



### 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
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

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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[RETURN]FM Class 1 Division 2[RETURN]CSA[RETURN]ATEX Cat 3G[RETURN]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	18215-ADVANTYS STB I/O
Discount Schedule	PC32
GTIN	3595863948691
Returnability	Yes
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	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 1 Weight	4.80 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	13.30 lb(US) (6.031 kg)

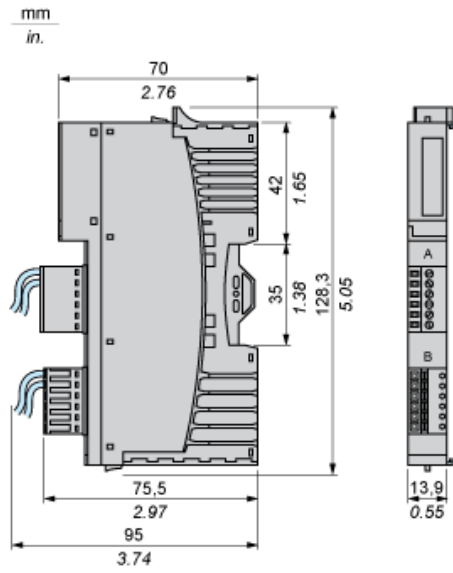
## Offer Sustainability

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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
RoHS exemption information	 <a href="#">Yes</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

## Contractual warranty

Warranty	18 months
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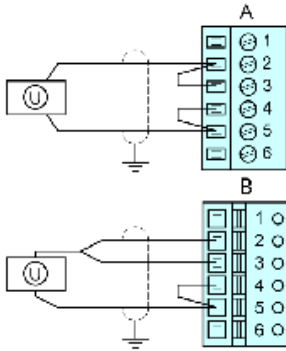
Dimensions



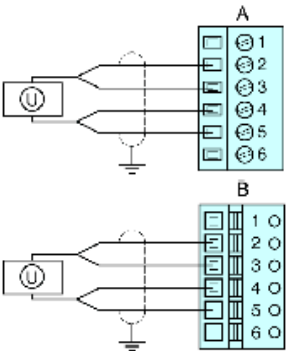
Wiring Diagrams

Examples

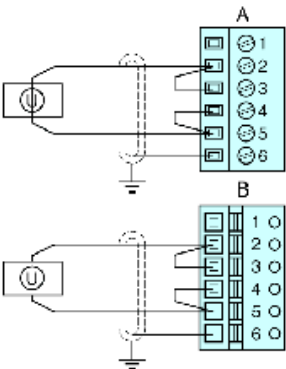
2 and 3-wire temperature probes



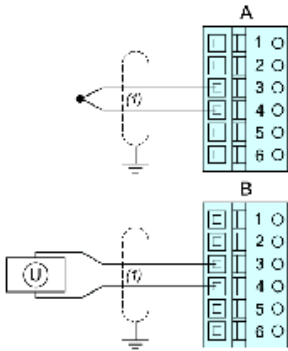
4-wire temperature probes



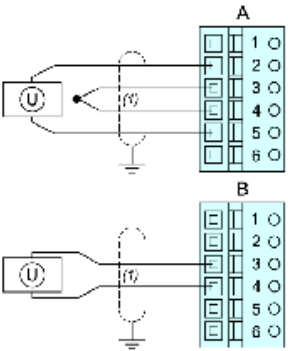
2-wire temperature probes in highly disturbed environments



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
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		

Pin	Top Connections	Bottom Connections
no connection for TC or mV	no connection for TC or mV	
6	inner double-shield cable	cable shield