

4-channel Strain Gauge Measurement

μCAN.4.sg-F1

4-channels strain gauge measurement with CAN interface

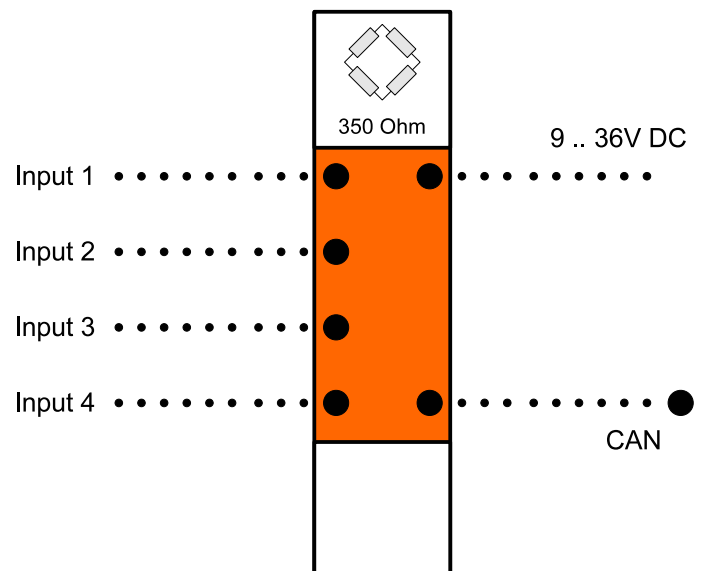
The μCAN.4.sg-F1 is the versatile universal measuring module for analogue standard signals. The module is equipped to measure strain gauge full bridge signals using 4-wire technology at an adjustable sample rate of up to 1 kHz per input. The bridge is excited directly from the module with a ratiometric measurement.

Signals are linearized and evaluated within the robust aluminium die-cast casing. Data is to a central evaluatin unit or PC via CAN bus.



Features

- Strain gauge full bridge, $R_i > 350 \text{ Ohm}$
- Strain gauge excitation 4.096V / ratiometric
- Sample rate max. 1 kHz per input
- Operating Temperature $-40^\circ\text{C} \dots +85^\circ\text{C}$
- CAN 2.0A and CAN 2.0B / RawCAN
- Free software configuration tool
- Aluminium casing in IP65
- Indication of device status via 1 bi-color LED



| Technical Data | Analogue acquisition module μ CAN.4.sg-F1 |
|---|--|
| Channels | 4 |
| Power Supply | 9...36 V DC, reverse polarity protected |
| Power Consumption | 2W (84mA @ 24V DC) |
| Isolation | Channels/Supply: 500Veff, Fieldbus/Supply: 500Veff |
| Operating Temperature | -40°C...+85°C |
| Bitrate | 50kBit/sec ... 1MBit/sec |
| Protocol | RawCAN / CAN 2.0A and 2.0B |
| Configuration | free software configuration tool |
| Status Indication | 2 bi-colour LEDs for module status indication |
| Protection Class | IP65 |
| Casing | Aluminium, powder-coated 120x110x48mm (LxWxD) |
| EMC | according to EN 50082 |
| Signal type / Accuracy @ 23°C ambient temperature | strain gauge full bridge, $R_i > 350$ Ohms, 0.01% fsd., sensor excitation 4.096V |
| Sample Rates [Hz] | 2 ... 3750 |
| Resolution | 2 Hz / 24-bit 3 Hz / 18-bit |
| Filter | Software filter / moving average determination, adjustable |
| Configuration Analogue inputs | SYNC driven sending ADC-Interrupt driven sending Timer driven sending |

| Order Number | Description |
|--------------|--|
| 17.50.002 | μ CAN.4.sg-F1 4-channel strain gauge acquisition module with CANopen, 5V DC sensor supply, 16 bit resolution, sensor connector Lemo plug K series, power / CAN connection via Lemo plug B-series, includes 2 connection elements. |
| 90.15.000 | Foot / connecting element for F1 modules |
| 90.15.001 | F1/F1 connector (CAN + Power) length 140mm, with Lemo connector at both ends |
| 90.15.200 | F1 terminal resistor for CANbus with Lemo connector |
| 90.15.150 | F1 connection cable (CAN + Power) length 2m, with Lemo / SUB-D connector 9-pin, open end for Power |
| 90.15.100 | F1 connection cable (CAN + Power) length 2m, Lemo connector / open end |
| 90.15.300 | Sensor connector, Lemo K series FGG.0K.306.CLAC50, 6-pin, solder contacts, water-tight |
| 90.15.350 | Power+CAN connector, Lemo F series FGN.0F.305.XLC, 5-pin, solder contacts, water-tight |