

xCOAX4-SET

**Active converters for Ethernet and PoE transmission via coax, range up to 1000m, 1 channel 10/100Mbps
PoE IN 802.3at/af or Passive (xCOAX4-SW), PoE OUT at/bt (xCOAX4-CAM)**

INSTRUCTION MANUAL

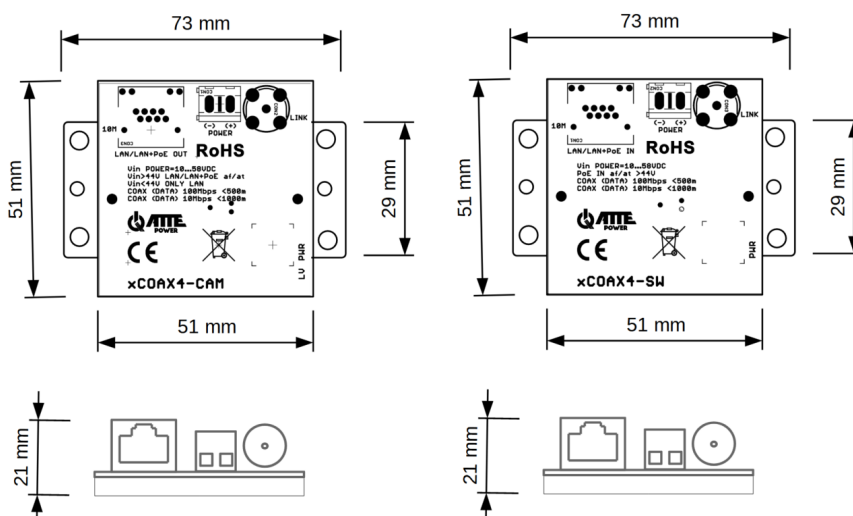
xCOAX4-SET is a set of active converters for data transmission from the Ethernet network and PoE power supply via a typical coaxial cable used in analog monitoring.

The devices enable the installation of PoE IP cameras in places where replacing the existing coaxial cabling is impossible or unprofitable. The xCOAX4-SW module is powered by any PoE switch (RJ45 port) and via a coaxial cable, enabling bidirectional network communication and powering the xCOAX4-CAM module. An IP camera or any network device can be connected to the RJ45 port of the xCOAX4-CAM module at the end of the line.

The devices can optionally be powered from POWER screw connectors. To properly power PoE receivers, the voltage must be higher than 44V DC. When powered from screw connectors with 55V DC, the output power available in the PoE port increases to 60W

The maximum distance of data transmission and PoE power supply depends on the length and cross-section of the cables used and the quality of the BNC connectors used. The presence of other wires in the cable route and additional intermediate connections have a significant impact on transmission stability. The maximum length of the coaxial cable is 1000m. In the case of poor cable quality, the transmission speed may be reduced to 10Mbps, which will be signaled by a diode on the housing.

The device has a very small size, which allows for easy installation in small spaces, e.g. in the camera base or installation box.



General view of the device

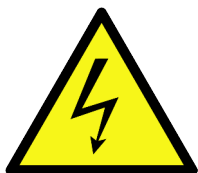
Technical Specification

LAN Ports	1 port RJ45 10/100Mbps
Connectors	RJ-45 oraz BNC (female) Screw connector - wires 0.32-3.3 mm ² (22-12 AWG)
Ports Functions	<p>xCOAX4-SW: PoE IN (power supply): PASSIVE (do 30W), 802.3at (up to 30W), 802.3af (up to 15W) PINS PoE: 1,2 (V+/-) 3,6 (V+/-) and/or 4,5 (V+/-) 7,8 (V+/-)</p> <p>xCOAX4-CAM: LAN 10/100Mbps or LAN 10/100Mbps+ PoE - Automatic selection of the PoE power standard</p> <ul style="list-style-type: none"> • 802.3 af do 15W • 802.3 at do 30W • 802.3 bt do 60W only when powered via the DC IN screw connector with min. 55V <p>Screw connectors - alternative power supply for the set when there is no PoE 10-58VDC power supply (for powering PoE receivers Vin>44V DC) possible from both the transmitter and receiver sides</p>
Indication	<p>PWR LED power presence LED port RJ45 (yellow) - presence of PoE power supply LED port RJ45 (green) - link and data transmission LED 10Mb – LAN transmission in the XCOAX channel at a speed of 10Mbps LED LINK at the BNC connector (green) - link and data transmission in the COAX channel LED LV Low Voltage signaling diode</p>
Power Supply Voltage	10 ... 58 VDC (for powering PoE receivers Vin>44V DC)
Output Voltage	xCOAX4-CAM (for PoE receivers): Vout = Vin (44 ... 58 VDC)
Power consumption	1,35 W (full channel)
Length of coaxial cable	< 1000m - xCOAX4-SW to xCOAX4-CAM
Length of the UTP cable	< 100m - SWITCH PoE to xCOAX4-SW < 100m - xCOAX4-CAM to CAMERA
Protection	<p>Ports LAN i BNC: Overvoltage protection</p> <p>xCOAX4-SW: Short circuit protection with auto recovery</p>
Housing Construction	Universal mounting base, mounting studs, TH35 rail with additional bracket, can be screwed to flat surface
Ingress Protection Rating	IP20
Operating Temperature	-25°C...+65°C
Dimensions	xCOAX4-SW - 51 x 51(73) x 21 mm xCOAX4-CAM - 51 x 51(73) x 21 mm
Weight	xCOAX4-SW - 0,03 kg xCOAX4-CAM - 0,03 kg

Safety Precautions

- The installation and wiring must be performed by a competent engineer. For permanently connected equipment, a readily accessible disconnect device must be incorporated in the fixed wiring. The device must be connected to the mains supply 230 VAC 50 Hz via a specified fused connection outlet.
- Despite the fact that the enclosure of the device has a high degree of protection, it is recommended that the device should be mounted in places protected from direct influence of atmospheric factors, in particular against rain and direct sunlight.
- Since the power supply does not have a switch to isolate the mains supply, the installer is responsible for notifying the user of the means of isolating the mains supply from the device.
- When replacing fuses, use original or compatible types. The exact parameters of the fuses can be found on the inside of the device cover.

WARNING



Before installation and during maintenance make sure that the mains voltage 230VAC is disconnected

Installation

- Install the set devices in the selected place and connect the coaxial cable.
- Connect the power line from a PoE switch or 10-58VDC power supply to the Ethernet port of the xCOAX4-SW device
- The presence of PoE on the connector and the module power supply are indicated by the yellow LED on the RJ45 port.
- Connect an IP camera or any LAN network device to the Ethernet port of the xCOAX4-CAM device
- The link status in the ETHERNET path is indicated by the green LED in the RJ45 connector:
 - lights up continuously - communication enabled
 - fast blinking - data transmission
- The link status in the COAX path is indicated by green LEDs at the BNC connectors
 - lights up continuously - communication between TX/RX
 - fast blinking - data transmission

After powering up and correctly connecting the cables, the devices communicate at a speed of 100Mbps. If a stable connection cannot be established, the transmission speed will be reduced to 10Mbps. This will be signaled by the diode turning on.

If the connection cannot be established, verify the quality of the BNC connectors at the ends of the XCOAX track. Additional connections and branches of the XCOAX path may prevent stable transmission. You should verify their correctness and remove unnecessary ones.

When the voltage on the switch drops below 44V, the LV LED will turn on. In such a case, verify the power supply system to avoid situations when the IP PoE devices connected to the switch do not turn on due to too low voltage.

Operation Indication

- PWR LED power presence
- LED port RJ45 (yellow) - presence of PoE power supply
- LED port RJ45 (green) - link and data transmission in the LAN
- LED 10Mb – LAN transmission in the XCOAX channel at a speed of 10Mbps
- LED LINK at the BNC connector (green) - link and data transmission in the COAX channel
- LED LV Low Voltage signaling diode

The LV LED latches and signals when the voltage on the XCOAX-CAM receiver drops below 44V DC. It can be reset by unplugging and reapplying power. When lit, it signals the need to verify the correctness of the set's power supply. A voltage drop below 44V DC may cause unstable operation or prevent PoE receivers connected to XCOAX-CAM from starting after a restart.

WEEE MARKING



This symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead such equipment must be disposed of by arranging to return it to a designated collection point for the recycling of waste electrical and electronic equipment.

