

# Product datasheet

Specifications



## connection sub-base ABE7 - for Twido modular base - 12 inputs 8 outputs

ABE7B20MPN20

⚠ Discontinued on: 23 Jan 2021

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### Main

Range of product	Modicon ABE7
Product or component type	Passive discrete I/O sub-base
[Us] rated supply voltage	24 V DC for controller side 24 V DC for sensor/controller side
Number of channels	20
Number of terminal per channel	2
Connections - terminals	Screw type terminals, 1 x 0.09...1 x 1.5 mm <sup>2</sup> (AWG 28...AWG 16) flexible with cable end Screw type terminals, 1 x 0.14...1 x 2.5 mm <sup>2</sup> (AWG 26...AWG 12) solid Screw type terminals, 1 x 0.14...1 x 2.5 mm <sup>2</sup> (AWG 26...AWG 14) flexible without cable end Screw type terminals, 2 x 0.09...2 x 0.75 mm <sup>2</sup> (AWG 28...AWG 20) flexible with cable end Screw type terminals, 2 x 0.2...2 x 2.5 mm <sup>2</sup> (AWG 28...AWG 16) solid
Connector destination	Twido programmable controller

### Complementary

Supply voltage limits	19...30 V DC (controller side) conforming to IEC 61131-2 20.4...26.4 V DC (sensor/controller side) conforming to IEC 61131-2
Discrete input number	12
Discrete input logic	Sink
Discrete output number	8
Discrete output voltage	24 V
Discrete output voltage type	DC
Product compatibility	TWDLMDA20DTK TWDLMDA40DTK
Status LED	1 LED for power ON
Polarity distribution	1 common/12 channels for input 1 common/8 channels for output
Short-circuit protection	2 A internal fuse, 5 x 20 mm, fast blow (controller side)
Connector type	HE-10
Pin number	26 pins
Fixing mode	By clips, mounting on 35 mm symmetrical DIN rail conforming to IEC 60715 By screws
Maximum supply current	2 A
Switched current	15 mA for input circuit 300 mA for output circuit

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

Maximum current per output common	2 A
Voltage drop on power supply fuse	0.3 V
[UI] rated insulation voltage	2000 V terminals/mounting rails
Overvoltage category	II conforming to IEC 60664-1
Tightening torque	0.6 N.m with flat Ø 3.5 mm screwdriver
Net weight	0.43 kg

## Environment

Standards	IEC 61131-2 Type 1
Product certifications	CSA UL
IP degree of protection	IP2X conforming to IEC 60529
Resistance to incandescent wire	750 °C conforming to IEC 60695-2-11
Shock resistance	15 gn for 11 ms conforming to IEC 60068-2-27
Vibration resistance	2 gn (f= 10...150 Hz) conforming to IEC 60068-2-6
Resistance to electrostatic discharge	4 kV (contact) level 3 conforming to IEC 61000-4-2 8 kV (air) level 3 conforming to IEC 61000-4-2
Resistance to radiated fields	10 V/m (80000000...2000000000 Hz) conforming to IEC 61000-4-3 level 3
Resistance to fast transients	2 kV level 3 conforming to IEC 61000-4-4
Ambient air temperature for operation	-5...60 °C conforming to IEC 61131-2
Ambient air temperature for storage	-40...80 °C conforming to IEC 61131-2
Pollution degree	2 conforming to IEC 60664-1

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.8 cm
Package 1 Width	9 cm
Package 1 Length	14 cm
Package 1 Weight	332 g

## 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 >](#)

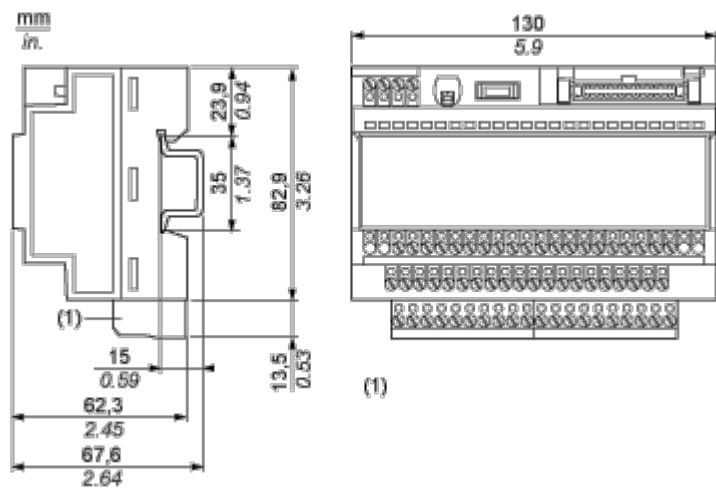
[Guide to assess a product’s sustainability >](#)

## 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

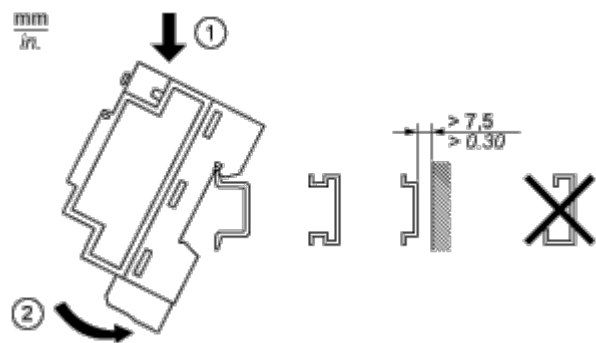


(1) ABE7BV10 / BV20 / BV20TB

Mounting and Clearance

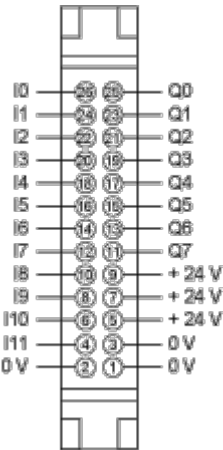
Mounting

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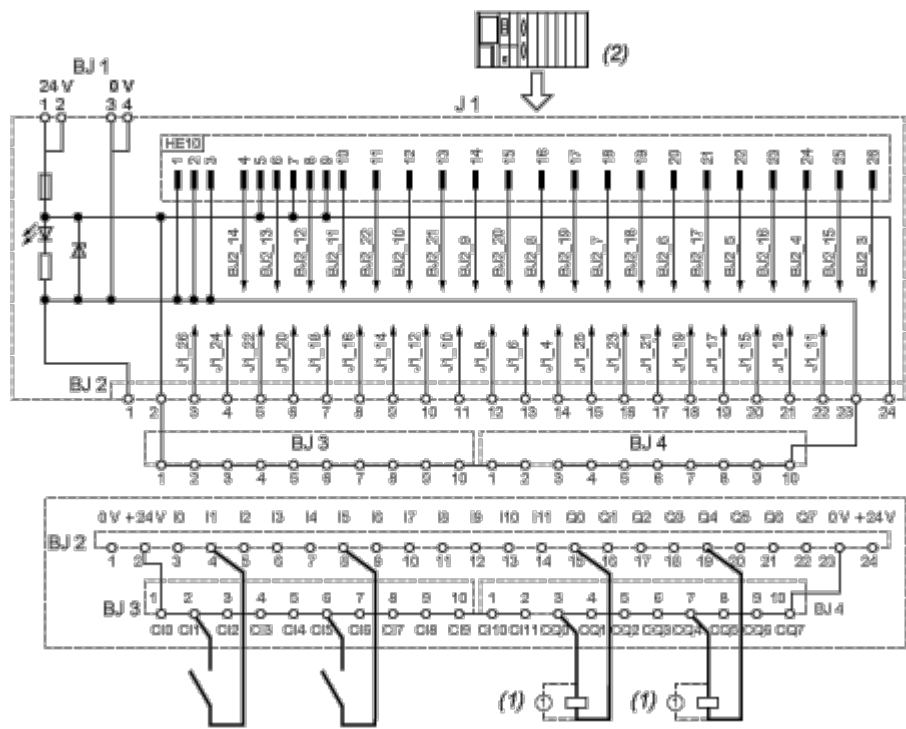


Connections and Schema

HE10 20 Channels



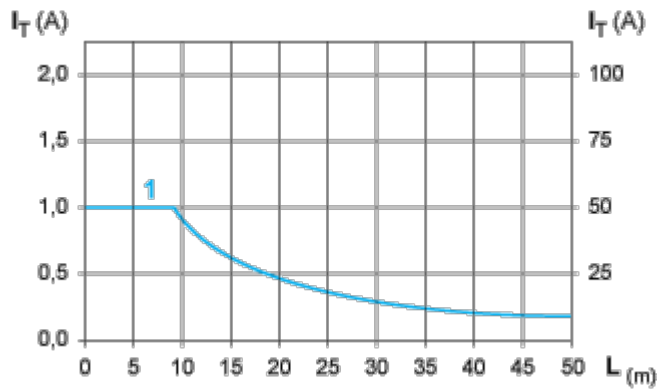
Wiring Diagram



- (1) Inductive load
- (2) Input sink

Performance Curves

Curves for Determining Cable Type and Length According to the Current



- L Cable length
- $I_T$  Total current per sub base (A)
- $I_A$  Average current per channel (mA)
- (1) Cables ABFT2..... c.s.a. 0.08 mm<sup>2</sup> (AWG 28)

The curves are given for a voltage drop of 1 V in the cable. For n volts tolerance, multiply the length determined from the graph by n.