

Product datasheet

Specifications



standard analog input module STB - 2 I - 15 bits + sign

STBART0200

! Discontinued on: 09 September 2009

EAN Code : 3595862057806

! Discontinued

Main

Range of product	Modicon STB distributed I/O solution
Product or component type	Standard analog input module
Analogue input type	Voltage +/- 80 mV Temperature probe -100...+260 °C Cu 10 2, 3 or 4 wires IEC Temperature probe -100...+450 °C Pt 100 2, 3 or 4 wires US/JIS Temperature probe -100...+450 °C Pt 1000 2, 3 or 4 wires US/JIS Temperature probe -200...+850 °C Pt 100 2, 3 or 4 wires IEC Temperature probe -200...+850 °C Pt 1000 2, 3 or 4 wires IEC Temperature probe -60...+180 °C Ni 100 2, 3 or 4 wires IEC Temperature probe -60...+180 °C Ni 1000 2, 3 or 4 wires IEC Thermocouple +130...+1820 °C thermocouple B Thermocouple -200...+760 °C thermocouple J Thermocouple -270...+1000 °C thermocouple E Thermocouple -270...+1370 °C thermocouple K Thermocouple -270...+400 °C thermocouple T Thermocouple -50...+1665 °C thermocouple R Thermocouple -50...+1665 °C thermocouple S
Analogue input number	2
Analogue input resolution	15 bits + sign
Type of filter	Single low pass input filter 25 Hz

Complementary

Absolute maximum input	+/- 7.5 V DC
Cold swapping	Yes
Hot swapping fallback	Yes for standard NIMs
Fallback status	State 0 basic NIMs User configurable standard NIMs
Data format	EN 61131-2 IEC 61131-2
Input impedance	10000000 Ohm +/- 80 mV
Maximum supply current for sensors	100 mA per input channels
Protection type	Short-circuit protection
Absolute accuracy error	+/- 0.1 % of full scale 25 °C internal +/- 0.15 % of full scale 25 °C external
Insulation between channels and logic bus	1500 V for 1 minute
Addressing requirement	1 word for cold-junction compensation 2 input words

Product compatibility	Power distribution module STBPDT3100/3105 Mounting base STBXBA1000
[Us] rated supply voltage	24 V DC
Supply	Power distribution module
Current consumption	30 mA at 5 V DC for logic bus
Measurement resolution	0.01 mV voltage 0.1 °C or 0.1 °F temperature probe 0.1 °C or 0.1 °F thermocouple
Conversion time	150 ms voltage 60 Hz 170 ms voltage 50 Hz 180 ms temperature probe 60 Hz 2 or 4 wires 200 ms temperature probe 50 Hz 2 or 4 wires 210 ms thermocouple with internal cold-junction compensation 60 Hz 230 ms thermocouple with internal cold-junction compensation 50 Hz 300 ms temperature probe 60 Hz 3 wires 340 ms temperature probe 50 Hz 3 wires 360 ms thermocouple with external cold-junction compensation 60 Hz 400 ms thermocouple with external cold-junction compensation 50 Hz
Maximum wiring resistance	20 Ohm Cu 10 IEC/US/JIS 2 or 3 wires 20 Ohm Ni 100 IEC/US/JIS 2 or 3 wires 20 Ohm Pt 100 IEC/US/JIS 2 or 3 wires 200 Ohm Ni 1000 IEC/US/JIS 2 or 3 wires 200 Ohm Pt 1000 IEC/US/JIS 2 or 3 wires 50 Ohm Cu 10 IEC/US/JIS 4 wires 50 Ohm Ni 100 IEC/US/JIS 4 wires 50 Ohm Pt 100 IEC/US/JIS 4 wires 500 Ohm Ni 1000 IEC/US/JIS 4 wires 500 Ohm Pt 1000 IEC/US/JIS 4 wires
Measurement accuracy	+/- 1 °C Ni 100 25 °C external +/- 1 °C Ni 100 25 °C internal +/- 1 °C Ni 1000 25 °C external +/- 1 °C Ni 1000 25 °C internal +/- 1 °C Pt 100 25 °C internal +/- 1 °C Pt 1000 25 °C internal +/- 1.75 °C thermocouple B with external cold-junction compensation 25 °C +/- 1.75 °C thermocouple E with external cold-junction compensation 25 °C +/- 1.75 °C thermocouple J with external cold-junction compensation 25 °C +/- 1.75 °C thermocouple K with external cold-junction compensation 25 °C +/- 1.75 °C thermocouple R with external cold-junction compensation 25 °C +/- 1.75 °C thermocouple S with external cold-junction compensation 25 °C +/- 1.75 °C thermocouple T with external cold-junction compensation 25 °C +/- 2 °C Pt 100 25 °C external +/- 2 °C Pt 1000 25 °C external +/- 2.85 °C thermocouple B with external cold-junction compensation 60 °C +/- 2.85 °C thermocouple E with external cold-junction compensation 60 °C +/- 2.85 °C thermocouple J with external cold-junction compensation 60 °C +/- 2.85 °C thermocouple K with external cold-junction compensation 60 °C +/- 2.85 °C thermocouple R with external cold-junction compensation 60 °C +/- 2.85 °C thermocouple S with external cold-junction compensation 60 °C +/- 2.85 °C thermocouple T with external cold-junction compensation 60 °C +/- 3.6 °C thermocouple R with internal cold-junction compensation 25 °C +/- 4 °C Cu 10 25 °C external +/- 4 °C Cu 10 25 °C internal +/- 4 °C thermocouple K with internal cold-junction compensation 25 °C +/- 4.1 °C thermocouple S with internal cold-junction compensation 25 °C +/- 4.2 °C thermocouple R with internal cold-junction compensation 60 °C +/- 4.4 °C thermocouple T with internal cold-junction compensation 25 °C +/- 4.6 °C thermocouple B with internal cold-junction compensation 25 °C +/- 4.6 °C thermocouple E with internal cold-junction compensation 25 °C +/- 5 °C thermocouple S with internal cold-junction compensation 60 °C +/- 5.1 °C thermocouple J with internal cold-junction compensation 25 °C +/- 5.5 °C thermocouple K with internal cold-junction compensation 60 °C +/- 6.4 °C thermocouple T with internal cold-junction compensation 60 °C +/- 6.8 °C thermocouple B with internal cold-junction compensation 60 °C +/- 6.8 °C thermocouple E with internal cold-junction compensation 60 °C +/- 7 °C thermocouple J with internal cold-junction compensation 60 °C
Marking	CE
Overvoltage category	II
Status LED	1 LED (green) module status (RDY) 1 LED (red) module error (ERR)
Depth	70 mm
Height	13.9 mm
Width	128.3 mm

Environment

Product certifications	CSA ATEX Cat 3G C-Tick FM Class 1 Division 2 UL
Pollution degree	2 conforming to IEC 60664-1
Operating altitude	<= 2000 m
IP degree of protection	IP20 conforming to EN 61131-2 class 1
Ambient air temperature for operation	0...70 °C 32...140 °F without derating
Ambient air temperature for storage	-40...85 °C without derating -40...185 °F without derating
Relative humidity	95 % at 60 °C without condensation
Vibration resistance	+/-0.35 mm at 10...58 Hz 3 gn at 58...150 Hz on 35 x 7.5 mm symmetrical DIN rail 5 gn at 58...150 Hz on 35 x 15 mm symmetrical DIN rail
Shock resistance	30 gn for 11 ms conforming to IEC 88 reference 2-27

Contractual warranty

Warranty	18 months
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Recommended replacement(s)

STBART0200 is replaced by:

1x		standard analog input kit STB - 2 I - 15 bits + sign STBART0200K
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