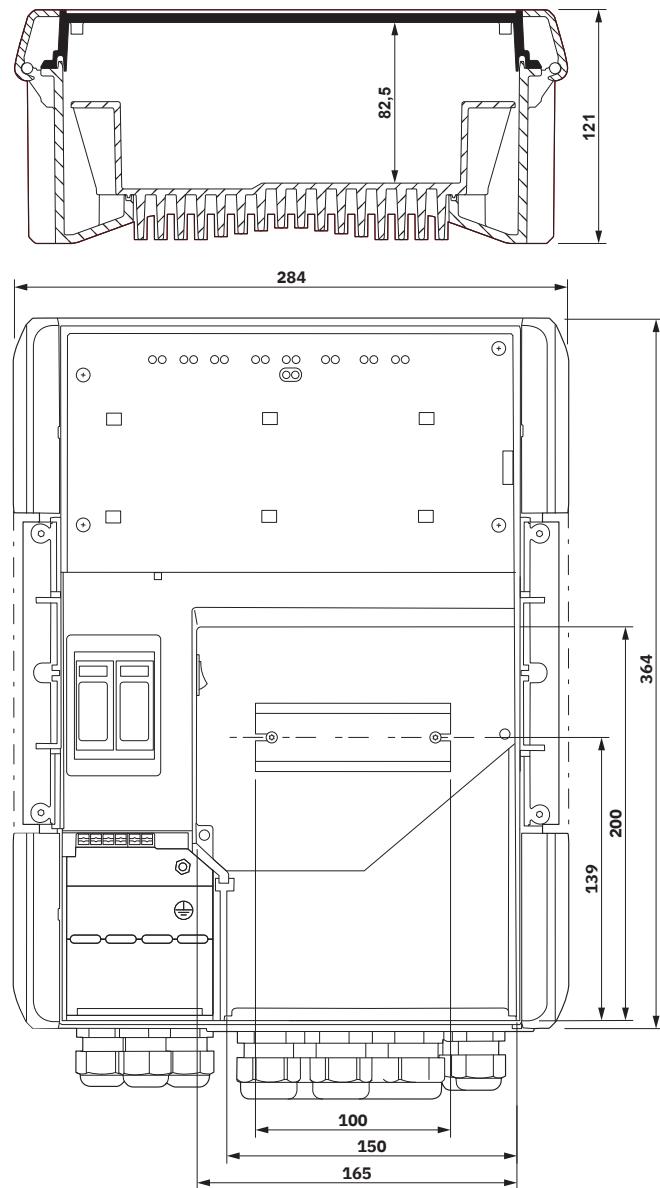


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Drawings

Dimensional drawing



Dimensions

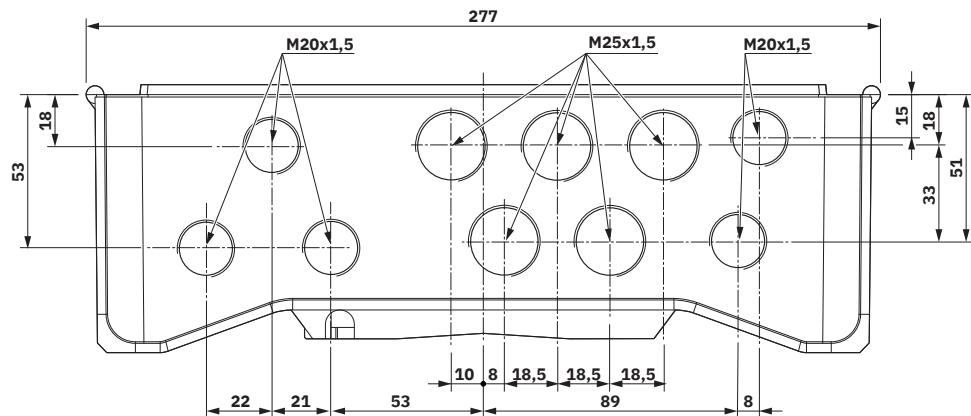
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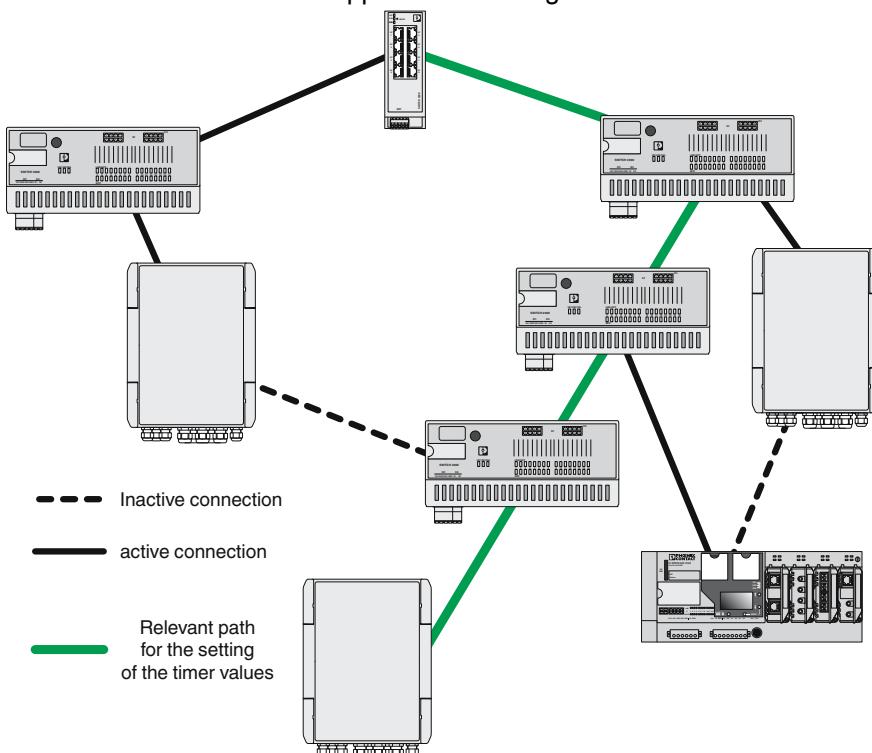


Dimensional drawing



Underside dimensions

Application drawing



Redundancy via RSTP

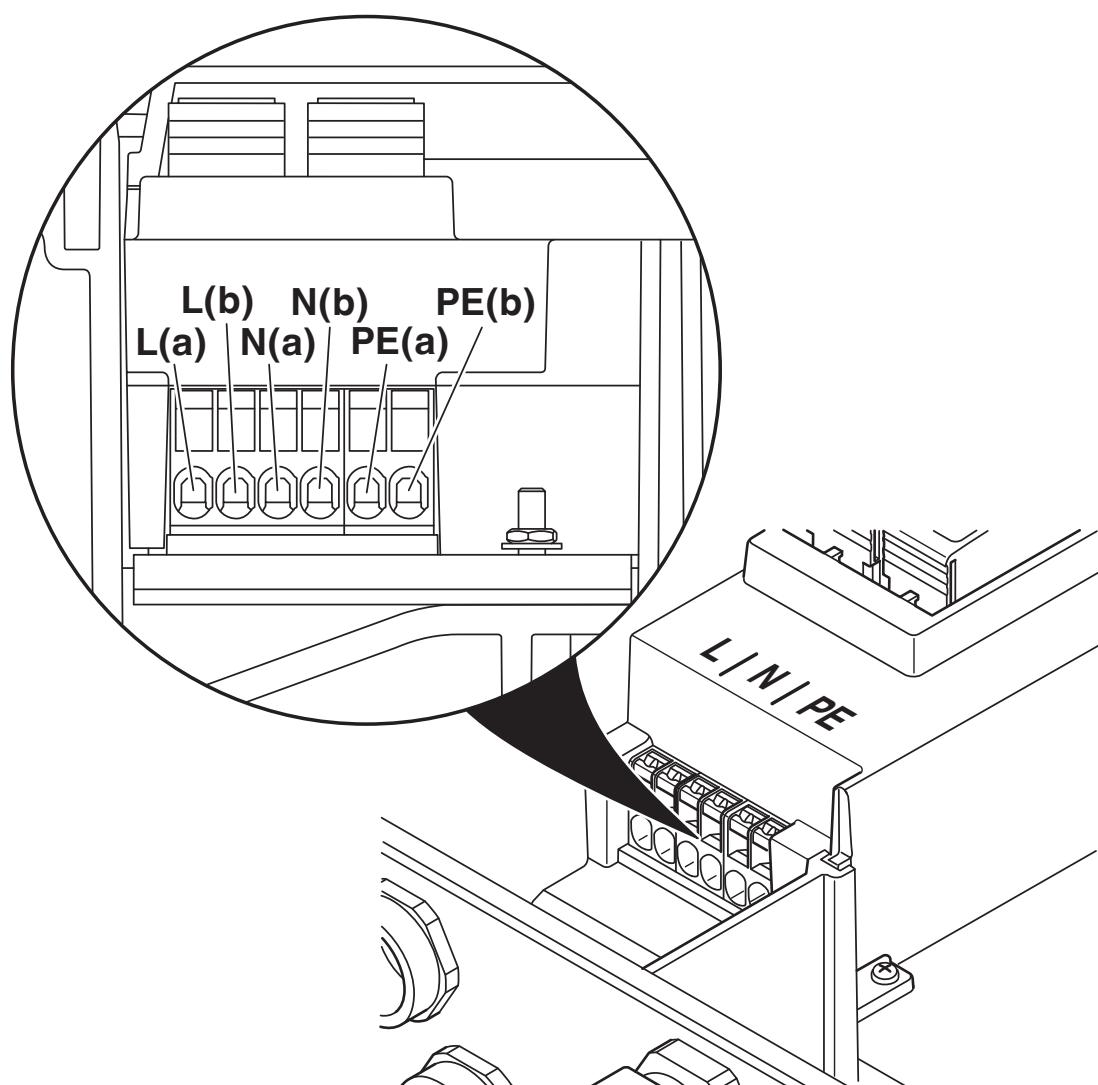
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Connection diagram



Connecting the supply voltage

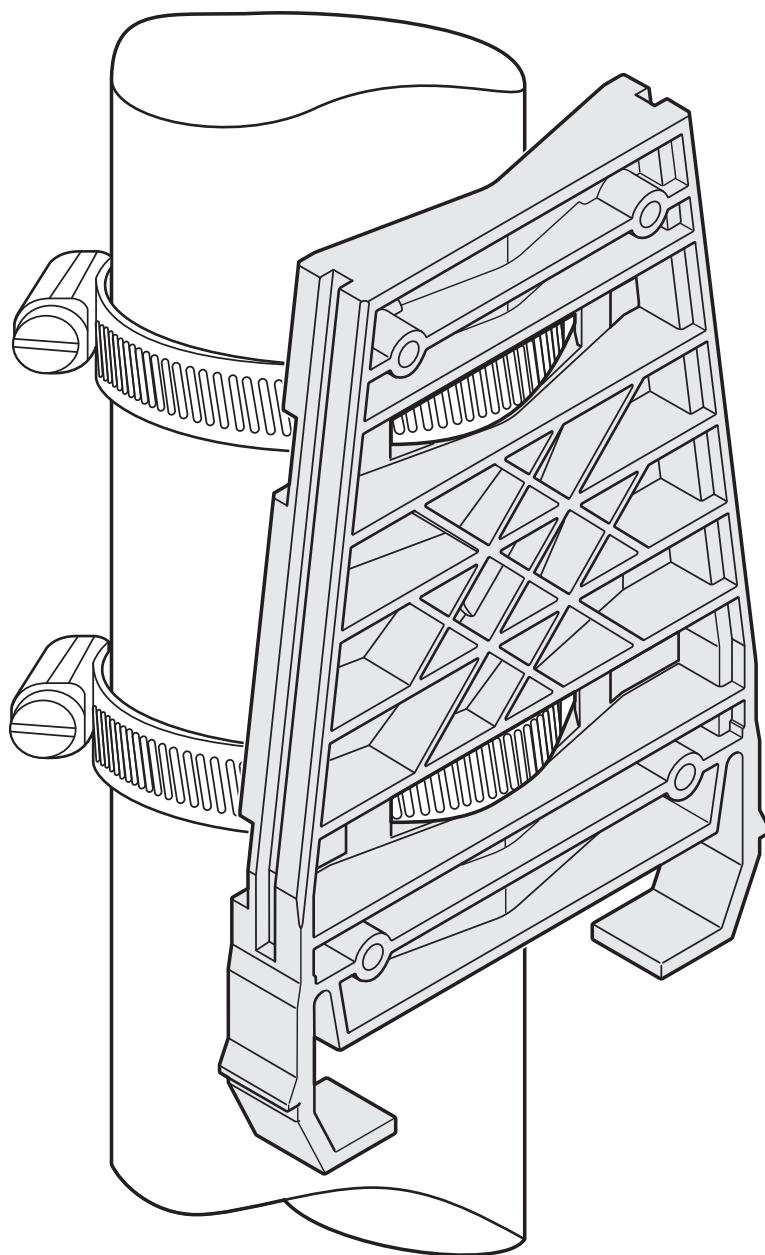
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Schematic diagram



Mast mounting

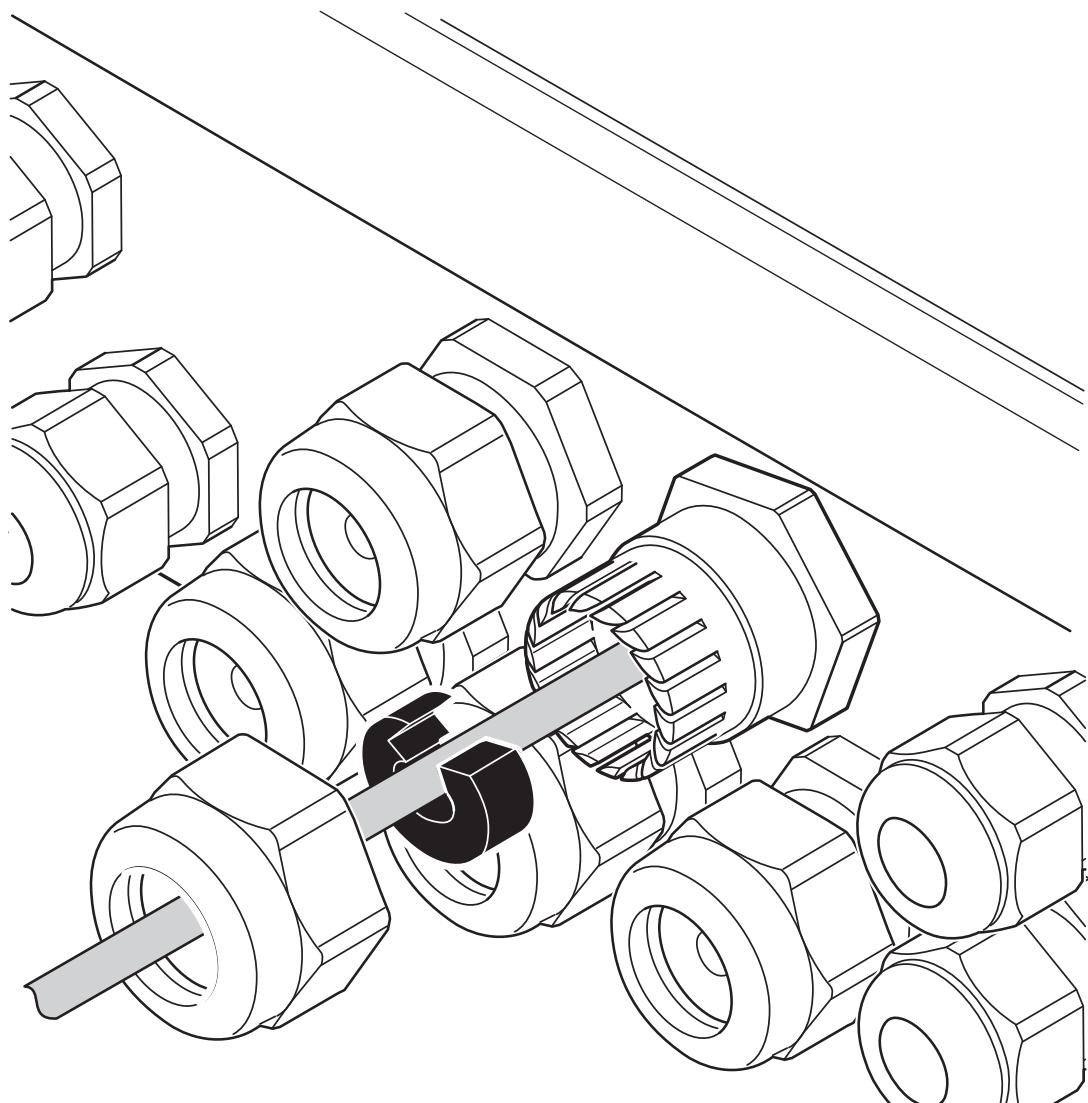
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Schematic diagram



Cable gland

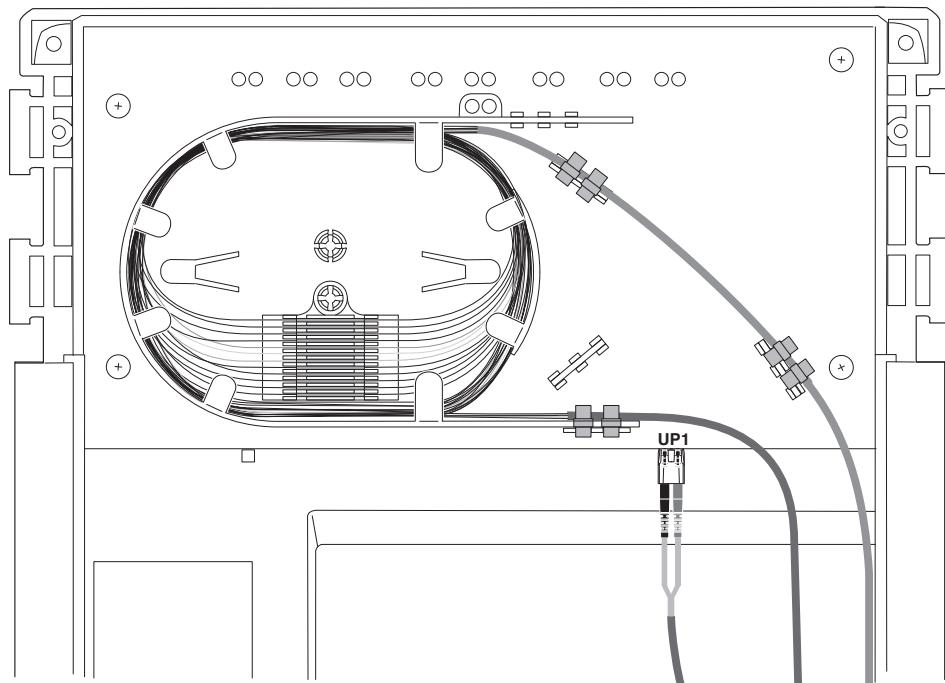
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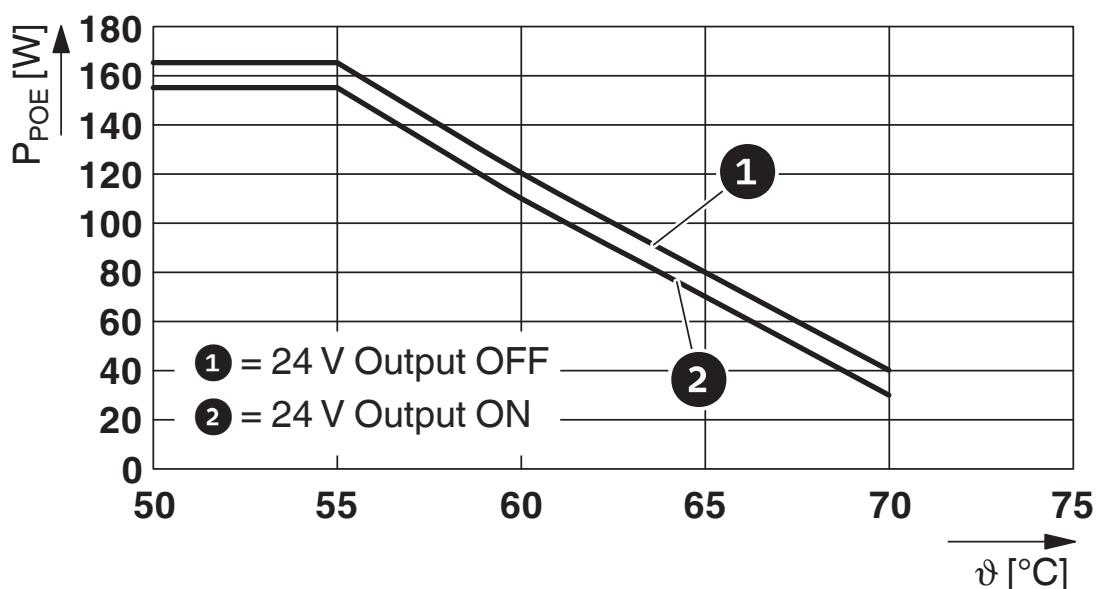


Schematic diagram



Splice tray

Diagram



Derating (PoE power total)

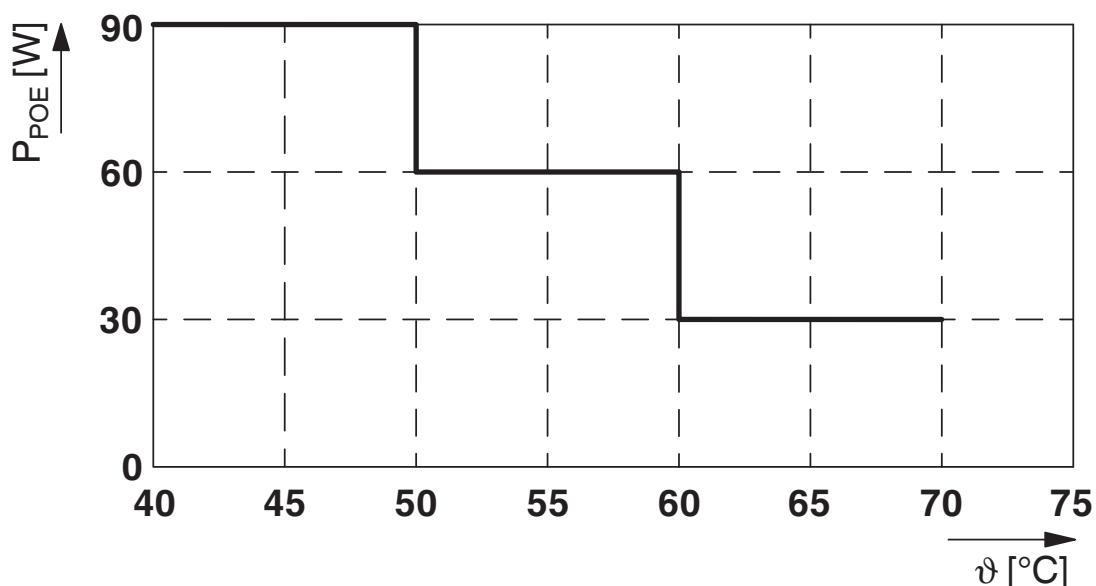
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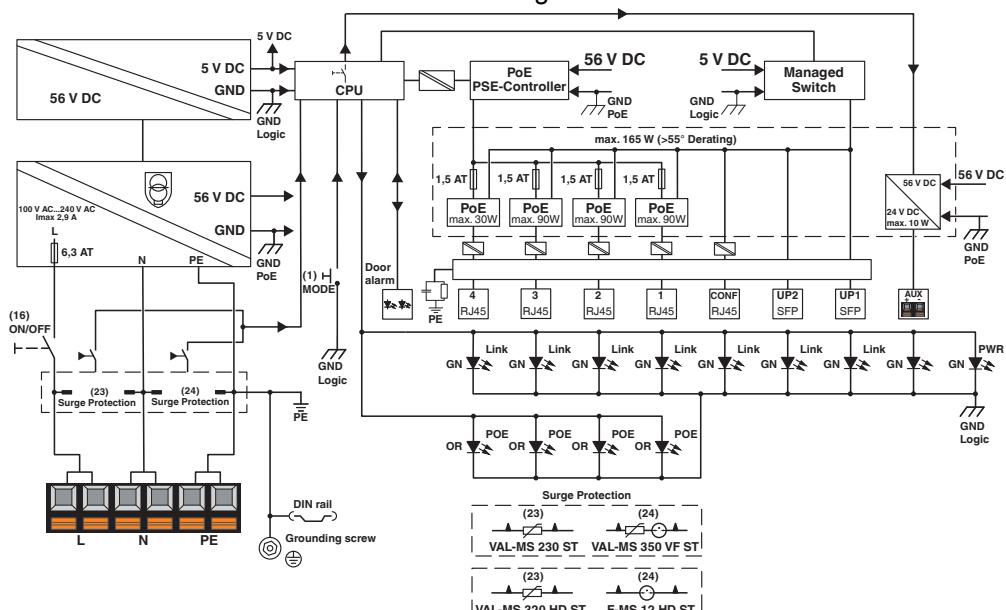
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Diagram



Derating per port

Circuit diagram



Basic circuit diagram

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Approvals

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cULus Listed

Approval ID: E238705

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Classifications

ECLASS

ECLASS-13.0	27180590
ECLASS-15.0	27180590

ETIM

ETIM 9.0	EC000261
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UNSPSC

UNSPSC 21.0	31261500
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(a)-I, 6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-25
	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.)	Diboron trioxide(CAS: 1303-86-2)
	Lead monoxide (lead oxide)(CAS: 1317-36-8)
	Lead(CAS: 7439-92-1)
	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: 3147-75-9)
SCIP	ca34f1d7-f8c8-41f7-851c-5a5cfcdcaa3f3

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