FEATURES

- Customizable printed glass with 4 touch areas with backlight

- 1.18" OLED display (128x128 pixels)

- 2 analog/digital inputs

- Thermostat

- Clock functionality (subject to updating through devices with RTC or NTP client)

- Touch confirmation through acoustic feedback

- Proximity and luminosity sensor

- Total data saving on KNX bus failure

- Integrated KNX BCU (TP1-256)

- Dimensions 55 x 55 x 36 mm

- Flush mount on back box

- Conformity with the CE, UKCA, RCM directives (marks on the back side)
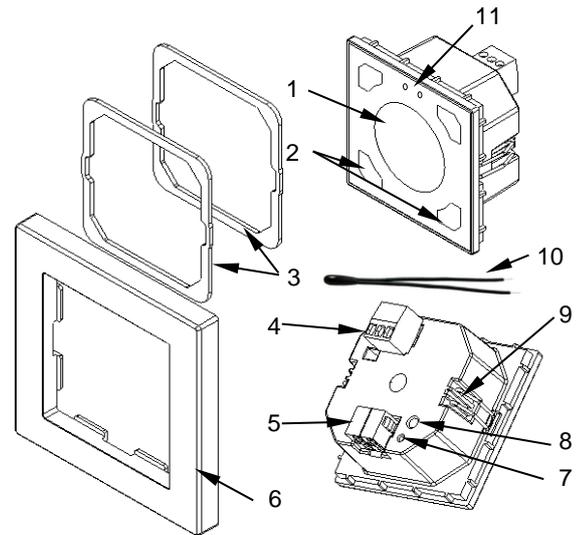
Figure 1: Flat 55 Display v2

1. Display	2. Touch areas	3. Metallic levelling plate (1 and 1.5mm)	4. Inputs connector
5. KNX connector	6. Decorative frame (sold separately)	7. Programming LED	8. Programming button
9. Fixing clips	10. Temperature probe ref. 9900015 (included)	11. Luminosity and proximity sensor	

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)	11.1		321.9
		24 VDC[1]	15		360
	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). Backlighting of touch areas and display depending on their parameterization.		
Weight			49 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).

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	1m (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.

INCLUDED TEMPERATURE PROBE SPECIFICATIONS

CONCEPT	DESCRIPTION
Measuring range	-40 .. +105 °C
NTC Probe diameter	3 mm
Thermistor value (@ 25 ºC)	10 kΩ

INPUTS CONNECTION

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

Temperature Probe** ***

C IN

Zennio temperature probe.

Motion Sensor

C IN

C I

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

Screw terminal for connecting Zennio motion sensors*
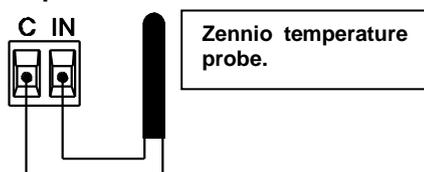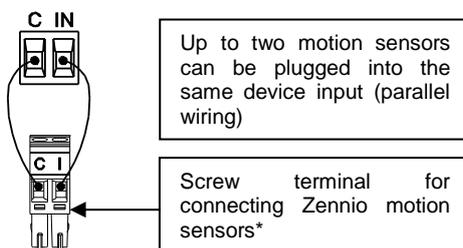
Switch/Sensor/ Push button

C IN

⚠ Commons of different devices must not be connected together.

 * In case of using ZN1IO-DETEC-P sensor, its micro switch number 2 must be in **Type B position**.
 ** May be a Zennio temperature probe or any NTC with known resistance values at three points in the range [-55, 150 ºC].
 *** To use the included temperature probe, a proper thermal transfer must be ensured, for example, by installing it in the small internal notch of the Zennio decorative frame (sold separately).

INSTALLATION INSTRUCTIONS

1. Fix the metal plate into a square or round back box by using the screws from the box, checking that it is levelled.
* (Optional) Insert the metallic levelling plate/s so the frame stays at the desired level.
2. Connect the KNX bus and the inputs terminal to the back of the device. Fix the frame to the device.
3. Fit the device into its final position and check that the strength of the clips is enough to fix the device. Avoid pressing on the display during this step, in order to prevent accidental damages to the device.

1

2

3

Avoid pressing on the display

DIMENSIONS (mm)

55

55

36

26

50

50
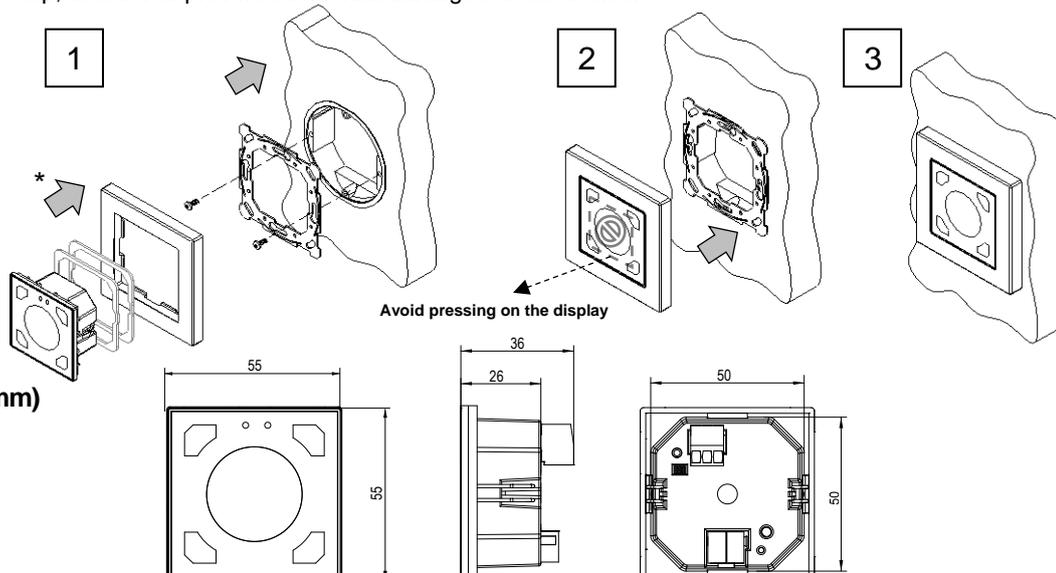
⚠ **SAFETY INSTRUCTIONS AND ADDITIONAL NOTES**

- 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.
- In order to improve the lifespan of the LED indicators, parameterising constant lighting is not recommended.
- 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.