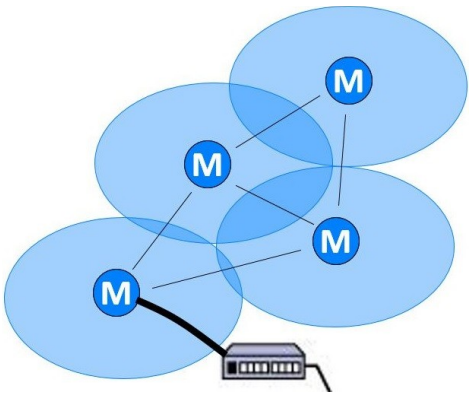
MRX – Mesh.switch

Quick installation for "MRX.switch, passive PoE" device family

General

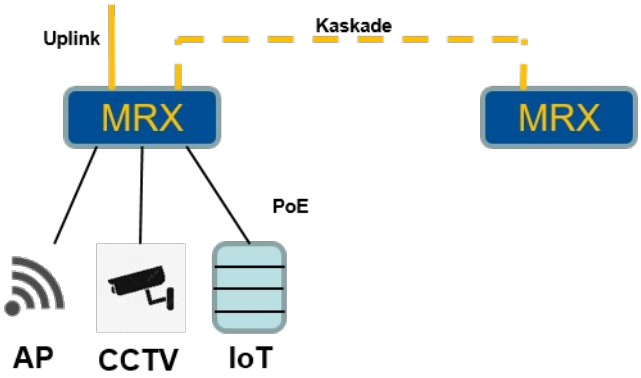


The AZG.mesh router product family aims to build wireless infrastructures using mesh.technology. AZG.mesh is a wireless backbone for connecting and linking CCTVs, access points, sensors etc.. AZG.mesh is a self-discovering, self-configuring and self-healing system that makes installation and use very easy. AZG.mesh is suitable for applications where cable laying is very expensive, permanent installation is not necessary or mobile communication is required.

MRX.switch is a PoE device for connecting (additional) clients to AZG.mesh. The device is an extension of the AZG.mesh router, but can also be operated in stand-alone mode if an outdoor PoE switch is required.

MRX.switch, passive PoE, is delivered pre-configured. The up to 6 Ethernet ports are interconnected. Depending on the configuration level, there are up to 4 ports with PoE power supply and up to 2 ports without PoE power supply. The ports without power supply are used as an uplink or for cascading several MRX.switch.

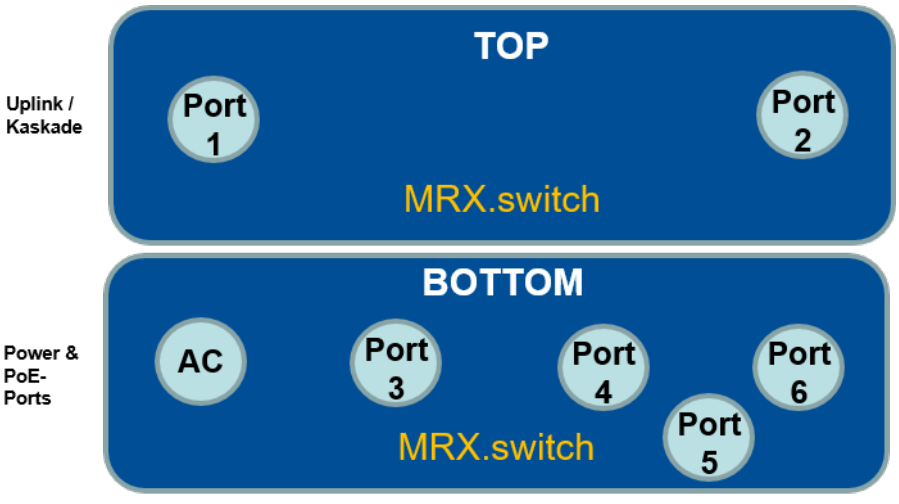
MRX.switch does not have a wireless interface for AZG.mesh.



Device family "MRX.switch pPoE"

MRX.switch devices offer up to six Ethernet interfaces to connect both clients and uplink routers. The four Ethernet interfaces (3 – 6) located in the base of the housing are supplied with PoE support (passive PoE). The two Ethernet interfaces on the top (1+2) are supplied without PoE power supply.

MRX.switch is the cost-optimised solution for installing an outdoor-capable PoE switch.



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Shipment

1x MRX.switch

1x M12 (S-Code) plug to connect AC power (only for variants with AC power supply)

1x This quick installation guide

Interfaces / Usage

Ethernet Port 1+2: 10/100/1000Base T; M12 (X-type); auto-X-over

The number of LAN uplink ports depends on the variant in question. The LAN ports 1+2 do not have a PoE power supply.

Ethernet Port 3-6: 10/100Base T; M12 (X-type); auto-X-over

All LAN ports are interconnected at Ethernet level (Ethernet switch).
Ethernet ports 3-6 are equipped with PoE power supply.
The pin assignments are shown below.

ATTENTION: Please only use shielded CAT6e cable to ensure correct operation and good lightning protection!

ATTENTION: Only clients **qualified by AZG** may be connected to ports 3-6. There is a risk of permanent destruction.

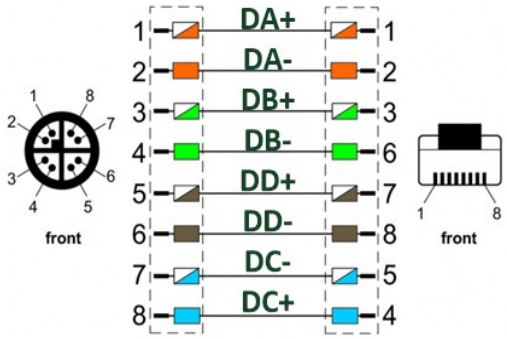
ATTENTION: Ports 3-6 are **NOT suitable as UPLINK or for cascading**!

AC: Power supply (110-240V)

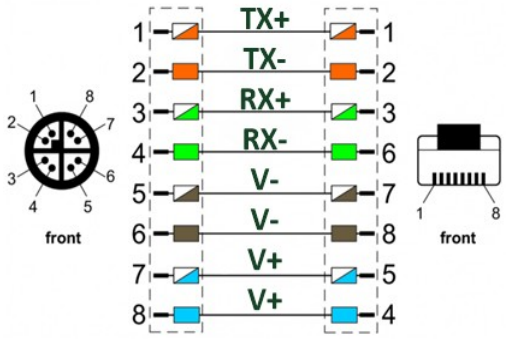
The pin assignment for the AC supply is shown below.

Pin assignment: Port1-N [M12 (X-Code)]; with possibly existing PoE assignment

P1+2: 1Gbit

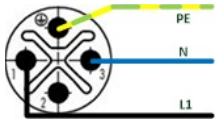


P3-6: 100 Mbit, „passives" PoE

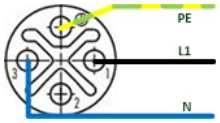


AC [M12 (S-Code)]

Plug at MRX



Socket at cable



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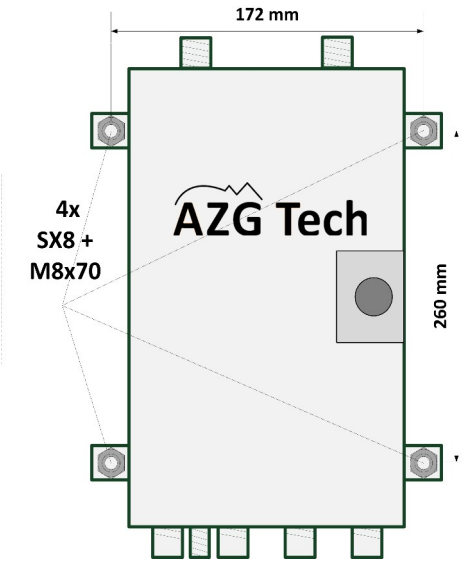
Installation



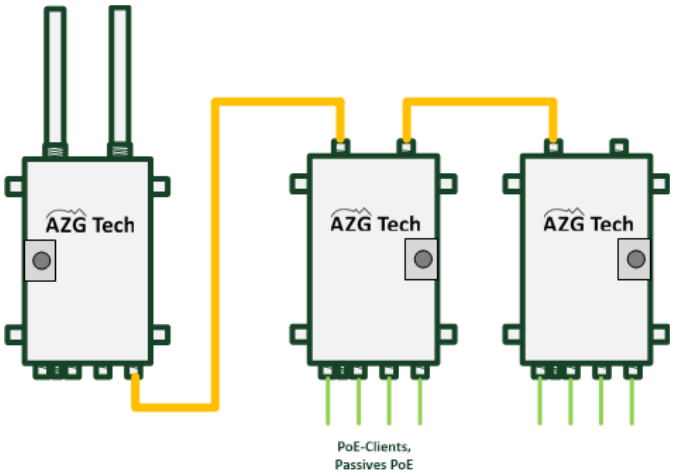
To add a new node to the net, please follow the steps below:

1. unpack everything and check that all parts of the delivery are complete.
2. install the device on a wall, pole or other possible locations.
3. connect the LAN cables to clients or other devices. Establish the data connection to the next router using an uplink port (P1 or P2).

   ATTENTION: Only cameras supplied by AZG Tech may be connected to ports 3-6!

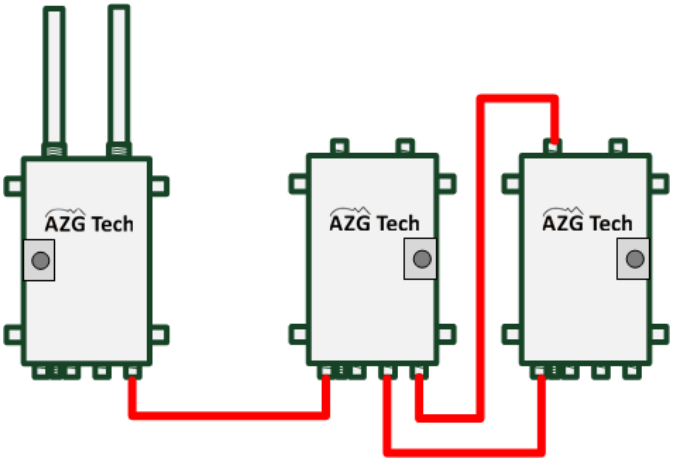
   ATTENTION: No uplink or cascade may be connected to ports 3-6.
4. connect the power supply to the device. As soon as the device is supplied with power,

CORRECT connection and cascading of router, MRX.switch (passive PoE) and clients:



WRONG wiring:

- Connection router to the PoE ports
- Cascade via the PoE ports
- Direct connection of 2 PoE ports



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Trouble-Shooting

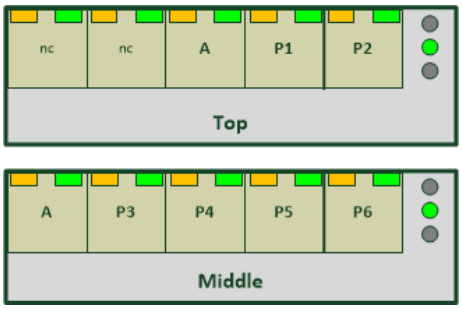
For troubleshooting, the housing must be opened using the double-bit spanner supplied.

ATTENTION: Only specialised personnel are permitted to open the housing when the power supply is connected! Legal regulations must be observed.

When the housing is opened, a switched-mode power supply unit on a top-hat rail can be seen in the upper part. This has a (blue) LED which indicates whether the supply voltage (AC) is present:

LED **Main PWR** is off: Check power supply and M12 power supply plug.
Check the fuse in the base of the device. To do this, it is **essential(!)** to disconnect the power supply.

Three circuit boards are screwed together in the lower part of the housing. The two upper ones have visible LEDs, both on the side and in the RJ45 sockets:



The power LEDs are on the far right. The centre one must light up:
LED ETH-PWR is off: Check power supply (s. above.)

The six ETH ports each have a LINK LED (green) and an ACT LED (orange).

LINK LED of port A must light up on both circuit boards:
LINK LEDs port A are off: Device defective; possibly reconnect patch cable.

The LINK LEDs of ports to which a client, uplink or cascade is connected must light up:
LINK LED of 'connected' ports are off:
Check external ETH cable and M12 connection.

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