

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.
- Dimensions 67 x 90 x 35mm (2 DIN units).
- Integrated KNX BCU.
- DIN rail assembly (EN 50022), through pressure.
- Conformity with the CE directives (CE-mark on the right side).

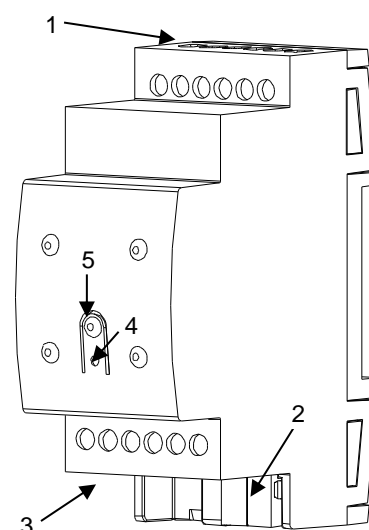


Figure 1: RailQUAD 8

| | | |
|---------------------------------|------------------|---------------------------------|
| 1. Analog/Digital inputs 1 to 4 | 2. KNX connector | 3. Analog/Digital inputs 5 to 8 |
| 4. Programming LED | | 5. Programming button |

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) | 6.9 | 200.1 |
| | | 24VDC ¹ | 10 | 240 |
| 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% (No condens.) | |
| Storage humidity | | | 5 .. 95% (No condens.) | |
| 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 (EN 50022) | |
| 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 | | | 58g | |
| PCB CTI index | | | 175V | |
| Housing material | | | PC FR V0 halogen free | |

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

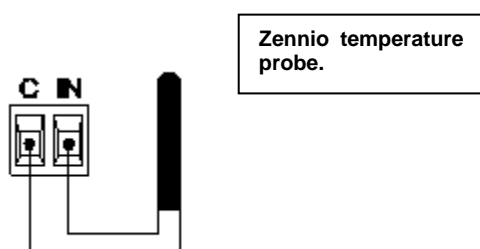
| INPUTS SPECIFICATIONS AND CONNECTIONS | |
|---------------------------------------|---|
| CONCEPT | DESCRIPTION |
| Number of inputs | 8 |
| Inputs per common | 2 |
| Operation voltage | +3.3VDC in the common |
| Operation current | 1mA @ 3.3VDC (per input) |
| Switching type | Dry voltage contacts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

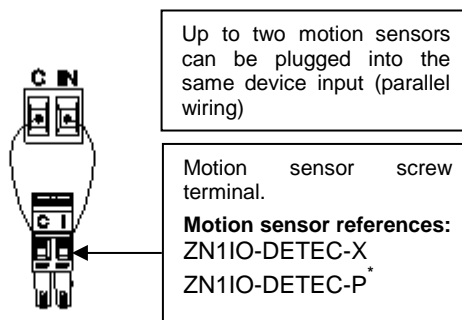
INPUTS CONNECTION

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

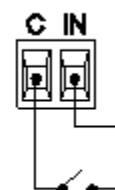
Temperature Probe**



Motion Sensor



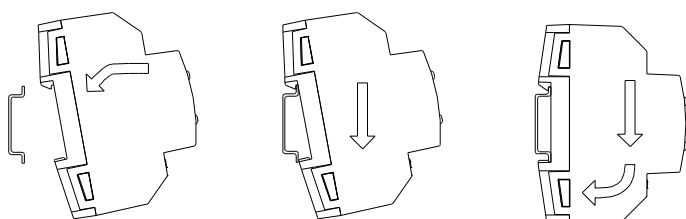
Switch/Sensor/ Push button



* The micro switch number 2 in the ZN11IO-DETEC-P must be in **Type B position** to work properly.

** Zennio temperature probe or any NTC with known resistance values at three points in the range [-55, 150°C].

Attaching RailQUAD 8 to DIN rail:



Removing RailQUAD 8 from DIN rail:

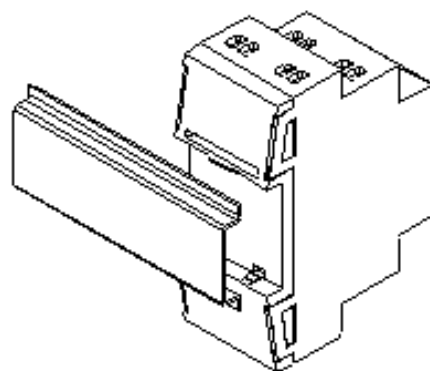
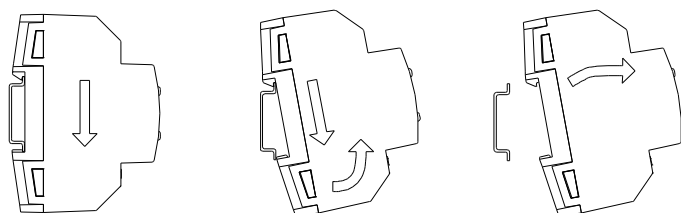


Figure 2: Mounting RailQUAD 8 on DIN rail



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.
- Once the device is installed (in the panel or box), it must not be accessible from outside.
- 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>.