

Description

ModBus Sensor ES 1299 is a very slim sensor for users who do not want displays or LEDs on the wall showing data they can easily access on an app or a PC.

ModBus Sensor / ES 1299 is a maintenance free sensor in a discreet white design almost so flat it becomes invisible on the wall. Only 10 mm deep, it can be mounted in a standard wall box or with a wall bracket.

The ModBus Sensor / ES 1299 can be supplied in a model measuring temperature and humidity (RH) (item number 48412 ModBus Sensor T-H / ES 1299), and in a model measuring temperature, humidity (RH) and CO₂ (item number 48411 ModBus Sensor CO₂-T-H / ES 1299). Refer to label for model.



Warning

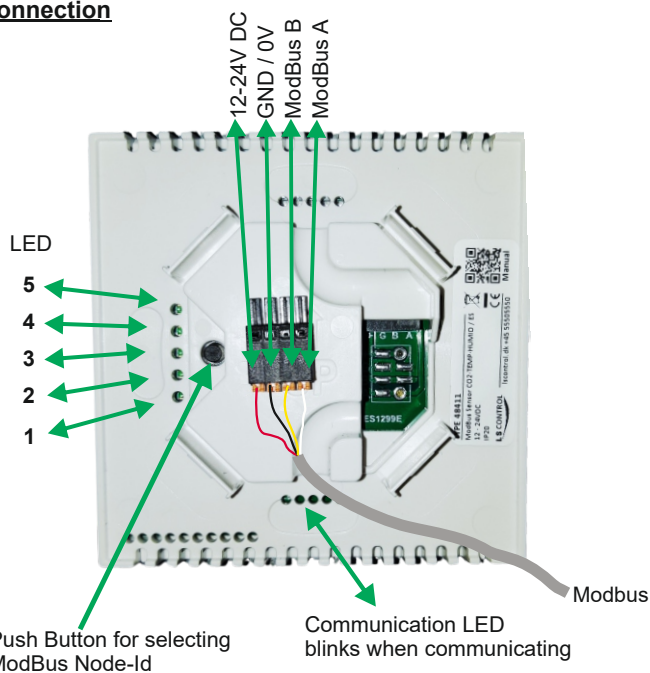


ESD-Sensitive when lid is removed. Be certain to be ESD-discharged before touching push-button, so product isn't harmed.

Mounting

Must be wall mounted on a level, stable non-moving nor vibrating surface in a non-condensating environment. Avoid direct sunlight and thermal stress.

Connection



ModBus Interface

ModBus interface:
 Baud Rate: 9600
 Mode: RTU
 Data Bits: 8
 Parity: Even
 Stop Bit(s): 1

ModBus Node-Id

Node-Id	LEDS lit
102	No. 1
103	No. 1 and 2
104	No. 1, 2 and 3
105	No. 1, 2, 3 and 4
106	No. 1, 2, 3, 4 and 5

ModBus Register

Input Register	Description	Formatting
0	CO ₂ level (0-2000ppm)	0=0ppm, 2000=2000ppm
1	Temperature (0.0 - 60.0°C)	0=0,0°C, 500=50,0°C
2	RH (0-100%)	0=0%, 100=100%
3	Internal temperature (0.0 - 60.0°C, step 1°C)	0=0,0°C, 500=50,0°C
4	Firmware Version (000.0)	

Calibration of CO₂ sensor

The CO₂ sensor uses the widely used ABC algorithm, which ensures long life without calibration. Only the room cannot be used constantly, but must regularly get sufficient airflow to lower the CO₂ to fresh air level.

To select the ModBus Node-Id hold down the push button for 4-5 seconds. When letting go LEDs for current Node-Id is flashing. Push the button number of times corresponding to the required Node-Id. To control node-id push button once and read number of lit LEDs.

Technical Specifications

Supply: 12-24V DC
 Current draw / consumption: 45mA@12Vdc - 25mA@24Vdc
 Enclosure: IP 20
 Dimension (HxWxD): 80x80x10mm
 Operating Temperature: 15-35°C non-condensing
 Humidity: 0-80%RH non-condensing
 Communication Protocol: ModBus, Baud rate 9600

Measurement Areas and Accuracy

Temperature: 0-60°C, ±0.2°C typically / ±0.5°C max
 Humidity (RH): 0-100% RH, ±2%
 Co₂: 400-2000ppm, ±40ppm



QR-code for download of this product sheet.

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