

Product data sheet

Specifications



digital input kit, Modicon STB, standard, 24V DC, 4 I

STBDDI3420K

Main

Range Of Product	Modicon STB distributed I/O solution
Product Or Component Type	Standard digital input kit
Kit Composition	STBXTS2100, 6-terminal spring clamp connector STBDDI3420 module STBXTS1100, 6-terminal screw type connector STBXBA1000 base
Discrete Input Number	4
Discrete Input Voltage	24 V
Discrete Input Voltage Type	DC

Complementary

Input Voltage Limits	11...30 V at state 1 -3...5 V at state 0
Permissible Voltage	30 V
Absolute Maximum Voltage	56 V 1.3 ms
Discrete Input Current	8 mA
Current State 0 Guaranteed	<= 1.2 mA
Current State 1 Guaranteed	>= 2.5 mA
Discrete Input Logic	Positive or negative
Response Time	0.925 ms off-to-on 0.5 ms 1.35 ms on-to-off 0.5 ms
Protection Type	Power protection integrated fuse on PDM time lag 10 A Input protection resistor-limited Reverse polarity protection
Insulation Between Channels And Logic Bus	1500 V for 1 minute
Cold Swapping	Yes
Hot Swapping	Yes for standard NIMs
Input Filtering	1 ms 2 ms 4 ms 8 ms 0.5 ms 16 ms +/- 0.25 ms
Current Supplied By Sensor	100 mA per channel
Product Compatibility	I/O base STBXBA1000 Power distribution module STBPDT3100/3105
[Us] Rated Supply Voltage	24 V DC

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

Supply	Power distribution module
Current Consumption	45 mA at 5 V DC for logic bus
Marking	CE
Overvoltage Category	II
Status Led	1 LED (green) module status (RDY) 1 LED per channel (green) channel status (IN1 to IN4) 1 LED (red) module error (ERR)
Depth	65.1 mm
Height	18.4 mm
Width	125 mm
Net Weight	0.111 kg

Environment

Standards	IEC 61131-2 Type 1
Product Certifications	CSA 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 IEC 61131-2 class 1
Ambient Air Temperature For Operation	-25...70 °C (without derating)
Ambient Air Temperature For Operation	32...140 °F without derating
Ambient Air Temperature For Storage	-40...85 °C without derating
Ambient Air Temperature For Storage	-40...185 °F without derating
Relative Humidity	95 % at 60 °C without condensation
Vibration Resistance	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 +/-0.35 mm at 10...58 Hz
Shock Resistance	30 gn for 11 ms conforming to IEC 88 reference 2-27

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	2.5 cm
Package 1 Width	8.0 cm
Package 1 Length	13.0 cm
Package 1 Weight	131.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	28
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	4.094 kg

Unit Type Of Package 3	PAL
Number Of Units In Package 3	448
Package 3 Height	60.0 cm
Package 3 Width	80.0 cm
Package 3 Length	448.0 cm
Package 3 Weight	59.584 kg

Contractual warranty

Warranty	18 months
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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-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

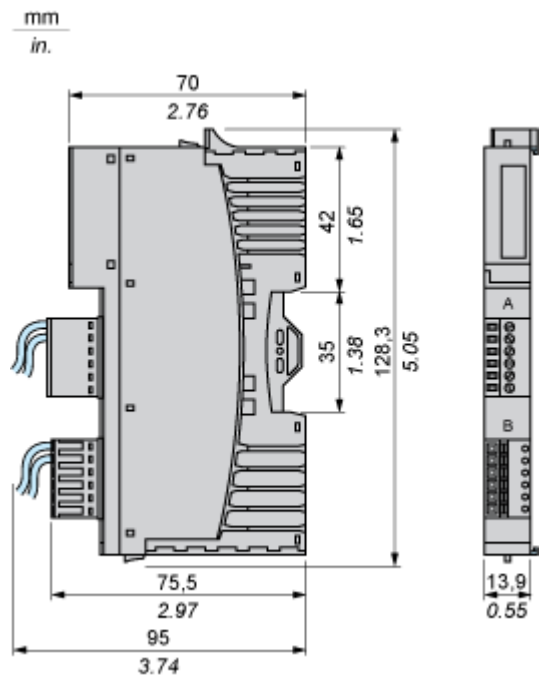
[Guide to assess a product's sustainability >](#)

Well-being performance

 Mercury Free	
 Rohs Exemption Information	Yes
Reach Regulation	REACH Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
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

Dimensions Drawings

Dimensions

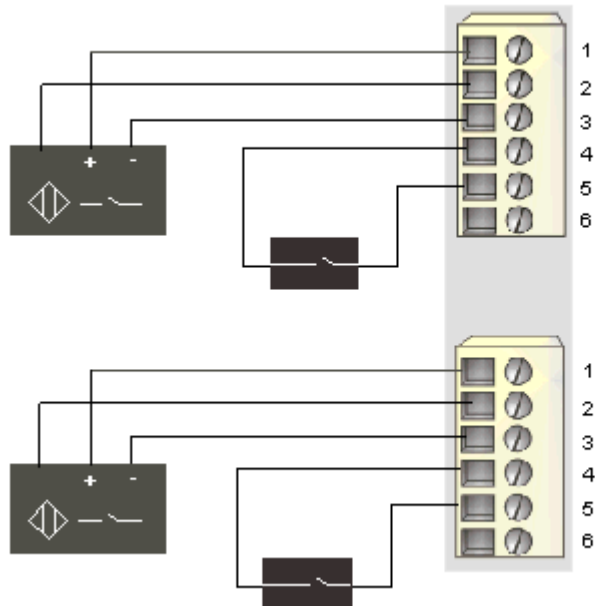


Connections and Schema

Wiring Diagram

Example

2 three-wire sensor and 2 two-wire sensor



Pin	Top Connector	Bottom Connector
1	+24 VDC from sensor bus for field device accessories	+24 VDC from sensor bus for field device accessories
2	input from sensor 1	input from sensor 3
3	field power return (to the module)	field power return (to the module)
4	+24 VDC from sensor bus for field device accessories	+24 VDC from sensor bus for field device accessories
5	input from sensor 2	input from sensor 4
6	field power return (to the module)	field power return (to the module)