



ITMA Isolated Loop Powered Temperature Converter

Item number: ITMA0001

The ITMA RTD Temperature Input Module is a high-performing and highly accurate signal conditioner that offers remote thermocouple or RTD signal monitoring. Output is ideal for interfacing to indicators, chart recorders, controllers or other instrumentation equipment.



Convert thermocouple or millivolt inputs into a voltage or current output with this easy-to-use signal conditioner

Features and benefits

- ✓ **Accepts thermocouple or millivolt inputs**
Measures RTD or TC J and K temperature sensor and converts the signal to an isolated passive analog current output.
- ✓ **2-port isolation**
High galvanic isolation of 2.5 kVAC. Full isolation from signal input and analog output. Provides surge suppression and protects the control system from transients and noise. Signal/noise ratio of >60 dB.
- ✓ **Loop powered or DC powered**
Loop-powered unit controls output current draw in proportion to input change. DC-powered unit isolates DC power input from signal input and analog output, which is scaled proportionally to thermocouple or millivolt input signal.
- ✓ **High accuracy and speed**
High conversion accuracy, better than 0.05% of span. < 30 ms fast response time with simultaneous sensor error detection when selected. Selectable 300 ms response time when signal dampening is needed.
- ✓ **Analog output**
May be configured for one of the following: 0 to 20 mA, 4 to 20 mA, or 0 to 10 VDC
- ✓ **Simple configuration**
Easily configured using an 10 position DIP switch. Range setting technique (field calibration) is used so the actual input signal adjusts the output for scaling. More than 1000 factory calibrated measurement ranges.
- ✓ **Easy installation**
Equipped with a universal mounting foot for easy installation to either a top hat or G profile DIN-rail.
- ✓ **Designed for harsh environments**
Engineered to deliver uncompromising performance in demanding environments. Meet NAMUR NE21 recommendations and NAMUR NE43 standards. Wide temperature range of -25 to 70 °C.
- ✓ **Industry certified**
UL-listed and ATEX/IECEX approvals. Class 1, Division 2 or Zone 2 hazardous locations.

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General	
Net Weight (g)	70.023265
Packed Weight (g)	70.023265
Operating Temperature °C Min	-25
Operating Temperature °C Max	70
Storage Temperature °C Min	-40
Storage Temperature °C Max	85
Relative Humidity	< 95% RH (non-cond.)
Power Consumption (W)	0
Input Voltage (V)	5.5 to 35 VDC
Mounting	DIN rail mount (bracket included)
Packaging Material	Cardboard
Warranty (years)	2

Identification and Status	
Product ID	ITMA0001
Country of Origin	United States of America (the)
HS Code	8538909999
Dual Usage	No

Physical Features	
SD Card Slot	No
Flash Drive	No
Contains Battery	No

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Certifications and Standards	
Protection Class IP	IP20
RoHS Compliant	Yes
CE	No
FCC	No
UKCA	No
UL	Yes
ATEX	Yes
DNV	No
KC	No
Vibration and Shock	Vibration: 2...25 Hz: $\pm 1,6$ mm, 25...100 Hz: ± 4 g