

M-UNI2

8-channel thermocouple measurement inputs type K and voltage

- Cold junction compensation per channel
- Voltage measurement mode ± 30 V
- 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



Device	
Maximum input protection voltage (channel)	± 50 V (indefinitely), ± 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	800 Hz
Voltage supply	6 ... 36 VDC
Supply voltage thresholds	Switch-on 6 ± 0.3 VDC / Switch-off 6 ± 0.3 VDC
Power consumption, typical	1.0 W
Working temperature range	$-40 \dots 125$ °C ($-40 \dots 257$ °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 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 Type K
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)
General channel properties	
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
Channel impedance	4.0 MΩ
Channel temperature	
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	±40 ppm/K
Linearization of sensor characteristic line	Numerical interpolated
Cold junction compensation (CJC)	PT100 for each input
Hardware filter temperatur (fixed)	2.5 Hz, filter type RC-low-pass
Channel volt	
Measurement range volt	±30 V
Accuracy at ambient temperature 25 °C	0.1 %
Drift for ambient temperature -40 ... 125 °C	50 ppm/K
Hardware filter voltage (fixed)	330 Hz, filter type RC-low-pass
Accessories	
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	620-644.pdf