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.
- Integrated KNX BCU.
- Dimensions 81 x 81 x 28mm.
- Flush-mounted in mechanism box.
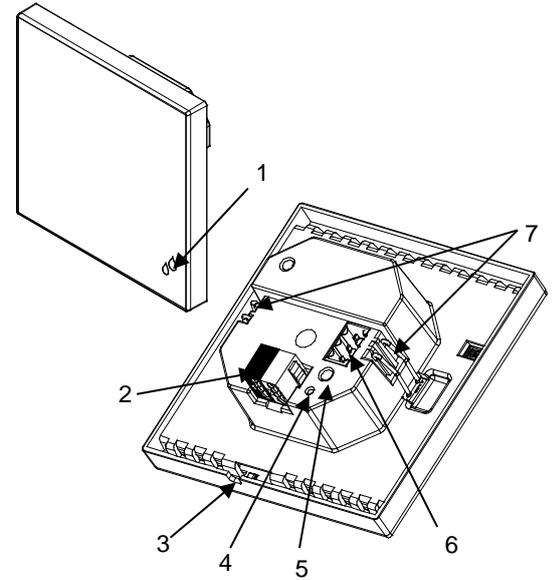- Conformity with the CE directives (CE mark on the back side).

Figure 1. Flat Sensato

1. Humidity notification LED	**2**. KNX connector	**3**. Sensor	**4**. Programming LED
5. Programming Button		**6**. Inputs connector	**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 into 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)		29VDC SELV		
	Voltage range		21…31VDC		
	Maximum consumption	Voltage	mA		mW
		29VDC (typical)	7		203
		24VDC[1]	10		240
	Connection type		Typical bus connector TP1 for rigid cable 0.80mm Ø		
External power supply			Not required		
Operation temperature			0ºC to +45ºC		
Storage temperature			-20ºC to +55ºC		
Operation humidity			5 to 100% RH (no condensation)		
Storage humidity			5 to 95% RH (no condensation)		
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-mounted in mechanism 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 LED can be parameterized to indicate a relative humidity ranges with a comfort, extreme or very extreme value, represented by a green, yellow or red light, respectively.		
Weight			81g		
PCB CTI index			175V		
Housing material			PC FR V0 halogen free		

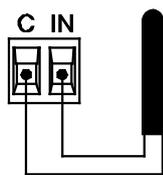[1] Maximum consumption in the worst case scenario (KNX Fan-In model)

INTEGRATED SENSOR SPECIFICATIONS

CONCEPT	DESCRIPTION
Temperature measurement range	-40ºC to 80ºC
Temperature resolution	0.1ºC
Temperature accuracy	±0.5ºC to 25ºC
Humidity measurement range	0% to 100%
Humidity response time	1 s
Humidity resolution	1% R.H.
Humidity accuracy tolerance	±3% R.H.
Humidity drift	±0.5% R.H. per year in normal air

INPUTS SPECIFICATIONS AND CONNECTIONS

CONCEPT	DESCRIPTION
Number of inputs	2
Inputs per common	1
Operation voltage	+3.3VDC in the common
Operation current	1.0mA @ 3.3VDC (per input)
Maximum impedance	Approx. 3.3kΩ
Switching type	Dry voltage contacts between input and common
Connection method	Pluggable screw terminal block
Maximum cable length	30m
NTC probe length	1.5m (up to 30m)
NTC accuracy (@ 25ºC)[2]	±0.5ºC
Temperature resolution	0.1ºC
Cable cross-section	0.5mm² to 1.5mm² (26-14AWG)
Maximum response time	10ms

[2] For Zennio temperature probes.

Any combination of the next **accessories** is allowed in the inputs:

Temperature Probe
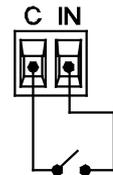
Zennio temperature probe.

Motion Sensor

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

Motion sensor screw terminal.
Motion sensor references:
ZN1IO-DETEC-P[3]
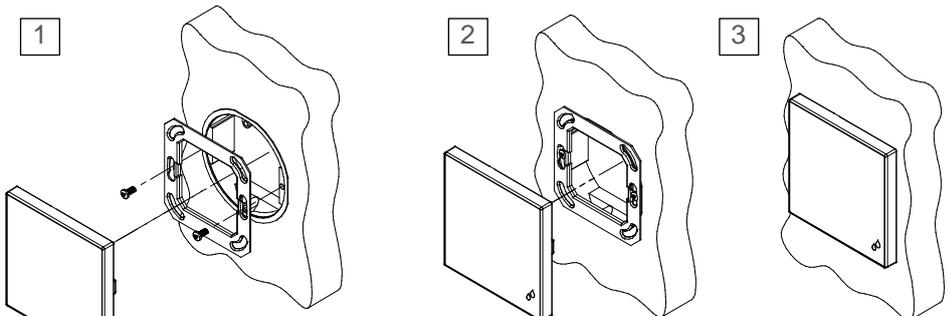ZN1IO-DETEC-X

Switch/Sensor/ Push button

[3] The micro switch number 2 in the ZN1IO-DETEC-P **must be in Type B position** to work properly.
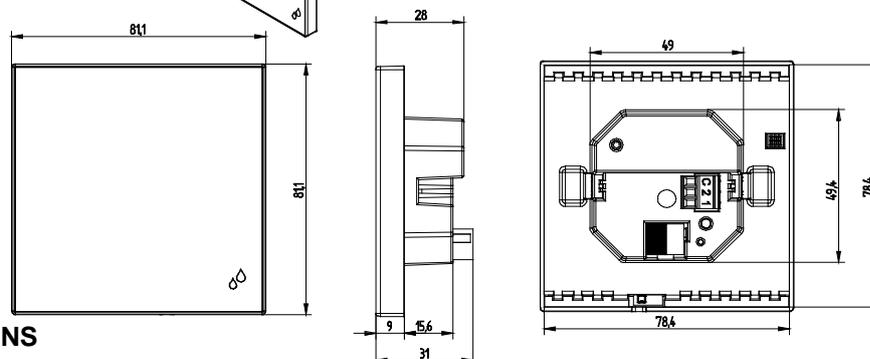
INSTALLATION INSTRUCTIONS

⚠ **IMPORTANT:**

1. The flush-mounted box must be completely sealed once the cables are inside it. Polyurethane foam, silicon 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

⚠ **SAFETY INSTRUCTIONS**

- 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 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 http://zennio.com/weee-regulation.