

Product data sheet

Specifications



Analog IO module, TeSys island, 2 inputs, 1 output, 24VDC, Twisted shielded pairs cable

TPRAN2X1

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 Enabling advanced control functions in a TeSys island system Operational only when connected to a bus coupler TPRBC
Function of module	Measurement of voltage, current or temperature on 2 configurable analog inputs 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 Current 0...20 mA Voltage 0...10 V Voltage - 10...10 V Temperature probe - 60...180 °C temperature probe: Ni 100 Temperature probe - 60...180 °C temperature probe: Ni 1000 Temperature probe -200...+850 °C temperature probe: Pt 100 Temperature probe - 200...600 °C temperature probe: Pt 1000 Thermocouple - 200...1000 °C thermocouple J Thermocouple - 200...1300 °C thermocouple K Thermocouple 0...1760 °C thermocouple R Thermocouple 0...1760 °C thermocouple S Thermocouple 0...1820 °C thermocouple B Thermocouple - 200...400 °C thermocouple T Thermocouple - 200...1300 °C thermocouple N Thermocouple - 200...800 °C thermocouple E Thermocouple 0...2315 °C thermocouple C
Measurement accuracy	+/- 0.1 % of full scale voltage 25 °C +/- 0.1 % of full scale current 25 °C +/- 0.1 % of full scale temperature probe 25 °C +/- 0.1 % of full scale in positive temperature range thermocouple 25 °C +/- 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 >= 1 MOhm voltage >= 1 MOhm thermocouple >= 1 MOhm temperature probe
Analogue output number	1 isolated
Analogue output type	Current 4...20 mA Current 0...20 mA Voltage 0...10 V Voltage - 10...10 V
Analogue output resolution	12 bits, 4...20 mA full scale 12 bits, 0...20 mA full scale 12 bits, 0...10 V full scale

11 bits + sign, - 10...10 V full scale

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 UL 61010-2-201 CSA C22.2 No 61010-2-201
Product certifications	CSA UL 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 mm ² (AWG 24...AWG 14) rigid Input/output circuit: removable spring terminal block 8 cable(s) 0.2...2.5 mm ² (AWG 24...AWG 14) flexible without cable end Input/output circuit: removable spring terminal block 8 cable(s) 0.25...2.5 mm ² (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 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 Radiated RF fields, level 3, 10 V/m, conforming to EN/IEC 61000-4-3 Fast transients immunity test, level 3, 2 kV, conforming to EN/IEC 61000-4-4 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	6.5 cm
Package 1 Width	13.5 cm
Package 1 Length	15.5 cm

Package 1 Weight	251.0 g
Unit Type of Package 2	S03
Number of Units in Package 2	16
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	4.793 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Halogen content performance	Halogen free plastic parts product
California proposition 65	WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months
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Recommended replacement(s)