

1108542

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Smart Ethernet Box for connecting PoE end devices, four PoE ports, two uplink ports (RJ45), integrated managed switch and surge protection, 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
- · Resistant to salt spray

Commercial data

Item number	1108542
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN08
Product key	DNC371
GTIN	4063151015114
Weight per piece (including packing)	4,999 g
Weight per piece (excluding packing)	4,315 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	4 (RJ45 PoE ports)
Transmission length	100 m (per segment)

Copper

Transmission medium



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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 POE13, >50°C derating, see data sheet)
	30 W (POE4)
Data: Ethernet / Fast Ethernet / Gigabit Ethernet	
Transmission speed	10/100/1000 Mbps
Connection method	RJ45 jack
No. of channels	2 (RJ45 ports)
Transmission length	100 m (per segment)
Transmission medium	Copper
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 mm² 1.5 mm²
Single-wire/terminal point, flexible	0.2 mm² 1.5 mm²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² 0.75 mm² (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)
oduct properties	
Product type	Switch
Draduat family	Smort Etharnat Pay

Ρ

Product type	Switch
Product family	Smart Ethernet Box
MTTF	441 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	224 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	92 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)
Insulation characteristics	
Overvoltage category	III (With protection modules plugged in)



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Pollution degree	2
onation degree	2
vitch 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)
ecurity functions	
Basic functions	Store-and-forward switch, complies with IEEE 802.3
trical properties	
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)
pply	
Supply voltage range	100 V AC 240 V AC -15 % +10 % (Single-phase)

Connection data

Suppl	y
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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 mm² 4 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² 1.5 mm²
Single conductor/terminal point, rigid	1 mm² 6 mm²
Single-wire/terminal point, flexible	0.2 mm² 6 mm²



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Conductor cross-section, flexible [AWG]	24 10
Stripping length	10.00 mm

Environmental and real-life conditions

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

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)
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
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

EMC data

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



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Standards/regulations	EN 61000-6-4, Class B, domain of use: residential and small commercial
Electrostatic discharge	
Standards/regulations	EN 61000-4-2
Electrostatic discharge	
Contact discharge	± 6 kV
Discharge in air	± 8 kV
Indirect discharge	± 6 kV
Comments	Criterion B
Electromagnetic HF field	EN 61000-4-3
Standards/regulations	EN 61000-4-3
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)	
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	
Conducted interference Standards/regulations	EN 61000-4-6
Clarida do regulations	LIT 01000-T-0
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.



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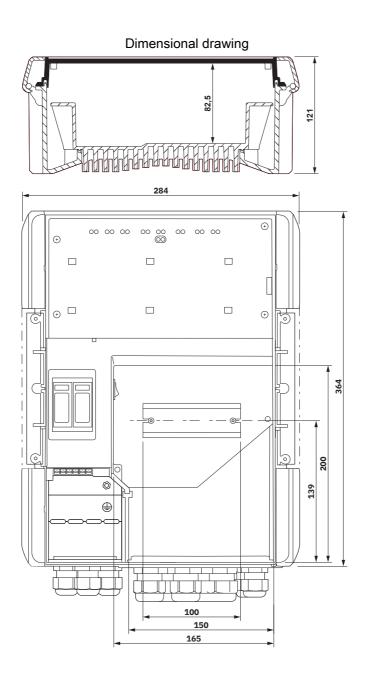
	by the device itself.
System properties	
Functionality	
Basic functions	Store-and-forward switch, complies with IEEE 802.3



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Drawings

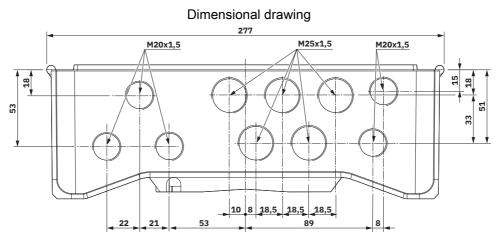


Dimensions

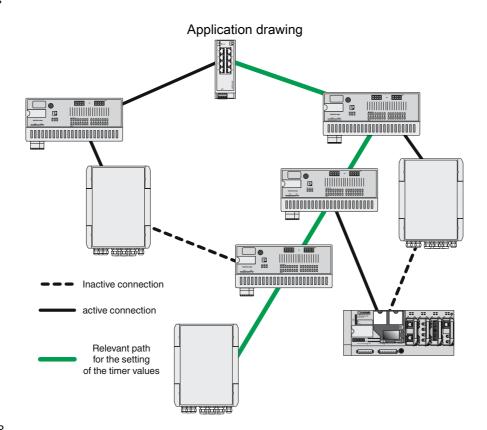


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Underside dimensions



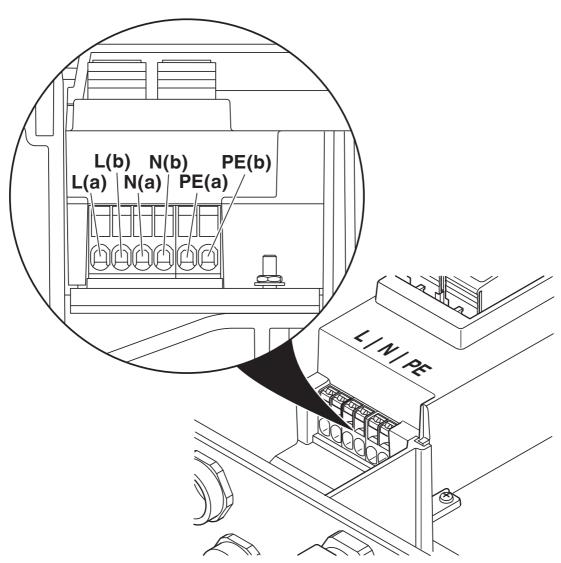
Redundancy via RSTP



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Connection diagram

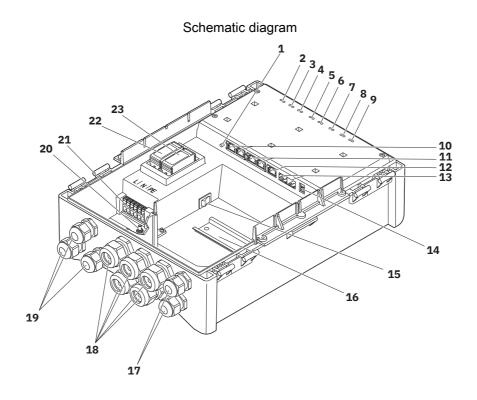


Connecting the supply voltage



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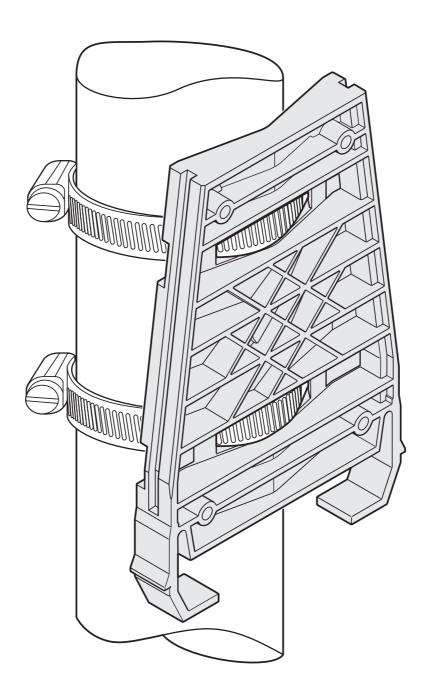
Function elements



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Schematic diagram

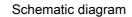


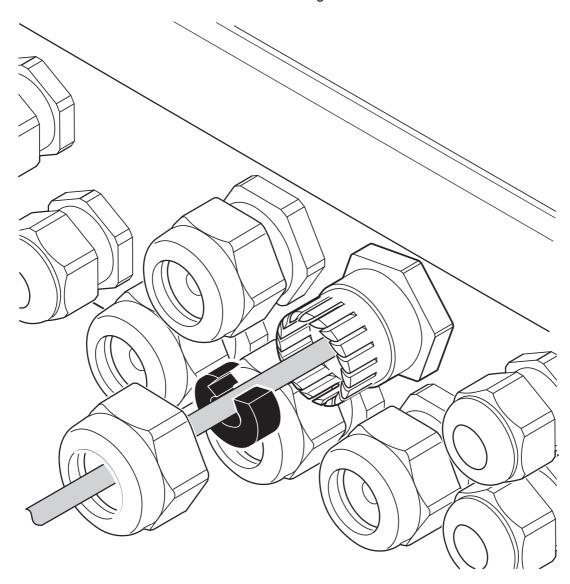
Mast mounting



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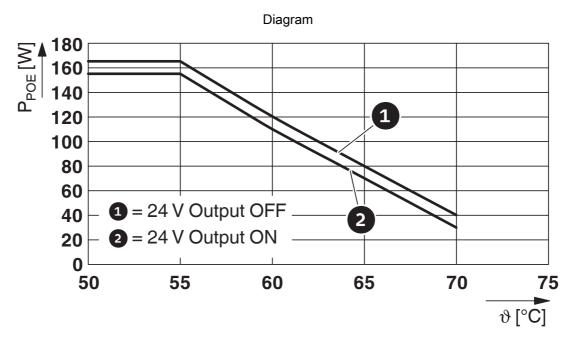


Cable gland

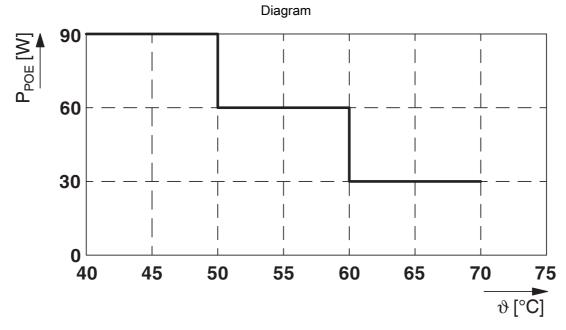


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Derating (PoE power total)

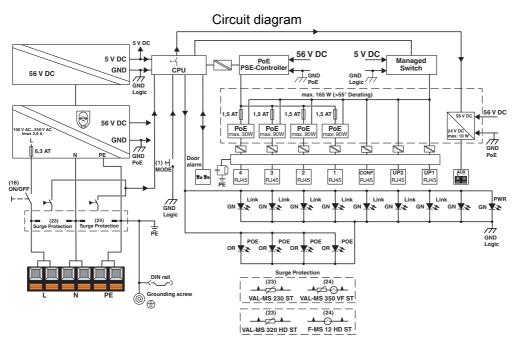


Derating per port



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Basic circuit diagram



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Approvals

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cULus ListedApproval ID: E238705



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Classifications

ECLASS

	ECLASS-13.0	27180590
	ECLASS-15.0	27180590
ETIM		
	ETIM 9.0	EC000261
U	NSPSC	
	UNSPSC 21.0	31261500

EOL 400

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(a)-l, 6(c), 7(a), 7(c)-l
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.
U 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	007a6db2-2925-4094-be70-1c0bfcaf17c1

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