

Daikin-KNX gateway - VRV & SKY ranges

KLIC-DI v2

TECHNICAL DOCUMENTATION

FEATURES

- Bidirectional communication with Daikin HVAC units
- 2 analog/digital inputs
- 10 logic functions
- 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 CE, UKCA, RCM directives (marks on the right side)

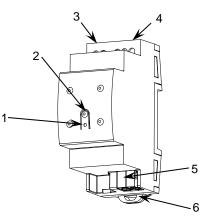


Figure 1: KLIC-DI v2

| 1. Programming LED | 2. Programming button | 2-wire communication with HVAC unit |
|--------------------|-----------------------|---|
| 4. Inputs | 5. KNX bus connector | 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. The HVAC unit communication error is notified through a green light and the wrong acknowledgement error through a green blinking sequence.

| CONCEPT | | | | | |
|---|------------------------|---|--|-------------|--|
| | | GENERAL SPECIFICATIONS CONCEPT | | DESCRIPTION | |
| Type of device | | Electric operation control device | | | |
| Voltage (typical) | | al) | 29 VDC SELV | | |
| | Voltage range | | 21-31 VDC | | |
| KNX supply | Maximum consumption | Voltage | mA | mW | |
| | | 29 VDC (typical) | 4.5 | 130.5 | |
| | | 24 VDC ¹ | 10 | 240 | |
| | Connection type | | Typical TP1 bus connector for 0.8 mm Ø rigid cable | | |
| External power supply | | Not required | Not required | | |
| Operation temperature | | 0 +55 °C | 0 +55 °C | | |
| Storage temperature | | -20 +55 °C | -20 +55 °C | | |
| Operation humidity | | 5 95% | 595% | | |
| Storage humidity | | 5 95% | 595% | | |
| Complementary | | | Class B | Class B | |
| Protection class | s / Overvoltage | category | II / III (4000 V) | | |
| Operation type | | Continuous operation | Continuous operation | | |
| Device action type | | Type 1 | Type 1 | | |
| Electrical stress period | | Long | | | |
| Degree of protection / Pollution degree | | IP20 / 2 (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 | Data saving according to parameterization | | |
| Response on KNX bus restart | | Data recovery according to parameterization | | | |
| Operation indicator | | The programming LED indicates programming mode (red), HVAC unit | | | |
| | | | communication error (green) or error due to wrong acknowledgement (green | | |
| | | blinking sequence) | | | |
| Weight | | 114 g | | | |
| PCB CTI index | | 175 V | | | |
| Housing material / Ball pressure test temperature | | PC FR V0 halogen free / | PC FR V0 halogen free / 75 °C (housing) - 125 °C (connectors) | | |

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

| INPUTS SPECIFICATIONS AND CONNECTIONS | | |
|---------------------------------------|---|--|
| CONCEPT | DESCRIPTION | |
| Number of inputs | 2 | |
| 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 | |

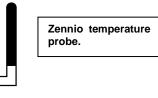
² For Zennio temperature probes.

INPUTS CONNECTION

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

Temperature Probe**





▲ Commons of different devices must not be connected together.

Motion Sensor

12C

CI

ЦĀ

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

Screw terminal for connecting Zennio motion sensors*

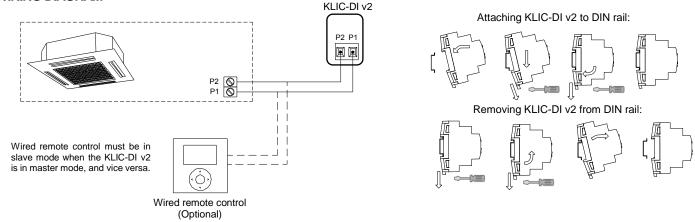
Switch/Sensor/ Push button



* 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 °C].

| HVAC EQUIPMENT CONNECTION SPECIFICATION AND CONNECTIONS | | |
|---|------------------------------------|--|
| CONCEPT | DESCRIPTION | |
| Maximum cable length | 100 m | |
| Connection method | Screw terminal block (0.4 Nm max.) | |
| Cable cross-section | 0.5-2.5 mm² (IEC) / 26-12 AWG (UL) | |

WIRING DIAGRAM



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.
- This device contains software subject to specific licences. For details, please refer to http://zennio.com/licenses.