Product data sheet

Specifications

analog input module Modicon Premium - 4 I multirange

TSXAEY414

Discontinued on: 31 December 2018

To be end-of-service on: 31 December 2026

Discontinued - Service only

Main

Range of product	Modicon Premium Automation platform
Product or component type	Analog input module
Input level	Low level
Analogue input number	4
Analogue input type	Current 4...20 mA Voltage +/- 10 V Voltage 0...10 V Voltage 0...5 V Voltage 1...5 V Thermocouple thermocouple B Thermocouple thermocouple E Thermocouple thermocouple J Thermocouple thermocouple K Thermocouple thermocouple L Thermocouple thermocouple N Thermocouple thermocouple R Thermocouple thermocouple S Thermocouple thermocouple T Thermocouple thermocouple U Resistor 0...3850 Ohm Resistor 0...400 Ohm Temperature probe Ni 1000 2 wires Temperature probe Ni 1000 4 wires Temperature probe Pt 100 2 wires Temperature probe Pt 100 4 wires Temperature probe Pt 1000 2 wires Temperature probe Pt 1000 4 wires Voltage - 13...63 mV Voltage +/- 5 V
Analog/Digital conversion	16 bits

Complementary

Nominal read cycle time	550 ms
Measurement error	0.13 % of full scale 0...400 Ohm 25 °C 0.16 % of full scale 0...10 V 25 °C 0.19 % of full scale - 13...63 mV 25 °C 0.22 % of full scale 0...3850 Ohm 25 °C 0.22 % of full scale 0...5 V 25 °C 0.27 % of full scale +/- 10 V 25 °C 0.27 % of full scale +/- 5 V 25 °C 0.27 % of full scale 0...400 Ohm 0...60 °C 0.27 % of full scale 1...5 V 25 °C 0.39 % of full scale 0...10 V 0...60 °C 0.44 % of full scale - 13...63 mV 0...60 °C 0.45 % of full scale 0...5 V 0...60 °C 0.45 % of full scale 4...20 mA 25 °C 0.48 % of full scale 0...3850 Ohm 0...60 °C 0.5 % of full scale +/- 10 V 0...60 °C 0.5 % of full scale +/- 5 V 0...60 °C 0.56 % of full scale 1...5 V 0...60 °C

	0.86 % of full scale 4...20 mA 0...60 °C 1.5 °C thermocouple B external 25 °C 1.5 °C thermocouple E external 25 °C 1.5 °C thermocouple T external 25 °C 1.5 °C thermocouple U external 25 °C 1.8 °C thermocouple J external 25 °C 10.5 °C thermocouple K internal 0...60 °C 11 °C thermocouple R internal 0...60 °C 12 °C thermocouple S internal 0...60 °C 2 °C thermocouple L external 25 °C 2 °C thermocouple N external 25 °C 2.3 °C thermocouple K external 25 °C 3.1 °C thermocouple U external 0...60 °C 3.2 °C thermocouple E external 0...60 °C 3.2 °C thermocouple R external 25 °C 3.2 °C thermocouple T external 0...60 °C 3.4 °C thermocouple S external 25 °C 3.5 °C thermocouple B external 0...60 °C 3.5 °C thermocouple B internal 25 °C 3.8 °C thermocouple J external 0...60 °C 4.1 °C thermocouple L external 0...60 °C 4.3 °C thermocouple N external 0...60 °C 4.7 °C thermocouple K external 0...60 °C 5.4 °C thermocouple U internal 25 °C 6 °C thermocouple N internal 25 °C 6 °C thermocouple R internal 25 °C 6.1 °C thermocouple E internal 25 °C 6.6 °C thermocouple S internal 25 °C 6.6 °C thermocouple T internal 25 °C 7.3 °C thermocouple J internal 25 °C 7.3 °C thermocouple U internal 0...60 °C 7.5 °C thermocouple L internal 25 °C 7.7 °C thermocouple R external 0...60 °C 7.8 °C thermocouple K internal 25 °C 8.1 °C thermocouple B internal 0...60 °C 8.1 °C thermocouple E internal 0...60 °C 8.5 °C thermocouple S external 0...60 °C 8.7 °C thermocouple N internal 0...60 °C 8.8 °C thermocouple T internal 0...60 °C 9.5 °C thermocouple J internal 0...60 °C 9.8 °C thermocouple L internal 0...60 °C 1 °C Ni 1000 25 °C 1.2 °C Pt 100 25 °C 2 °C Ni 1000 0...60 °C 2.4 °C Pt 100 0...60 °C 2.5 °C Pt 1000 25 °C 5 °C Pt 1000 0...60 °C
Isolation between channels and bus	1780 Vrms
Isolation between channels and ground	1780 Vrms
Isolation between channels	2830 Vrms
Common mode between channels	415 V AC or 200 V DC
Common mode between channels and earth	240 V AC or 110 V DC
Input overvoltage protection	-15…15 V at state 0 250 Ohm -30…30 V at state 1 250 Ohm
Electrical connection	Screw terminal block
Overcurrent	-30…30 mA at state 1 250 kOhm
Marking	CE
Current consumption	660 mA at 5 V DC
Module format	Standard
Net weight	0.32 kg

Environment

Standards	DIN 43760 IEC 584 IEC 751 DIN 43710 NFC 42-330 IEC 1131
Product certifications	DNV BV ABS

	RMRS RINA GL LR
Ambient air temperature for operation	0…60 °C
Ambient air temperature for storage	-25…70 °C
Relative humidity	10…95 % without condensation for operation 5…95 % without condensation for storage
Operating altitude	0...2000 m
Protective treatment	TC
IP degree of protection	IP20
Pollution degree	2

Packing Units

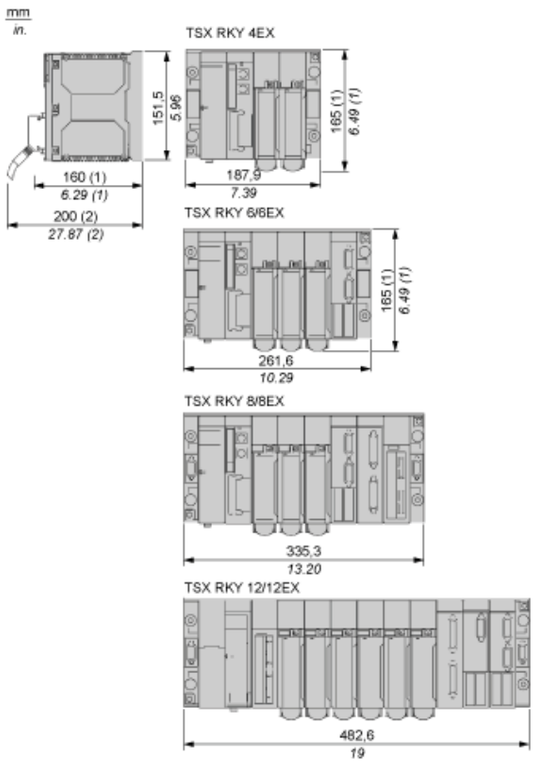
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.5 cm
Package 1 Width	18.0 cm
Package 1 Length	26.0 cm
Package 1 Weight	455.0 g
Unit Type of Package 2	S04
Number of Units in Package 2	12
Package 2 Height	30.0 cm
Package 2 Width	40.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	6.407 kg

Contractual warranty

Warranty	18 months

Standard and Extendable Racks for Modules Mounting

Dimensions of Modules and Racks

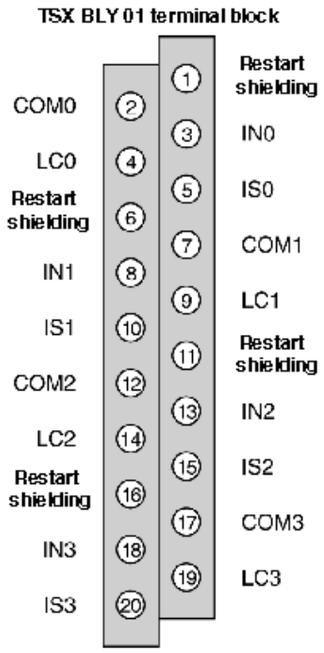


(**1**) With screw terminal block modules.

(**2**) Maximum depth for all types of modules and their associated connectors.

Analog Input Module (4-Channel, Voltage/Current/Thermocouple/Temperature Probe)

Terminal Block Pin Assignment



INx + Pole input of channel x
COMx - Pole input of channel x
ISx + Pole supply of the probe
LCx Line compensation

Recommended replacement(s)

TSXAEY414 is replaced by:

1x 

analog input module X80 - 4 inputs - temperature

BMXART0414