

RSVCM-R

Air quality room transmitter



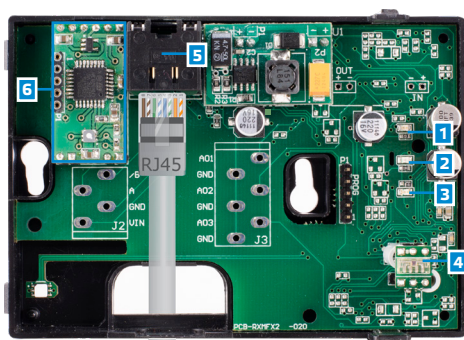
RSVCM-R are multifunctional room transmitters which measure temperature, relative humidity and a broad range of total volatile organic compounds (TVOCs). The TVOC concentration is an accurate indicator for indoor air quality. Based on the temperature and relative humidity measurements, the dew-point temperature is calculated. All the parameters and measurements are accessible via Modbus RTU.

Key features

- Selectable temperature, relative humidity and TVOC ranges
- Silicon based sensor elements for TVOC measurements
- Bootloader for updating the firmware via Modbus RTU communication
- Day / Night detection via ambient light sensor
- Ambient light sensor with adjustable 'active' and 'standby' level
- Modbus RTU (RS485)
- Replaceable TVOC sensor module
- 3 LEDs with adjustable light intensity for status indication
- Long-term stability and accuracy

Technical specifications

Warm-up time		15 minutes
Typical field of use	Temperature range	0—50 °C
	Relative humidity range	0—95% RH (non-condensing)
	TVOC range	0—60.000 ppb
Accuracy		± 0,4 °C (range 0—50 °C)
		± 3% RH (range 0—95 %)
		±15 % TVOC (range 0—60.000 ppb)
Protection standard		IP30 (according to EN 60529)



Indications

1 - Red LED	Continuous	Measured temperature, relative humidity or TVOC are out of range
	Blinking	Communication with one of the sensors fails
2 - Yellow LED	On	Measured temperature, relative humidity or TVOC are in the alert range
	On	Measured temperature, relative humidity or TVOC are within range
3 - Green LED	Blinking	Sensor warming up
4 - Ambient light sensor		Low light intensity / Active / Standby
5 - RJ45 socket		Modbus communication with connected Master devices and PoM-voltage supply (24 VDC)
		Blinking LEDs indicate that packages are transmitted via Modbus RTU communication
6 - TVOC sensor element		Replaceable in case of faulty operation



Article codes

	Supply	Imax	Connection
RSVCM-R	24 VDC, PoM	115 mA	RJ45

Wiring diagram

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		

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.

Area of use

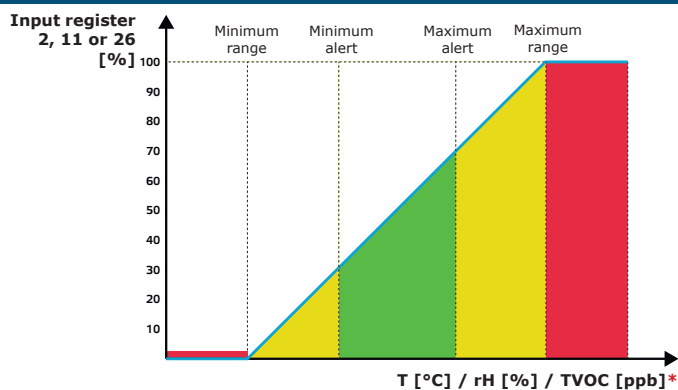
- Measurement of indoor temperature, relative humidity and TVOC
- Monitoring of indoor air quality
- Suitable for residential and commercial buildings
- For indoor use only

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Operational diagram(s)



* LED indications - T, rH or TVOC (default)

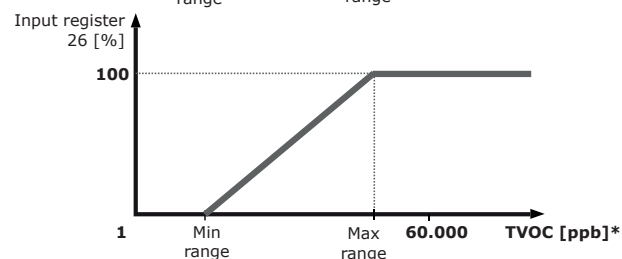
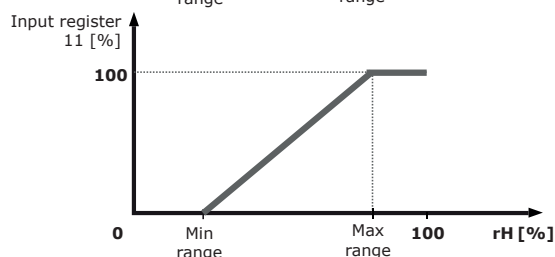
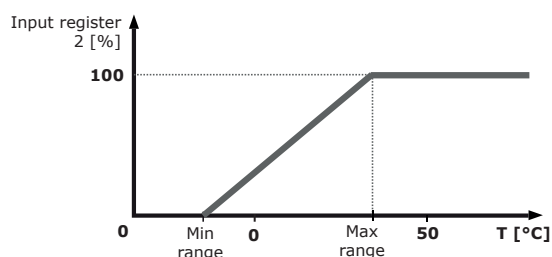
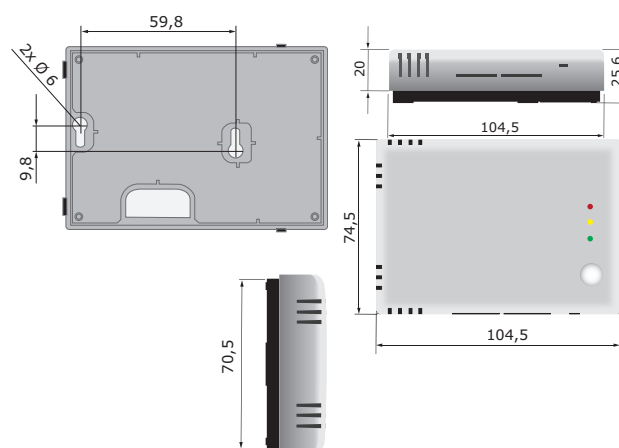
Standards

- 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/EU:
 - 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 for transducers with integrated or remote signal conditioning

• WEEE 2012/19/EC

• RoHS Directive 2011/65/EC

Fixing and dimensions



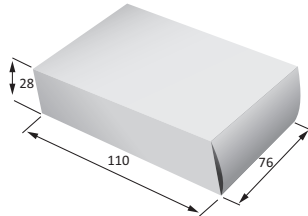
*TVOC measurements will return 0 ppb during warm-up time.



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Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
RSVCM-R	Unit (1 pc.)	110	76	28	0,089 kg	0,111 kg
	Carton (24 pcs.)	492	182	84	2,14 kg	2,804 kg
	Box (144 pcs.)	510	410	270	12,81 kg	18,066 kg

Global trade item numbers (GTIN)

Packaging	RSVCM-R
Unit	05401003011478
Carton	05401003301913
Box	05401003502730