## FEATURES

- 4 channels for consumption counters (meters) with S0-pulse outputs (UNE-EN 62053-31) *****.
- Registration of consumed electric power, cost and $CO_2$ emissions that can be split in up to 4 time intervals.
- Compliant with UNE-EN 62053-31 Class B.
- Total data saving on KNX bus power failure.
- KNX BCU integrated.
- Size 90 x 60 x 35 mm (2 DIN units).
- DIN rail unit assembly (EN 50022), with snap fit clamp.
- CE directives compliant.

*Other counters (meters) with dry-voltage output or not complying S0 standard may also work (previous test is recommended)

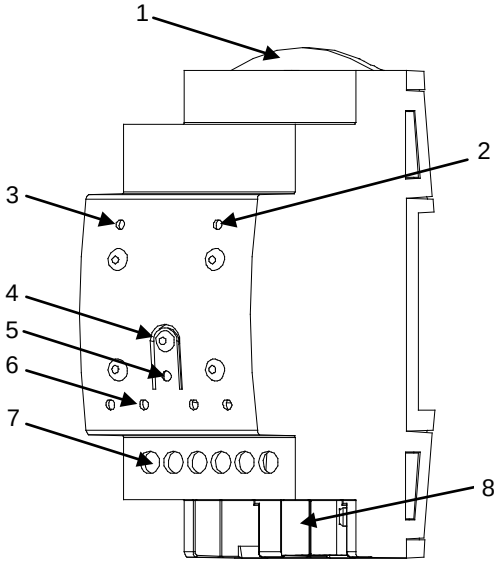



***Figure 1:*** KNX Consumption Interface

| | | | |
|---|---|---|---|
| **1.** Battery holder | **2.** EMPTY batt. LED indicator | **3.** LOW batt. LED indicator | **4.** Programming button |
| **5.** Programming LED | **6.** Input Indicator LED | **7.** Input connectors | **8.** KNX connector |

**Programming button**: short button press to set the programming mode. If this button is held while plugging the device into the KNX bus, it goes into safe mode.
**Programming LED:** programming mode indicator (red). When the device goes into safe mode, it blinks (red) every half second.
**LOW batt. LED**: if this LED is blinking in red, replace the batteries as soon as possible.
**EMPTY batt. LED**: if this LED is blinking in red, the batteries are empty.

| GENERAL SYSTEM SPECIFICATIONS | | | | |
|---|---|---|---|---|
| **Concept** | | | **Description** | |
| Type of device | | | Electric operation control device | |
| KNX Supply | Voltage | | 29VDC SELV | |
| | Voltage range | | 21…31VDC | |
| | Max consumption | Voltage | mA | mW |
| | | 29VDC (typical) | 12.5 | 363 |
| | | 24VDC[(1)] | 15 | 360 |
| | Bus connection | | Typical bus connector TP1; 0.80mm² section | |
| Battery (auxiliary power supply) | | | 2 CR2032 battery (2 x 3V). It allows to keep counting pulses without the KNX bus power supply | |
| Working temperature | | | from 0ºC to +45ºC | |
| Storage temperature | | | from -20ºC to +70ºC | |
| Ambient humidity (relative) | | | 30% to 85% RH (no condensation) | |
| Storage humidity (relative) | | | 30% to 85% 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 | | | Independent device to be mounted inside electrical panels with DIN rail (EN 50022) | |
| Minimum clearances | | | Not required | |
| KNX bus failure response | | | Data saving according to parameterization | |
| Response when restarting KNX bus | | | Data recovering according to parameterization | |
| Operation indication | | | Programming LED indicates programming mode (red) or safe mode (blinking red). LOW and EMPTY batt. LED indicate the battery level when blinking in red (KNX supply necessary). LED input indicator blinks when a pulse is received | |
| Weight | | | 95g including batteries (89g without batteries) | |
| 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 S0 or dry inputs | 4 |
| Minimum pulse length | 30ms |
| Inputs connection | Terminal block (screw) |
| Inputs per common | 2 |
| Cable section | 0.5mm$^2$ a 2.5mm$^2$(24-12 AWG) |
| Max. cable length | 30m |
| Cable type | Stranded or solid wire |
| Operating voltage | 6VDC |

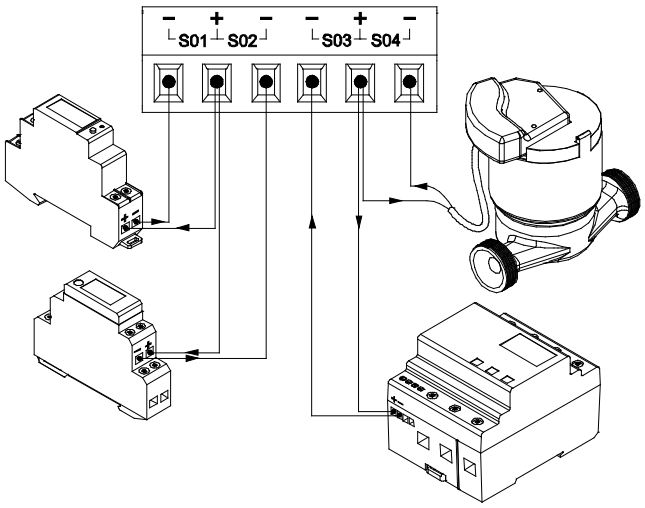
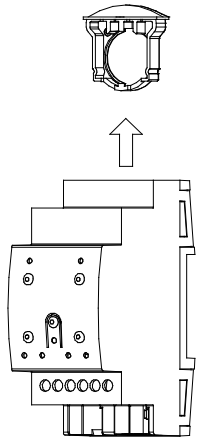


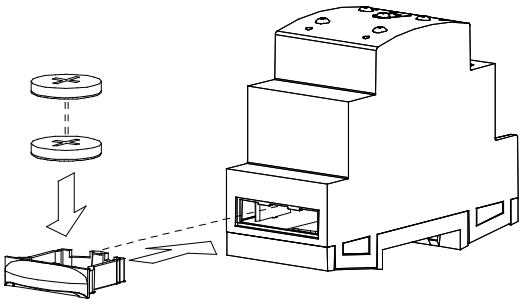

***Figure 2:*** Example of connections with SO pulse generators

## BATTERY REPLACEMENT

**1.** Extract the battery holder from the upper side of KCI. It is recommended to have the bus KNX connected during this process to prevent S0 pulses loss.

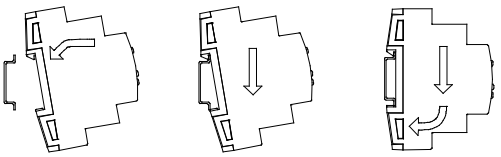


**2.** Place the batteries in the battery holder (respecting the polarity shown) and insert it as indicated in the figure.

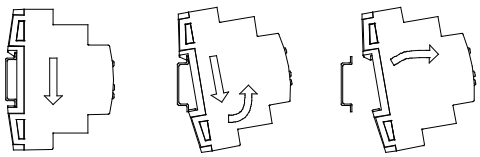


## INSTALLATION OF KCI ON A DIN RAIL

**Attaching KCI to DIN rail:**



**Removing KCI from DIN rail:**



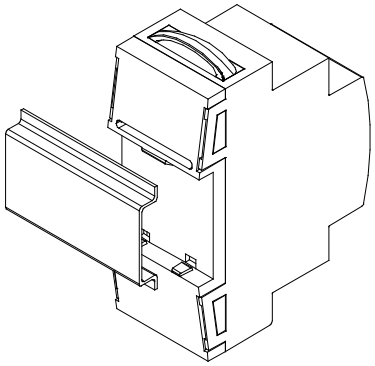


***Figure 3:*** Mounting KCI on a DIN rail

## SAFETY INSTRUCTIONS

- Installation should only be performed by qualified electricians following applicable regulations on preventing accidents, as required by law.
- Do not connect Mains Voltage (230VAC) or any other external voltages to any point of the BUS.
- Connecting an external voltage might put the entire KNX system at risk.
- Make sure during the installation that there is always sufficient insulation between the mains voltage 230VAC and the bus or the extension inputs.
- Once the device is installed, the terminals should not be accessible.
- 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