

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)

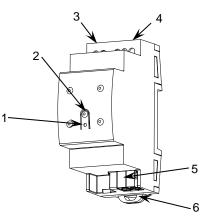


Figure 1: KLIC-DI v2

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	

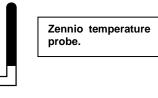
² For Zennio temperature probes.

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

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

Screw terminal for connecting Zennio motion sensors*

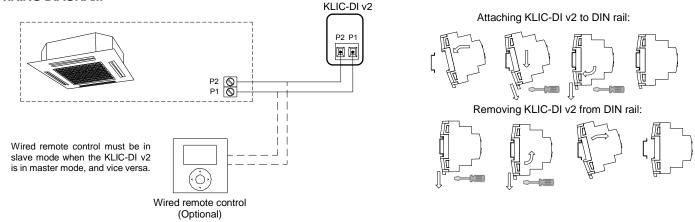
Switch/Sensor/ Push button



* 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.