

## M-THERMO2 HV

### 4 High voltage thermocouple measurement inputs type K (NiCr/NiAl)

- Each channel with separate high voltage safety connector
- Cold junction compensation per channel
- Status LED at each measurement channel
- Measurement data output to CAN
- Galvanic isolation, bipolar up to  $\pm 846$  VDC
- Approved applications according to CAT I and CAT II
- Designed for engine compartment applications
- Toolless module to module connection
- Ruggedized and compact modules for harsh environments



<b>Device</b>	
Maximum input protection voltage (channel)	$\pm 50$ V (indefinitely), $\pm 200$ V (short-time, $t < 2$ ms)
Channel sampling rates	1/ 2/ 5/ 10/ min – 1/ 2/ 5/ 10/ 20/ 50/ 100 Hz
Aggregate sample rate	400 Hz
Voltage supply	9 ... 36 VDC
Supply voltage thresholds	Switch-on $9 \pm 0.3$ VDC / Switch-off $6 \pm 0.3$ VDC
Power consumption, typical	0.9 W
Working temperature range	$-40 \dots 105$ °C ( $-40 \dots 221$ °F)
Storage temperature range	$-55 \dots 150$ °C ( $-67 \dots 302$ °F)
IP-Code	IP 67 (ISO 20653 - 2013)
Relative humidity	5 ... 95 %
Dimensions	W106 mm x H60 mm x D87 mm (4.17 in x 2.36 in x 3.43 in)
Weight	495 g (1.09 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	Lemo CKC.H02.SLK (2-pin)
<b>Galvanic isolation</b>	
Input module power supply	$\pm 846$ VDC
Input CAN	$\pm 846$ VDC
Input enclosure	$\pm 846$ VDC
Input input	$\pm 846$ VDC
Test voltage	3536 VAC @ 50 Hz (sine wave)
Application according to CAT I	$\pm 846$ VDC
Application according to CAT II	600 VAC @ 50 ... 60 Hz (sine wave)
<b>General channel properties</b>	
A/D converter	24 bit (Sigma/Delta)

Sensor break detection	Activation via software settings
Channel LED	Available
Flashing mode of channel LED	During configuration - blinking
Flashing mode of channel LED	Break detection - permanent active
Channel impedance	3.94 MΩ
Hardware filter (fixed)	10 Hz, filter type RC-low-pass
<b>Channel temperature</b>	
Measurement range temperature	Type K (NiCr/NiAl) -60 ... 1370 °C (-76 ... 2498 °F)
Accuracy at ambient temperature 25 °C	±0.035 % for full measurement range
Drift for ambient temperature -40 ... 125 °C	±20 ppm/K
Linearization of sensor characteristic line	Numerical interpolated
Cold junction compensation (CJC)	PT100 for each input
<b>Accessories</b>	
System cable	620-561.pdf
System cable	620-502.pdf
System cable	620-560.pdf
System cable	620-567.pdf
System cable	620-509.pdf
System cable	M-CAN-ABS.pdf
System cable	M-DEF-200.pdf
Input cable	SEN-THE-HV-xx1.pdf