

M-RTD2



4-Channel RTD Temperature Input

- ▶ 4 measurement inputs for RTD
- ▶ Measurement data output to CAN
- ▶ Complete galvanic isolation (inputs, excitation, CAN, power supply, enclosure)
- ▶ Designed for engine compartment applications
- ▶ Toolless module to module connection

Measurement range	-50 °C to 450 °C (-58 °F to 842 °F)
Input voltage (PT_IN+ ↔ PT_IN-)	max. ±100 V (indefinitely), ±200 V (short-time, t < 2 ms)
Channel sample rates	1/ 2/ 5/ 10/ min 1/ 2/ 5/ 10/ 20/ 50/ 100 Hz
Offset adjust by broadcast command (Offset adjust also supported during measurement.)	- manual offset adjust - offset adjust for all channels of a group
Voltage supply	9 to 36 V _{DC} Switch-off for voltage < 6 V
Power consumption, typical	2.5 W
Working temperature range	-40 ... +125 °C (-40 ... +257 °F)
Storage temperature range	-40 ... +150 °C (-40 ... +302 °F)
Relative humidity	5 ... 95 %
IP-Code	IP 67 (ISO 20653 - 2013)
Dimensions	W106 mm x H43 mm x D60 mm (W4.17 in x H1.69 in x D2.36 in)
Weight	410 g (0.90 lb)

Cables		
Measuring input	670-937.xxx 620-657.xxx	PT100/RTD 0S Cable open M-RTD 1S 4-pin Cable open
Connecting cable M-CAN (data, power)	620-560.xxx	M-CAN Cable (CAN, PWR)
Power cable terminated	620-561.xxx	M-CAN Cable PWR Banana-2
Data cable terminated	620-502.xxx	M-CAN Cable D-Sub /S

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Measuring input for RTDs	
Galvanic isolation input ↔ module power supply input ↔ excitation input ↔ CAN input ↔ input	nominal voltage pulse voltage ±100 V ±500 V ±100 V ±500 V ±100 V ±500 V ±100 V ±500 V
Measuring range PT	-50 to 450 °C (-58 to 842 °F)
Supported RTDs	RTD100 (PT100)
AD converter resolution (ADC SAR)	16 Bit
Accuracy at ambient temperature Ta = 25 °C (77 °F) Ta = -40 °C ... 85 °C (-40 °F ... 185 °F) Ta = -40 °C ... 125 °C (-40 °F ... 257 °F)	±0.10 K (0.02 % of measuring range) ±0.60 K (0.12 % of measuring range) ±1.25 K (0.25 % of measuring range)
Hardware filter, switchable	150 Hz, filter type 8-pole Butterworth
Software filter (DSP), selectable	cut-off frequency and filter type selectable
Internal sample rate	1 kHz
Current output PT	
Inverse voltage (I_OUT+ ↔ I_OUT-)	max. ±20 V
Closed loop controlled current (short-circuit-proof)	1 mA
Female connectors	
Version M-CAN Lemo (IPETRONIK standard) Version CAN Lemo	System connector Input connector EGA 0B 309 ERA 0S 304 EGG 0B 305 ERA 1S 304
CAN output	
Selectable data transfer rate (bit rate)	up to 1 MBit/s according to ISO11898-2
CAN message data format (signal) Resolution (Format) Sign	8 Bit (Byte) and 16 Bit (Word) selectable signed, unsigned
Configuration interface	CAN