

Product data sheet

Specifications



standard analog input kit, Modicon STB, 2I, 15 bits with sign

STBART0200K

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Modicon STB distributed I/O solution
Product or Component Type	Standard analog input kit
Kit composition	STBART0200 module STBXTS1100, 6-terminal screw type connector STBXBA1000 base STBXTS2100, 6-terminal spring clamp connector
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	10 MOhm +/- 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

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Product Compatibility	Mounting base STBXBA1000 Power distribution module STBPDT3100/3105
[Us] rated supply voltage	24 V DC
Supply	Power distribution module
Current consumption	30 mA 5 V DC 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 77 °F (25 °C) +/- 1.75 °C thermocouple E with external cold-junction compensation 77 °F (25 °C) +/- 1.75 °C thermocouple J with external cold-junction compensation 77 °F (25 °C) +/- 1.75 °C thermocouple K with external cold-junction compensation 77 °F (25 °C) +/- 1.75 °C thermocouple R with external cold-junction compensation 77 °F (25 °C) +/- 1.75 °C thermocouple S with external cold-junction compensation 77 °F (25 °C) +/- 1.75 °C thermocouple T with external cold-junction compensation 77 °F (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 140 °F (60 °C) +/- 2.85 °C thermocouple E with external cold-junction compensation 140 °F (60 °C) +/- 2.85 °C thermocouple J with external cold-junction compensation 140 °F (60 °C) +/- 2.85 °C thermocouple K with external cold-junction compensation 140 °F (60 °C) +/- 2.85 °C thermocouple R with external cold-junction compensation 140 °F (60 °C) +/- 2.85 °C thermocouple S with external cold-junction compensation 140 °F (60 °C) +/- 2.85 °C thermocouple T with external cold-junction compensation 140 °F (60 °C) +/- 3.6 °C thermocouple R with internal cold-junction compensation 77 °F (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 77 °F (25 °C) +/- 4.1 °C thermocouple S with internal cold-junction compensation 77 °F (25 °C) +/- 4.2 °C thermocouple R with internal cold-junction compensation 140 °F (60 °C) +/- 4.4 °C thermocouple T with internal cold-junction compensation 77 °F (25 °C) +/- 4.6 °C thermocouple B with internal cold-junction compensation 77 °F (25 °C) +/- 4.6 °C thermocouple E with internal cold-junction compensation 77 °F (25 °C) +/- 5 °C thermocouple S with internal cold-junction compensation 140 °F (60 °C) +/- 5.1 °C thermocouple J with internal cold-junction compensation 77 °F (25 °C) +/- 5.5 °C thermocouple K with internal cold-junction compensation 140 °F (60 °C) +/- 6.4 °C thermocouple T with internal cold-junction compensation 140 °F (60 °C) +/- 6.8 °C thermocouple B with internal cold-junction compensation 140 °F (60 °C) +/- 6.8 °C thermocouple E with internal cold-junction compensation 140 °F (60 °C) +/- 7 °C thermocouple J with internal cold-junction compensation 140 °F (60 °C)
Marking	CE
Overvoltage category	II
Status LED	1 LED (Green) module status (RDY) 1 LED (Red) module error (ERR)

Environment

Product Certifications	UL FM Class 1 Division 2 CSA ATEX Cat 3G C-tick
Pollution degree	2 IEC 60664-1
Operating altitude	<= 6561.68 ft (2000 m)
IP degree of protection	IP20 conforming to IEC 61131-2 class 1
Ambient Air Temperature for Operation	32...158 °F (0...70 °C)
Ambient air temperature for operation	32...140 °F without derating
Ambient air temperature for storage	-40...185 °F (-40...85 °C) without derating
Ambient air temperature for storage	-40...185 °F without derating
Relative humidity	95 % 140 °F (60 °C) without condensation
Vibration resistance	+/-0.35 mm 10...58 Hz 3 gn 58...150 Hz 35 x 7.5 mm symmetrical DIN rail 5 gn 58...150 Hz 35 x 15 mm symmetrical DIN rail
Shock resistance	30 gn 11 ms IEC 88 reference 2-27

Ordering and shipping details

Category	US1PC3218215
Discount Schedule	PC32
GTIN	3595863948691
Returnability	Yes
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.18 in (3.000 cm)
Package 1 Width	3.27 in (8.300 cm)
Package 1 Length	5.24 in (13.300 cm)
Package weight(Lbs)	4.797 oz (136.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	42
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	13.296 lb(US) (6.031 kg)

Contractual warranty

Warranty	18 months
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint

Carbon footprint (kg CO2 eq, Total Life cycle) 14

Environmental Disclosure [Product Environmental Profile](#)

Use Better

Materials and Substances

Packaging made with recycled cardboard No

Packaging without single use plastic No

[EU RoHS Directive](#) Pro-active compliance (Product out of EU RoHS legal scope)

SCIP Number 6830dd70-e4bc-47df-85c7-e41f888576f4

REACH Regulation [REACH Declaration](#)

California proposition 65 **WARNING:** This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Use Again

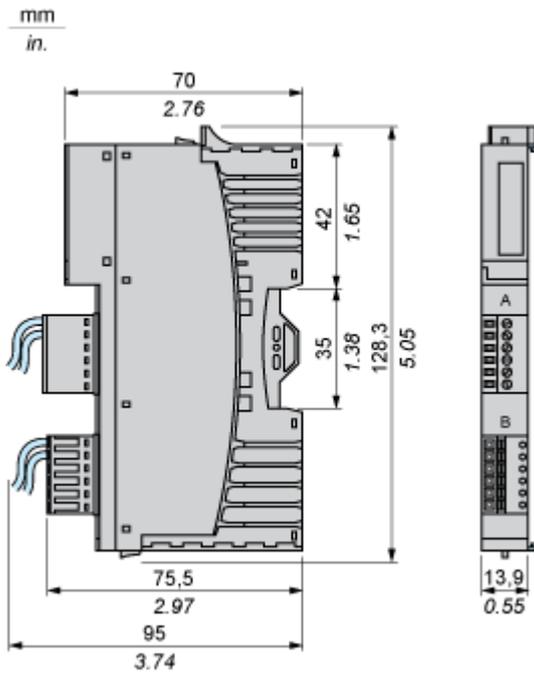
Repack and remanufacture

Circularity Profile [End of Life Information](#)

Take-back No

Dimensions Drawings

Dimensions

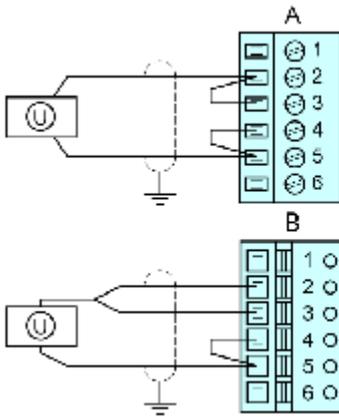


Connections and Schema

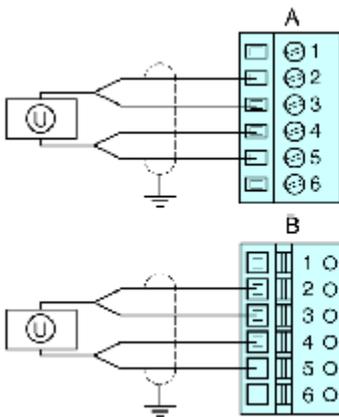
Wiring Diagrams

Examples

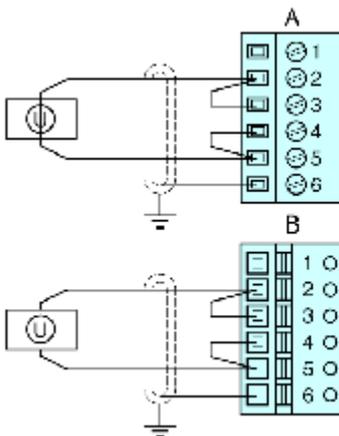
2 and 3-wire temperature probes



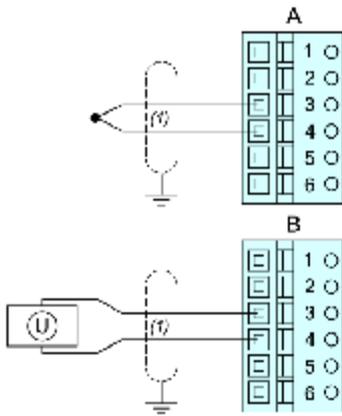
4-wire temperature probes



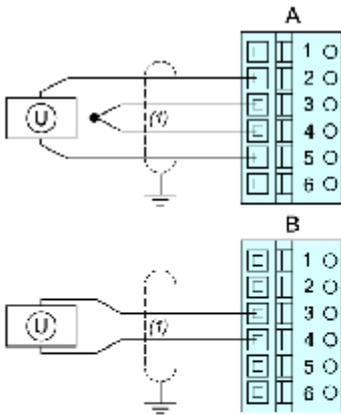
2-wire temperature probes in highly disturbed environments



2-wire thermocouple and voltage sensor (mV)



2-wire thermocouple and voltage sensor (mV) with cold-junction compensation



Pin	Top Connections	Bottom Connections
1	no connection	no connection
2	Always used for RTD +	Always used for RTD +
	RTD + connection for external cold-junction compensation on a TC sensor	
	no connection for TC or mV	no connection for TC or mV
3	TC + or mV + connection	TC + or mV + connection
	Either used or jumpered for a two-, three-, or four-wire RTD	Either used or jumpered for a two-, three-, or four-wire RTD
4	TC - or mV - connection	TC - or mV - connection

Pin	Top Connections	Bottom Connections
	Either used or jumpered for a two-, three-, or four-wire RTD	Either used or jumpered for a two-, three-, or four-wire RTD
5	Always used for RTD -	Always used for RTD -
	RTD - connection for external cold-junction compensation on a TC sensor	
	no connection for TC or mV	
6	inner double-shield cable	cable shield