5505

SCADAPack
RTD Input Module

At a glance

- 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

The SCADAPack™ 5505 RTD input module is part of the SCADAPack family of I/O Expansion and Communication modules, providing flexible I/O and telemetry options.

With the addition of I/O Expansion modules, any[1] SCADAPack Smart RTU is easily expandable from its base I/O configuration to more than 700 process I/O points. Available for a wide range of process I/O requirements, from digital and analog I/O to I/O simulators and a UPS module, a maximum of twenty I/O modules may be connected for an expansion of up to 512 digital outputs, 512 digital inputs, 128 analog inputs, 64 counters and 64 analog outputs, on some models.

Green Premium™ ecolabel product – Sustainable performance, by design

5505

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Specifications – 5505 RTD input module

General	
Input Points	4, RTD
RTD Type	100 Ω platinum, 3 and 4-wire, auto-detection and compensation
Calibration	0.00385 Ω / °C standard based on ASTM E 1137/E 1137M-04, ITS-90
Ranges	5505: Can be configured to return data in Ω, °C, °F or °K • -200...800 °C (-328...1472 °F) • 0 to 500 Ω 5503 Emulation: Dipswitch selectable • 0...200 °C (32...392 °F) • -100...100 °C (-148...212 °F) • -200...0 °C (-328...32 °F) • 0...800 °C (32...1472 °F) • 0...400 °C (32...752 °F) • 0 to 400 Ω
Data Format	• 5505: 32-bit floating point and 12 status bits • 5503 Emulation: 16-bit signed integer
Resolution	• 5505: > 17-bit effective • 5505 Emulation: 15-bit
RTD Status	• RTD is good (not open) • RTD in range • RTD 3 or 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...500 Ω	Percent of full scale over operational temperature range: ±0.03%
Excitation Current	4 mA, 7.2% duty cycle in 4-wire mode, 14.4% in 3-wire mode, 250 ms scan interval
Line Resistance	100 Ω max., in each line
Converter Type	24-bit delta-sigma
Response Time	380 ms typical for 10% to 90% signal change at minimum filter setting
Transient Protection	2.5 kV surge-withstand capability as per ANSI/IEEE C37.90.1-1989
Isolation	Isolation from logic supply and chassis, voltage 500 Vrms
5 Vdc Power Requirements	6 mA
11 - 30 Vdc Power Requirements	12 Vdc operation: 4 mA • plus 0.6 mA per 4-wire RTD • plus 1.2 mA per 3-wire RTD 24 Vdc operation: 2.2 mA • plus 0.3 mA per 4-wire RTD • plus 0.6 mA per 3-wire RTD

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Specifications – 5505 RTD input module continued

General	
11...30 Vdc - Connector	Removable. Shared with RTD inputs 0-1
11...30 Vdc - Isolation	Isolation from logic supply and chassis
Terminations	8 and 10-pole, removable terminal block,12...22 AWG, 15 A contacts
Dimensions	74 mm wide x 124 mm high x 45 mm deep (2.90 in. x 4.90 in. x 1.80 in.)
Mounting	7.5 x 35 DIN rail
Packaging	Corrosion-resistant; zinc-plated steel base and stainless steel cover with black enamel paint
Environment	5% RH to 95% RH, non-condensing, -40...70 °C (-40...158 °F) operation, -40...85 °C (-40...185 °F) storage
Safety	• Non-Incendive Electrical Equipment for Use in Class I, Division2 • 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) • For the latest information regarding product environmental compliance visit the Schneider Electric Check a Product portal at https://checkaproduct.se.com/

Model Code – 5505 RTD input module

Part number	Model	Description
TBUX297318	5505	RTD input module

Footnote: 1. Some I/O Expansion modules are specific to SCADAPack 300 RTUs, others are specific to SCADAPack E RTUs.

Note: Accessories sold separately.

Disclaimer:
The information provided in this document contains general descriptions and/or technical characteristics of the performance of the described products or services. For detailed specification, performance and instruction of use, refer to corresponding Catalogs and user guides if available.

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*PEP: Product Environmental Profile (i.e. Environmental Product Declaration)