

# Product data sheet

Specifications



## standard digital input kit - Modicon STB - 230 V AC - 2 I

STBDAI7220K

### Main

**Range of product** Modicon STB distributed I/O solution

**Product or component type** Standard digital input kit

**Kit composition**  
STBXTS1110, 5-terminal screw type connector  
STBDAI7220 module  
STBXTS2110, 5-terminal spring clamp connector  
STBXBA2000 base

**Discrete input number** 2

**Discrete input voltage** 230 V

**Discrete input voltage type** AC

### Complementary

**Input voltage limits** 0...40 V at state 0  
159...256 V at state 1

**Permissible voltage** 265 V

**Absolute maximum voltage** 400 V 20 ms

**Network frequency** 50/60 Hz

**Network frequency limits** 47...63 Hz

**Current state 0 guaranteed** <= 2 mA

**Current state 1 guaranteed** >= 4 mA

**Response time** 1.5 ms off-to-on  
1.5 ms on-to-off

**Protection type** Power protection integrated fuse on PDM time lag 10 A  
Input protection resistor-limited

**Insulation between channels and logic bus** 1780 V for 1 minute

**Cold swapping** Yes

**Hot swapping** Yes for standard NIMs

**Product compatibility** Power distribution module STBPDT2100/2105  
I/O base STBXBA2000

**[Us] rated supply voltage** 115/230 V AC

**Supply** Power distribution module

**Current consumption** 40 mA at 5 V DC for logic bus

**Marking** 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 IN2) 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>	0.122 kg

## Environment

<b>Standards</b>	EN/IEC 61131-2 type 1
<b>Product certifications</b>	CSA UL FM Class 1 Division 2
<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 EN 61131-2 class 1
<b>Ambient air temperature for operation</b>	0...60 °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>	2.7 cm
<b>Package 1 Width</b>	8.0 cm
<b>Package 1 Length</b>	13.0 cm
<b>Package 1 Weight</b>	139.0 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>	4.318 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>	62.272 kg

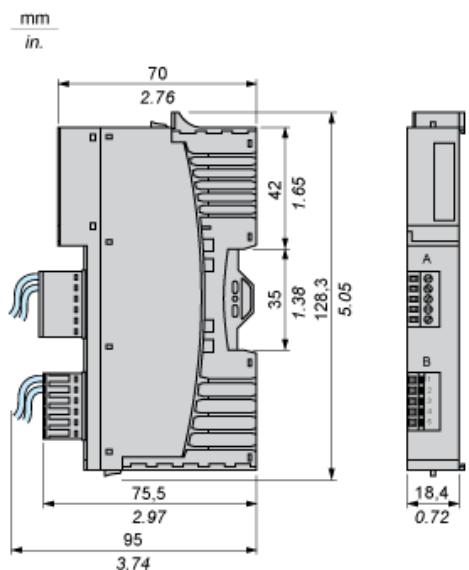
## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	Yes
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
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 <a href="#">www.P65Warnings.ca.gov</a>

## Contractual warranty

Warranty	18 months
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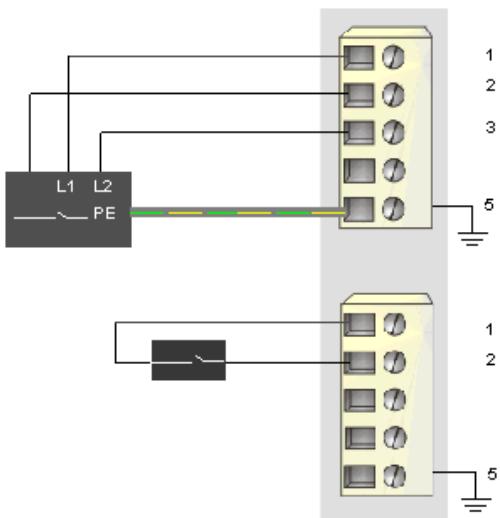
### Dimensions



### Wiring Diagram

#### Example

1 three-wire sensor and 1 two-wire sensor



Pin	Top Connector	Bottom Connector
1	230 VAC sensor bus power (L1)	230 VAC sensor bus power (L1)
2	input from sensor 1	input from sensor 2
3	field power neutral or L2 (to the module)	field power neutral or L2 (to the module)
4	field power neutral or L2 (to the module)	field power neutral or L2 (to the module)
5	protective earth	protective earth

#### Recommended replacement(s)