CIB – Module of universal analog inputs with protection IP65

Type	DI	DO	AI	AO	Comm
C-IT-0200I			2×AI		CIB

C-IT-0200I

Basic features

- Module is designed as universal analog input on CIB bus with high IP protection for general use.
- Module allows to measure voltage, current, resistance, RTD and thermocouples, pH and Redox probes.
- The type of sensor and measured range is selectable by jumpers.
- Firmware of module linearizes characteristics of temperature sensor, optimizes accuracy of measurement and converts it on temperature in degrees, which is then transferred into central unit.

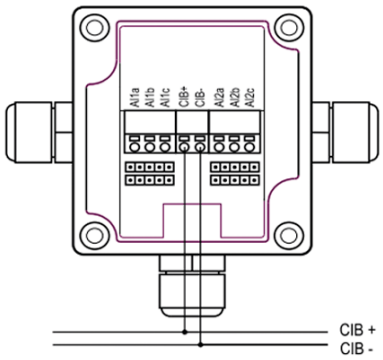
Connection

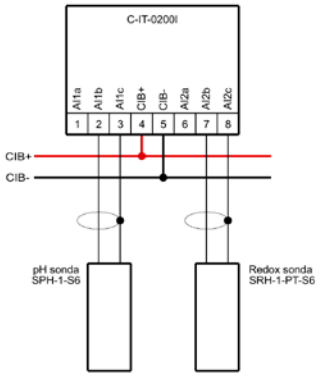
- Module is connected to CIB bus providing both communication and power supply of module by cable through glands.
- Wires are connected via screw-less terminals accessible after opening.
- Module can be fixed on the device surface or on the wall.

Use

- Module can be used as remote converter of analog signal in place of measurement and long distance transmission in digital form via installation bus CIB with use of all its advantages, e.g. transmission up to 500 m, any branches and as well power supply via CIB bus.
- For power supply of current loops there is no need of separate wires, power supply comes from CIB bus.
- High protection enables to install module very close to measured value in any environment.
- Module can be used for measurement of very low voltage, from pH and Redox probes, whose we use for example in pool technologies. The probe has to be calibrated before use.

Connection example





Example of connection pH and Redox probes

Analog inputs

No. of inputs	2×
Galvanic isolation	No
Converter type/Resolution	SigmaDelta/16 bit
Analog input error	<2% (according to used range)
Compensation of cold end of thermocouple	Yes
Input range of internal thermometer	–20.. 80°C

Sensor type	Range	Input impedance
Voltage U	0÷10 V; 0÷5 V; –2÷2 V;–1÷1 V	54.6 kΩ
Voltage U (HI)	HI: –1÷1 V, HI: –100+ 100mV	4 MΩ
Current I	0÷20 mA 4÷20 mA	50 Ω

Sensor type	Range	Input impedance
Thermocouple type J	–210..+1200°C	4 MΩ
Thermocouple type K	–200..+1372°C	4 MΩ
Thermocouple type R	–50..+1768°C	4 MΩ
Thermocouple type S	–50..+1768°C	4 MΩ
Thermocouple type T	200..+400°C	4 MΩ
Thermocouple type B	250..+1820°C	4 MΩ
Thermocouple type N	–200..+1300°C	4 MΩ

Sensor type	Range	Input impedance
Pt1000 (W100= 1.365)	–90 .. 320°C	4.7 kΩ
Pt 1000 (W100= 1.391)	–90 .. 320°C	4.7 kΩ
Ni1000 (W100= 1.500)	–60 .. 200°C	4.7 kΩ
Ni1000 (W100= 1.617)	–60 .. 200°C	4.7 kΩ
NTC 12k	–40 .. 125°C	4.7 kΩ
KTY81-121	–55 .. 125°C	4.7 kΩ
Resistance	0 – 200 Ω	4.7 kΩ

Operating conditions

Operating temperature	–10 .. +55 °C
Storage temperature	–25 .. +70 °C
Electric strength	according EN 60730
IP Degree of protection (IEC 529)	IP65
Overvoltage category	II
Degree of pollution according IEC EN60664-1:2008	1
Working position	any
Installation	On wall, on surface, holder, etc.
Connection of CIB	Screw-less free Push-in terminals 1.5 mm²

Dimensions and weight

Dimensions	125×100×38 mm
Weight	120g

Power supply

Power supply and communication	24 V (27 V) from CIB bus
Typical/max. load	15 mA/60 mA(at power supply of current loops)
Typical/Maximal input power	0.4 W/1.5 W
Internal protection	No

Order number

TXN 133 09	C-IT-0200I; CIB, 2×AI, 0 – 10 V, 4 – 20 mA, RTD, TC, IP65