

4-channel temperature recording

μCAN.4.ti-BOX

4-channel temperature recording for RTD and thermocouples with CAN interface

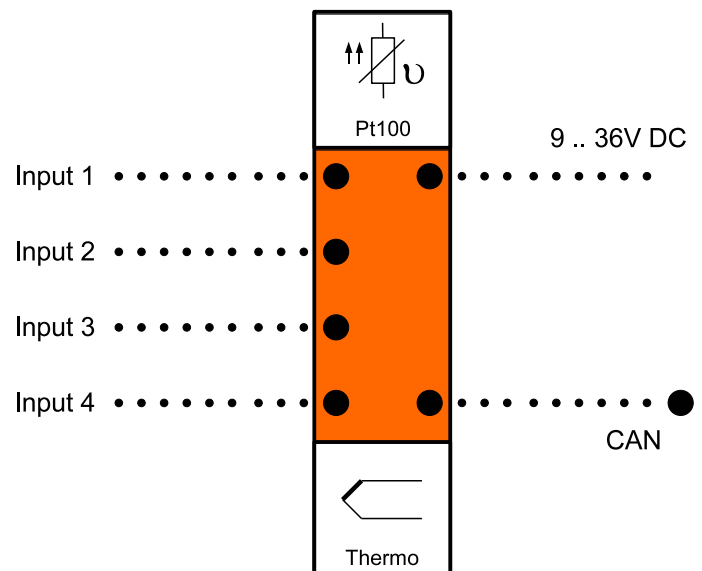
The μCAN.4.ti-BOX is the universal measurement unit for recording temperatures. Resistance sensors and any thermocouple can be polled at a **400Hz total sampling rate**.

The sensor signals are evaluated and linearized in a robust die-cast aluminum casing. Data is transmitted to a central evaluation unit via CANbus.



Features

- Temperature recording for Pt100 / Pt500 / Pt1000 measurement probes
- Type J / K / N / T thermocouples, others upon request
- Protocol: CANopen CiA 404
- Die-cast aluminum casing in protection class IP66, ideally suited for harsh industrial environments
- Display of the device status and errors by means of 2 bi-color LEDs
- Sensor break and short circuit detection
- Implementation of custom protocols
- Working ambient temperature -40°C to +85°C



Technical Data	Temperature recording μ CAN.4.ti-BOX
Number of channels	4
Power supply voltage	9...36 V DC, reverse voltage protection
Power consumption	2 W (84 mA @ 24 V DC)
Potential isolation	Channel/control voltage: 500 V _{eff} , field bus/control voltage: 500 V _{eff}
Operating temperature	-40°C...+85°C
Transfer rate	50 kBit/sec to 1 MBit/sec
Protocol	CANopen CiA 301, CiA 305, CiA 404 / Custom CAN / CAN 2.0A and 2.0B
Number of PDOs	2 transmit PDOs
Configuration	Sensor type via field bus Bit rate and module address via DIP switches or LSS
Status display	2 bi-color LED for module status information
Protection class	IP66
Casing	Die cast aluminum 125x80x57mm (LxWxH)
Resolution / conversion time	16-bit (internal resolution 18-bit) / 100 Hz (10 ms); total sampling rate 400Hz
Measurement range / error @ 23°C ambient temperature	<p>Thermocouple: type J, K with cold junction compensation: -200°C...+1.200°C, resolution 0.1 K / accuracy +/- 0.1 K</p> <p>Thermocouple: type R with cold junction compensation: -50°C...+1.760°C, resolution 0.1 K / accuracy +/- 0.1 K</p> <p>Thermocouple: type T with cold junction compensation: -200°C...+400°C, resolution 0.1 K / accuracy +/- 0.1 K</p> <p>Pt100 / Pt500 / Pt1000: -100°C...+850°C, resolution 0.1 K / accuracy +/- 0.1 K</p> <p>Other signal types upon request</p>
EMC	EN 50082-compliant

Item Number	Designation
12.43.005	μ CAN.4.ti-BOX 4-channel thermal data acquisition module with CANopen, signal acquisition of J, K, L, T, Pt100, Pt500 and Pt1000 type thermocouples, 16-bit resolution, configured for metric cable glands, connection via screw terminals.
12.43.760	μ CAN.4.ti-BOX / Thermo type K / sub-D 4-channel thermal data acquisition module with CANopen, signal acquisition via thermo plug-in connector type K, CAN and power supply via SUB-D 9 pole connectors.
90.01.114	Metric cable installation kit for 4-channel field modules.