CIB – Module of temperature and humidity measurement and control with LCD

Type	DI	RO	AI	AO	Comm
C-RC-0003R-Design	3x button		1x AI/DI 1x temperature 1x humidity		CIB LCD display

C-RC-0003R-Logus

CIB

Basic features
- The module is designed for interior for the measurement and display of two different values, and the two symbols with text on LCD.
- The resulting function of module is determined by the user program. Module can also be used for other purposes if the set of inputs and outputs complies with the request:
- LCD display with 2 digits to be displayed. Each number has an optional display unit.
- Module has one universal input AI/DI
- The module is equipped with a combined temperature and humidity sensor.
- The module has 3 buttons for user setting the parameters and is primarily intended to enter the set point adjustments - decrease, increase.
- Built-in combined temperature and humidity sensor located at the bottom of the front panel. Location maximizes measurement accuracy and eliminates the effect of heating the module to the actual measurements.
- Input for external temperature sensor and connection CIB bus is located at bottom part of the module.
- The interior part of the module is available in various designs, which are supplied to individual order.
- Firmware supports linearization and direct temperature reading from external NTC sensors of 5k, 10k, 12k, 15k and 20k. Firmware also eliminates distortion, respectively measurement error of these sensors in case of remote measuring.

- Input for external sensor can also be used for measuring any resistance of up to 100 kOhm.
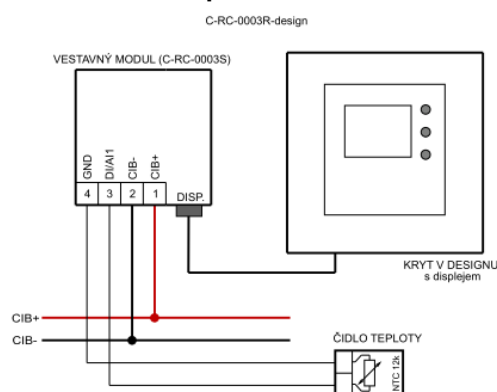- Status and error / operation is indicated by the LED on the bottom part of the module.

Connecting
- The module is designed for wall mounting into the standard installation flush box.
- The module has two parts: upper one with interior design with the control buttons and the temperature/humidity sensor and the bottom part with electronics of the CIB bus coupler and for external temperature sensor.
- CIB bus and input for external temperature/contact sensor has to be connected by insulated wires of length of about 70 mm with the sleeve.
- Both the top and bottom parts are interconnected together by a ribbon cable connector.

Application
- The module can be used to set the desired temperature, humidity or other variables while displaying two values on the LCD display.
- The module can be used to measure up to two temperatures. The internal temperature and one external - such as outdoor temperature, floor temperature, etc.
- The different resistance as a photo resistor or setting potentiometer can be connected as external sensor.

Customized designs

C-RC-0003R-Gira

■ Connection example

Display		
Type	LCD backlight LCD without backlight (only some designs)	
Number of displayed values	2 + unit symbols	
Number of symbols/icons	4	
Buttons (optional)		
Quantity	3	
Type	Momentary button	
Internal thermometer (optional)		
Range	-40 ÷ +125°C	
Resolution	0.1 °C	
The period of reading	typically 5s	
Internal hygrometer (optional)		
Range	0 ÷ 100% RH	
Resolution	1%	
The period of reading	typically 5s	

■ Universal input

Quantity	1
Optional input type	Binary, Pt1000, Ni1000, NTC12kΩ, KTY81-121, resistance 160kΩ
Binary input	Potential free contact (0/1)
Balanced input for security detectors	Resistance 1x2k2, or 2x1k1

■ Universal input

Pt1000	−90 ÷ +320 °C
Ni1000	−60 ÷ +200 °C
NTC 12kΩ	−40 ÷ +125 °C
KTY81-121	−55 ÷ +125 °C
Resistance input	0 ÷ 160kΩ
Resolution	0.1 °C / 10Ω
Accuracy	0,5 %
Period of refresh AI	typically 5s

■ Operating and installation conditions

Operating temperature:	0 .. +50 °C
Storage temperature:	−25 .. +70 °C
Electrical strength:	according to EN 60950
IP degree of protection acc. IEC 529:	IP 10 B
Overvoltage category:	II
Degree of pollution according EN EN60664-12008	1
Operating position	arbitrary
Installation	into the flush box
Connecting CIB and AI	Isolated wires with the sleeve 1.5mm^2

■ Dimensions and weight

Dimensions	83x81x25mm (according the frame)
Weight	80g

■ Power supply

Power supply and communication	24 V (27 V) from the CIB
Nominal power consumption	45mA
Nominal/max. load	0.3W
Internal protection	Reversible fuse

Other designs on request

■ Order data

TXN 133 37	C-RC-0003R-Design-Zak; CIB bus coupler for cover with LCD-HL1, 3 butt., temp.+humid. sensor, cover with LCD and frame ordered separately