

M-THERMO2

8-channel thermocouple measurement inputs type K (NiCr/NiAl)

- Cold junction compensation per channel
- Status LED at each measurement channel
- Measurement data output to CAN
- Galvanic isolation (inputs, CAN, supply, enclosure)
- Designed for engine compartment applications
- Toolless module to module connection
- Ruggedized and compact modules for harsh environments



General channel properties	
Special functions	Sensor breakage detection (activation via software setting)
AD converter	24 bit (Sigma/Delta)
Channel sampling rates	1/ 2/ 5/ 10/ min -- 1/ 2/ 5/ 10/ 20/ 50/ 100 Hz
Aggregate sample rate	800 Hz
Hardware filter (fixed)	10 Hz, filter type RC low pass
Channel impedance	4.0 MΩ

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Channel LED	Yes
Channel LED	Yes Channel LED is flashing during configuration Sensor break detection
Channel temperature	
Measurement range temperature	Type K (NiCr/NiAl) -60 ... 1370 °C (-76 ... 2498 °F)
Accuracy at ambient temperature 25 °C (77 °F)	±0.025 % (typical) ±0.035 % over whole measuring range
Drift for ambient temperature -40 ... 125 °C	±10 ppm/K (from hardware version 3.30) ±40 ppm/K
Linearization of sensor characteristic line	Numerical interpolated
Cold junction compensation (CJC)	PT100 for each channel
Galvanic isolation	
Input ↔ module power supply	±100 V (indefinitely), ±500 V (pulse voltage)
Input ↔ CAN	±100 V (indefinitely), ±500 V (pulse voltage)
Input ↔ enclosure	±100 V (indefinitely), ±500 V (pulse voltage)
Input ↔ input	±100 V (indefinitely), ±500 V (pulse voltage)
Device	
Inputs	8
Maximum input protection voltage (channel)	±50 V (continuous), ±200 V (short-term, t < 2 ms)
Voltage supply	6 ... 36 VDC
Supply voltage thresholds	On 9 ±0.3 VDC / Off 6 ±0.3 VDC
Power consumption, typical	1.1 W
Working temperature range	-40 ... 125 °C (-40 ... 257 °F)
Storage temperature range	-55 ... 150 °C (-67 ... 302 °F)
IP-Code	IP 67 (ISO 20653 - 2013)
Relative humidity	5 ... 95 %
Operating altitude (above sea level)	55.000 Fuß / 16.764 m
Dimensions	W106 mm x H30 mm x D57 mm (4.17 in x 1.18 in x 2.26 in)
Weight	315 g (0.69 lb)
Configuration interface	CAN high speed
Data transfer rate	Software selectable up to 1 MBit/s (ISO11898-2)
Test standards	IEC 61010-2-201
Input sockets	Miniature TC connector green (DIN IEC 584) Miniature TC connector yellow (ANSI MC 96.1)

Status LED	Yes
Accessories	
System cable	M-CAN-ABS 620-502 M-CAN cable SUBD/S Term. 620-560 M-CAN cable 620-561 M-PWR term cable, banana 620-567 M-CAN/PWR term cable SubD/S, banana