

# LAN-EXT-PD/NPD



Mounting to flat surface\*



Mounting to DIN35\*



IP65

- 100 BASE-TX Ethernet extension
- PoE/PoE+ supply extension
- LAN ports overvoltage protections 30A 8/20 $\mu$ s
- ESD protection acc. to IEC 61000-4-2  $\pm$ 15kV
- Compatible with PoE acc. to IEEE 802.3af & at
- Working temperature – 40°C to +70°C

ORDERING NAME	CODE	SU PPLY
LAN-EXT-BOX-PD	2-106-572	PoE/24-60VDC/20-30VAC
LAN-EXT-BOX-NPD	2-107-572	PoE/24-60VDC/20-30VAC
LAN-EXT-NPD-IP65	2-107-573	only PoE

\*Holders for mounting are included.

Figure 1: LAN-EXT-PD/NPD - connection to switches without PoE

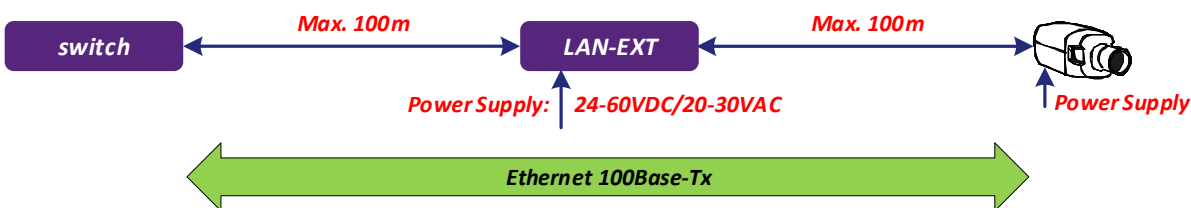


Figure 2: LAN-EXT-PD - connection to switches with PoE

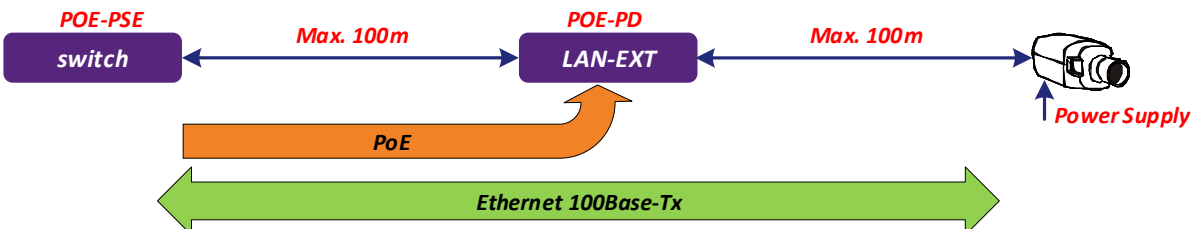
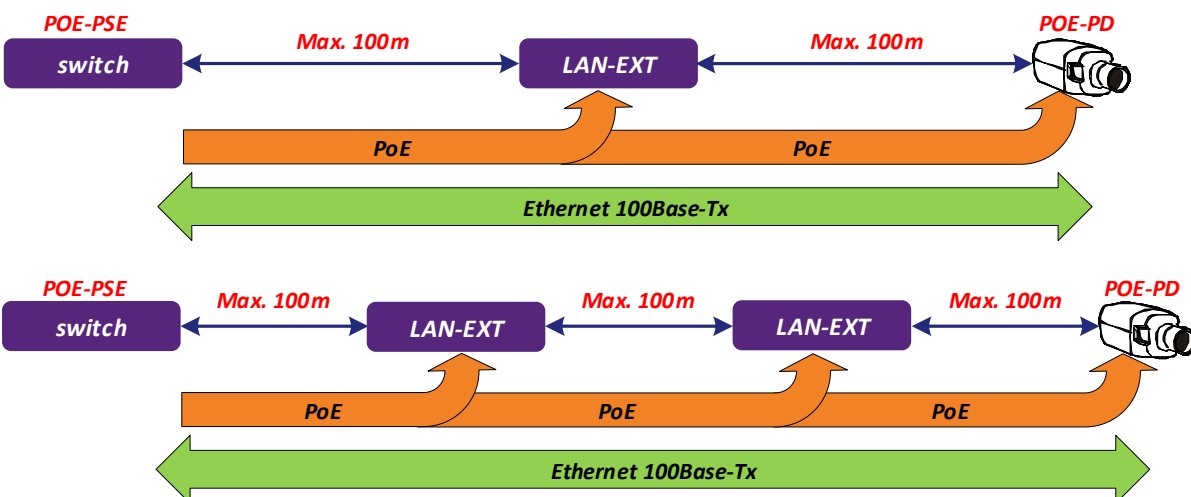


Figure 3: LAN-EXT-NPD/IP65 - connection to switches with PoE



## LAN-EXT-PD/NPD

## Extenders of LAN 100BASE-TX over UTP Cat5e

## LAN-EXT-PD - Description and technical parameters

LAN-EXT-BOX-PD is a LAN network extender designed for extension of LAN by 100m. When using LAN-EXT throughput of 100Mbps in full duplex is guaranteed throughout the whole transmission length. PoE-PD (Power DEvice acc. to IEEE 802.3af and IEEE 802.3at) is a circuit included with the extender and it supports standard detection and classification mechanisms acc. to IEEE 802.3af and IEEE 802.3at. When supplying from standard PoE injector or switch it is necessary to keep to the rule given by the standard, i.e PoE-PSE circuit in the switch / injector can supply only one PoE PD device (extender). See figure 2 on the previous page.

## LAN-EXT-NPD/IP65 - Description and technical parameters

LAN-EXT-BOX-NPD is a PoE and LAN network extender designed for extension of LAN by 100m. In case of using 2 extenders LAN can be extended up to 300m. When using LAN-EXT throughput of 100Mbps in full duplex is guaranteed throughout the whole transmission length. After connection of switch / injector with PoE support acc. to IEEE 802.3af or IEEE 802.3at the extender waits for the moment when the terminal PoE PD device (camera, sensor) is detected and classified. Only then it's switched on and starts data transmission. See figure 3 on the previous page.

LAN-EXT-NPD-IP65 is to perform in outdoor box with IP65 cover.

**Note:** LAN-EXT-NPD-IP65 can be powered only via PoE, you can not use a separate external power supply.

	Parameter	Value	Unit	Note
Ethernet	100 Base-Tx	2x RJ45		
	Yellow LED ACT	Activity detection		
	Green LED LINK	10/100Mbps speed detection		
	Overvoltage protection	30	A	8/20 $\mu$ s
		Contact Discharge: $\pm$ 8	kV	IEC 61000-4-2
		Contact Discharge: $\pm$ 15	kV	IEC 61000-4-2
		EFT Protection: 60	A	IEC 61000-4-4
Power Supply	PoE	IEEE 802.3af / IEEE 802.3at		
	DC	24-60	VDC	
	AC	20-30	VAC	
	Power consumption	Max. 1.5W		
	Yellow LED PWR	Detection of supply connection		
	Protections	Overvoltage: 600W test pulse 10/1000 $\mu$ s		
		Current: reversible		
Environment	Operational range	-40...+70	$^{\circ}$ C	temp. of environment
	Humidity	Max. 95 (non-condensing)	%	
Mechanical	BOX: Dimensions - w / h / l	52 / 32 / 82	mm	
	IP65: Dimensions - w / h / l	114 / 73 / 184	mm	
Parameters	Weight: BOX / IP65	0,16 / 0,36	kg	
Certification		TÜV		
The producer retains the right to change any technical parameters without previous announcement.				

## Max. transmitted PoE power (Figure 3)

PoE Source	Terminal PoE device in distance:	150m (1 extender)	200m (1 extender)	250m (2 extenders)	300m (2 extenders)
PoE switch		12	11	10	9
PoE+ switch		21	20	18	16

# LAN-EXT-PD/NPD

## Extenders of LAN 100BASE-TX over UTP Cat5e

### Installation LAN-EXT-PD

**1. Mounting**

Mount the LAN Extender to the desired place, either to flat surface or to DIN35 rail.

**2. Connect supply**

LAN Extenders can be supplied over data cable using PoE (IEEE 802.3af) / PoE+ (IEEE 802.3at) standards. Extenders can be also supplied from an external source with voltage 24-60VDC (regardless of polarity) or 20-30VAC.

**3. Connect data cables**

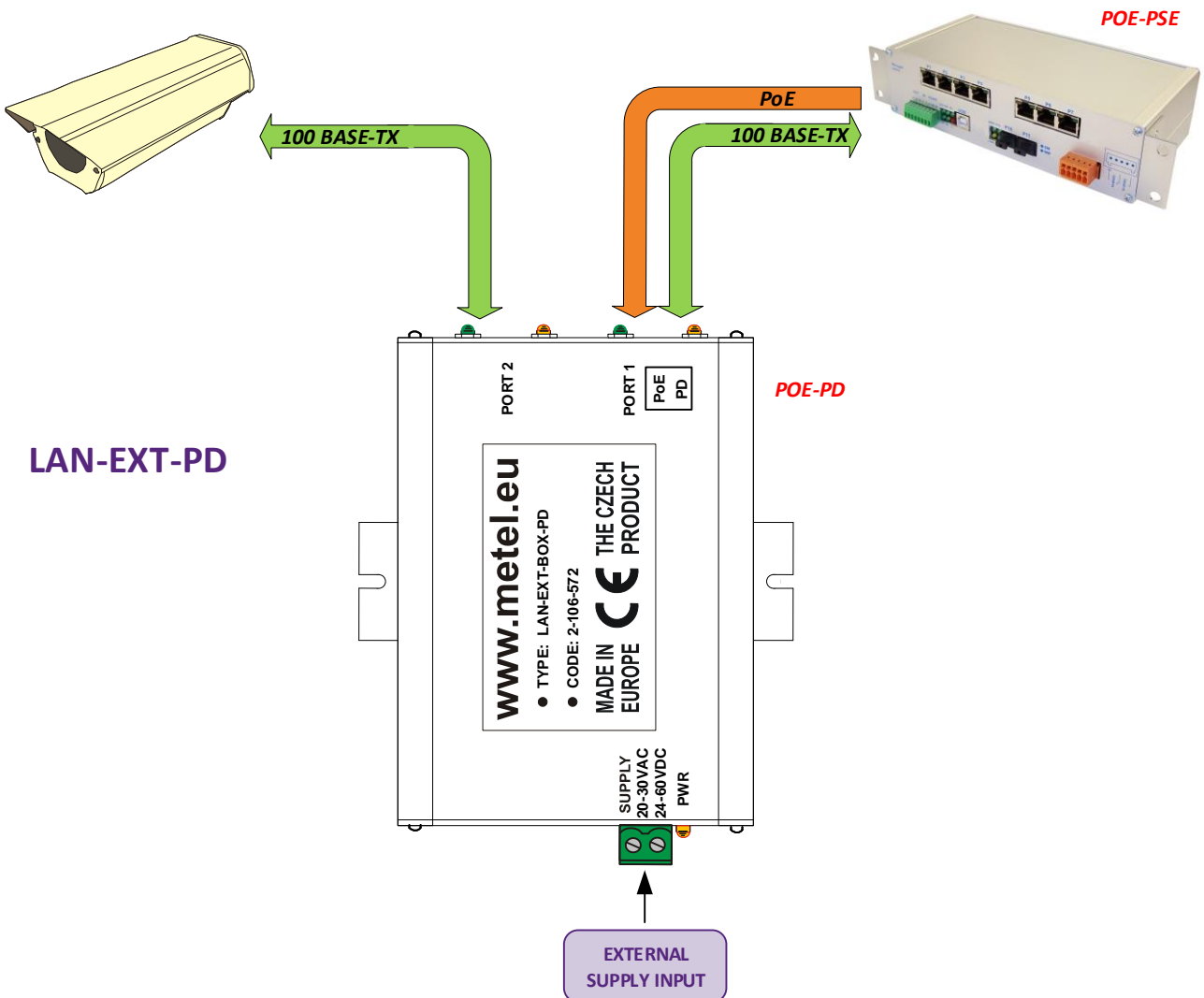
The extender has 2 fast ethernet ports supporting 100BASE-TX FULL DUPLEX speed. **PORT 1** supports PoE/PoE+ supply. One LAN Extender allows extension of data line by max. 100m. The extension is possible only twice to total length max. 300m from the switch/injector.

**LED indication**

**Yellow LED PWR** – switching on indicates connection of supply.

**Green LED LINK** – switches on after connection of a device with 100 BASE-Tx FULL DUPLEX interface.

**Yellow LED ACT** – blinking indicates packets passage.



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Extenders of LAN 100BASE-TX over UTP Cat5e

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**Note:** LAN-EXT-NPD-IP65 - can be powered only via PoE (terminals for external power supply is not available).

### 3. Connect data cables

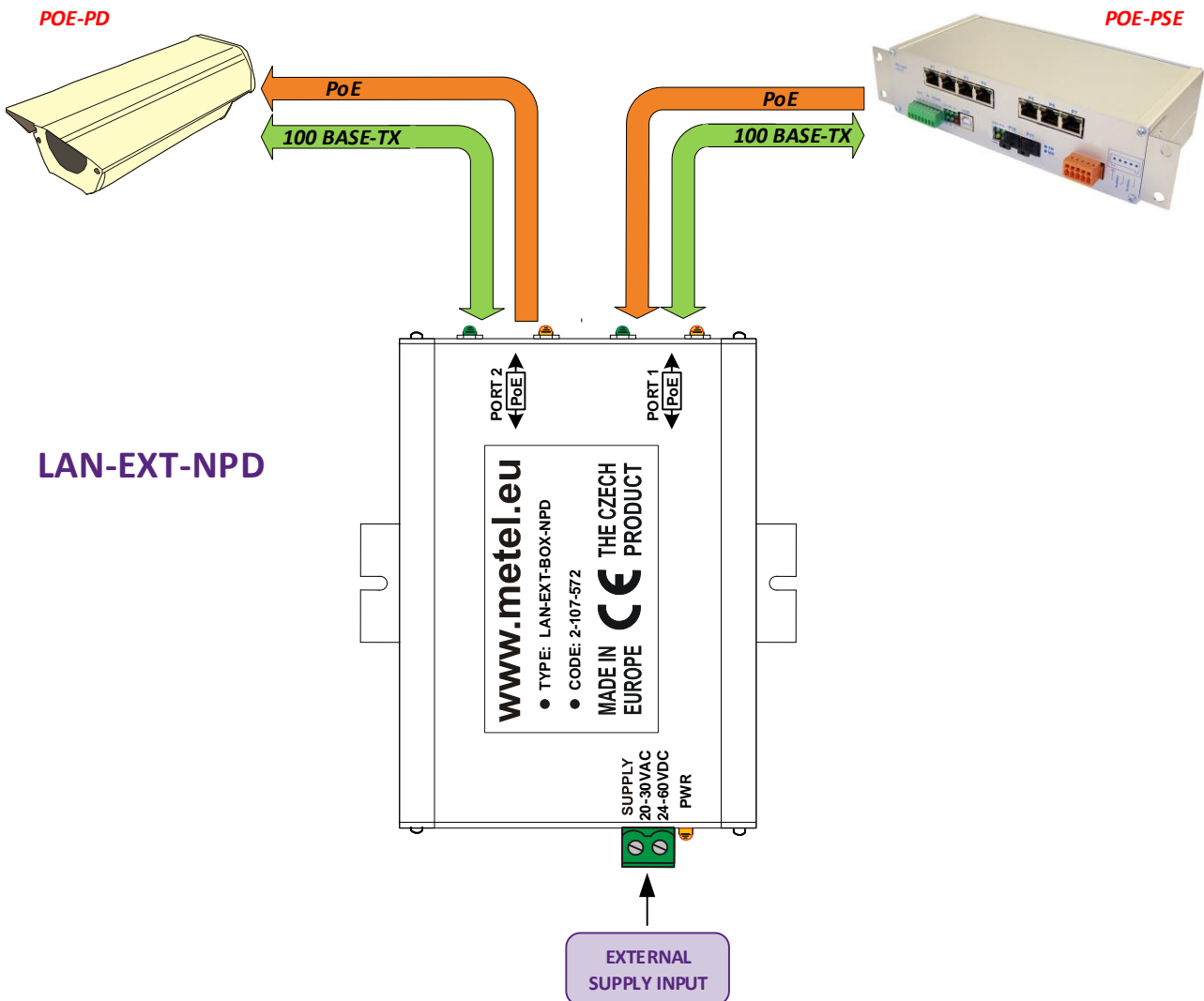
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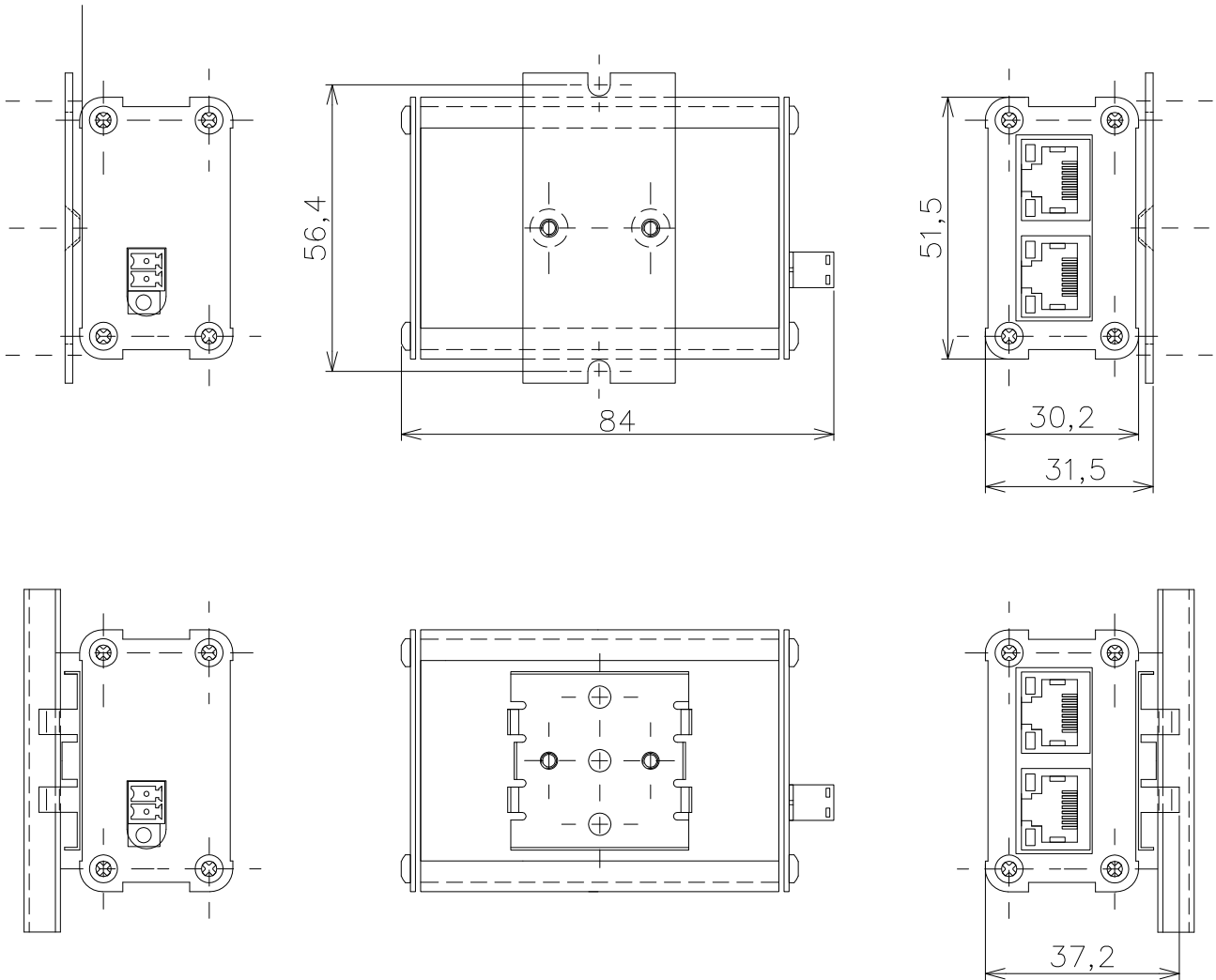
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# LAN-EXT-PD/NPD

Extenders of LAN 100BASE-TX over UTP Cat5e

## Dimension LAN-EXT-NPD/PD



REVISION: 201211  
 REVISION: 2012117  
 REVISION: 201212  
 REVISION: 201310  
 REVISION: 201411

Start of production  
 Divided into A and B versions  
 Change of version names (A -> PD and B -> NPD)+  
 Change how supply in NPD (see note on page 2)  
 Add LAN-EXT-NPD-IP65

# LAN-EXT-PD/NPD

Extenders of LAN 100BASE-TX over UTP Cat5e

## Dimension LAN-EXT-NPD-IP65

