

# 1-channel strain gauge measurement

## μCAN.1.sg-BOX

### 1-channel strain gauge measurement with 16-bit resolution

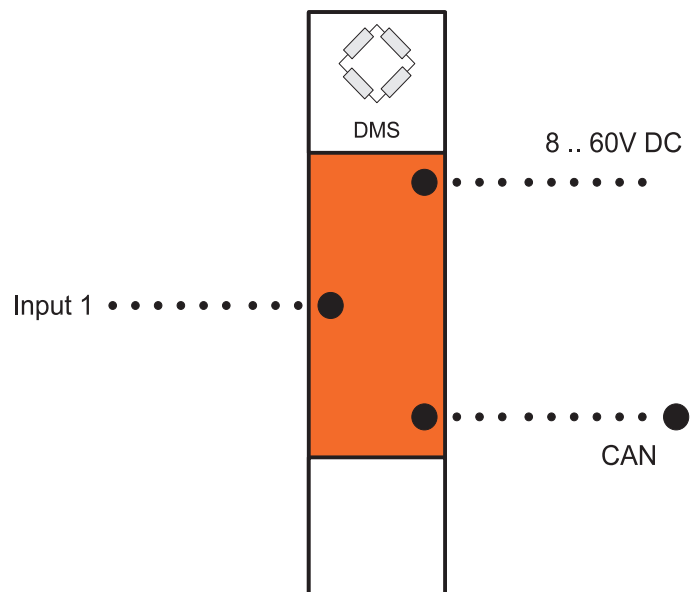
The decentralized data acquisition unit **μCAN.1.sg-BOX** is configured for the acquisition of data of one strain gauge or other types of resistance bridges. The data is acquired at a total sampling rate of 50 Hz.

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)



<b>Technical Data</b>	<b>Strain gauge data acquisition <math>\mu</math>CAN.1.sg-BOX</b>
<b>Number of channels</b>	1
<b>Power supply voltage</b>	8...60 V DC, reverse polarity protected
<b>Power Consumption</b>	1 W (42 mA @ 24 V DC)
<b>Electrical isolation</b>	Channel/control voltage.: 500 Veff, fieldbus/control voltage.:500 Veff
<b>Operating temperature</b>	-40°C...+ 85°C (others on request)
<b>Transfer rate</b>	10 kBit/sec to 1 MBit/sec
<b>Protocol</b>	CANopen CiA 404/CAN 2.0A and 2.0B / others on request
<b>Number of PDO (CANopen)</b>	2 transmit PDOs
<b>Configuration</b>	Input sensor type via CANbus Bit rate and module address via DIP switches
<b>Status display</b>	1 bi-colour LED flashing indicator for module status information
<b>Protection class</b>	IP 66
<b>Housing</b>	Die-cast aluminium, 98x64x34mm (LxWxH)
<b>EMC</b>	complies with EN 50082
<b>Vibration resistance</b>	3...800 Hz @ 4.5 Grms (optionally)
<b>Shock resistance</b>	Mechanically shock resistant up to 40 G (optionally)
<b>Resolution / conversion time</b>	16-bit / 20ms
<b>Signal Type / Input Error @23°C ambient temperature</b>	strain gauge full bridge, four-conductor 0-100mV 3.3mV/V 2.0mV/V 0.1% fsd

<b>Order No.</b>	<b>Description</b>
<b>12.17.010</b>	$\mu$ 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 $\geq$ 350 Ohms.
<b>12.17.011</b>	$\mu$ 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 $\geq$ 1kOhm.
<b>90.01.113</b>	Metric cable installation kit for 1-channel field modules