Safe Analog Temperature Measurement & Monitoring I/O Slot Card Thermocouple/RTD, Configurable

Description

DDI's safe temperature measurement slot card is configurable for analog measurement of up to eight (8) thermocouple (TC) signals, four (4) RTD signals, or a combination up to four (4) TC & RTD sensors. It is configurable to measure and monitor thermcouple types B, E, J, K, N, R, S, and T. Thermocouple *cold junction sensing* is integrated between the slot card and interface field connector on the Fusion.IO module. RTD types PT100 & PT1000 with 2, 3, or 4-wires are supported. As part of the Fusion.IO safety system, the slot card is certified for use as a safety rated temperature interlock device conforming to ISO 13849-1 (Cat3 /PL e) & IEC 620161 & ICE 61508 (SIL CL3 /SIL3). Over & undertemperature setpoint monitors can be used in Fusion.TC's machine interlock control safety system when programmed using Interlock Builder software.

Application of Fusion.IO as a part of machine safety system requires user installation and selection of attached devices be in accordance with the standards of the machine safety certifying body. Consult a DDI Solution Engineer for information on best practices for machine safety.

Ratings	
DDI Part #	21-200682
Type	Analog Input
Logic	Differential
Operating temperature, °C	0 to 55 °C
Safety Rating (note 1)	*IEC 61508, SIL3; ISO 13489 Cat3/PLe*
Thermocouple Support	
# Channels (note 2)	8
Types supported	B, E, J, K, N, R,S, T
Accuracy @ 25°C (note 3)	+/- 1 °C
Sampling rate,	250Hz
RTD Support	
# Channels (note 2)	4
Types supported	PT100, PT1000
Accuracy @ 25°C (note 3)	+/- 0.5 °C
Sampling rate	333 Hz
Protective & Advanced Features	
Over & undertemperature setpoint monitoring with interlock control Open circuit dectection Advance digital filtering Custom calibration optional, on request	
(note 1) SIL3 rating requires redundant sensors, SIL2 a single sensor; machine level safety requires strict adherence to best practices for sensor selection & placement (note 2) Max 4-channels when combining TC & RTD (note 3) Accuracy measured at Fusion.IO connector, with connector placement conforming to Fusion.IO reference design criteria.