## Product data sheet Characteristics

# STBDDI3420K

## standard digital input kit STB - 24 V DC - 4 I



#### 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 STBDDl3420 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	1130 V at state 1 -35 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	
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[RETURN]FM Class 1 Division 2[RETURN]UL		
Pollution degree	2 conforming to IEC 60664-1		
Operating altitude	<= 2000 m	<= 2000 m	
IP degree of protection	IP20 conforming to IEC 61131-2 class 1		
Ambient air temperature for operation	-2570 °C (without derating)		
Ambient air temperature for operation	32140 °F without derating		
Ambient air temperature for storage	-4085 °C without derating		
Ambient air temperature for storage	-40185 °F without derating		
Relative humidity	95 % at 60 °C without condensation		
Vibration resistance	3 gn at 58150 Hz on 35 x 7.5 mm symmetrical DIN rail 5 gn at 58150 Hz on 35 x 15 mm symmetrical DIN rail +/-0.35 mm at 1058 Hz		
Shock resistance	30 gn for 11 ms conforming to IEC 88 reference 2-27		

#### **Packing Units**

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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

### Offer Sustainability

REACh Regulation	REACh Declaration	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
Mercury free	Yes	
China RoHS Regulation	China RoHS Declaration	
RoHS exemption information	₫Yes	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	

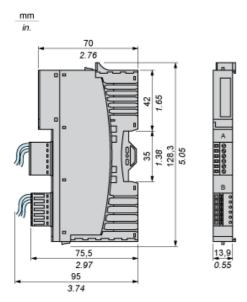
#### Contractual warranty

Warranty	18	months

# Product data sheet Dimensions Drawings

# STBDDI3420K

#### **Dimensions**

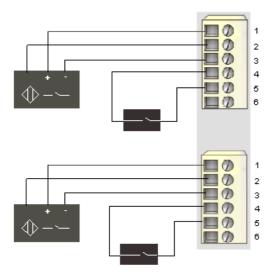


## STBDDI3420K

## 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)