POE-SPLIT/POE-SPLIT-M

PoE splitter providing PoE and 12 VDC

PoE and PoE+
Output

Easy
installation

Compact
size

Flexible power supply and installation

Many installation sites have existing wiring infrastructures that cannot be modified. To provide an additional power supply for devices without PoE capability, we have developed the POE SPLIT module. This unit makes it possible to power the Intercom device via PoE/PoE+ and to obtain an additional DC power supply based on Ethernet PoE, PoE+ or PoE++. External devices can use 12 VDC and up to 19 watts.

The POE-SPLIT module fits all WS surface mount and flush mount kits (WSSH 50V, WSFB 50V) or can be mounted to a wall, top-hat rail or other backboxes using the universal installation kit (POE-SPLIT-M).

Features and highlights

– 12 VDC supply for devices without PoE-support
– Supply through PoE+ for a second PoE device
– Support for PoE (15,4 W), PoE+ (30 W) and PoE++ (60 W)
– Short-circuit and overload-protected with automatic recovery
– Compact size
– Suitable in industrial environments from –40 °C to +70 °C
– Use of existing infrastructure
– Single-cable solution
– POE-SPLIT fits into all mounting boxes of the series WS and can also be installed externally using the additional mount kit POE-SPLIT-M
– Transfer rate: 100 Mbit/s
– PoE output complies with: IEEE 802.3at/class 4

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POE-SPLIT/POE-SPLIT-M
Technical specifications

Technical data POE-SPLIT

Data rate:	10/100 Mbit/s
Power supply:	Ethernet IN: IEEE 802.3af (POE 15.4 W) IEEE 802.3at (POE+ 30 W) IEEE 802.3bt (POE++ 60 W)
Connectors:	Ethernet IN: shielded RJ45-modular jack Ethernet OUT: shielded RJ45-modular jack Output DC: pluggable screw terminal, bipolar Cross section: 0.08 mm² – 1.5 mm² (0.00012 in² – 0.0023 in²)
Output PoE:	Ethernet OUT: IEEE 802.3af (PoE) IEEE 802.3at (PoE+)
Output DC:	12.0 – 12.8 VDC, max. 1.6 A [1] short-circuit and overload-protected with automatic recovery
Power efficiency:	output DC 11 W: approx. 81 % output DC 19 W: approx. 85 %
Power consumption idle:	max. 2.1 W [2]
Output PoE pin assignment:	4/5 (+), 7/8 (–)
Status indicator:	Ethernet IN: PoE PD supply active Ethernet OUT: PoE PSE supply active
Cabling:	min. Cat. 5e, shielded
Approvals and compliances:	EN 61000-6-2, EN 61000-6-3, EN 55032 Class B, EN 55024, EN 55035, EN 62368-1 FCC 47 CFR Part 15 Subpart B
Operating temperature range:	–40 °C to +70 °C (–40 °F to +158 °F)
Storage temperature range:	–40 °C to +70 °C (–40 °F to +158 °F)
Relative humidity:	up to 95%, not condensing
Dimensions (H x W x D):	130 x 34.5 x 20 mm (5.12 x 1.36 x 0.79 in)
Weight:	92 g (0.20 lbs)

[1] Power cord length max. 30 m (98.45 ft)
[2] No devices connected to the outputs.

Line length in LAN

The combined line length on Ethernet IN and Ethernet OUT must not exceed 100 m (328 ft) when Cat. 5e cabling is used.

Extent of supply POE-SPLIT

– POE-SPLIT
– 1 pluggable screw terminal (bipolar)
– Cat. 6 cable (0.3 m/0.98 ft)
– Short reference

Optional accessories

– Mounting kit POE-SPLIT-M

Extent of supply POE-SPLIT-M

– Housing shell lined with insulation foil on the inside
– 2 pan head screws (M3×5, TX 10) for mounting the POE-SPLIT onto the housing shell
– Top-hat rail clamp
– 2 countersunk screws (PT3×8, TX 10) for mounting the top-hat rail clamp
– Double-sided adhesive tape for alternative mounting
– 2 wall mounting screws (4 × 45 mm, Phillips recessed head) incl. dowels (SX6)
– Short reference

Overload protection

Power supply	Output PoE	Output DC	Threshold DC shutdown [1]	Overall power consumption [2]
PoE	PoE+ [3]	12 VDC max. 11 W	No shutdown	max. 12.95 W
PoE+	PoE+ [3]	12 VDC max. 19 W	25 W – 27.5 W [4]	max. 25 W
PoE++	PoE+ [3]	12 VDC max. 19 W	50 W – 53.5 W [4]	max. 51 W

[1] Based on total power consumption.
[2] Combined output PoE and output DC.
[3] Maximum possible internal PoE classification. The maximum power at output PoE is limited by the power supply.

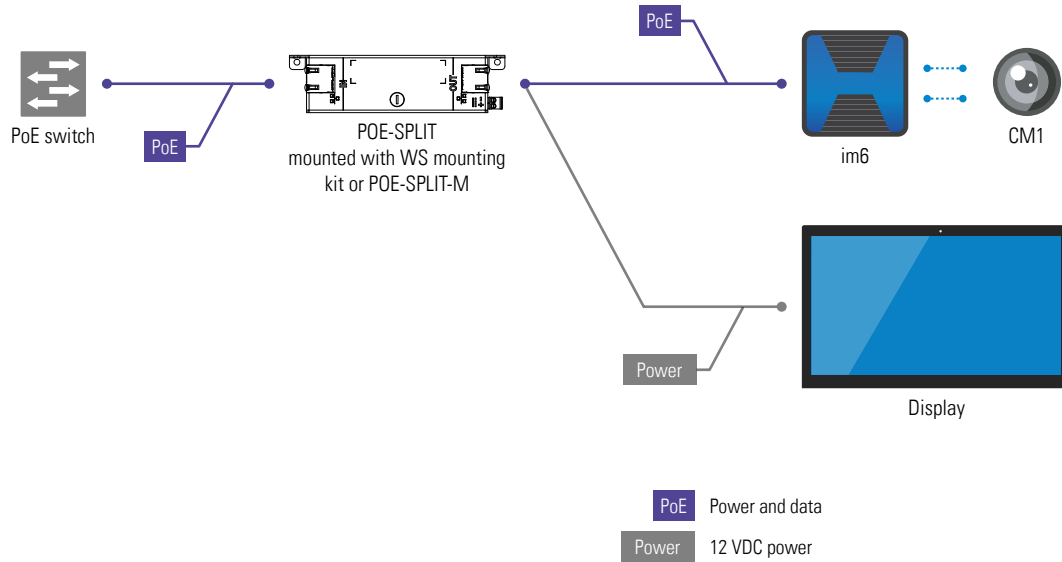| Power supply	Output PoE	Output DC	Threshold DC shutdown [1]	Overall power consumption [2]
PoE-LLDP-Feature	PoE+ [3]	12 VDC max. 11 W	50.0 W – 53.5 W [4]	LLDP setting

If the PoE switch uses the LLDP feature, the POE-SPLIT is only classified as a PoE device (12.95 W) and the required power must be set explicitly on the PoE switch port.

[4] Output PoE has priority over output DC. If the threshold for automatic shutdown is reached, output DC is switched off. The auto recovery function switches output DC back on.

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POE-SPLIT/POE-SPLIT-M
Technical specifications

System overview (example)

PoE

PoE switch

PoE

POE-SPLIT
mounted with WS mounting
kit or POE-SPLIT-M

PoE

im6

CM1

Power

Display

| PoE | Power and data |
| Power | 12 VDC power |

POE-SPLIT/POE-SPLIT-M
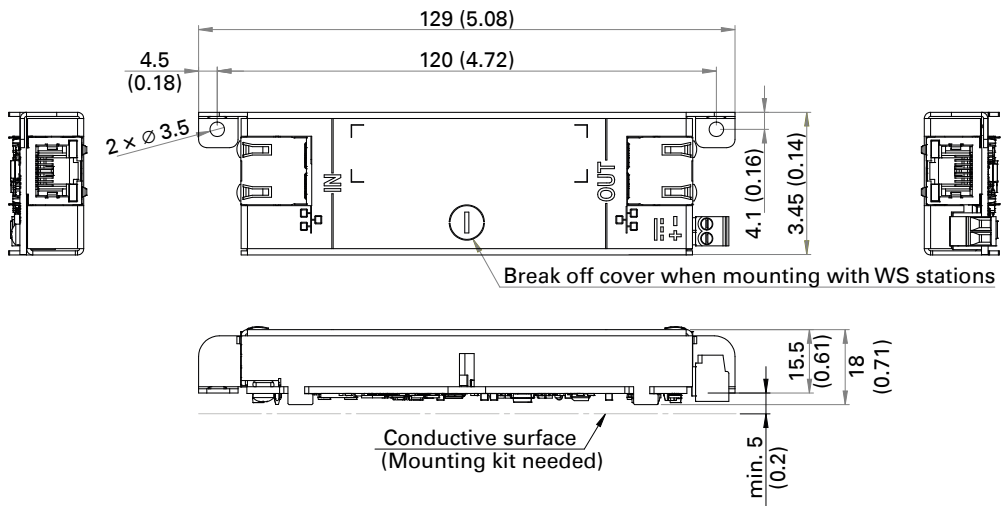## Installation instructions

Mounting instructions

– This device (POE-SPLIT) is designed to be used with a surface mount kit (WSSH 50V) or a flush mount kit (WSFB 50V). It shall be mounted within a surface mount box or flush mount box where uninsulated conductors are not accessible to the user.

– Use the mounting kit (POE-SPLIT-M) for any other mounting options. Under no circumstances shall it be mounted where the device and uninsulated conductors are accessible to an uninstructed person.

– Do not place the device in areas where it may become wet or damp, and avoid particularly dusty, humid or high temperature environments.

– Use shielded Ethernet cables only.

– Before using the device, ensure all cables are connected correctly and are not damaged.

– Make sure that an appropriate strain relief is attached for each connection.

POE-SPLIT/POE-SPLIT-M
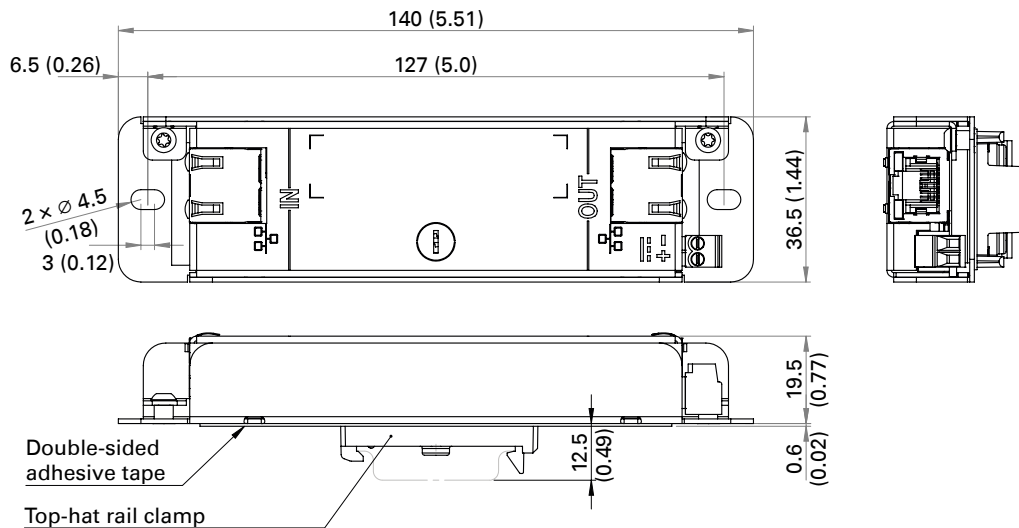## Installation instructions

Dimensions POE-SPLIT

Measuring units in mm (in), not to scale!

129 (5.08)
120 (4.72)
4.5 (0.18)
2 × ⌀ 3.5
IN
OUT
4.1 (0.16)
3.45 (0.14)

Break off cover when mounting with WS stations

15.5 (0.61)
18 (0.71)
min. 5 (0.2)

Conductive surface
(Mounting kit needed)

Dimensions POE-SPLIT-M

Measuring units in mm (in), not to scale!

140 (5.51)
127 (5.0)
6.5 (0.26)
2 × ⌀ 4.5 (0.18)
3 (0.12)
IN
OUT
36.5 (1.44)

19.5 (0.77)
12.5 (0.49)
0.6 (0.02)
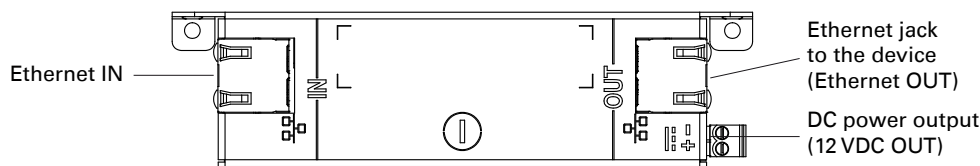
Double-sided
adhesive tape

Top-hat rail clamp

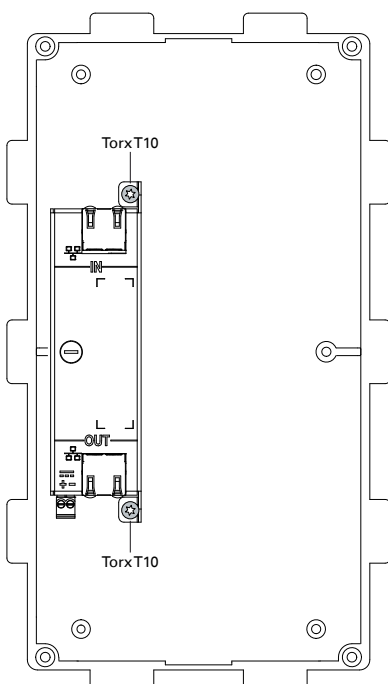# POE-SPLIT/POE-SPLIT-M
Installation instructions

Safety instructions

– Devices belonging to another earthing network must not be connected to the device's connectors.
– This device shall be installed or replaced by trained and qualified personnel only.
– All connected circuits shall fulfill the following requirements:
  – Safety Extra Low Voltage (SELV) and Limited Power Source (LPS) according to IEC/EN 60950-1 or
  – ES1, PS2 circuits and Annex Q (Limited Power Source) according to IEC/EN/UL 62368-1
– Only accessories that comply with the device's technical specifications shall be used.
– Disconnect the Ethernet cables and the 12 VDC cable from the device for any maintenance.
– Allow the device to cool down completely before touching.
– All changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
– The DC power output (12 VDC OUT) is intended for connecting additional devices such as beacon lights, displays, touchscreens and RFID readers.

– There must be no direct connection to a cable outside of a building.
– This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  – Reorient or relocate the receiving antenna.
  – Increase the separation between the equipment and receiver.
  – Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  – Consult the dealer or an experienced radio/TV technician for help.
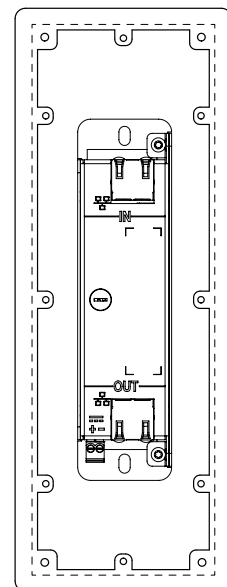
Connections

Ethernet IN

Ethernet jack to the device (Ethernet OUT)

DC power output (12 VDC OUT)

Mounting example surface mount kit WSSH 50V or flush mount kit WSFB 50V

Torx T10

Torx T10

NOTE: Mounting
POE-SPLIT must always be placed on the left side within a surface mount box or flush mount box.

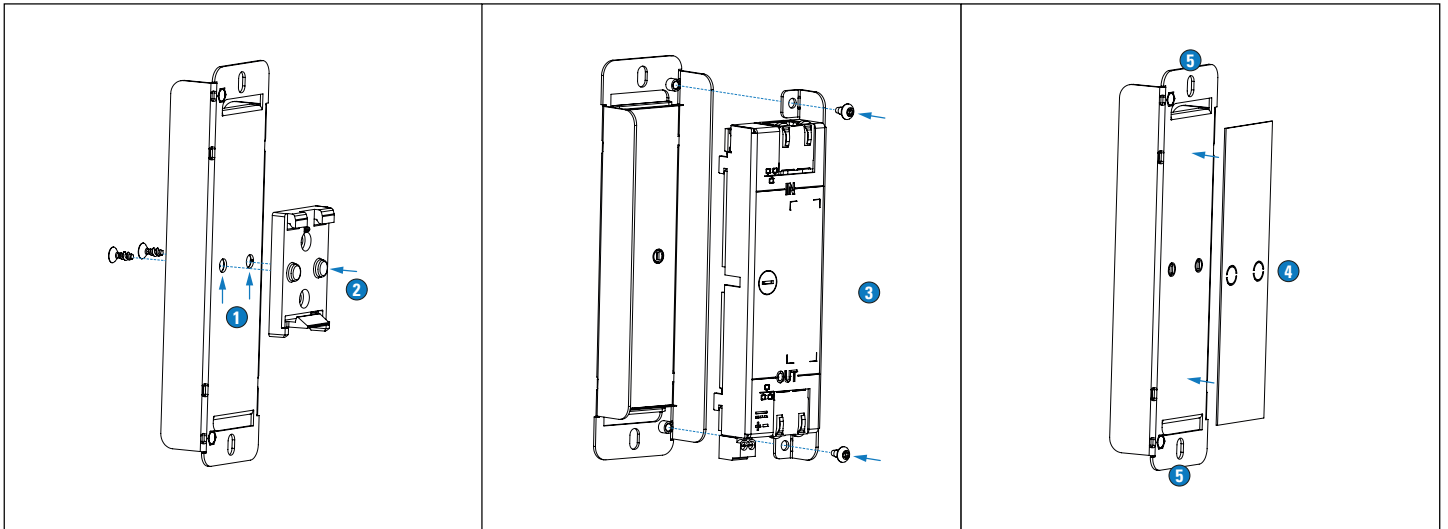## Mounting example flush mount kit OD5-FB

NOTE: Mounting
If the POE-SPLIT is not installed with a surface mount kit WSSH 50V or a flush mount kit WSFB 50V, the additional mounting kit POE-SPLIT-M must be used.

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IN | 3   commend.com   commend

POE-SPLIT/POE-SPLIT-M
Installation instructions

Mounting example with mounting kit POE-SPLIT-M

If the POE-SPLIT is not installed with a surface mount kit WSSH 50V or a flush mount kit WSFB 50V, the additional mounting kit POE-SPLIT-M must be used.

Mounting with top-hat rail clamp

– Break open the holes ❶ in the housing.
– Position the top-hat rail clamp ❷ in the desired orientation and screw it onto the housing shell from the inside.

– Place the POE-SPLIT ❸ in the correct orientation (ensure correct mounting direction) in the housing and screw it on.
– *Optional:* If the installation situation permits it, use these mounting holes ❺ for installation (see right figure).

Mounting with double-sided adhesive tape

– Place the POE-SPLIT ❸ in the correct orientation (ensure correct mounting direction) in the housing and screw it on (see middle figure).
– Place the double-sided adhesive tape ❹ on the bottom side of the housing shell (only for the flush mount box of an id5, od5 or od10). There must be no contact between the Intercom station and the POE-SPLIT inside the flush mount box. The orientation of the POE-SPLIT must be adapted to the respective wiring.
– *Optional:* If the installation situation permits it, use these mounting holes ❺ for installation.

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The development and manufacturing processes are certified in accordance with **EN ISO 9001:2015**.

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