ECO 502 PRO

INDUSTRIAL SENSOR GATEWAY

MODBUS/RTU, 1-Wire Bus

Art. No. 11608-24

APPLICATION

- A highly advanced, universal Modbus/RTU sensor interface for all modern machines, systems, and devices.
- Enables energy optimization through the integration of multiple sensors.
- Suitable for Industrial facilities, mechanical engineering, building management, IoT, and M2M applicationsCan be used independently of the manufacturer
- Supports plug and play connection of up to 30 sensors

ADVANTAGE

- Cost and time savings through quick installation and commissioning
- Connect, turn on, and instantly receive measurement data
- Intuitive operation via web server

DESCRIPTION

The ECO 502 Gateway represents a powerful Modbus/RTU sensor interface of the latest generation for plant and system monitoring. The gateway features an access point and a web server.

Up to 30 sensors can be connected to the ECO 502 automatically via the Industrial 1-Wire bus using the Auto-E-Connect Plug and Play system. A wide range of sensors is available, such as temperature, humidity, dew point, air quality (CO2, VOC, or particulate matter), digital alarm contacts, glass breakage, and smoke detectors.

The configuration, software updates, sensor data, and production data of the connected sensors are conveniently provided through the web server. The web server can be accessed via LAN and through the access point (activated by pressing a button).

This system is a low-maintenance industrial device. The gateway has been natively programmed over many years and does not utilize Linux or any unknown libraries.

Extensive software support is available free of charge. The WLAN interface allows communication with up to 3 data connections using MQTT and ASCII text protocol.

HIGHLIGHTS

Fully automatic PLUG and PLAY system for up to 30 sensors

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Web server and access point for configuration, debug and firmware updates

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Data interface for Modbus/RTU, MQTT and ASCII

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Auto-E-Connect Plug and Play Level I to III

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Fast readout of all devices in 5 seconds cycle

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Low maintenance industrial device because without Linux. Native programmed without unknown libraries

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WLAN interface for data, configuration, debug and firmware updates

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Extended temperature range -5°C to 50°C

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Rugged industrial design

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Extensive protection circuits and good device protection

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Simple assembly

EQUIPMENT OPTIONS

- Ultrafast iButton or RFID read function for access or security authentication.
- TPM (Trusted Platform Module) hardware for secure boot and SSL certificates.
- Optional firmware versions, such as for 1-Wire memory (EEPROM) and iButton reading without the need for programming.
- Customized adaptations and branding options available.

TECHNICAL DATA

Feature	• Modbus/RTU Interface • Web server for configuring data connections • Internal access point available for 30 minutes via a button press • High performance Ethernet interface • Internal WLAN antenna • TPM security hardware chip • Secure Boot and SSL encrypted firmware for secure operation
Data interface	Modbus/RTU RS485 serial interface, with terminating resistor WiFi/WLAN, IEEE802.11b/IEEE802.11g, DHCP or Fixed IP address
Number of data connections	max. 3 in parallel (1xModbus/RTU, 1xASCII and 1xMQTT via WLAN)
Protocol	Modbus/RTU, ASCII text and MQTT protocol via WLAN
Operating modes	RS485 for Modbus/RTU and TCP Socket for WLAN
Auto-E-Connect Support	Pre Configuration: Wish OWD storage Automatic Positioning: OWD extended Plug And Play Sensorfinder Function: LED display for sensor detection Classes Assignment: OWD Class via ECO Gateway The sensor supports Auto-E-Connect Level I, II, III
Industrial 1-Wire Bus Support	DS2401 (electronic keys (iButton or RFID)), DS1820, DS18S20, DS18B20, DS2405, DS2406, DS2413, DS2408, DS2423, DS2438, DS2450 and all ESERA sensors, actuators and memories
Bus interface	Industrial 1-Wire bus, bus voltage 5V, max. 500mA
Power supply	9-30VDC
Current consumption	Max. 2 Watt at 24VDC (without sensors at the bus interface)
Connection	Screw terminals for stranded wire and wire
Dimensions	35 x 90 x 70mm (WxHxD)
Housing (color)	gray
Housing material	ABS plastic
Protection class	IP20 / II
Temperature, humidity, operation	-5°C to 50°C, 10-92%, non-condensing
System clock (RTC)	Min. 24 hours RTC operation without mains voltage

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