

# 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-CO<sub>2</sub> 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 >](#)

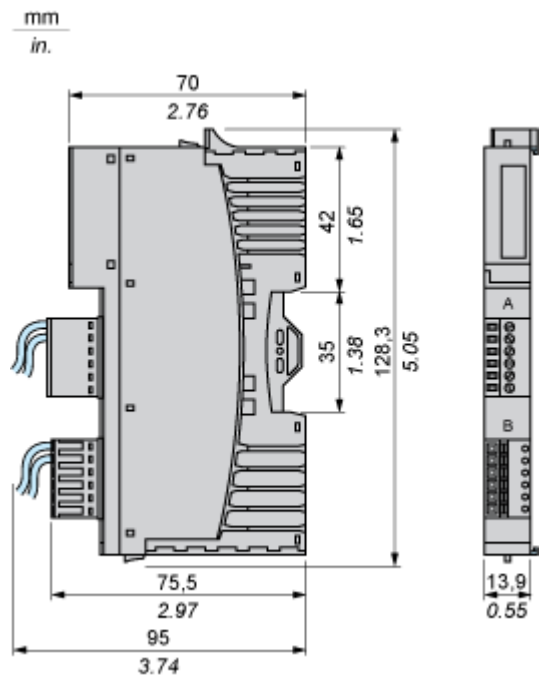
[Guide to assess a product’s sustainability >](#)

## Well-being performance

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

Dimensions Drawings

Dimensions

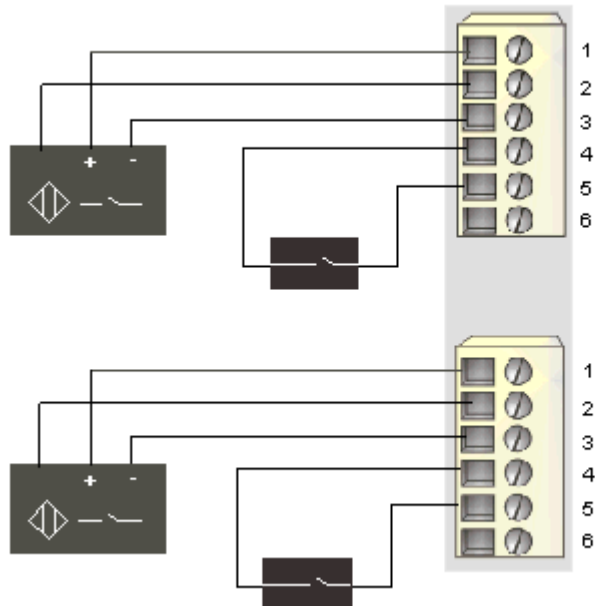


Connections and Schema

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)