

Low Level Analog Input Processor — 8 Inputs

MU-PAIL02

Data Conversion Performance	
Parameter	Specification
FTA Models	MU-TAIL02
Input Type	Thermocouple, RTD, Voltage, & Current (2-wire transmitters require separate power source)
Input Channels	8 galvanically isolated
A/D Converter Resolution	15 bits
Input Range	See table on following page
CMV, dc to 60 Hz	250 Vac rms or ± 250 Vdc
Dielectric Strength	1500 Vac rms or ± 1500 Vdc Channel-to-channel, and channel-to-APM common
CMRR, dc to 60 Hz	120 db min. w/1k lead imbalance
NMRR, at line frequency	60 db min.
Normal Mode Filter Response	3 db point: Typical 3.4 Hz; min. 2.2 Hz; max. 5.7 Hz
Crosstalk, dc to 60 Hz	120 db
Input Impedance	5 k Ω min. @ 100 mV (unpowered)
Input Impedance	10 M Ω min. @ 5 Vdc (powered)
Maximum Normal Mode Input (no damage)	-20 mV to 5.5 volt
Input Scan Rate	8 samples per second per channel. All channels sample simultaneously. 4 samples per second per channel for thermocouple input if open thermocouple detection enabled.
Line Frequency Synchronization Type Frequency Range	Running Average 50/60 Hz +3%, -6%
Hardware (only) Accuracy (0-100 mV, 0-5 V)	$\pm 0.05\%$ of full scale, or $\pm 0.075\%$ of reading at 23.5° $\pm 2^\circ\text{C}$ (whichever is larger)
Software (only) Accuracy ⁽¹⁾	$\pm 0.1^\circ\text{C}$ typical, $\pm 0.5^\circ\text{C}$ maximum at 23.5° $\pm 2^\circ\text{C}$
Hardware Reference Junction Accuracy	$\pm 0.9^\circ\text{C}$ maximum at 23.5° $\pm 2^\circ\text{C}$ (in cabinet)
Temperature Stability Voltage Input, current input, thermocouple input (except reference junction) RTD Input	45 ppm/ $^\circ\text{C}$ RSS 70 ppm/ $^\circ\text{C}$ maximum 50 ppm/ $^\circ\text{C}$ RSS 85 ppm/ $^\circ\text{C}$ maximum
Surge Protection (common mode)	IEEE SWC 472-1974
(1) Software EU conversion error including software reference junction compensation. The temperature conversion by software meets or exceeds the accuracy tolerances for fifth order polynomials as specified in the National Institute of Standards and Technology (NIST) Monograph 125 (IPTS-68).	

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