Square TMD

1, 2, 4 or 6 KNX capacitive touch switch

ZVI-SQTMD1, ZVI-SQTMD2, ZVI-SQTMD4, ZVI-SQTMD6

Technical Documentation

CHARACTERISTICS

- Completely customized image for printout glass, through web application.
- 1, 2, 4 or 6 touch areas.
- 2 analog/digital inputs.
- No power supply different from the bus needed.
- Thermostat.
- Temperature sensor.
- Status indicators LED.
- Custom LED luminosity.
- KNX BCU integrated.
- Magnetic fit with security mechanism to avoid accidental extraction. Metallic stand included.
- Complete data saving in case of power failure.
- Conformity with the CE directives (CE-mark on the back side).

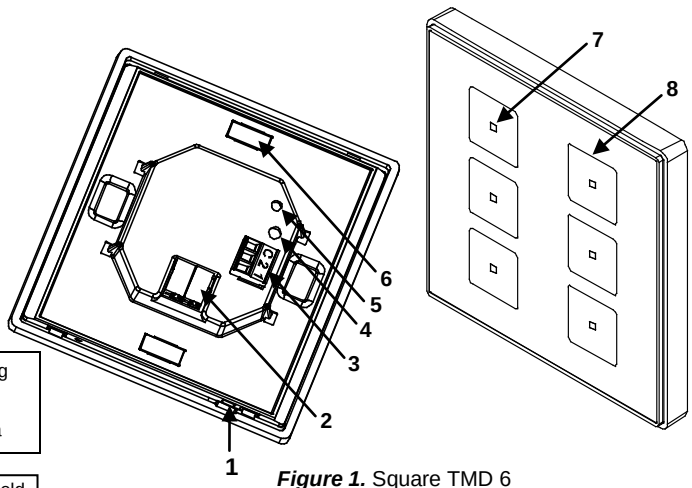


Figure 1. Square TMD 6

1. Temperature sensor	**2**. KNX bus connector	**3**. Analog/digital inputs	**4.** Programming button
5. Programming LED	**6**. Magnet	**7**. Indicator LED	**8**. Touch area

Programming button: used to set the device in "programming mode". If this button is held while plugging the device into the KNX bus, it goes into safe mode.
Programming LED: LED ON indicates programming mode. Blinking every 0.5 seconds when device is in safe mode.

GENERAL SPECIFICATIONS

CONCEPT			DESCRIPTION	
Device type			Electric operation control device	
KNX supply	Voltage (typical)		29VDC	
	Voltage range		21…31VDC	
	Maximum consumption	Voltage	mA	mW
		29VDC (typical)	6	174
		24VDC[(1)]	10	240
	Connection type		Typical TP1 bus connector, 0.80mm^2 section	
Operating temperature			from 5ºC to +40ºC	
Storage temperature			from -20ºC to +60ºC	
Ambient humidity (relative)			from 5 to 95% RH (no condensation)	
Storage humidity (relative)			from 5 to 95% RH (no condensation)	
Complementary characteristics			Class B	
Safety class			III	
Operation type			Continuous operation	
Device action type			Type 1	
Electrical stress period			Long	
Degree of protection			IP20, clean environment	
Assembly			Vertical or horizontal position. See example in "installation and connection diagram"	
Minimum clearances			Keep away from heat and cold air flows to get better temperature sensor measures	
Response to bus voltage failure			Complete data saving	
Response to bus failure recovery			Data recovery	
Weight			134g	
PCB CTI index			175V	
Housing material			PC+ABS FR V0 halogen free	

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

INPUT CONNECTIONS

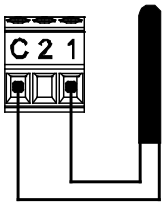
CONCEPT	DESCRIPTION
Number of inputs	2
Output voltage of the inputs	+3.3VDC for the common (do not connect external voltage into the inputs in any case)
Output current of the inputs	1mA at 3.3VDC in each input
Impedance of the inputs	Approx. 3.3kΩ
Switching type	Dry voltage contacts between input and common
Connection method	Cable screw terminal and matching socket
Max.cable length	30m
NTC sensor cable length	1.5m (extendable up to 30m)
NTC accuracy (@ 25ºC)	0.5ºC
Temperature measure resolution	0.1ºC
Cable cross-section	from 0.5mm² to 1mm² (26-16 AWG)
Response time OFF → ON	Maximum 10ms.
Response time ON → OFF	Maximum 10ms.
Operation indicator	None

INTERNAL TEMPERATURE SENSOR SPECIFICATIONS	
CONCEPT	**DESCRIPTION**
Measuring range	-10ºC to 50ºC
Resolution	0.1ºC
Sensor precision @25ºC	1%

INPUT CONNECTIONS

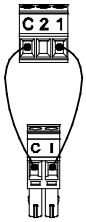
Any combination of the next **accessories** is allowed in the inputs:

Temperature Probe



Zennio Temperature Probe

Motion Sensor

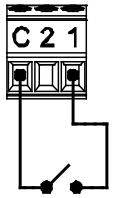


Up to two motion sensors can be plugged into the same Square TMD input (parallel wiring)

Motion sensor screw terminal.

Motion sensor references:
ZN1IO-DETEC-X
ZN1IO-DETEC-P (2)

Switch/Sensor/ Push Button

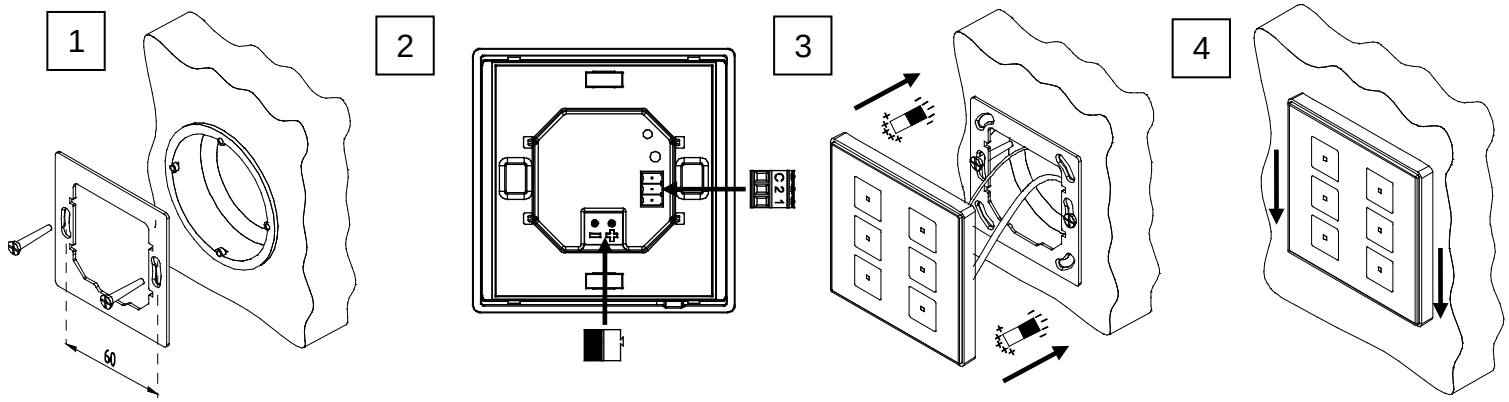


(2) The micro switch number 2 in the ZN1IO-DETEC-P sensor **must be in Type B position** to work properly.

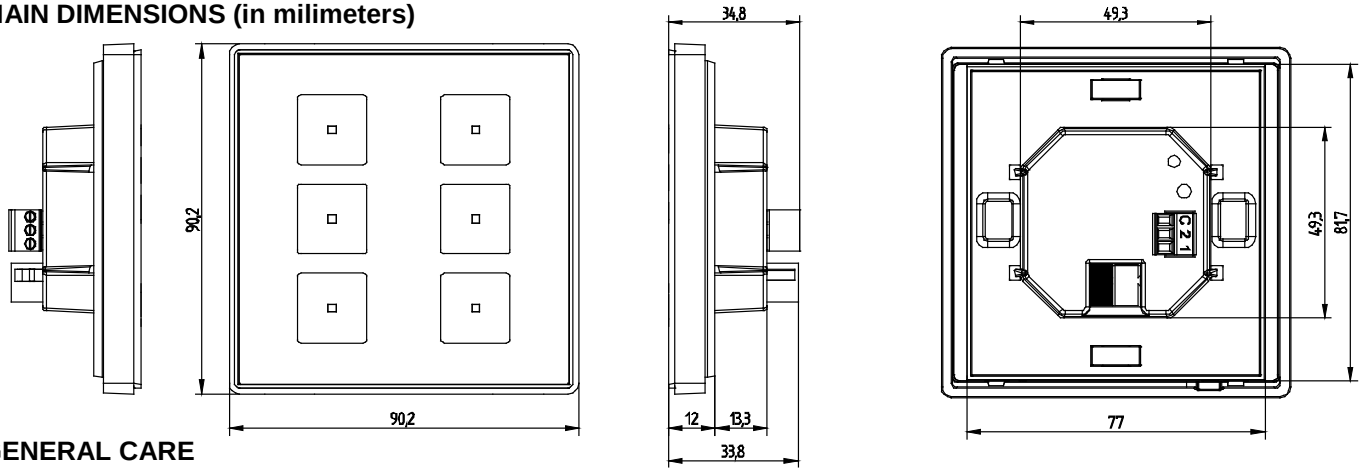
INSTALLATION AND CONNECTION DIAGRAM

Step 1: Place the metallic piece into a squared or rounded standard mounting box with the own screws from the box.
Step 2: Connect the KNX bus at the rear of the device, as well as the inputs terminal.
Step 3: Once inputs and bus KNX are connected, fit Square TMD in the metal platform. The device is fixed thanks to the magnets.
Step 4: Slid Square TMD downwards to fix it with the security anchorage system. Check, from the side, that nothing unless Square TMD outline can be seen.

To uninstall proceed the reverse way.



MAIN DIMENSIONS (in milimeters)



GENERAL CARE

- Do not use aerosol sprays, solvents, or abrasives that might damage the device.
- Clean the product with a clean, soft, damp cloth.

SAFETY INSTRUCTIONS

- Installation should only be performed by qualified electricians following applicable regulations on preventing accidents, as required by law.
- Do not connect the main voltage (230V) or any other external voltages to any point of the KNX bus. Connecting an external voltage might put the KNX system into risk.
- Ensure that there is enough insulation between the AC voltage cables and the KNX bus.
- Do not expose this device to direct sunlight, rain or high humidity.
- The WEEE logo means that this device contains electronic parts and it must be discarded properly following the instructions of http://zennio.com/weee-regulation.