FEATURES

- Indoor temperature and relative humidity measurement

- Temperature, relative humidity and condensation alarms

- Dew point temperature measurement

- Relative humidity notification through color LED

- Logic functions

- 2 inputs configurable as binary input, temperature probe or motion detector

- Total data saving on KNX bus failure

- Integrated KNX BCU (TP1-256)

- Dimensions 82 x 82 x 33.2 mm

- Flush mount on back box

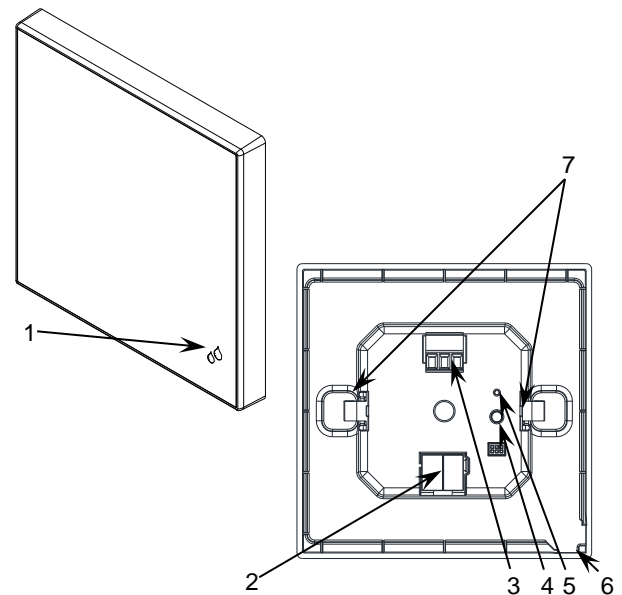- Conformity with the CE, UKCA, RCM, RCM directives (marks on the back side)

Figure 1: Flat Sensato v2

1. Humidity notification LED	2. KNX connector	3. Inputs connector	4. Programming Button
5. Programming LED	6. Temperature and humidity sensor with protection membrane		7. Fixing clips

Programming button: short press to set programming mode. If this button is held while plugging the device into the KNX bus, it enters the safe mode.

Programming LED: programming mode indicator (red). When the device enters the safe mode, it blinks (red) every half second. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it emits a red flash.

GENERAL SPECIFICATIONS

CONCEPT			DESCRIPTION	
Type of device			Electric operation control device	
KNX supply	Voltage (typical)		29 VDC SELV	
	Voltage range		21-31 VDC	
	Maximum consumption	Voltage	mA	mW
		29 VDC (typical)	4.1	118.9
		24 VDC[1]	10	240
	Connection type		Typical TP1 bus connector for 0.8 mm Ø rigid cable	
External power supply			Not required	
Operation temperature			0 .. +55 °C	
Storage temperature			-20 .. +55 °C	
Operation humidity			5 .. 95%	
Storage humidity			5 .. 95%	
Complementary characteristics			Class B	
Protection class			III	
Operation type			Continuous operation	
Device action type			Type 1	
Electrical stress period			Long	
Degree of protection			IP20, clean environment	
Installation			Flush mount on back box	
Minimum clearances			Not required	
Response on KNX bus failure			Data saving according to parameterization	
Response on KNX bus restart			Data recovery according to parameterization	
Operation indicator			The programming LED indicates programming mode (red). The humidity notification LED can be parameterized to notify the measurement of comfort, extreme or very extreme relative humidity levels by means of a green, yellow or red light, respectively.	
Weight			78 g	
PCB CTI index			175 V	
Housing material			PC+ABS FR V0 halogen free	

[1] Maximum consumption in the worst-case scenario (KNX Fan-In model).

INTEGRATED HUMIDITY AND TEMPERATURE SENSOR SPECIFICATIONS

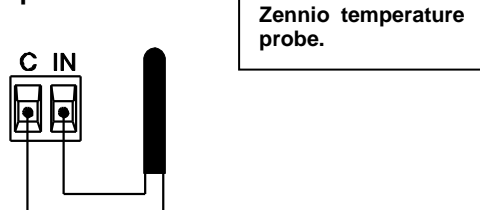| CONCEPT	DESCRIPTION
Temperature measurement range	0 .. 90 °C
Temperature resolution / accuracy	0.1 °C / ±0.5 °C (@ 25 °C)
Humidity measurement range	0 .. 100% RH
Humidity response time	1 s
Humidity resolution / accuracy	1% / ±3% RH
Humidity drift	±0.25% RH per year in normal air

INPUTS SPECIFICATIONS AND CONNECTIONS

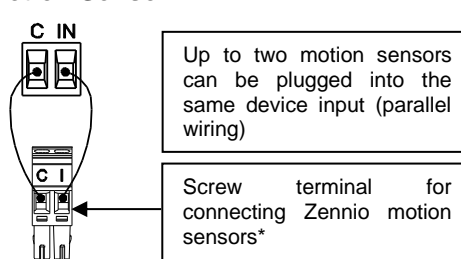| CONCEPT	DESCRIPTION
Number of inputs	2
Inputs per common	2
Operation voltage	+3.3 VDC in the common
Operation current	1 mA @ 3.3 VDC (per input)
Switching type	Dry voltage contacts between input and common
Connection method	Pluggable screw terminal block (0.2 Nm max.)
Cable cross-section	0.2-1.5 mm² (IEC) / 28-14 AWG (UL)
Maximum cable length	30 m
NTC probe length	1.5 m (extensible up to 30 m)
NTC accuracy (@ 25 °C) ²	±0.5 °C
Temperature resolution	0.1 °C
Maximum response time	10 ms

² For Zennio temperature probes.

INPUTS CONNECTION

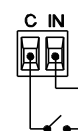Any combination of the following accessories is allowed in the inputs:

Temperature Probe**

Zennio temperature probe.

Motion Sensor

Up to two motion sensors can be plugged into the same device input (parallel wiring)

Screw terminal for connecting Zennio motion sensors*

Switch/Sensor/ Push button

* In case of using ZN1IO-DETEC-P sensor, its micro switch number 2 must be in **Type B position**.
** Zennio temperature probe or any NTC with known resistance values at three points in the range [-55, 150 ºC].

⚠ Commons of different devices must not be connected together.

INSTALLATION INSTRUCTIONS

⚠ **IMPORTANT:**

1. The flush-mounted box must be completely sealed once the cables are inside. Airtight boxes, polyurethane foam, silicone rubber or similar non-breathable construction materials can be used.

2. The mounting location must not be exposed to airflows or direct sun radiation.
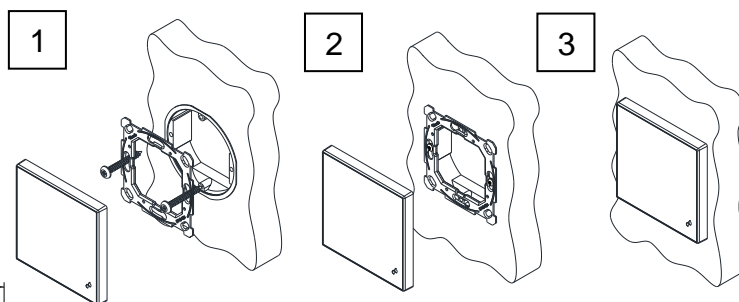
DIMENSIONS (mm)
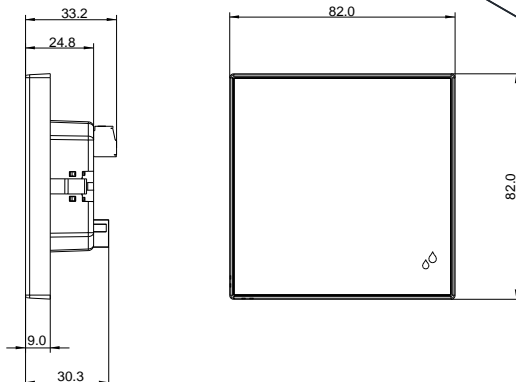
⚠ SAFETY INSTRUCTIONS AND ADDITIONAL NOTES

- Installation should only be performed by qualified professionals according to the laws and regulations applicable in each country.
- Do not connect the mains voltage nor any other external voltage to any point of the KNX bus; it would represent a risk for the entire KNX system. The facility must have enough insulation between the mains (or auxiliary) voltage and the KNX bus or the wires of other accessories, in case of being installed.
- Keep the device away from water (condensation over the device included) and do not cover it with clothes, paper or any other material while in use.
- The WEEE logo means that this device contains electronic parts and it must be properly disposed of by following the instructions at https://www.zennio.com/en/legal/weee-regulation.
- This device contains software subject to specific licences. For details, please refer to http://zennio.com/licenses.