

### FEATURES

- 4 analog/digital configurable inputs as binary input, temperature probe (Zennio probe, NTC with customizable curve, PT1000 or Ni1000) or motion sensor
- With input status LED indicators
- KNX Data Secure supported
- 4 thermostats
- Total data saving on KNX bus failure
- Integrated KNX BCU (TP1-256)
- No external supply required different from bus
- Dimensions: 39.1 x 39.1 x 14 mm
- Can be mounted within distribution boxes or wall back boxes or DIN rail
- Conformity with the CE, RCM directives (marks on the front side)

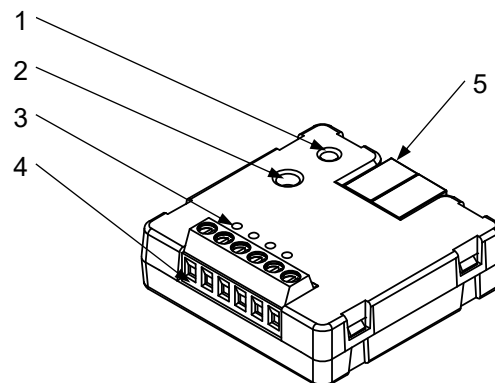


Figure 1: QUAD v3

|                    |                       |                      |
|--------------------|-----------------------|----------------------|
| 1. Programming LED | 2. Programming button | 3. Inputs status LED |
| 4. Inputs          |                       | 5. KNX connector     |

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. In order to perform a KNX Secure factory reset, while the device is in safe mode, press the button for 10 seconds until the programming LED changes its state.

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)                                   | 4.8                                                                                                                                          | 139.2 |
|                               |                     | 24 VDC <sup>1</sup>                                | 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 in distribution boxes or wall back boxes                                                                    |       |
| 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). Each input LED indicates its status and it flashes on error or tampering of the input. |       |
| Weight                        |                     |                                                    | 14 g                                                                                                                                         |       |
| Housing material              |                     |                                                    | PC 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                           | 4                                             |
| 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 (0.2 Nm max.)            |
| Cable cross-section                        | 0.5-1 mm <sup>2</sup> (IEC) / 26-16 AWG (UL)  |
| Maximum cable length <sup>2</sup>          | 30 m                                          |
| NTC/PT1000 probe length                    | -                                             |
| NTC/PT1000 accuracy (@ 25 °C) <sup>3</sup> | ±0.5 °C                                       |
| Temperature resolution                     | 0.1 °C                                        |
| Maximum response time                      | 10 ms                                         |

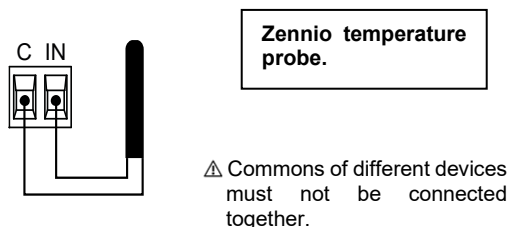
<sup>2</sup> In case of using a PT1000 or Ni1000 temperature probe, compensation depending on the length and cross-section of the cable used must be taken into account by appropriately parameterizing these fields in the application program.

<sup>3</sup> For Zennio temperature probes.

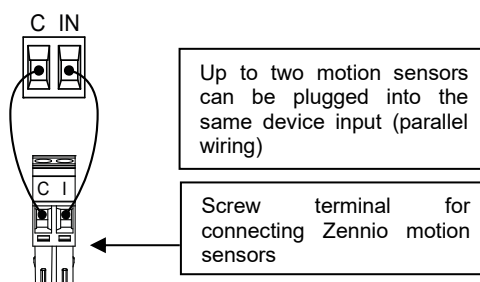
## INPUTS CONNECTION

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

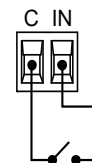
### Temperature Probe\*



### Motion Sensor

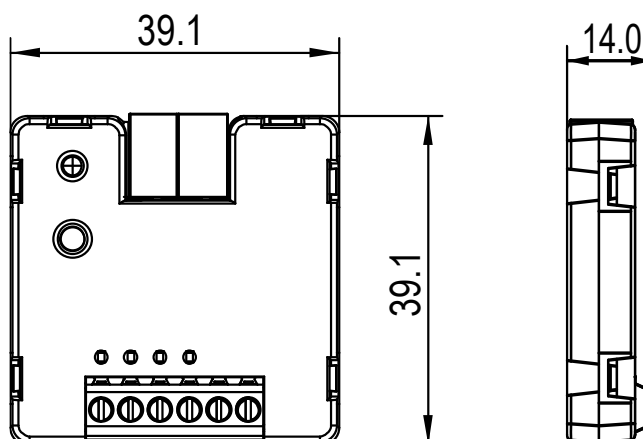


### Switch/Sensor/ Push button



\* Zennio temperature probe, any NTC probe with known resistance values at three points in the range [-55, 150 °C], PT1000 probe or Ni1000 probe.

## DIMENSIONS (mm)



## 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>.