

# Capacitive touch panel with 5 buttons and 2.4" display ZVI-FD

#### **Technical Documentation**

### **FEATURES**

- Printed glass touch panel customizable through web application.
- 2.4" OLED display 128 x 64 pixels.
- 5 touch areas.
- 2 analog/digital inputs.
- Thermostat.
- Temperature sensor.
- Backlighting of touch areas to indicate statuses.
- Luminosity and proximity sensor.
- Total data saving on KNX bus failure.
- Integrated KNX BCU.
- Dimensions 81 x 81 x 28 (9 external out of the wall) mm.
- Flush mount on mounting box.
- Conformity with the CE directives (CE-mark on the back side).

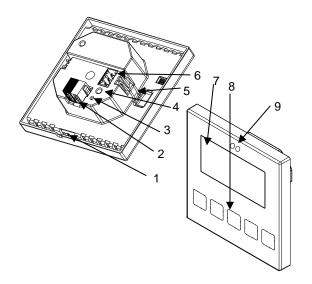


Figure 1. Flat Display

1. Temperature sensor	2. KNX connector		3. Programming LED	4. Programming button
5. Fixing clips	6. Inputs connector	7. Display	8. Touch area	9. 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			
	Voltage (typical)		29VDC SELV			
	Voltage range		2131VDC			
KNX	Mandania	Voltage	mA	mW		
supply	Maximum	29VDC (typical)	12.8	371.5		
	consumption	24VDC <sup>(1)</sup>	17.5	420		
Connection type		ре	Typical TP1 bus connector for rigid cable 0.80mm Ø			
External power supply Operation temperature Storage temperature Operation humidity Storage humidity Complementary characteristics Protection class Operation type Device action type			Not required			
			+5°C to +45°C			
			-20°C to +55°C			
			5 to 95% RH (no condensation)			
			5 to 95% RH (no condensation)			
			Class B			
			Continuous operation			
			Type 1			
Electrical stress period			Long			
Degree of protection Installation Minimum clearances			IP20, clean environment			
			Flush mount on mechanism box			
			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			95g			
PCB CTI index			175V			
Housing material			PC+ABS FR V0 halogen free			

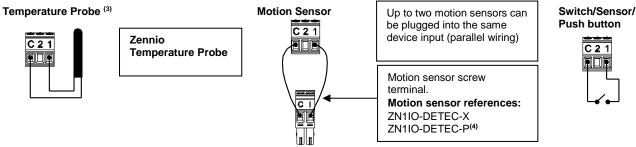
<sup>(1)</sup> Maximum consumption in the worst case scenario (KNX Fan-In model)

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)			
Impedance per input	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 (extendable up to 30m)			
NTC accuracy (@ 25°C) (2)	±0.5°C			
Temperature resolution	0.1°C			
Cable cross-section	0.5mm² to 1.5mm² (26-14 AWG)			
Maximum response time	10ms			

<sup>(2)</sup> For Zennio temperature probes.

#### **INPUTS CONNECTION**

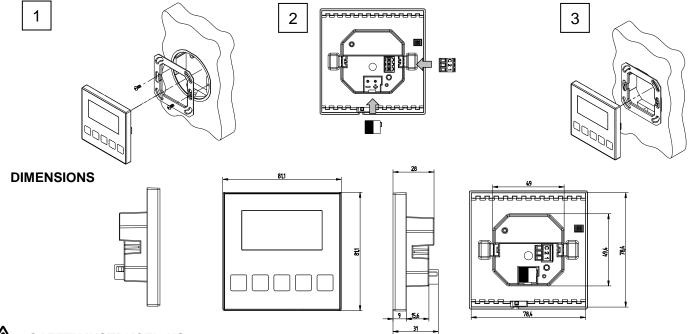
Any combination of the following accessories is allowed in the inputs:



- (3) The probe can be a Zennio one or a NTC probe with known resistances for three temperatures in the range [-55, 150°C].
- (4) The micro switch number 2 in the ZN1IO-DETEC-P sensor must be in Type B position to work properly.

#### **INSTALLATION INSTRUCTIONS**

- 1. Please, fix the metal plate into a square or round flush box with the screws from the box.
- 2. Connect the KNX bus and the inputs terminal to the back of the device.
- 3. Fit the device into its final position and check that the strength of the clips is enough to fix the device.



## 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.