

# Product data sheet

Specifications



## analog input module Modicon Premium - 4 I multirange

TSXAEY414

! Discontinued on: 02 December 2020

! 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

|   |  |
|---|--|
| <b>Isolation between channels and bus</b>     | 1780 Vrms  |
| <b>Isolation between channels and ground</b>  | 1780 Vrms  |
| <b>Isolation between channels</b>             | 2830 Vrms  |
| <b>Common mode between channels</b>           | 415 V AC or 200 V DC   |
| <b>Common mode between channels and earth</b> | 240 V AC or 110 V DC   |
| <b>Input overvoltage protection</b>           | -15...15 V at state 0 250 Ohm<br>-30...30 V at state 1 250 Ohm |
| <b>Electrical connection</b>                  | Screw terminal block   |
| <b>Overcurrent</b>                            | -30...30 mA at state 1 250 kOhm                                |
| <b>Marking</b>                                | CE   |
| <b>Current consumption</b>                    | 660 mA 5 V DC  |
| <b>Module format</b>                          | Standard   |
| <b>Net Weight</b>                             | 0.71 lb(US) (0.32 kg)  |

## Environment

|                               |  |
|-------------------------------|--|
| <b>Standards</b>              | DIN 43760<br>IEC 584<br>IEC 751<br>DIN 43710<br>NFC 42-330<br>IEC 1131 |
| <b>Product Certifications</b> | DNV<br>BV<br>ABS   |

RMRS  
RINA  
GL  
LR

|  |   |
|--|---|
| <b>Ambient Air Temperature for Operation</b> | 32...140 °F (0...60 °C)   |
| <b>Ambient Air Temperature for Storage</b>   | -13...158 °F (-25...70 °C)  |
| <b>Relative Humidity</b>                     | 10...95 % without condensation for operation<br>5...95 % without condensation for storage |
| <b>Operating altitude</b>                    | 0...6561.68 ft (0...2000 m)   |
| <b>Protective treatment</b>                  | TC  |
| <b>IP Degree of Protection</b>               | IP20  |
| <b>Pollution degree</b>                      | 2   |

## Ordering and shipping details

|                          |                                     |
|--------------------------|-------------------------------------|
| <b>Category</b>          | 22558-TSX PREMIUM, ATRIUM & PL7 PRO |
| <b>Discount Schedule</b> | PC22                                |
| <b>GTIN</b>              | 3389110756951                       |
| <b>Returnability</b>     | No                                  |
| <b>Country of origin</b> | FR                                  |

## Packing Units

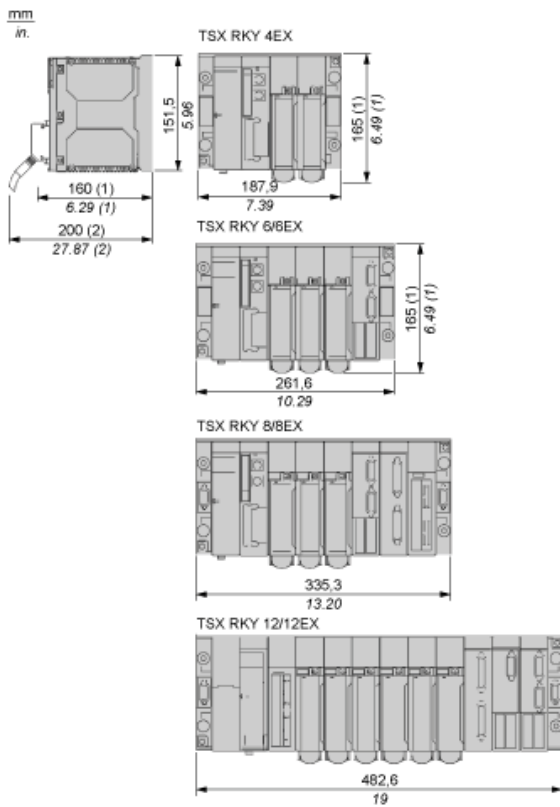
|                                     |                         |
|-------------------------------------|-------------------------|
| <b>Unit Type of Package 1</b>       | PCE                     |
| <b>Number of Units in Package 1</b> | 1                       |
| <b>Package 1 Height</b>             | 2.17 in (5.5 cm)        |
| <b>Package 1 Width</b>              | 7.09 in (18.0 cm)       |
| <b>Package 1 Length</b>             | 10.24 in (26.0 cm)      |
| <b>Package 1 Weight</b>             | 16.05 oz (455.0 g)      |
| <b>Unit Type of Package 2</b>       | S04                     |
| <b>Number of Units in Package 2</b> | 12                      |
| <b>Package 2 Height</b>             | 11.81 in (30.0 cm)      |
| <b>Package 2 Width</b>              | 15.75 in (40.0 cm)      |
| <b>Package 2 Length</b>             | 23.62 in (60.0 cm)      |
| <b>Package 2 Weight</b>             | 14.13 lb(US) (6.407 kg) |

## Contractual warranty

|                 |           |
|-----------------|-----------|
| <b>Warranty</b> | 18 months |
|-----------------|-----------|

**Standard and Extendable Racks for Modules Mounting**

**Dimensions of Modules and Racks**

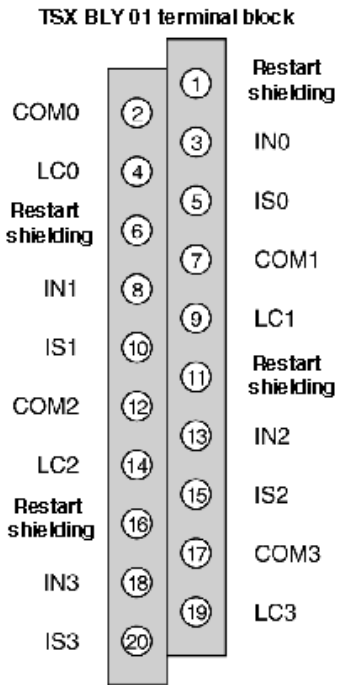


- (1) With screw terminal block modules.
- (2) Maximum depth for all types of modules and their associated connectors.

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

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**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 isolated low level input module, Modicon X80, 4 inputs, 40mV positive or negative  
BMXART0414