

# Product datasheet

Specifications



Analog IO module. TeSys island. 2 inputs. 1 output

TPRAN2X1

Price: 5,375.52 ZAR

## Main

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                      | TeSys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Product Name               | TeSys island                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Device Short Name          | TPRAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Product Or Component Type  | Analog IO module                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Device Presentation        | IO module providing 2 analog inputs and 1 analog output<br>Enabling advanced control functions in a TeSys island system<br>Operational only when connected to a bus coupler TPRBC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Function Of Module         | Measurement of voltage, current or temperature on 2 configurable analog inputs<br>Driving voltage or current source on 1 configurable analog output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Product Compatibility      | TPRBC bus coupler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Analogue Input Number      | 2 isolated with common point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Analogue Input Type        | Current 4...20 mA<br>Current 0...20 mA<br>Voltage 0...10 V<br>Voltage - 10...10 V<br>Temperature probe - 60...180 °C temperature probe: Ni 100<br>Temperature probe - 60...180 °C temperature probe: Ni 1000<br>Temperature probe -200...+850 °C temperature probe: Pt 100<br>Temperature probe - 200...600 °C temperature probe: Pt 1000<br>Thermocouple - 200...1000 °C thermocouple J<br>Thermocouple - 200...1300 °C thermocouple K<br>Thermocouple 0...1760 °C thermocouple R<br>Thermocouple 0...1760 °C thermocouple S<br>Thermocouple 0...1820 °C thermocouple B<br>Thermocouple - 200...400 °C thermocouple T<br>Thermocouple - 200...1300 °C thermocouple N<br>Thermocouple - 200...800 °C thermocouple E<br>Thermocouple 0...2315 °C thermocouple C |
| Measurement Accuracy       | +/- 0.1 % of full scale voltage 25 °C<br>+/- 0.1 % of full scale current 25 °C<br>+/- 0.1 % of full scale temperature probe 25 °C<br>+/- 0.1 % of full scale in positive temperature range thermocouple 25 °C<br>+/- 0.4 % of full scale in negative temperature range thermocouple 25 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Analogue Input Resolution  | 15 bits + sign full scale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Input Impedance            | <= 50 Ohm current<br>>= 1 MOhm voltage<br>>= 1 MOhm thermocouple<br>>= 1 MOhm temperature probe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Analogue Output Number     | 1 isolated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Analogue Output Type       | Current 4...20 mA<br>Current 0...20 mA<br>Voltage 0...10 V<br>Voltage - 10...10 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Analogue Output Resolution | 12 bits, 4...20 mA full scale<br>12 bits, 0...20 mA full scale<br>12 bits, 0...10 V full scale<br>11 bits + sign, - 10...10 V full scale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                  |                                                             |
|------------------|-------------------------------------------------------------|
| Type Of Cable    | Twisted shielded pairs cable <30 m for input/output circuit |
| Local Signalling | 1 LED (green/red) for DS (device status)                    |

## Complementary

|                                        |                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Us] Rated Supply Voltage              | 24 V DC supplied by the bus coupler                                                                                                                                                                                                                                                                                                                                |
| Current Consumption                    | 160 mA                                                                                                                                                                                                                                                                                                                                                             |
| Power Dissipation In W                 | 0.5 W maximum                                                                                                                                                                                                                                                                                                                                                      |
| [Uimp] Rated Impulse Withstand Voltage | 0.5 kV conforming to IEC 61010-1                                                                                                                                                                                                                                                                                                                                   |
| Standards                              | IEC 61010-2-201<br>UL 61010-2-201<br>CSA C22.2 No 61010-2-201                                                                                                                                                                                                                                                                                                      |
| Product Certifications                 | CSA<br>UL<br>EAC (pending)                                                                                                                                                                                                                                                                                                                                         |
| Mounting Mode                          | Horizontal and vertical (35 mm symmetrical rail)                                                                                                                                                                                                                                                                                                                   |
| Connections - Terminals                | Input/output circuit: removable spring terminal block 8 cable(s) 0.2...2.5 mm² (AWG 24...AWG 14) rigid<br>Input/output circuit: removable spring terminal block 8 cable(s) 0.2...2.5 mm² (AWG 24...AWG 14) flexible without cable end<br>Input/output circuit: removable spring terminal block 8 cable(s) 0.25...2.5 mm² (AWG 22...AWG 14) flexible with cable end |
| Width                                  | 25 mm                                                                                                                                                                                                                                                                                                                                                              |
| Height                                 | 118 mm                                                                                                                                                                                                                                                                                                                                                             |
| Depth                                  | 114 mm                                                                                                                                                                                                                                                                                                                                                             |
| Net Weight                             | 0.172 kg                                                                                                                                                                                                                                                                                                                                                           |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature For Storage   | -25...70 °C                                                                                                                                                                                                                                                                                                                                       |
| Ambient Air Temperature For Operation | -10...60 °C                                                                                                                                                                                                                                                                                                                                       |
| Relative Humidity                     | 5...95 %                                                                                                                                                                                                                                                                                                                                          |
| Operating Altitude                    | 0...2000 m without derating                                                                                                                                                                                                                                                                                                                       |
| Ip Degree Of Protection               | IP20                                                                                                                                                                                                                                                                                                                                              |
| Pollution Degree                      | 2                                                                                                                                                                                                                                                                                                                                                 |
| Protective Treatment                  | TC                                                                                                                                                                                                                                                                                                                                                |
| Fire Resistance                       | 960 °C conforming to UL 94                                                                                                                                                                                                                                                                                                                        |
| Shock Resistance                      | 15 gn (duration = 11 ms) conforming to IEC 60068-2-27                                                                                                                                                                                                                                                                                             |
| Vibration Resistance                  | 1.5 mm peak to peak (f= 3...13 Hz) conforming to IEC 60068-2-6<br>1 gn (f= 13...200 Hz) conforming to IEC 60068-2-6                                                                                                                                                                                                                               |
| Electromagnetic Compatibility         | Electrostatic discharge immunity test, level 3, 8 kV air, 6 kV contact, conforming to EN/IEC 61000-4-2<br>Radiated RF fields, level 3, 10 V/m, conforming to EN/IEC 61000-4-3<br>Fast transients immunity test, level 3, 2 kV, conforming to EN/IEC 61000-4-4<br>Surge immunity test (common mode), level 3, 2 kV, conforming to EN/IEC 61000-4-5 |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type Of Package 1       | PCE      |
| Number Of Units In Package 1 | 1        |
| Package 1 Height             | 6.500 cm |

|                              |           |
|------------------------------|-----------|
| Package 1 Width              | 13.500 cm |
| Package 1 Length             | 15.500 cm |
| Package 1 Weight             | 245.000 g |
| Unit Type Of Package 2       | S03       |
| Number Of Units In Package 2 | 16        |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 4.654 kg  |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Sustainability



**Green Premium™ label** is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

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Transparency   RoHS/REACH

## Well-being performance

|                                                                                                                      |     |
|----------------------------------------------------------------------------------------------------------------------|-----|
|  Mercury Free                       |     |
|  Rohs Exemption Information         | Yes |
|  Halogen Free Plastic Parts Product |     |

## Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Reach Regulation         | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive        | Compliant with Exemptions                                                                                                   |
| China Rohs Regulation    | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| Environmental Disclosure | <a href="#">Product Environmental Profile</a>                                                                               |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | <a href="#">End of Life Information</a>                                                                                     |