

M-THERMO2 HV 1000V (multi plug)

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

- Multi channel high voltage safety connector
- Cold junction compensation per channel
- Status LED at each measurement channel
- Measurement data output to CAN
- Galvanic isolation, bipolar ± 1000 VDC
- Approved applications according to CAT I, CAT II and CAT III
- 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	2 / 5 / 10 / min -- 1 / 2 / 5 / 10 / 20 / 50 / 100 Hz
Aggregate sample rate	400 Hz
Hardware filter (fixed)	10 Hz, filter type RC-low-pass
Channel impedance	3.94 M Ω
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)	±0.035 % over whole measuring 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 channel
Galvanic isolation	
Input ↔ module power supply	±1000 VDC
Input ↔ CAN	±1000 VDC
Input ↔ enclosure	±1000 VDC
Input ↔ input	±1000 VDC
Test voltage	3536 VAC @ 50 Hz (sine wave)
Application according to CAT I	±1000 VDC
Application according to CAT II	±600 VDC 600 VAC @ 50 ... 60 Hz (sinusoidal)
Device	
Inputs	4
Maximum input protection voltage (channel)	±50 V (continuous), ±200 V (short-term, t < 2 ms)
Voltage supply	9 ... 36 VDC
Supply voltage thresholds	On 9 ±0.3 VDC / Off 6 ±0.3 VDC
Power consumption, typical	1 W
Working temperature range	-40 ... 105 °C (-40 ... 221 °F)
Storage temperature range	-55 ... 125 °C (-67 ... 257 °F)
IP-Code	IP 65 (ISO 20653 - 2013)
Relative humidity	5 ... 95 %
Operating altitude (above sea level)	5000m above sea level
Configuration interface	CAN high speed
Data transfer rate	Software selectable up to 1 MBit/s (ISO11898-2)
Test standards	IEC 61010-1 IEC 61010-2-030
Housing material	Aluminum, gold anodized
Input sockets	Lemo CKB.H08.SLKG (8-Pin)
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
Input cable	SEN-THE-HV2-024
Bracket HV	IPE-HWI-M-003