CIB – IR interface module, light sensor

Type	DI	DO	AI	AO	Comm
C-RI-0401R-Time			1×internal temperature 1×external temperature/contact 1×light sensor		CIB, IR both directions

C-RI-0401R-Time

Basic features

- Module with bidirectional infrared interface with interior design for use with majority of remote controllers. Module has also inputs for light intensity sensor, temperature sensor and external temperature sensor or contact.
- This input can be used also as balanced input for connection of security detectors.
- Standard design is Time (ABB) white/white.
- Other designs may be delivered on request after agreement with manufacturer.
- Module may learn IR commands of remote controllers of different devices: air-conditioning units, audio/video etc. – and store them in module memory. Subsequently, these commands can be transmitted by a command from the system over CIB bus.
- By this the manual control can be replaced by automatic control of central module.

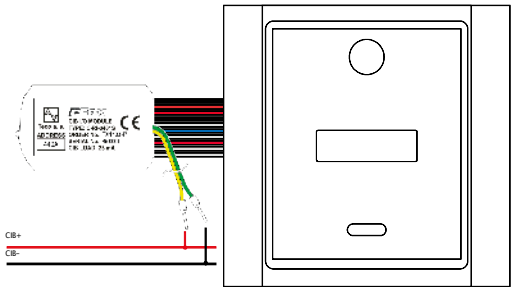
Connection

- Module has to be connected to CIB bus, which provides both communication and power supply of module.
- CIB bus is available on 2 wires. Other signals are available on belt cable fixed on connector. Each wire is finished by pressed sleeve.
- Module is used for assembly to standard installation box under plaster similar like other wall switches or sockets.

Use

- Integration of devices remotely controlled via infrared controllers, e.g.:
  - Interior air-condition units,
  - Audio, video
  - Consumer electronics with IR controller
- In system we can define own actions and sequences, that can be assigned to commands from remote controller and expand the possibilities of present remote control to any IR controlled device.
- Measurement and subsequently control of lights in interior.

Connection example



IR receiver

Number of inputs	1×demodulator
Galvanic isolation	No
Power supply of receiver – demodulator	3.3 V
Pilot frequency of demodulator	36 kHz

IR transmitter

Number of outputs	1
Galvanic isolation	No
Type of IR transmitter	IR LED ($I_F$max =100 mA) + resistor according IF
Power supply of transmitter	3.3 V
Short-circuit protection	No

Input for light sensor

Number of inputs	1
Galvanic isolation	No
Sensor type/range/input error	Photodiode 0 – 50 000 lx/<5%

Operating conditions

Operating temperature	–10 .. +55 °C
Storage temperature	–25 .. +70 °C
Electric strength	according EN 60730
IP Degree of protection(IEC 529)	IP 10B
Overvoltage category	II
Degree of pollution IEC EN60664-1:2008	1
Working position	any
Installation	on installation box, in interior
Connection of CIB, AI/DI,	flat cable 0.5 mm^2

Analog/combined inputs

Number of inputs	1× AI/DI, 1× temperature
Galvanic isolation	No
Resolution	12 bit

Measurement ranges

Sensor type	Range
Potential free contact	switched on/ switched off
Balanced input (security systems)	broken line/0/1/ tamper
Pt1000	–90 .. 320°C
Ni1000	–60 .. 200°C
NTC 12k	–40 .. 125°C
KTY81-121	–55 .. 125°
Resistance	0 – 160 kΩ
Analog input error	< 2 %

Dimensions and weight

Dimensions	83×81×17 mm
Weight	70 g

Power supply

Power supply and communication	24 V (27 V) from bus CIB
Nominal load	25 mA
Maximal input power	0.5 W
Internal protection	No

Order number

TXN 133 47.01	C-RI-0401R-Time, white/white, CIB combined module for 1×IR transmitter, 1×IR receiver-demodulator, 1×light, 1×temperature, 1×external input
TXN 133 47.xx	C-RI-0401R-Zak, on request manufacture: design, frame and cover on order, 1×IR transmitter, 1×IR receiver-demodulator, 1×light, 1×temperature, 1×external universal input. Other combination of sensors on order.