

M-TDC 8

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

- Plugless connection of thermocouples via M-TDC cable
- Release leverage to pull out thermocouple sensor
- 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
- 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	1.1 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 %
Dimensions	W106 mm x H30 mm x D63 mm (4.17 in x 1.18 in x 2.48 in)
Weight	305 g (0.67 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	Pear-shaped for M-TDC thermocouple
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 M Ω
Hardware filter (fixed)	10 Hz, filter type RC-low-pass
Channel temperature	
Measurement range temperature	Type K (NiCr/NiAl) -60 ... 1370 °C (-76 ... 2498 °F)
Accuracy at ambient temperature 25 °C	±0,025 % for full measurement range
Drift for ambient temperature -40 ... 125 °C	±10 ppm/K
Linearization of sensor characteristic line	Numerical interpolated
Cold junction compensation (CJC)	PT100 (RTD) for each input
Accessories	
System cable	620-561.pdf
System cable	620-502.pdf
System cable	620-560.pdf
System cable	620-567.pdf
System cable	M-CAN-ABS.pdf
System cable	M-MODULE-DEFAULT.pdf