Flat 55 Display

55x55mm capacitive glass touch panel with round display

ZVI-F55D **TECHNICAL DOCUMENTATION**

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.
- Dimensions 55 x 55 x 36mm.
- Flush mounted in mechanism box.
- Conformity with the CE directives (CE-mark on the back side).

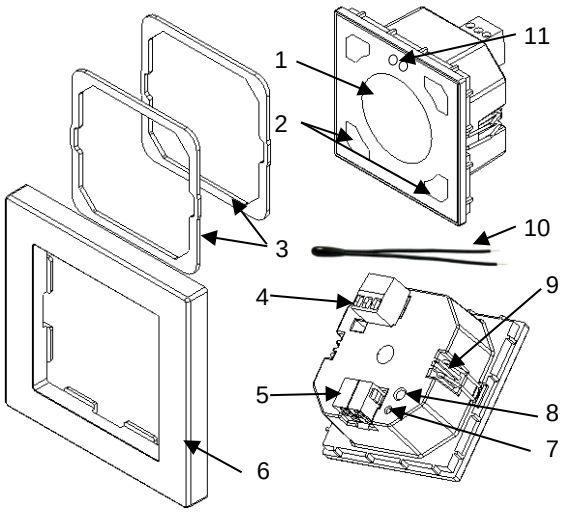


Figure 1: Flat 55 Display

1. Display	**2**. Touch areas	**3**. Metallic levelling plate (1 and 1.5mm)	**4**. Inputs connector
5. KNX connector	**6**. 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)		29VDC SELV	
	Voltage range		21..31VDC	
	Maximum consumption	Voltage	mA	mW
		29VDC (typical)	20.6	597.4
		24VDC[1]	25	600
	Connection type		Typical TP1 bus connector for 0.80mm Ø rigid cable	
External power supply			Not required	
Operation temperature			0°C .. +55°C	
Storage temperature			-20°C .. +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 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). Backlighting of touch areas and display depending on their / the parameterization.	
Weight			68g	
PCB CTI index			175V	
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	+3.3VDC in the common
Operation current	1mA @ 3.3VDC (per input)
Switching type	Dry voltage contacts between input and common
Connection method	Pluggable screw terminal block
Cable cross-section	0.2-1.5mm² (IEC) / 28-14AWG (UL)
Maximum cable length	30m
NTC probe length	1m (up to 30m)
NTC accuracy (@ 25°C) [2]	±0.5°C
Temperature resolution	0.1°C
Maximum response time	10ms

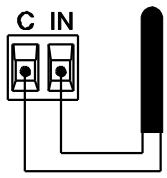
[2] For Zennio temperature probes.

FRAME TEMPERATURE SENSOR SPECIFICATIONS	
CONCEPT	**DESCRIPTION**
Measuring range	-40 .. +105°C
Temperature resolution	0.1°C
NTC accuracy (@ 25°C)	±0.5°C

INPUTS CONNECTION

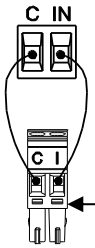
Any combination of the following **accessories** is allowed in the inputs:

Temperature Probe *****



Zennio temperature probe.

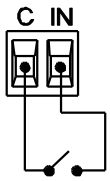
Motion Sensor



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

Screw terminal for connecting Zennio motion sensors*

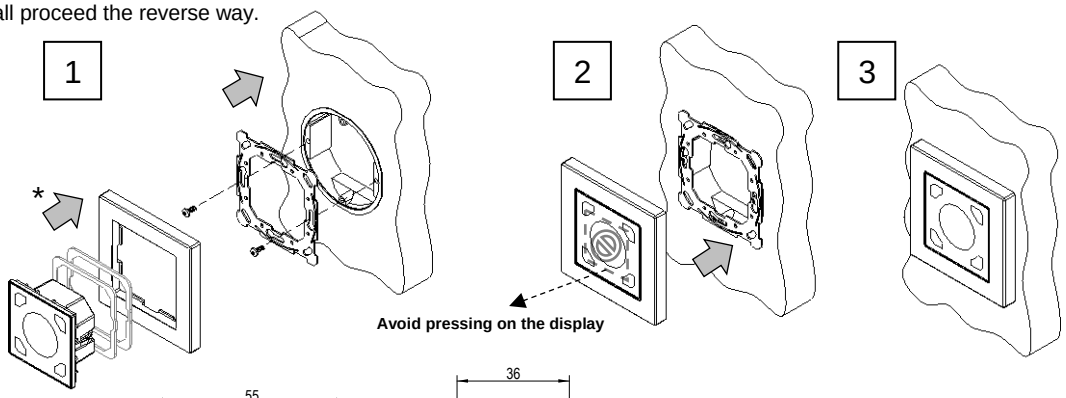
Switch/Sensor/ Push button



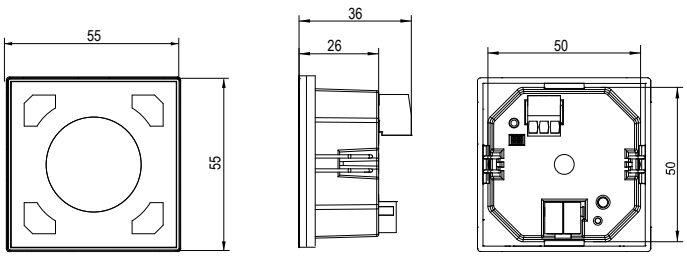
* In case of using ZN1IO-DETEC-P sensor, its micro switch number 2 must be in **Type B position**.
** May be a Zennio temperature probe or any NTC with known resistance values at three points in the range [-55, 150ºC].
*** To use the included temperature probe, a proper thermal transfer must be ensured,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

INSTALLATION INSTRUCTIONS

1. Please, fix the metal plate into a square or round flush box with the screws from the box.
   * (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.**
   To uninstall proceed the reverse way.



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