

# F4-08THM 8-Channel Thermocouple Input <--->

General Specifications		Thermocouple Specifications	
<b>Number of Channels</b>	8, differential	<b>Input Ranges*</b>	Type J      -190 to 760°C      -310 to 1400°F
<b>Common Mode Range</b>	± 5VDC		Type E      -210 to 1000°C      -346 to 1832°F
<b>Common Mode Rejection</b>	90dB min. @ DC, 150dB min. @ 50/60Hz.		Type K      -150 to 1372°C      -238 to 2502°F
<b>Input Impedance</b>	1M Ω		Type R      65 to 1768°C      149 to 3214°F
		Type S      65 to 1768°C      149 to 3214°F	
		Type T      -230 to 400°C      -382 to 752°F	
		Type B      529 to 1820°C      984 to 3308°F	
		Type N      -70 to 1300°C      -94 to 2372°F	
		Type C      65 to 2320°C      149 to 4208°F	
<b>Absolute Maximum Ratings</b>	Fault-protected inputs to ± 50VDC	<b>Display Resolution</b>	± 0.1°C or ± 0.1°F
<b>Accuracy vs. Temperature</b>	± 5ppm/°C maximum full scale calibration (including maximum offset change)	<b>Cold Junction Compensation</b>	Automatic
<b>PLC Update Rate</b>	8 channels per scan max	<b>Conversion Time</b>	100ms per channel
<b>Digital Inputs</b>	16 binary data bits, 2 channel ID bits, 4 diagnostic bits	<b>Warm-Up Time</b>	30 minutes typically ± 1°C repeatability
<b>Input Points Required</b>	32 points (X) input module	<b>Linearity Error (End to End)</b>	± .05°C maximum, ± .01°C typical
<b>Terminal Type (included)</b>	Removable (D4-16IOCON)	<b>Maximum Inaccuracy</b>	± 3°C (excluding thermocouple error)
<b>External Power Supply</b>	60mA maximum, 18 to 26.4VDC	<b>Voltage Input Specifications</b>	
<b>Power Budget Requirements</b>	110mA max., 5VDC (supplied to base)	<b>Voltage Ranges</b>	0-5V, ± 5V, 0-156.25mV, ± 156.25mVDC
<b>Operating Temperature</b>	0° to 60°C (32° to 140°F)	<b>Resolution</b>	16 bit (1 in 65535)
<b>Storage Temperature</b>	-20° to 70°C (-4° to 158°F)	<b>Full Scale Calibration Error (Offset error Included)</b>	± 13 counts typical, ± 33 maximum
<b>Relative Humidity</b>	5 to 95% (non-condensing)	<b>Offset Calibration Error</b>	± 1 count maximum, @ 0V input
<b>Environmental Air</b>	No corrosive gases permitted	<b>Linearity Error (End to End)</b>	± 1 count maximum
<b>Vibration</b>	MIL STD 810C 514.2	<b>Maximum Inaccuracy</b>	± 0.2% @ 25°C (77°F)
<b>Shock</b>	MIL STD 810C 516.2	NOTE 1: Terminate shields at the respective signal source NOTE 2: Leave unused channels open (no connection) *Thermocouple type is selected by setting internal jumpers	
<b>Noise Immunity</b>	NEMA ICS3-304		

