



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 to approx. 1 kHz with a sampling time of only 12.5 μ s.

Features

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

Part type designation	Part number
DMS202	00009884-00

DMS202

Bridge supply	
Carrier frequency	5 kHz \pm 2 %
Amplitude	4 V _{RMS} \pm 2 %
Synchronization of the carrier frequency	Optional
Synchronization range	5 kHz \pm 2 %
Strain gauge amplifier input	
Input resistance	> 5 M Ω
Effective bandwidth	1 kHz
Resolution	12 bit
Max. common mode input voltage	10 V (no overdriving)
CMRR (0 kHz to 5 kHz)	> 80 dB
Cable break monitoring	Yes, error message
Galvanic isolation for the system	500 V
Monitoring of the external voltage	Yes, powerfail signal
Conversion time	12.5 μ s for one channel, 25 μ s for two-channel operation
Measuring range	2.0/4.0/8.0/16.0 mV or Auto Range
Measurement range switching	Automatic or by software
Measurement outputs	
Output voltage	0 V to 10 V
Internal resistance	< 2 Ω
Load resistor	> 2.5 k Ω
Special Functions	Peak value detection Electronic capacity adjustment Carrier frequency synchronization
External power supply	
Voltage range	18 V DC to 34 V DC
External current consumption	100 mA at 24 V DC
Reverse polarity protection	Yes
Galvanic isolation for the system	500 V
Approvals/Certificates	
General	CE, UKCA, cULus
Environmental conditions	
Operating temperature	0 °C to +60 °C
Relative humidity, operation	5 % to 95 % noncondensing
Storage temperature	-40 °C to +85 °C
Relative humidity, storage	5 % to 95 % noncondensing
Pollution degree acc. IEC 60664-1	2 (noncondensing)

Order data

Part type designation	Part number	Description
DMS202	00009884-00	Strain gauge measurement, 2x full bridge; $\pm 2/4/8/16$ mV; 25 μ s sampling time; 5 kHz carrier frequency, 12 bit; isolated

Accessories

Part type designation	Part number	Description
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