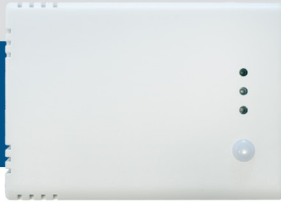


# RSMFMB-2R

## Multifunctional room sensor with buzzer



The RSMFMB-2R are multifunctional room sensors with integrated audible alarm which measure temperature, relative humidity, CO<sub>2</sub> concentration and ambient light level. They are Power over Modbus supplied and all parameters are accessible via Modbus RTU.

### Key features

- Adjustable temperature, relative humidity and CO<sub>2</sub> ranges
- Replaceable audible alarm module, settable via Modbus register (OFF, continuous or pulsed)
- Ambient light sensor with adjustable 'active' and 'standby' level
- Replaceable CO<sub>2</sub> sensor element
- Modbus RTU (RS485) communication
- Green, yellow and red LED with adjustable light intensity for status indication
- Long-term stability and accuracy

### Technical specifications

Supply voltage	24 VDC, Power over Modbus		
Typical field of use	Temperature range	-0—50 °C	
	Relative humidity range	0—95 % rH (non-condensing)	
	CO <sub>2</sub> range	400—2.000 ppm	
Accuracy	±0,4 °C (0—50 °C)		
	±3% rH (0-100% rH)		
Protection standard	IP30 (according to EN 60529)		

### Article codes

Article code	Supply	Connection	Imax
RSMFMB-2R	24 VDC, PoM	RJ45	70 mA

### Area of use

- Monitoring indoor temperature, relative humidity and CO<sub>2</sub> level in HVAC applications
- Suitable for residential and commercial buildings
- For indoor use only

### Wiring and connections

#### RJ45 socket (Power over Modbus)

Pin	Signal	Description
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		



### Modbus registers

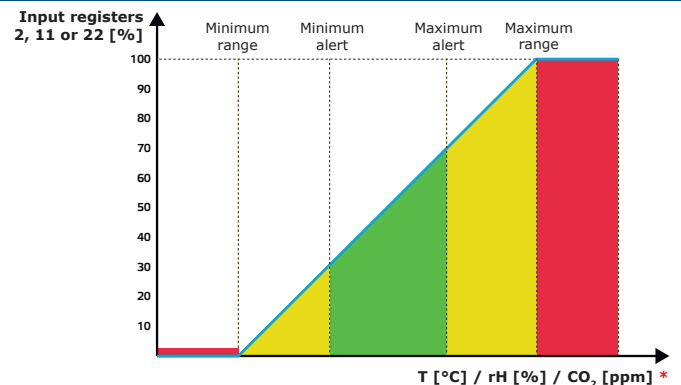


The Sensistant Modbus configurator allows you to easily monitor and/or configure Modbus parameters.

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.

### Operational diagram(s)



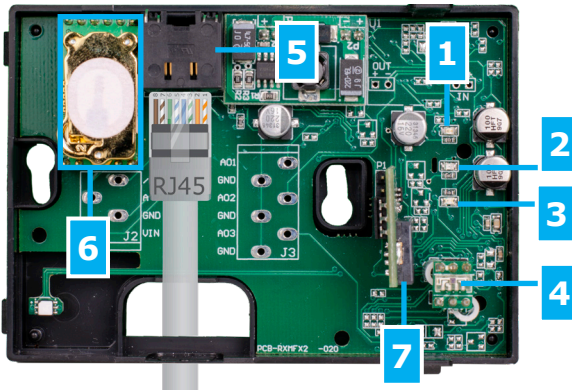
\*LED indications - CO<sub>2</sub> (default), T or rH

# RSMFMB-2R

Multifunctional room sensor with buzzer

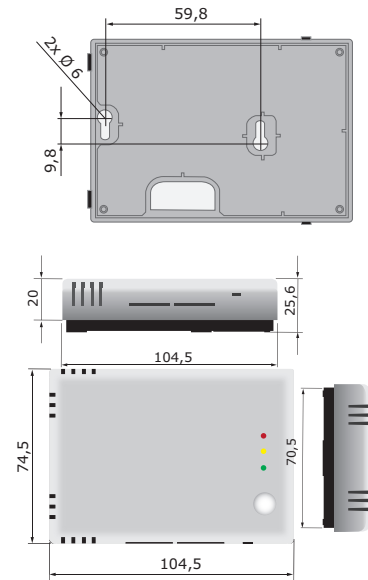


## Settings and indications

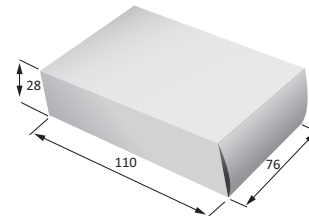


1 - Red LED	On	Measured temperature, relative humidity or CO <sub>2</sub> exceed the minimum or maximum range
	Blinking	Communication with one of the sensor elements fails
2 - Yellow LED	On	Measured temperature, relative humidity or CO <sub>2</sub> exceed the minimum or maximum alert value
3 - Green LED	On	Measured temperature, relative humidity or CO <sub>2</sub> are within range
4 - Ambient light sensor		Low light intensity / Active / Standby
5 - RJ45 socket		Modbus communication with a Master device and supply voltage (24 VDC)
6 - CO <sub>2</sub> sensor element		Replaceable in case of faulty operation
7 - Buzzer		Adjustable audible alarm, corresponding to the measurements
Bootloader mode		When bootloader mode is activated, the green and yellow LEDs flash alternately
		After starting the bootloader application, the red LED starts blinking

## Fixing and dimensions



## Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
RSMFMB-2R	Unit (1 pc.)	105	75	28	0,082 kg	1,2 kg
	Carton (24 pcs.)	485	177	85	1,96 kg	3,01 kg
	Box (144 pcs.)	510	410	280	11,808 kg	13,93 kg

## Standards



- Low Voltage Directive 2014/35/EC
  - EN 60529:1991 Degrees of protection provided by enclosures (IP Code) Amendment AC:1993 to EN 60529
  - EN 60730-1:2011 Automatic electrical controls for household and similar use - Part 1: General requirements
- EMC Directive 2014/30/EC:
  - EN 60730-1:2011 Automatic electrical controls for household and similar use - Part 1: General requirements
  - EN 61000-6-1:2007 Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light industrial environments
  - 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
- RoHS Directive 2011/65/EC

## Global trade item numbers (GTIN)

Packaging	RSMFMB-2R
Unit	05401003018033
Carton	05401003302620
Box	05401003503768