

# CONV485E

## RS-485 to Ethernet TCP/IP Convertor



- 10BaseT ETHERNET port
- RS-485 port (1200 bps to 115.2 kbps)
- 2 modes of operation – Client and Server
- 2 protocols: 'Transparent' and Modbus TCP ↔ RTU gateway
- Support of up to 6 clients
- 5 LEDs for convertor operation indication
- Simple configuration through web browser
- Can be installed on standard TS-35 rail

CONV485E is modern, simple converter allows to connect devices with RS485 serial bus to industrial or LAN network.

On RS-485 side may be connected up to 32 devices up to 1200 m line length and on Ethernet port side converter can serve up to 6 clients.

Converter configuration have to be make through standard web browser running on PC computer.

Converter is dedicated to work inside buildings or in control cabinets. Can be mounted on TS-35 rail.

### APPLICATIONS

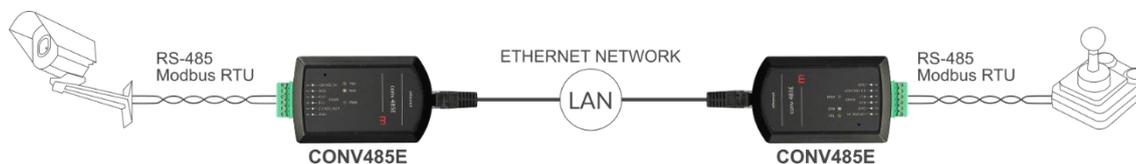
- Industrial automation, measurement and control systems, measurement laboratories
- Data transfer between computer system (controller) and device with RS-485 serial port through computer LAN network or industrial Ethernet network

### PROTOCOLS

The converter can operate in two protocols:

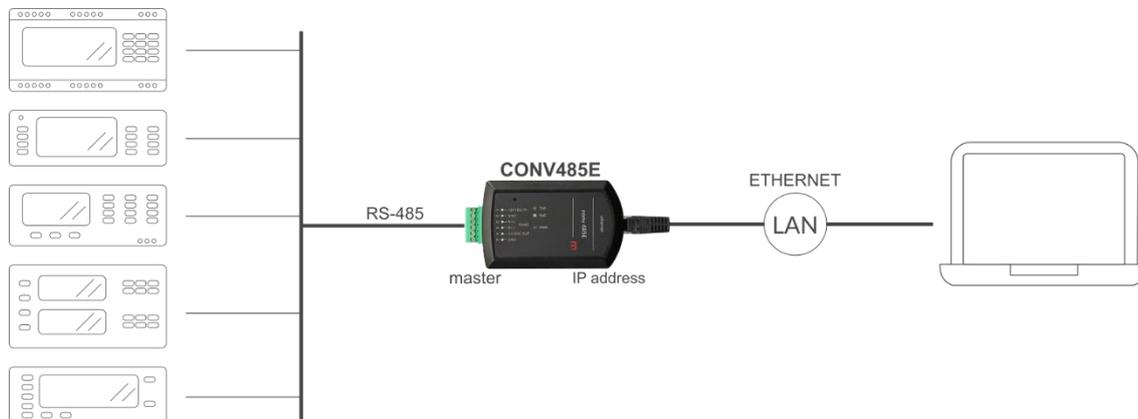
- 'Transparent' protocol: the convertor transmits the received string of characters (ASCII or binary) between a LAN network and an RS-485 network and conversely
- Modbus TCP ↔ RTU: the converter receives data from a Modbus TCP protocol device, converts the frame to Modbus RTU protocol and sends the data to and from an RS485 network operating in this standard and conversely

### APPLICATION EXAMPLE



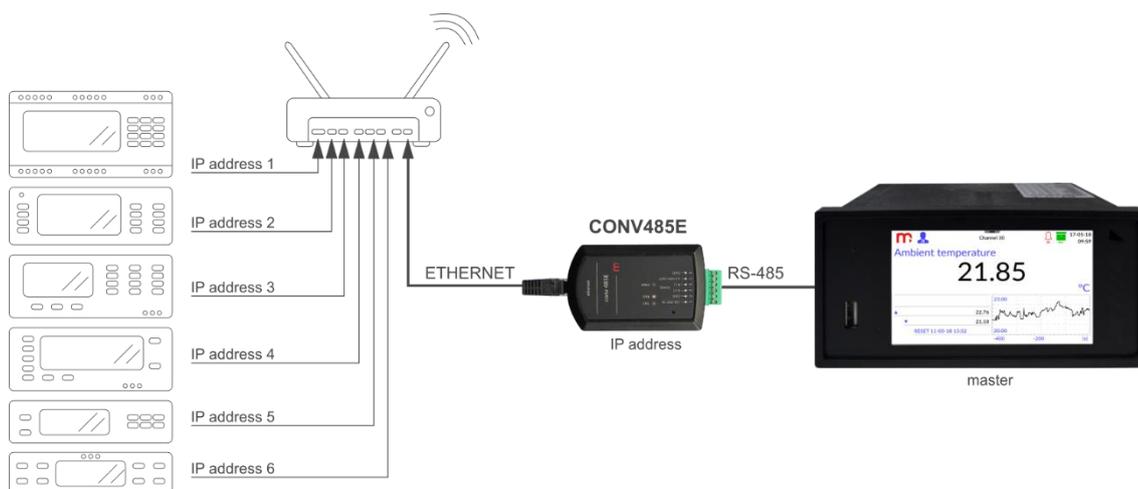
## SERVER MODE

The converter operates as a TCP/IP server; enables data exchange between master systems operating in LAN networks and devices equipped with an RS485 port. Up to 32 devices can be connected.

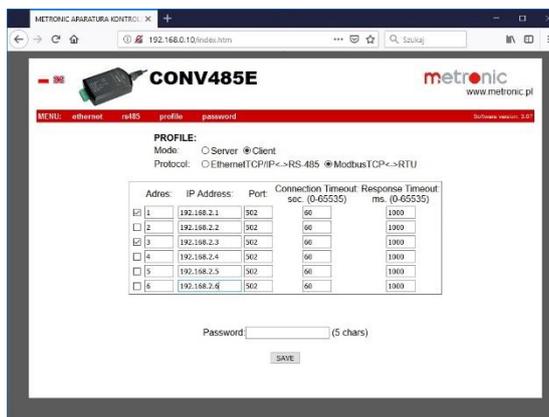


## CLIENT MODE

The converter operates as a TCP/IP client, opens the connection to TCP/IP server; enables data exchange between master systems operating in RS-485 networks and devices equipped with an Ethernet port. Up to 6 devices can be connected.



## WEBSITE FOR CONFIGURATION



## TECHNICAL SPECIFICATIONS

## ETHERNET INTERFACE

Interface	10BaseT Ethernet
Supported protocols	TCP, ICMP (ping), DHCP server, http server
Data buffer	300 B
Number of simultaneous open connections	up to 6
Socket	RJ45
LEDs	2, internal in RJ45 socket

## RS-485 SERIAL INTERFACE

Baud rate	1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbps
Data frame	1 start bit, 8 data b., 1 stop b. (1 or 2 stop b. for None)
Parity control	Even, Odd, None1, None2
Data buffer	300 B
Signals on terminal	A(+), B(-), GND
Maximum load	32 receivers / transmitters
Line terminator	internal, switched with DIP switch
Minimum impedance for data transmission line	54 $\Omega$
Maximum line length	1200 m
Maximum voltage on terminals A(+) and B(-)	-7 V .. +12 V
Minimal transmitter output signal	1.5 V (at $R_L = 54 \Omega$ )
Minimal receiver sensitivity	200 mV / $R_{IN} = 12 k\Omega$
Short-circuit / thermal protection	Yes/yes
LEDs	2, TxD (yellow colour) and RxD (blue colour) signalization

## POWER SUPPLY

Supply voltage	24 VAC (+5% / -10%) / 1 VA 24 VDC (18 .. 36 VDC) / 0.9 W
LEDs	1, presence of power supply, green colour

## ENVIRONMENTAL CONDITIONS

Work temperature	-20 .. +60 $^{\circ}\text{C}$
Storage temperature	-30 .. +70 $^{\circ}\text{C}$
Humidity	5 .. 95% (without condensation)

## MECHANICAL DIMENSIONS - HOUSING

Dimensions (length x width x height)	93 mm x 57 mm x 21 mm (without clip for TS-35 rail)
Protection class	IP30
Weight	ca. 0.06 kg



The device is in conformity with the essential requirements of European Union:

1. EMC Directive 2014/30/EU to the following standards and specifications:
  - 1.1. For EMC immunity for industrial environments according to EN 61326-1:2013 (Table 2).
  - 1.2. For EMC conductive and radiated emissions Class A equipment according to EN 61326-1:2013.

Data sheet version: 190528EN Device version: 3.0