

1-channel analogue acquisition

μCAN.1.ai-BOX

1-channel analogue acquisition for current or voltage input with 16-bit resolution

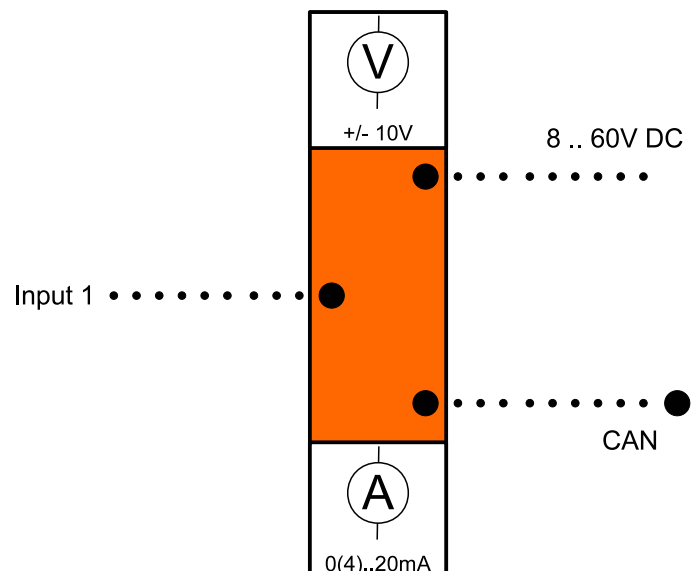
The decentralized data acquisition unit μCAN.1.ai-BOX is designed for acquisition of a single analogue signal. The unit is in protection class IP66.

The μCAN.1.ai-BOX is to be installed near the respective signal sources. The analogue signals are transmitted via short lines to the μCAN.1.ai-BOX where they are digitalized and transmitted by CAN bus to an evaluation point.



Features

- Acquisition of a single analogue input with 16-bit resolution for ± 10 V, 0-20 mA, 4-20 mA signals
- Standard protocol: CANopen CiA 404
- Indication of measurement over-range or sensor failure
- Extended ambient temperature range of -40°C .. $+85^{\circ}\text{C}$
- Mechanically shock resistant up to 40 G (optional)
- Vibration resistant from 3 .. 800 Hz @ 4.5 Grms (optional)



| Technical Data | Analogue data acquisition μ CAN.1.ai-BOX |
|--|---|
| I/O per module | 1 |
| Power supply voltage | 8...60 V DC, reverse polarity protected |
| Power consumption | 1 W (42 mA @ 24 V DC) |
| Electrical isolation | Channels/control voltage: 500 Veff, fieldbus/control voltage: 500 Veff |
| Operating temperature | -40°C...+85°C (others on request) |
| Transfer rate | 10 kBit/sec to 1 MBit/sec |
| Protocol | CANopen CiA 404 / CAN 2.0A and 2.0B / others on request |
| Number of PDOs (CANopen) | 2 transmit PDOs |
| Configuration | Input sensor type via fieldbus Bit rate and module address via DIP switches |
| Status display | 1 bi-color LED flashing indicator for module status information |
| Protection class | IP66 |
| Housing | Die-cast aluminum, 98x64x34mm (LxWxH) |
| EMC | Complies with EN 50082 |
| Vibration resistance | 3...800Hz @ 4.5Grms / optional |
| Shock resistance | Mechanically shock resistant up to 40G / optional |
| Resolution / conversion time | 16-bit / 20ms |
| Signal type / Input error @ 23°C ambient temperature | +/-10V DC Accuracy 0.01% fsd , Input impedance 500 kOhms 0-20mA Accuracy 0.01% fsd , Input impedance 120 Ohms 4-20mA Accuracy 0.01% fsd , Input impedance 120 Ohms |

| Order No. | Description |
|-----------|--|
| 12.11.003 | μ CAN.1.ai-BOX 1-channel analogue acquisition module with CANopen, signal type +/-10 V DC, designed for metric cable glands, connection via screw terminals. |
| 12.11.023 | μ CAN.1.ai-BOX 1-channel analogue signal acquisition module with CANopen, signal type 0(4)-20 mA, designed for metric cable glands, connection via screw terminals. |
| 90.01.113 | Metric cable installation kit for 1-channel field modules. |