

CPAD3-TH8-x

- Intelligent amplifier with integrated A/D conversion
- CAN interface
- 8 input channels for thermocouples
- Available thermocouple types:
 - CPAD3-TH8-x: K, J, T standard type
 - CPAD3-TH8-UNIVERSAL: Universal type



Specifications

CPAD3-TH8-x	
Input channels	8 isolated Thermocouple Channels
Input signals	Thermocouple type K, J, T (others on request)
CPAD3-TH8-x	Thermocouple type K, J, T, R, S, N, E, C, U, B
CPAD3-TH8-UNIVERSAL	
Sampling rate	max. 100 S/sec per channel
Bandwidth (-3 dB)	48 Hz
ADC type	20 Bit Delta Sigma Converter
Input connector	mini Thermocouple connector
Resolution	0.01 °C for all types
Input impedance	>1 MΩ
Bias current	<1 nA
Open thermocouple detection	module indicates fullscale if input is open
Accuracy*	
Standard models CPAD3-TH8-K /-J / -T	
Type K (-270 to 1372 °C):	±1.0 °C @ -200 to -25 °C ±0.4 °C @ -25 to 1000 °C ±0.5 °C @ 1000 to 1372 °C
Type J (-210 to 1200 °C):	±1.0 °C @ -210 to -100 °C ±0.3 °C @ -100 to 760 °C ±0.4 °C @ 760 to 1200 °C
Type T (-270 to 400 °C):	±1.0 °C @ -250 to -150 °C ±0.4 °C @ -150 to 400 °C
Special models on request CPAD3-TH8-x	
Type R, S (-50 to 1760 °C):	±1.6 °C @ -50 to 0 °C ±1.0 °C @ 0 to 100 °C ±0.4 °C @ 100 to 1760 °C
Type N (-270 to 1300 °C):	±1.2 °C @ -200 to -100 °C ±0.5 °C @ -100 to 1300 °C
Type E (-270 to 1000 °C):	±1.0 °C @ -200 to -50 °C ±0.4 °C @ -50 to 1000 °C
Type C (0 to 2300 °C):	±0.6 °C @ 0 to 800 °C ±0.8 °C @ -800 to 1500 °C ±1.5 °C @ 1500 to 2300 °C
Type U (-200 to 600 °C):	±1.0 °C @ -200 to -50 °C ±0.4 °C @ -50 to 200 °C ±0.3 °C @ 200 to 600 °C
Type B (0 to 1820 °C):	±20 °C @ 0 to 400 °C ±0.6 °C @ 400 to 1000 °C ±0.5 °C @ 1000 to 1800 °C
[†] ±1.0 °C when using CPAD3-TH8-UNIVERSAL	
Max. gain drift	25 ppm /°C
Max. offset drift	25 ppm of range /°C
Isolation voltage	1500 V _{DC} (channel to channel and channel to Bus, Power and Chassis)
Overvoltage protection	50 V _{DC}
CMRR (50/60 Hz) @ 0.01 to 10 S/sec	>110 dB
CPAD3-TH8	
Interface	highspeed CAN
Specification	CAN 2.0B
Communication speed	50 kBaud to 1000 kBaud
Data Format	16 Bit Intel or Motorola
Identifier Types	standard; extended
Standard settings	500 kBaud; Intel Format
Readout speed	100 Hz, 50 Hz, 20 Hz, 10 Hz, 5 Hz, 2 Hz, 1 Hz, 0.5 Hz, 0.2 Hz or 0.1 Hz, 0.05 Hz, 0.02 Hz, 0.01 Hz, programmable
Bus/Power Connector	LEMO EGG.1B.304
Power Supply Voltage	7 to 40V
Power consumption	1 W
Dimensions	
Base module (W x D x H)	129 x 72 x 34.2 mm (5.1 x 2.8 x 1.3 in.) incl. mounting holes
Mounting holes distance:	119 x 7 mm (4.7 x 0.3 in.), 4.2 mm (0.165 in.) diameter
Weight	typically 405 g (~0.9 lbs)