

# Product datasheet

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	$\leq 1.2$ mA
Current state 1 guaranteed	$\geq 2.5$ 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

<b>[Us] rated supply voltage</b>	24 V DC
<b>Supply</b>	Power distribution module
<b>Current consumption</b>	45 mA at 5 V DC for logic bus
<b>Marking</b>	CE
<b>Overvoltage category</b>	II
<b>Status LED</b>	1 LED (green) module status (RDY) 1 LED per channel (green) channel status (IN1 to IN4) 1 LED (red) module error (ERR)
<b>Depth</b>	65.1 mm
<b>Height</b>	18.4 mm
<b>Width</b>	125 mm
<b>Net weight</b>	0.111 kg

## Environment

<b>Standards</b>	IEC 61131-2 Type 1
<b>Product certifications</b>	CSA FM Class 1 Division 2 UL
<b>Pollution degree</b>	2 conforming to IEC 60664-1
<b>Operating altitude</b>	<= 2000 m
<b>IP degree of protection</b>	IP20 conforming to IEC 61131-2 class 1
<b>Ambient air temperature for operation</b>	-25...70 °C (without derating)  32...140 °F without derating
<b>Ambient air temperature for storage</b>	-40...85 °C without derating  -40...185 °F without derating
<b>Relative humidity</b>	95 % at 60 °C without condensation
<b>Vibration resistance</b>	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
<b>Shock resistance</b>	30 gn for 11 ms conforming to IEC 88 reference 2-27

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	2.5 cm
<b>Package 1 Width</b>	8.0 cm
<b>Package 1 Length</b>	13.0 cm
<b>Package 1 Weight</b>	131.0 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	28
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	30.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	4.094 kg
<b>Unit Type of Package 3</b>	PAL
<b>Number of Units in Package 3</b>	448

<b>Package 3 Height</b>	60.0 cm
<b>Package 3 Width</b>	80.0 cm
<b>Package 3 Length</b>	448.0 cm
<b>Package 3 Weight</b>	59.584 kg

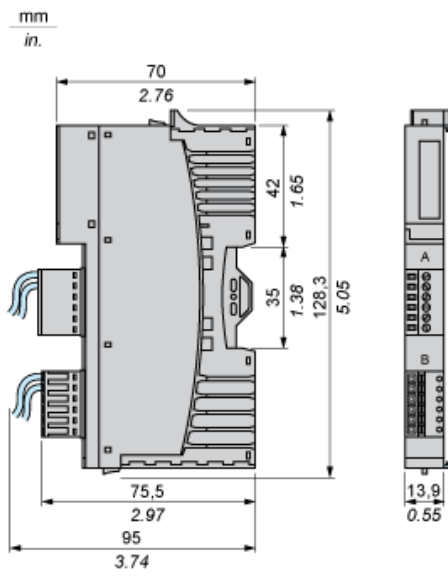
## Offer Sustainability

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

## Contractual warranty

<b>Warranty</b>	18 months
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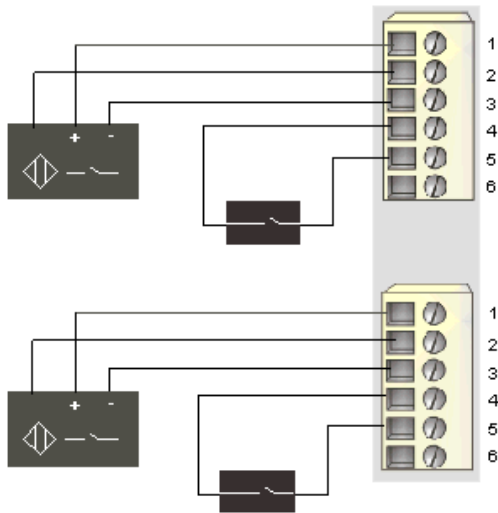
## Dimensions



**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)

**Recommended replacement(s)**