DL05/06 I/O Option Modules

F0-04THM <--->

4-channel thermocouple input module

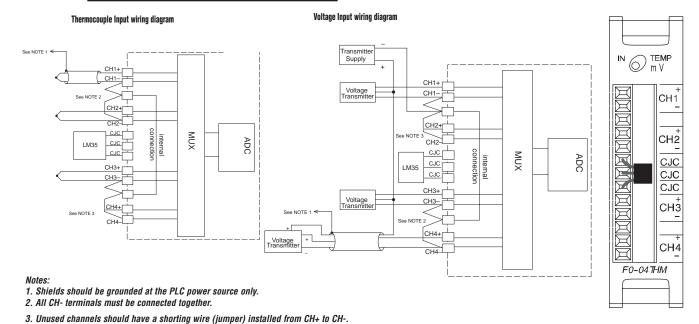
FO-04THM 4-Channel Thermocouple Input		
General Specifications		
Number of Channels	4, differential	
Common Mode Range	-1.3VDC to +3.8VDC	
Common Mode Rejection	100dB min. @ VDC 50/60Hz.	
Input Impedance	5ΜΩ	
Absolute Maximum Ratings	Fault-protected inputs to ±50 VDC	
Accuracy vs. Temperature (Max. Full Scale Error)	±15ppm/°C maximum 0 - 1.25V ±35ppm/°C maximum (including maximum offset change)	
PLC Update Rate	4 channels per scan	
Digital Inputs	None; uses special V-memory location based on slot	
Base Power Required	30mA @ 5VDC supplied by base	
Operating Temperature	32° to 140°F (0° to 60°C)	
Storage Temperature	-4° to 158°F (-20° to 70°C)	
Relative Humidity	5 to 95% (non-condensing)	
Environmental Air	No corrosive gases permitted	
Vibration	MIL STD 810C 514.2	
Shock	MIL STD 810C 516.2	
Noise Immunity	NEMA ICS3-304	
Replacement Terminal Block	F0-IOCON-THM (comes with CJC)	



NOTE: The DL05 CPU's analog feature for this module requires DirectSOFT Version 3.0c (or later) and firmware version 4.60 (or later). The DL06 requires DirectSOFT version V4.0, build 16 (or later) and firmware version 1.40 (or later). See our website for more information: www.automationdirect.com.

Thermocouple Specifications		
Input Ranges	Type R 65 to 1768°C Type S 65 to 1768°C	-310 to 1400°F -346 to 1832°F -238 to 2502°F 149 to 3214°F -382 to 752°F 984 to 3308°F -94 to 2372°F 149 to 4208°F
Display Resolution	±0.1°C or ±0.1°F	
Cold Junction Compensation	Automatic	
Conversion Time	270ms per channel	
Warm-Up Time	30 minutes typically ± 1°C repeatability	
Linearity Error (End to End)	±1°C maximum, ±0.5°C typical	
Maximum Inaccuracy	±3°C (excluding thermocouple error)	

Voltage Input Specifications		
Voltage Ranges	0-39.0625mV, ±39.0625mV, ±78.125mV, 0-156.25mV, ±156.25mVDC, 0-1.25V	
Resolution	16 bit (1 in 65535)	
Max. Offset Error (All Input Ranges)	0.05% @ 0-60°C; Typical: 0.04% @ 25°C	
Linearity Error (All Input Ranges)	0.05% @ 0-60°C; Typical: 0.03% @ 25°C	
Maximum Inaccuracy	0-39.0625mV, ±39.0625mV, ±78.125mV ranges: 0.1% @ 0-60°C; Typical: 0.04% @ 25°C 0-156.25mV, ±156.25mVDC, 0-1.25V ranges: 0.05% @ 0-60°C; Typical: 0.04% @ 25°C	



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