



## DMS202 Strain Gauge Input Module

The strain gauge input module DMS202 is a two-channel, micro controller operated measuring module to read quickly changing strain gauge signals up approx. 1 kHz with a sample time of only 12.5  $\mu$ s.

- 2 strain gauge measurement inputs
- High-quality plug-in connector
- 2 analog measurement outputs
- Automatic measuring range selection (input)
- Wire break detection on the measurement inputs
- Monitoring of the external supply voltage

Item	Item-No.
DMS202	00009884-00

<b>DMS202</b>	
<b>Bridge supply</b>	
Carrier frequency	5 kHz $\pm 2$ %
Amplitude	4 V <sub>RMS</sub> $\pm 2$ %
Synchronization of the carrier frequency	Optional
Synchronization range	5 kHz $\pm 2$ %
<b>Strain gauge amplifier input</b>	
Input resistance	> 5 M $\Omega$
Desired signal bandwidth	1 kHz
Resolution	12 bit
Max. input common mode voltage	10 V (no overdrive)
CMRR (0 to 5 kHz)	> 80 dB
Wire break monitoring	Yes, error message
Galvanic isolation from system	500 V
Monitoring of the ext. voltage	Yes, power-fail signal
Conversion time	12.5 $\mu$ s for one channel, 25 $\mu$ s for two-channel operation
Measurement range selection	2.0 / 4.0 / 8.0 / 16.0 mV or Auto Range
Measurement range switchover	Automatic or via software
<b>Measurement outputs</b>	
Output voltage	0 to 10 V
Internal resistance	< 2 $\Omega$
Load resistor	> 2.5 k $\Omega$
Special functions	Peak value capture Electronic capacity comparison Carrier frequency synchronization
<b>External power supply</b>	
Voltage range	18 to 34 VDC
Current consumption external	100 mA at 24 VDC
Reverse polarity protection	Yes
Galvanic isolation from system	500 V
<b>Approvals / Certificates</b>	
General	CE, cULus, CCC
<b>Ambient conditions</b>	
Operating temperature	0 to +60 °C
Rel. humidity operation	5 to 95 % without condensation
Storage temperature	-40 to +85 °C
Rel. humidity storage	5 to 95 % without condensation
Pollution degree	2 (without condensation; according to IEC 60664-1)

Order Codes		
Item	Item No.	Description
DMS202	00009884-00	Strain gauge measurement, 2x full bridge; $\pm 2/4/8/16\text{mV}$ ; $25\mu\text{s}$ sampling time; 5 kHz carrier frequency, 12bit; isolated
Accessories		
S-DMS/G	00008472-00	Lemo Connector directly
S-DMS/W	00010134-00	Lemo Connector angle
KZ-DMS202 B	00012054-30	Terminal set Phoenix cage clamp (1x KZ 51/02; 1x KZ 35/03) with labeling strip