MX-OPT-NPA1-EXT

MX-NPA-Box

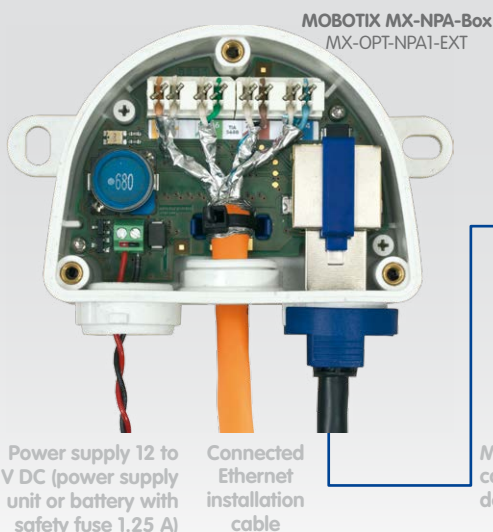## Weatherproof PoE Injector and Network Connector

Weatherproof (IP65)
−30 to +60 °C/−22 to +140 °F

- Weatherproof power supply, e.g. for an IP camera
- Complete set including mounting supplies

IEEE 802.3af Network Power Adapter (NPA) for power supply by external power supply units and batteries from 12 to 57 V DC

31.210-003_EN_08/2015

Standard Connection: Weatherproof PoE Injector Ethernet Installation Cable and Patch Cable

MOBOTIX MX-NPA-Box
MX-OPT-NPA1-EXT

MOBOTIX M25M Secure
MX-M25M-Sec

MOBOTIX camera

Power supply 12 to 57 V DC (power supply unit or battery with safety fuse 1.25 A)

Connected Ethernet installation cable

MOBOTIX patch cable for PoE device

Installation Instructions

1. Attach the box and insert the cable tie
Attach the MX-NPA-Box at the mounting position with the cable ports pointing downwards. Remove the box cover (three screws) and feed the supplied cable tie through the two slots on the circuit board.

2. Prepare the installation cable
Cut the installation cable to size, push it through the cable plug 5 to 7 mm, strip the cable for at least 35 mm and separate the individual wires of the cable into twisted pairs with 20 mm shielding. Wrap the shield mesh around the cable sheath 10 mm wide so that it can rest on the contact plate of the board. The cable will be fastened with a cable tie later on.

~10 mm   ~35 mm
~20 mm   ~15 mm

Sheath   Shield mesh   Pair shield

3. Feed the cable into the box
Replace the sealing plug in the middle, feed the installation cable through the opening and press the cable plug 5 to 7 mm into its seat. In order to prevent humidity entering the box, the rubber sleeve needs to be tight against the cable. Pull the cable tie tight around the cable shield to provide proper strain relief.
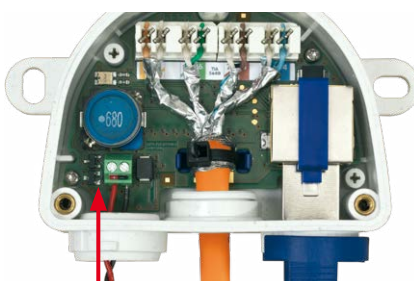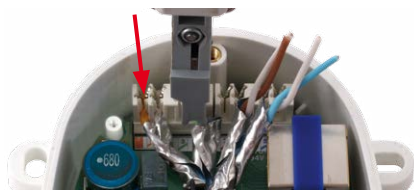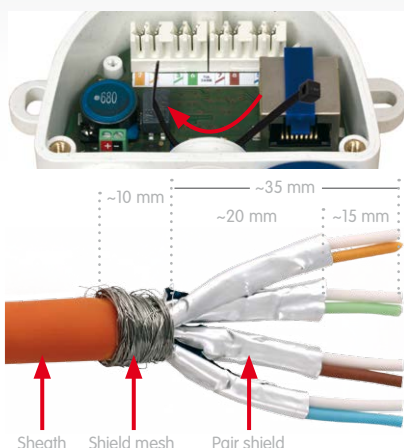
4. Connect the cable wires
Use an LSA PLUS wire insertion tool to insert the individual wires into the LSA terminal. Decide on using either the EIA/TIA-568A or B wiring standard as in the rest of the building. The color code sticker in front of the LSA terminal shows both standards.

5. Connect the power supply
Guide the power supply cable through a suitable opening of the left rubber plug. Use the eight-wire plug for inserting single wires; use the appropriate cable plug 3 to 5 mm or 5 to 7 mm for inserting an insulated multi-wire cable. Strip the insulation of the cable to the power supply unit or battery (12 to 57 V DC) 5 mm at the end and apply wire-end sleeves if using flexible wires. Attach to the power terminal according to polarity. Mount the cover back onto the box (torque 0.4 Nm).

6. Attach the patch cable
Remove bayonet catch and the sealing plug of the right port, insert a MOBOTIX patch cable into the right port and secure it using the bayonet catch. Only use MOBOTIX patch cables with integrated sealing ring! A MOBOTIX sealing system for standard patch cables will be available soon.
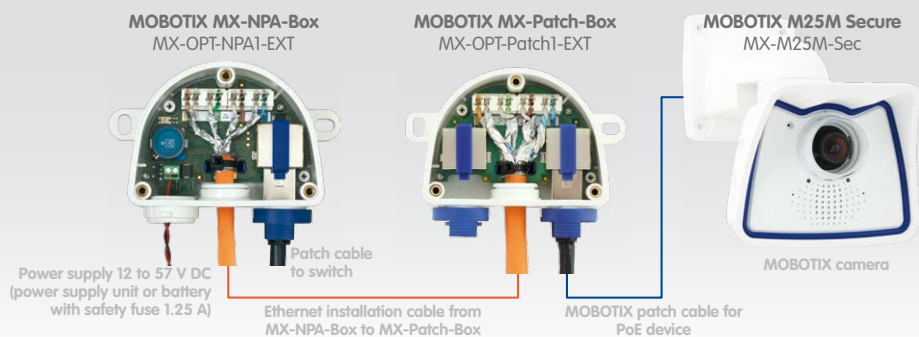
www.mobotix.com

Connection Option: PoE Power Supply via MOBOTIX MX-Patch-Box

MOBOTIX MX-NPA-Box
MX-OPT-NPA1-EXT

MOBOTIX MX-Patch-Box
MX-OPT-Patch1-EXT

MOBOTIX M25M Secure
MX-M25M-Sec

MOBOTIX camera

Power supply 12 to 57 V DC
(power supply unit or battery
with safety fuse 1.25 A)

Patch cable
to switch

Ethernet installation cable from
MX-NPA-Box to MX-Patch-Box

MOBOTIX patch cable for
PoE device

This connection option uses the Ethernet installation cable instead of the patch cable to establish the data connection and PoE power supply. This is helpful, if e.g. an IP camera on a high pole is connected to the network installation cable via the MOBOTIX MX-Patch-Box and the power and network connections are to be supplied through the installation cable at the bottom of the pole using the MX-NPA-Box.

Notes

- The MOBOTIX MX-NPA-Box is to be used only as a stationary power supply of MOBOTIX cameras in IP65 environments. The device is only to be used with genuine MOBOTIX parts. Make sure that the power supply is properly protected against any electrical surges, transients, harmonic waves, etc.
- Make sure that you adhere to all relevant laws, regulations and that you fulfill all certification requirements for the intended use.
- Only one PoE end device (e.g. MOBOTIX camera) can be connected to the MX-NPA-Box.
- Make sure that the wires of the installation cable are properly twisted and shielded.
- If directly connecting two network devices without a switch (e.g. camera to a computer without Auto-MDIX) to the MX-NPA-Box, you should attach one of the devices using a crossover patch cable. As an alternative, you can swap the wires on the LSA terminal as follows: Terminal 1 with terminal 3 and terminal 2 with terminal 6.
- If power is supplied from a battery, make sure to run the plus wire (+) of the power supply through a safety fuse (1.25 A).
- Torque for all box cover screws: 0.4 Nm.
- Make sure that you press the rubber plugs of the power supply (eight-wire plug or cable plug 3 to 5 mm or 5 to 7 mm, left) into the casing in such a way that the rims stick out equally on both sides.
- The status LED of the MX-NPA-Box shows the PoE class that is reached at the output (see **Table 1** below).
- The maximum cable lengths between the power supply and MX-NPA-Box vary according the output voltage of the power supply (see **Table 2** below).
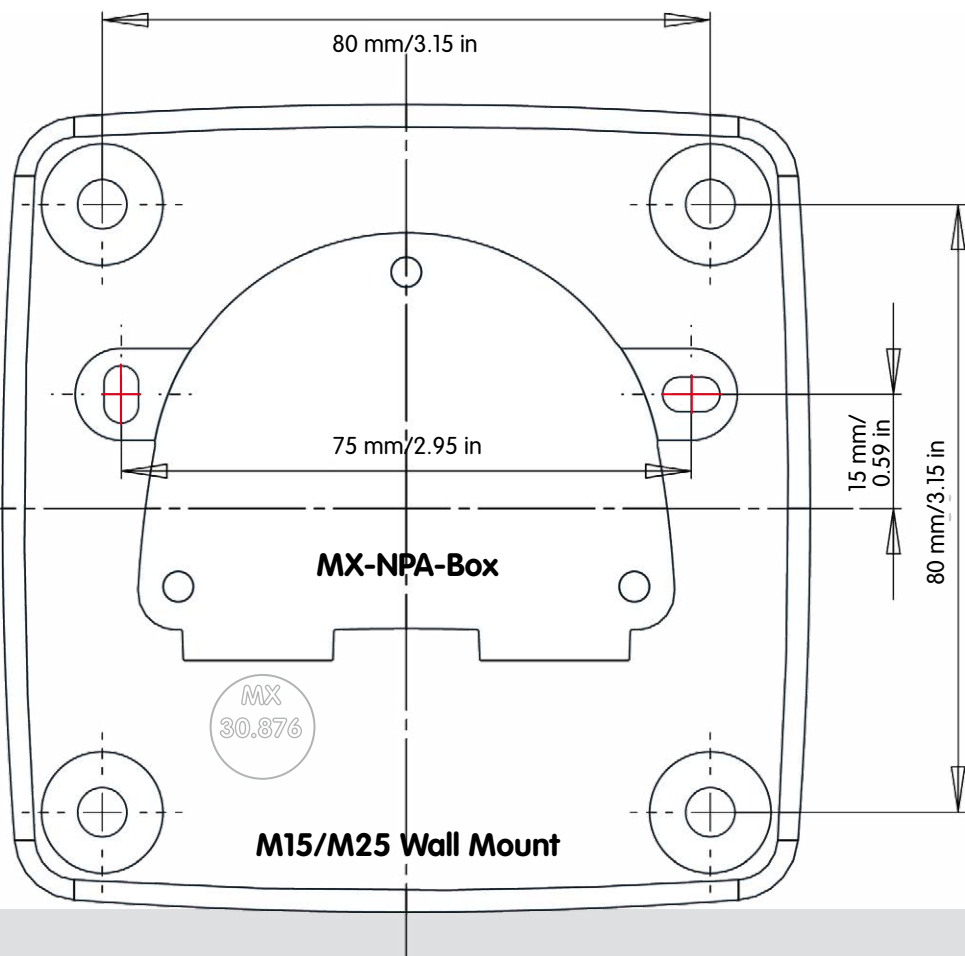
Table 1: Status LED	Voltage (Input)	PoE Power (Output)	LED	
	16 V to 57 V	Class 1 to 3 (up to 12.95 W)	**Green**	MX-NPA-BOX
	12 V to 16 V	Class 1 and 2 (up to 6.49 W)	**Orange**	
	10 V to 12 V	Less than class 1 (< 3.84 W, low voltage)	**Red**	
	< 10 V	No power supply (deep discharge prevention)	**Off**	

Table 2: Cable Lengths*	Output Voltage Power Supply	Max. Cable Length	Max. Power Output	PoE Classes
	36 V	200 m (219 yd)	12.95 W	1 to 3
	24 V	100 m (110 yd)	12.95 W	1 to 3
	12 V	50 m (55 yd)	6.49 W	1 and 2

Drilling Template for M15/M25 Wall Mount with MX-NPA-Box

80 mm/3.15 in

75 mm/2.95 in

15 mm/
0.59 in

80 mm/3.15 in

MX-NPA-Box

MX
30.876

M15/M25 Wall Mount

*Measured according to EN 50173-1 Class D STP Chan (Fast Ethernet, frequency range 1 to 100 Mhz)

Drilling templates for other MOBOTIX wall mounts: www.mobotix.com > Support > Manuals

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