

Product data sheet

Specifications



basic digital input module STB - 24 V DC - 16 I

STBDDI3725

Main

Range of product	Modicon STB distributed I/O solution
Product or component type	Basic digital input module
Discrete input number	16
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
Discrete input current	4.5 mA
Current state 0 guaranteed	<= 1.5 mA
Current state 1 guaranteed	>= 2.5 mA
Discrete input logic	Positive
Response time	2 ms off-to-on 2 ms on-to-off
Protection type	Power protection integrated fuse on PDM time lag 5 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 basic NIMs
Product compatibility	I/O base STBXBA3000 Power distribution module STBPDT3100/3105
[Us] rated supply voltage	24 V DC
Supply	Power distribution module
Current consumption	100 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 IN16)
Depth	65.1 mm

Height	18.4 mm
Width	125 mm
Net weight	0.086 kg

Environment

Standards	EN/IEC 61131-2 type 3
Product certifications	FM Class 1 Division 2 CSA UL
Pollution degree	2 conforming to IEC 60664-1
Operating altitude	<= 2000 m
IP degree of protection	IP20 conforming to EN 61131-2 class 1
Ambient air temperature for operation	-25...70 °C (without derating)
	32...140 °F without derating
Ambient air temperature for storage	-40...85 °C without derating
	-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

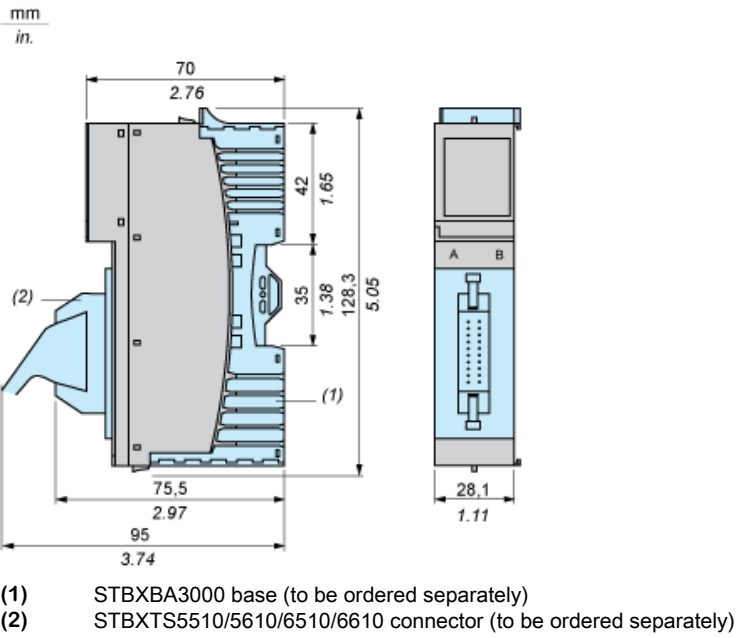
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.0 cm
Package 1 Width	6.5 cm
Package 1 Length	13.0 cm
Package 1 Weight	95.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	20
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	2.5 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile

Circularity Profile	End of Life Information
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
Contractual warranty	
Warranty	18 months

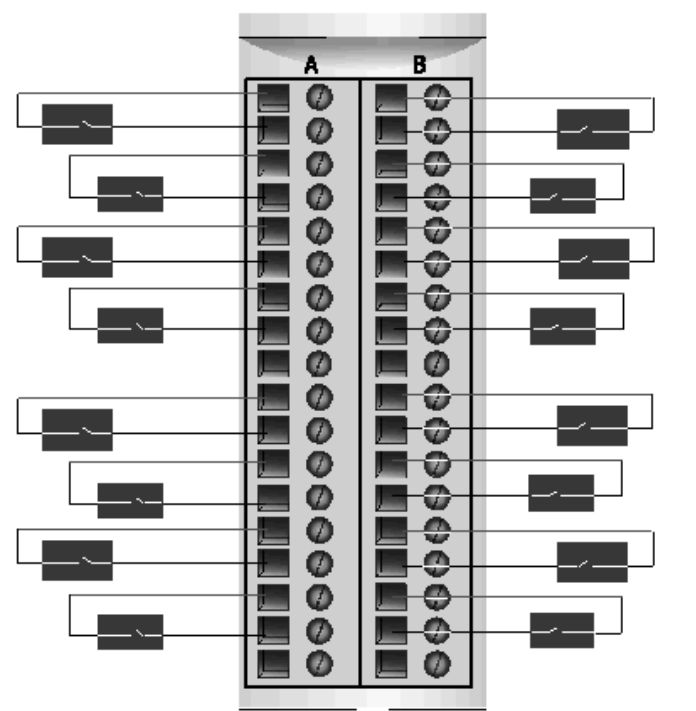
Dimensions



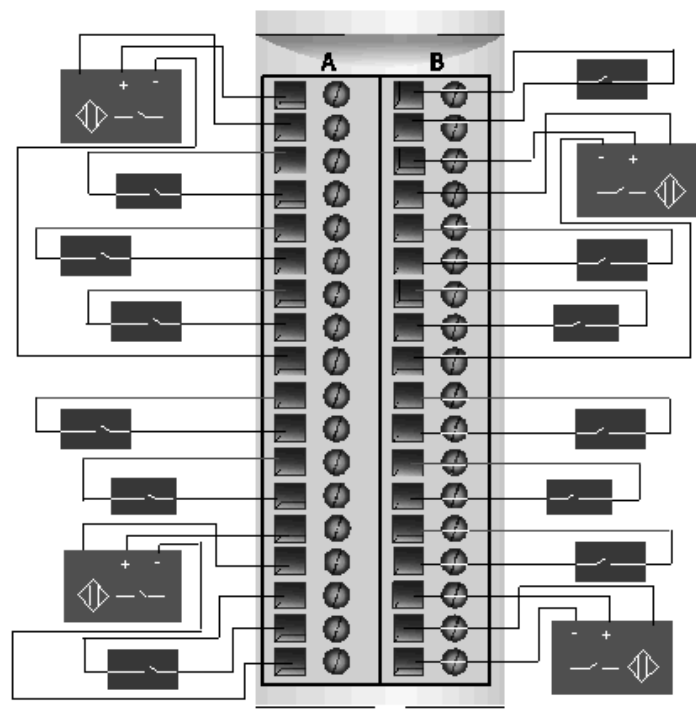
Wiring Diagrams

Examples

16 two-wire sensors



1 three-wire sensor per input group



Pin	Left Connector	Right Connector
1	Sensor power group 1 (+)	Sensor power group 3 (+)
2	Input from Sensor 1	Input from Sensor 9
3	Sensor power group 1 (+)	Sensor power group 3 (+)
4	Input from Sensor 2	Input from Sensor 10
5	Sensor power group 1 (+)	Sensor power group 3 (+)
6	Input from Sensor 3	Input from Sensor 11
7	Sensor power group 1 (+)	Sensor power group 3 (+)
8	Input from Sensor 4	Input from Sensor 12
9	Sensor power (-) for a 3-wire sensor (PDM-)	Sensor power (-) for a 3-wire sensor (PDM-)
10	Sensor power group 2 (+)	Sensor power group 4 (+)
11	Input from Sensor 5	Input from Sensor 13
12	Sensor power group 2 (+)	Sensor power group 4 (+)

Pin	Left Connector	Right Connector
13	Input from Sensor 6	Input from Sensor 14
14	Sensor power group 2 (+)	Sensor power group 4 (+)
15	Input from Sensor 7	Input from Sensor 15
16	Sensor power group 2 (+)	Sensor power group 4 (+)
17	Input from Sensor 8	Input from Sensor 16
18	Sensor power (-) for a 3-wire sensor (PDM-)	Sensor power (-) for a 3-wire sensor (PDM-)

Recommended replacement(s)