

CIB – built-in modules with combined inputs, outputs

Type	DI	RO	AI	AO	Comm
C-IR-0202S		1	2	1	CIB
C-IT-0200S			2		CIB

Basic features

- Modules C-IT-0202S and C-IT-0200S are both designed for connection of two temperature sensors or voltage-free contacts.
- C-IR-0202S is used for control tasks and therefore it is equipped by power contact of switching relay and analog output voltage.
- For temperature metering it is possible to connect directly resistance temperature detectors (RTD) Pt1000 or Ni1000, sensors with thermistor NTC 12k or NTC 160 k or semiconductor sensor KTY81 121.
- Module is designed in effective small built-in design into the installation box or into the measured/controlled device.

Connection

- Modules are connected to CIB that ensures the communication and power supply by stranded wires finished with sleeves.
- Inputs and outputs are connected by stranded wires finished with sleeves too.

Use

- Module C-IR-0202S with relay and analog output for: Temperature measurement and control of heating valve 230 V AC.
- Designing the application the maximum load of each terminal must be taken into account.
- Module C-IT-0202S is used for measurement of 2 temperatures, e.g. room temperature and floor temperature or for sensing contact outputs from different light controllers, detectors or security system sensors.

Relay outputs	C-IR-0202S	C-IT-0200S
Number of outputs	1	–
Galvanic isolation	Yes	
Switching voltage	max. 230 V AC	
Switching current	min. 100 mA; typ. 3 A; max. 5 A (beware the peak current of electronic loads)	
Time of close/open the contact	typ. 10 ms/4 ms	
Switching frequency without load	max. 300 min ⁻¹	
Switching frequency with nominal load	max. 20 min ⁻¹	
Mechanical/Electrical lifetime at maximal load	5 × 10 ⁶ /2 × 10 ⁵	
Short-circuit protection	No	
Spike suppressor of inductive load	External (RC unit, varistor, diode)	
Insulation voltage against surrounded circuits	4000 V AC	

Analog inputs	C-IR-0202S	C-IT-0200S
Number of inputs	2	2
Galvanic isolation	no	no
Resolution	12 bit	12 bit
Measurement ranges		
RTD	Pt1000, Ni1000, (temperature range according to sensor type)	Pt1000, Ni1000, (temperature range according to sensor type)
NTC (thermistor)	12 kΩ, KTY81-121	12 kΩ, KTY81-121
Resistance	160 kΩ	160 kΩ
Potential-free contact	Yes, on each input	Yes, on each input
Balanced inputs for security systems sensors	Yes, on each input	Yes, on each input
Measured temperature accuracy	0.1 °C	0.1 °C

Operating conditions	
Operating temperature	0 .. +55 °C
Storage temperature	–25 .. +70 °C
Electric strength	according EN 60950
IP Degree of protection IEC 529	IP 10B
Overvoltage category	II
Degree of pollution IEC EN 60664-1:2004	1
Working position	any
Installation	Into installation box or into the device
Connections	Flat ribbon cable, the wires terminated with sleeves
Conductors cross-section	0.15 mm ²
Power output	relay output 0.5 mm ²

Analog outputs	C-IR-0202S	C-IT-0200S
Number of outputs	1	
Galvanic isolation	no	
Resolution	8 bit	
Output ranges	0 ÷ 10 V, 1 ÷ 10 V	

Dimensions and weight	C-IR-0202S	C-IT-0200S
Dimensions	55 × 26 × 20 mm	55 × 26 × 16 mm
Weight	7 g	3 g

Power supply	C-IR-0202S	C-IT-0200S
Power supply and communication	24 V (27 V) from CIB bus	24 V (27 V) from CIB bus
Typical load	18 mA	10 mA
Max. consumption	25 mA	12 mA

Order number

TXN 133 25	C-IR-0202S, CIB, 2 × AI/DI, 1 × AO (0 – 10 V), 1 × RO 230 V AC/3 A, Temperature/contact sensing
TXN 133 29	C-IT-0200S, CIB, 2 × AI/DI; Temperature, voltage or voltage-free contact sensing



C-IR-0202S



C-IT-0200S