

CAN-CBX-PT100/2

CANopen® Module for Precise Measurement of Temperatures

Temperature and Resistance Measurement with high Resolution

- Wide temperature application range with flexibility in choice of Pt or Ni probes.
- High-precision measurements with adjustable resolution and 4-wire connection technology
- High-accuracy resistance measurements with two selectable sensing currents

CANopen® Integration according to CiA® Specifications

- Robust CANopen communication according to CiA specifications
- Compatibility and interoperability with CiA 301 CANopen application layer and communication profile
- Generic I/O-module providing versatile integration capabilities with CiA 404 CANopen profile for measuring devices

Extensive Configuration Options for each Channel

- High flexibility thanks to adjustable analog-to-digital conversion rate from 2.5 to 1000 sps
- Accurate temperature measurement using NIST standard linearization
- Precise data acquisition under changing conditions due to automatic calibration



Accurate Measurements and easy Calibration

The CAN-CBX-PT100/2 is designed for the direct connection of up to four temperature sensors. Simple resistance measurements can also be performed. The conversion of the four sensor resistor inputs is realized by four independent $\Sigma\Delta$ -converters.

CAN Interface with Galvanic Isolation

The module features a CAN interface compliant with ISO11898 standards. It offers galvanic isolation and supports bit rates up to 1 Mbit/s. CANopen node number and the CAN bit rate are configured conveniently via coding switches.

Efficient I/O Integration

Within the CBX module series, the InRailBus technology offers compact industrial CAN input/output modules. These modules feature an efficient wiring concept for CAN and supply voltage and are housed in a slim design that focuses on usability.

Advanced InRailBus Integration

The InRailBus connector (TBUS connector) simplifies the supply of power and CAN bus signals. It is seamlessly integrated into the DIN rail for user-friendly installation.

At the same time, individual modules can be removed from the InRailBus without interrupting the bus signals, which enables efficient maintenance.

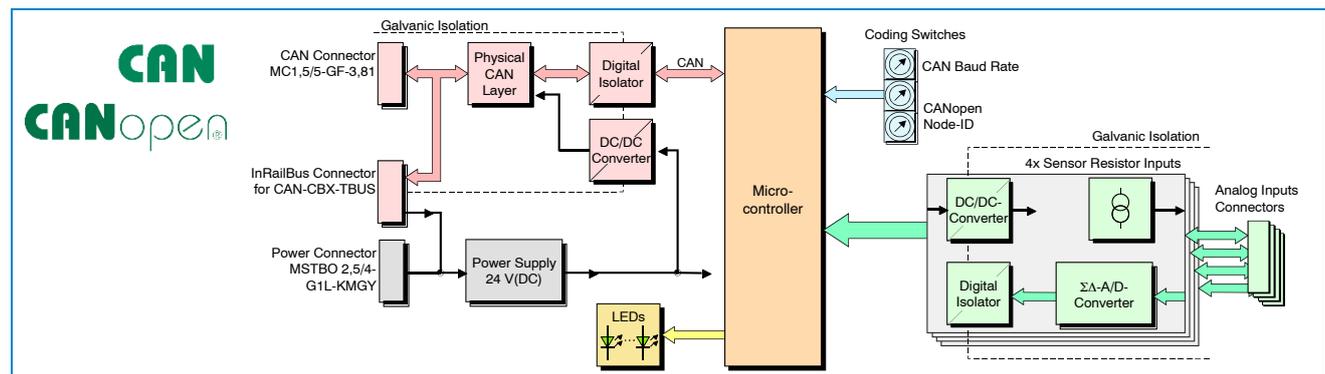
Alternatively, power and signals can also be connected separately via the terminal connections.

Comprehensive LED Status Display

Four LEDs clearly visualize the status of the CANopen node and the module status.

Tailored Solutions upon Request

We offer customization options to meet your specific needs. For detailed information, kindly reach out to our sales team.



Technical Specifications:

Process Coupling:		General:	
Number of inputs	4 $\Sigma\Delta$ -A/D-converters	Power supply voltage	12 V DC ... 32 V DC / $I_{MAX_24V} = 120$ mA
Sensor types	- Pt100, Pt200, Pt500, Pt1000 and Pt5000 - Ni100, Ni200, Ni500, Ni1000 and Ni5000 - Resistance measurement	Ambient temperature	-20°C ... +70 °C
Measuring current	400 μ A or 40 μ A selectable	Dimensions	22.5 mm x 99 mm x 114.5 mm (without connectors)
Connection	Two- or four-wire configuration	Housing	Plastic housing (ME MAX) for carrier rail mounting NS 35/7,5 DIN EN 60715
Measurement range	Pt sensors: -250 °C ... +850 °C Ni sensors: -200 °C ... +400 °C Resistance: Up to 50 K Ω	Protection class	IP20
A/D Conversion rate	2.5 sps ... 1000 sps	Connectors	Power: Phoenix MSTBO2,5/4-G1LKMGY CAN: Phoenix MC1,5/5-GF-3.81 Inputs: 4x MCDN1,5/5-G1-3,5P26THR
Resolution	<1 μ V at 25 sps A/D conversion rate \approx <0.01 °C	Weight	Approximately 125 g
CAN:		Order Information:	
CAN interface	Physical layer according to ISO 11898-2, galvanically isolated, CAN bit rate: 10 kbit/s up to 1 Mbit/s	Hardware	Order No.
Protocol	CANopen according to CiA specifications CiA 301 and CiA 404	CAN-CBX-PT100/2	CANopen module with 4 sensor resistor inputs, InRailBus connector C.3032.04
		Accessories	
		CAN-Cable-S 0.3m (plug) Cable, 0.3 m, pin contacts	C.1323.03
		CAN-CBX-TBus Mounting-rail bus connector	C.3000.01
		CAN-CBX-TBus-Connector-Socket	C.3000.02
		CAN-CBX-TBus-Connector-Plug	C.3000.03