

5505 RTD Input Module

Features:

- Input values scaled and linearized
- Data returned as 32-bit floating point number
- Low power consumption
- Automatic 3-wire RTD compensation
- 5503 emulation mode for legacy systems



Specifications

Input Points	4, RTD
RTD Type	100-ohm platinum, 3 and 4-wire, auto-detection and compensation
Calibration	0.00385 ohms/ohm/°C standard based on ASTM E 1137/E 1137M-04, ITS-90
Ranges	5505: Can be configured to return data in ohms, °C, °F or °K -200 to 800°C 0 to 500 ohms 5503 Emulation: Dipswitch selectable 0 to 200°C -100 to 100°C -200 to 0°C 0 to 800°C 0 to 400°C 0 to 400ohms
Data Format	5505: 32-bit floating point and 12 status bits 5503 Emulation: 16-bit signed integer
Resolution	5505: > 17 bits effective 5505 Emulation: 15-bits
RTD Status	RTD is good (not open) RTD in range RTD 3 / 4 wire RTD status not available in 5503 Emulation
Accuracy on RTD Ranges	Percent of full scale over operational temperature range including linearization errors: +0.10%/-0.05%
Accuracy on 0 to 500ohms	Percent of full scale over operational temperature range: ±0.03%
Excitation Current	4mA, 7.2% duty cycle in 4-wire mode, 14.4% in 3-wire mode, 250ms scan interval
Line Resistance	100 ohms max., in each line
Converter Type	24-bit delta-sigma
Response Time	380ms typical for 10% to 90% signal change at minimum filter setting
Transient Protection	2.5kV surge-withstand capability as per ANSI/IEEE C37.90.1-1989
Isolation	Isolation from logic supply and chassis, voltage 500Vrms

Specifications

5V Power Requirements	6mA
11 - 30VDC Power Requirements	12V operation: 4mA plus 0.6mA per 4-wire RTD plus 1.2mA per 3-wire RTD 24V operation: 2.2mA plus 0.3mA per 4-wire RTD plus 0.6mA per 3-wire RTD
11-30VDC - Connector	Removable. Shared with RTD inputs 0-1
11-30VDC - Isolation	Isolation from logic supply and chassis
Terminations	8 and 10 pole, removable terminal block, 12 to 22 AWG, 15A contacts
Dimensions	2.9 inch (74 mm) wide 4.9 inch (124 mm) high 1.8 inch (45 mm) deep
Mounting	7.5 x 35 DIN rail
Packaging	Corrosion-resistant zinc-plated steel with black enamel paint
Environment	5% RH to 95% RH, non-condensing -40°C to 70°C (-40°F to 158°F) operation -40°C to 85°C (-40°F to 185°F) storage
Safety	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Groups A, B C and D Hazardous Locations ATEX II 3G and IECEx: Ex nA IIC T4 per EN 60079-15, protection type n (Zone 2)
Part Number	297318



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