

Analog Input / Output Modules



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 μ 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

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DMS202	
Bridge supply	
Carrier frequency	5 kHz ± 2 %
Amplitude	4 V _{RMS} ± 2 %
Synchronization of the carrier frequency	Optional
Synchronization range	5 kHz ± 2 %
Strain gauge amplifier input	
Input resistance	> 5 M Ω
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 μ s for one channel, 25 μ 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
Measurement outputs	
Output voltage	0 to 10 V
Internal resistance	< 2 Ω
Load resistor	> 2.5 k Ω
Special functions	Peak value capture Electronic capacity comparison Carrier frequency synchronization
External power supply	
Voltage range	18 to 34 VDC
Current consumption external	100 mA at 24 VDC
Reverse polarity protection	Yes
Galvanic isolation from system	500 V
Approvals / Certificates	
General	CE, UL/cUL, CCC
Ambient conditions	
Operating temperature	0 to +60 $^{\circ}$ C
Rel. humidity operation	5 to 95 % without condensation
Storage temperature	-40 to +85 $^{\circ}$ C
Rel. humidity storage	5 to 95 % without condensation
Pollution degree	2 (without condensation; according to IEC 60664-1)

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Order Codes DMS202

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