FEATURES

- 8 analog/digital inputs configurable as temperature probe (NTC with customizable curve), motion sensor and binary input

- 8 thermostats

- Total data saving on KNX bus failure

- Integrated KNX BCU (TP1-256)

- Dimensions 67 x 90 x 36 mm (2 DIN units)

- DIN rail mounting according to IEC 60715 TH35, with fixing clamp

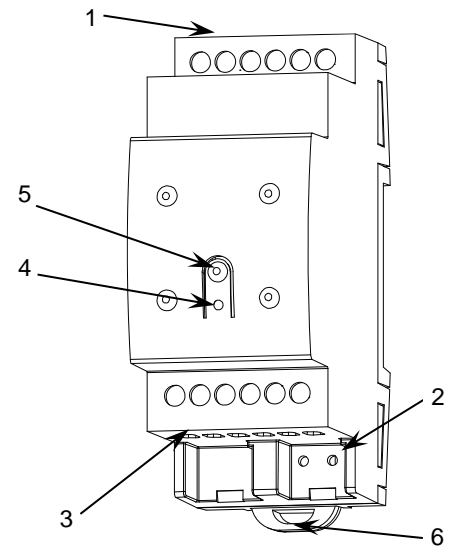- Conformity with the CE, UKCA, RCM directives (marks on the right side)

Figure 1: RailQUAD 8

1. Analog/Digital inputs 1 to 4	2. KNX connector	3. Analog/Digital inputs 5 to 8
4. Programming LED	5. Programming button	6. Fixing clamp

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)	6.9	200.1
		24 VDC[1]	10	240
	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			Independent device to be mounted inside electrical panels with DIN rail (IEC 60715)	
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).	
Weight			58 g	
PCB CTI index			175 V	
Housing material			PC FR V0 halogen free	

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

INPUTS SPECIFICATIONS AND CONNECTIONS

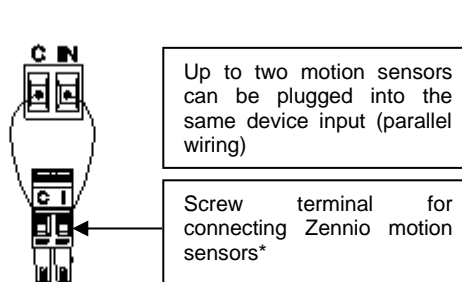| CONCEPT	DESCRIPTION
Number of inputs	8
Inputs per common	2
Operation voltage	+3.3 VDC in the common
Operation current	1 mA @ 3.3 VDC (per input)
Switching type	Dry voltage contacts between input and common
Connection method	Screw terminal block (0.4 Nm max.)
Cable cross-section	0.5-2.5 mm² (IEC) / 26-12 AWG (UL)
Maximum cable length	30 m
NTC probe length	1.5 m (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.

INPUTS CONNECTION

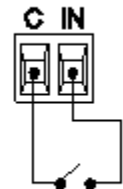Any combination of the following accessories is allowed in the inputs:
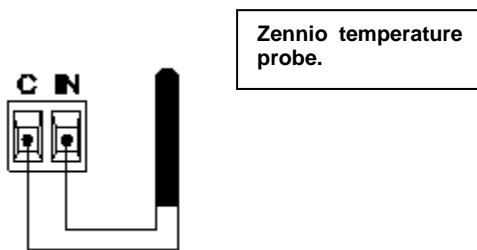
Temperature Probe**   **Motion Sensor**   **Switch/Sensor/ Push button**

Zennio temperature probe.

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

Screw terminal for connecting Zennio motion sensors*

* In case of using ZN1IO-DETEC-P sensor, its micro switch number 2 must be in **Type B position.**
** Zennio temperature probe or any NTC with known resistance values at three points in the range [-55, 150 ºC].

⚠ Commons of different devices must not be connected together.

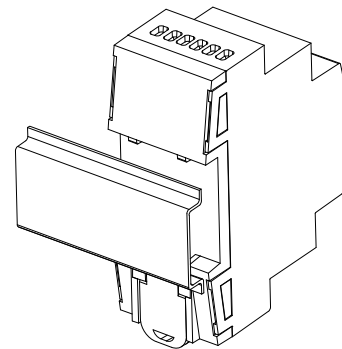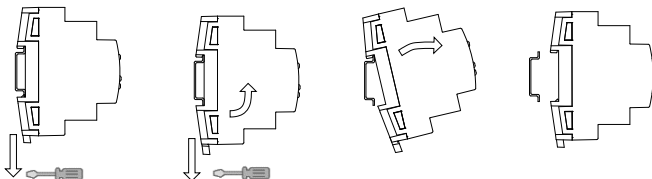Attaching RailQUAD 8 to DIN rail:
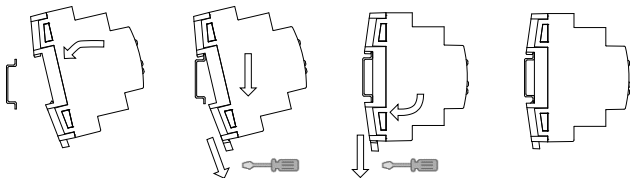
Removing RailQUAD 8 from DIN rail:

Figure 2: Mounting RailQUAD 8 on DIN rail

⚠ 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.
- Once the device is installed (in the panel or box), it must not be accessible from outside.
- 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 https://www.zennio.com/en/legal/weee-regulation.