ETH-2WIRE-A-SET

Set of active converters for Ethernet and PoE transmission over 2-wires

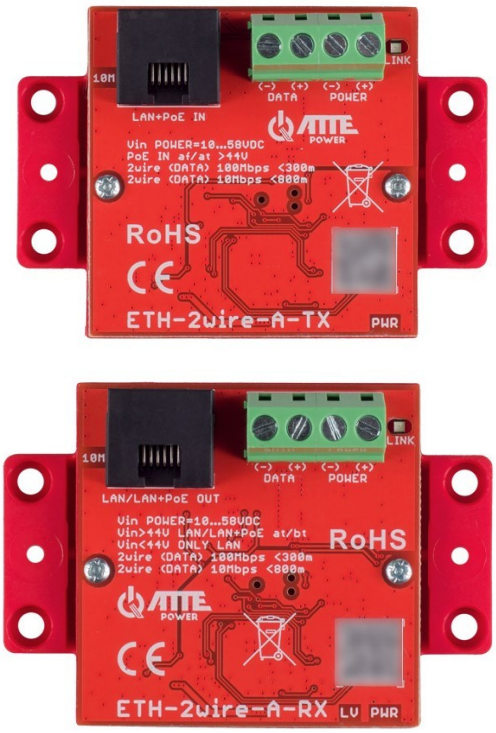
10/100Mbps range up to 800m

ETH-2wire-A-SET is a set of active converters for the transmission of Ethernet data and PoE power using 2 wires, e.g. one pair of twisted-pair UTP cable.

The devices allow the installation of cameras or other IP PoE devices in places where the replacement of the existing cabling is impossible or uneconomical. The ETH-2wire-A-TX module is powered from any PoE switch (RJ45 port) and then, via 2 wires, enables bidirectional network communication and power supply to the ETH-2wire-A-RX module.

The maximum cable length in the 2wire path is 800m. A camera or other PoE receiver can be connected to the RJ45 port of the ETH-2wire-A-RX module at the end of the line. ETH-2wire-A-TX can optionally be powered from the POWER screw connectors.

The device has a very small size, which allows it to be easily integrated into small spaces, e.g. in a camera base or installation box.



FEATURES

- possibility to mount the receiver in the camera base or other installation box
- transmission range up to 300m at **100Mbps** up to 800m at **10Mbps**
- immunity from interference
- can be powered up from **802.3at/af PoE** switches, PoE PASSIVE switches or external power supply (ETH-2wire-A-TX)
- capable of powering up PoE 802.3at/af or PoE PASSIVE resivers
- up to 30W total power in the entire power path
- very low power consumption - **1.35W** full track
- small module sizes
- clear, optical indication of power and data transmission status
- easy and quick commissioning without configuring parameters

DESIGNED AND MADE IN POLAND

ETH-2WIRE-A-SET

TECHNICAL SPECIFICATION

LAN Ports	1 RJ45 100Mbps port
Connectors	RJ-45 Screw terminals 0.32-3.3 mm2 (22-12 AWG)
Ports Functions	ETH-2wire-A-TX: PoE IN (power supply from PoE line): PASSIVE (up to 30W), 802.3at (up to 30W), 802.3af (up to 15W) PoE PINOUT: 1,2 (V+/-) 3,6 (V+/-) and/or 4,5 (V+/-) 7,8 (V+/-) POWER: alternative power supply when there is no PoE DATA (2wire line): data and power transmission over 2 wires ETH-2wire-A-RX PoE OUT (to PoE powered devices) 802.3af/at/bt PoE PINOUT: 1,2 (V-) 3,6 (V+) 4,5 (V+) 7,8 (V-) POWER: alternative power supply DATA (2wire line): transmission of data and power over 2 wires
Indication	LED PWR – power presence LED RJ45 port (yellow) - presence of PoE LED RJ45 port (green) - link and data transmission in LAN track LED LINK (green) - link and data transmission in 2wire track LED 10Mb - LAN transmission in 2WIRE track at 10Mbps LED LV LowVoltage signaling LED (<44V)
Input Voltage	ETH-2wire-A-TX Vin PoE = 24 ... 56 VDC Vin POWER = 12 ... 56 VDC ETH-2wire-A-RX Vin = 12 ... 56 VDC
Output Voltage	ETH-2wire-A-TX VoutDATA = Vin ETH-2wire-A-RX (for PoE devices) Vout = Vin (44 ... 56 VDC)

Power consumption	1,35 W (full track)
Maximum distance 2-WIRE	Maximum distance ETH-2wire-A-TX to ETH-2wire-A-RX (only DATA connectors): < 800m - 2 single twisted wires e.g. 1 twisted pair UTP The maximum distance of data transmission and PoE power supply depends on the type, length and cross-section of the cables used. The presence of other cables in the cable route and additional intermediate connections have a strong influence on the stability of transmission.
Length of the network cable	< 100m - distance from SWITCH PoE to ETH-2wire-A-TX < 100m - distance from ETH-2wire-A-RX to PoE Receiver/Camera
Ports Protection	LAN and DATA ports: Overvoltage protection POWER ports: Reverse polarity protection PoE IN ETH-2wire-A-TX port: 0.6A overload protection
Housing Construction	Universal mounting base
Ingress Protection Rating	IP20
Operating Temperature	-25°C...+65°C
Dimensions	ETH-2wire-A-TX - 51 x 51(73) x 23mm ETH-2wire-A-RX - 51 x 51(73) x 23mm
Weight	ETH-2wire-A-TX - 0,028 kg ETH-2wire-A-RX - 0,028kg

Example application of the ETH-2wire-A-SET to power an IP camera

