



1-channel strain gauge measurement

μCAN.1.sg-BOX

1-channel strain gauge measurement with 16-bit resolution

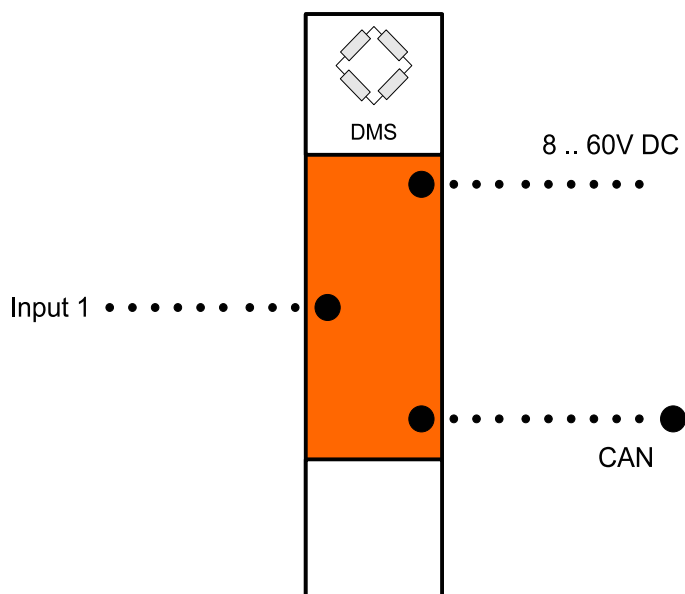
The decentralized data acquisition unit μCAN.1.sg-BOX is configured for the acquisition of data of one strain gauge or other types of resistance bridges. The data is acquired at a total sampling rate of 50 Hz.

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



Features

- Acquisition of forces, torques, sequences and voltages
- Internal power supply of the strain gauge bridge 5V / 10V
- Protocol: CANopen CiA 404
- Extended ambient temperature range of -40°C...+85°C
- Vibration resistant from 3 .. 800 Hz @ 4,5 Grms (optionally)
- Mechanically shock resistant up to 40 G (optionally)



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Technical Data	Strain gauge data acquisition μ CAN.1.sg-BOX
Number of channels	1
Power supply voltage	8...60 V DC, reverse polarity protected
Power Consumption	1 W (42 mA @ 24 V DC)
Electrical isolation	Channel/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 PDO (CANopen)	2 transmit PDOs
Configuration	Input sensor type via CANbus Bit rate and module address via DIP switches
Status display	1 bi-colour LED flashing indicator for module status information
Protection class	IP 66
Housing	Die-cast aluminium, 98x64x34mm (LxWxH)
EMC	complies with EN 50082
Vibration resistance	3...800 Hz @ 4.5 Grms (optionally)
Shock resistance	Mechanically shock resistant up to 40 G (optionally)
Resolution / conversion time	16-bit / 20ms
Signal Type / Input Error @23°C ambient temperature	strain gauge full bridge, four-conductor 0-100mV 3.3mV/V 2.0mV/V 0.1% fsd

Order No.	Description
12.17.010	μ CAN.1.sg-BOX 1-channel strain gauge acquisition module with CANopen, 5 V DC sensor supply, designed for metric cable glands, connection via screw terminals, strain gauge fullbridge ≥ 350 Ohms.
12.17.011	μ CAN.1.sg-BOX 1-channel strain gauge acquisition module with CANopen, 10 V DC sensor supply, designed for metric cable glands, connection via screw terminals, strain gauge fullbridge ≥ 1 kOhm.
90.01.113	Metric cable installation kit for 1-channel field modules