

# ODCOM-R

## Multifunctional transmitter for harsh environments



ODCOM-R are multifunctional transmitters for harsh environments which measure temperature, relative humidity, carbon monoxide and nitrogen dioxide levels as well as ambient light. Based on the temperature and relative humidity measurements, the dew-point temperature can be calculated. They are Power over Modbus supplied and all parameters are accessible via Modbus RTU.

### Key features

- Suitable for harsh environments
- Power over Modbus supply via RJ45 socket
- Selectable temperature, relative humidity and CO / NO<sub>2</sub> ranges
- Silicon based sensor elements for measuring CO and NO<sub>2</sub> trends
- Bootloader for updating the firmware via Modbus RTU communication
- Day / Night detection via ambient light sensor
- Modbus RTU communication
- Ambient light sensor with adjustable 'active' and 'standby' level
- Replaceable CO / NO<sub>2</sub> sensor module
- Long-term stability and accuracy

### Area of use

- Measurement of temperature, relative humidity and CO and NO<sub>2</sub> trends
- Suitable for both indoor and outdoor use (e.g. open-air spaces, multi-storey and subterranean car parks, residential and commercial buildings)

### Article codes

Article code	Supply	Imax	Connection
ODCOM-R	24 VDC, PoM	14,2 mA	RJ45

### Technical specifications

Supply voltage	24 VDC, Power over Modbus		
Warm-up time	1 hour		
Typical range of use	Temperature range	-30—70 °C	
	Relative humidity range	0—100 % rH (non-condensing)	
	CO range	0—1.000 ppm	
	NO <sub>2</sub> range	0—10 ppm	
Accuracy	± 0,4 °C (range 0—50 °C)		
	± 3% rH (range 0—100 %)		
Protection standard	IP65 (according to EN 60529)		

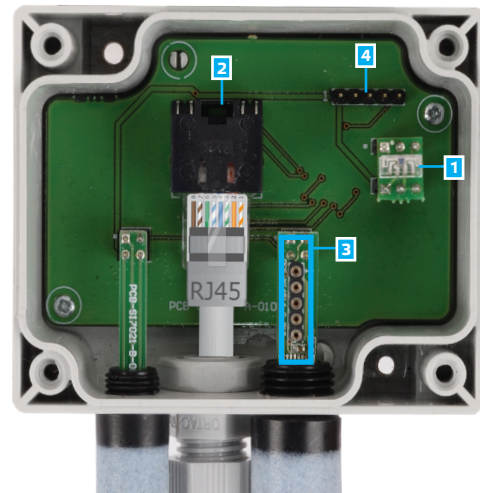
### Wiring and connections

#### RJ45 socket (Power over Modbus)

Pin 1	24 VDC		Supply voltage
Pin 2			
Pin 3	A		Modbus RTU communication, signal A
Pin 4			
Pin 5	/B		Modbus RTU communication, signal /B
Pin 6			
Pin 7	GND		Ground, supply voltage
Pin 8			



### Indications



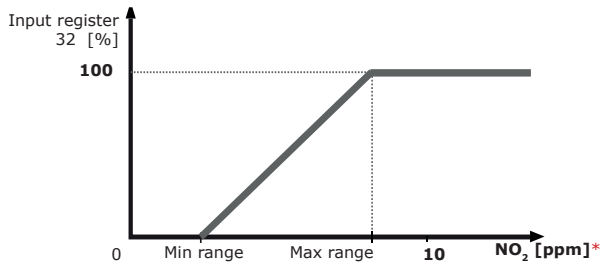
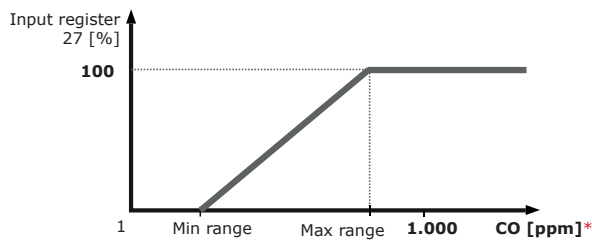
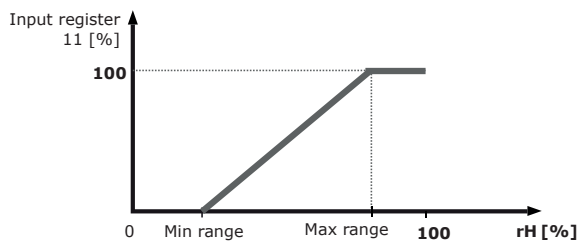
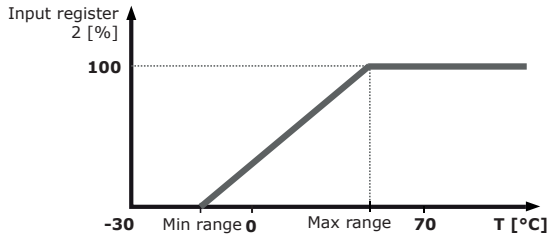
1 - Ambient light sensor		Low light intensity / Active / Standby
2 - RJ45 socket		Plug the communication and power cable into the socket
3 - CO / NO <sub>2</sub> sensor element		Replaceable in case of faulty operation
4 - PROG header, P1		Put a jumper onto pins 1 and 2 and wait for at least 5 seconds to reset the Modbus communication parameters
		Put a jumper onto pins 3 and 4 and restart the supply to enter bootloader mode



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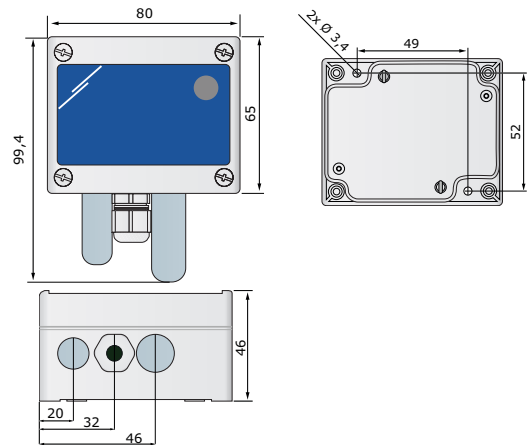
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### Operational diagrams

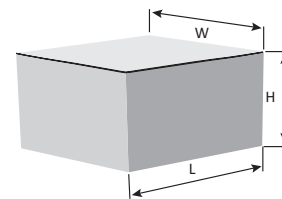


\*CO and NO<sub>2</sub> measurements will return 0 ppm during warm-up time.

### Fixing and dimensions



### Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
ODCOM-R	Unit (1 pc.)	110	90	50	0,125 kg	0,155 kg
	Box (80 pcs.)	590	380	280	10,00 kg	13,26 kg

### Global trade item numbers (GTIN)

Packaging	ODCOM-R
Unit	05401003010662
Carton	05401003301579
Box	05401003502327

### Standards



- Low Voltage Directive 2014/35/EC  
- EN 60529:1991 Degrees of protection provided by enclosures (IP Code) Amendment AC:1993 to EN 60529
- EMC directive 2014/30/EU:
  - EN 61000-6-1:2007 Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments
  - EN 61000-6-2:2005 Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments. Amendment AC:2015 to EN 61000-6-2
  - EN 61000-6-3:2007 Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments Amendments A1:2011 and AC:2012 to EN 61000-6-3
  - EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
  - EN 61326-2-3:2013 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements - Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning
- WEEE 2012/19/EC
- RoHs Directive 2011/65/EC

### Modbus registers



The Sensistant Modbus configurator allows you to easily monitor and/or configure Modbus parameters.



The parameters of the unit can be monitored / configured through the 3SMODBUS software platform. You can download it from the following link:

<https://www.sentera.eu/en/3SMCenter>

For more information about the Modbus registers, please refer to the product Modbus Register Map.