

Schneider Series Service Manual

ABE7E16EPN20

1. Description

The Schneider Electric ABE7E16EPN20 is a passive discrete I/O sub-base designed for connection purposes in industrial applications. It features 16 terminals available per channel and is specifically suited for use with a 24 Volts DC power supply.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type Passive discrete I/O sub-base
Product	Line Modicon
Part	Number ABE7E16EPN20
EAN	3389110590340
Connector	Destination 2
Terminals	per Channel 16
For	Power Supply
Voltage	24 Volts DC (Channels)
Compatible	with Twido programmable controller (Terminals)
Protection	Type Screw type
Ambient	Temperature IP2X
Storage	Temperature -5 to 60 °C
Operational	Temperature -40 to 80 °C
Range	of Product
Modicon	ABE7
Product	or Component Type
Passive	discrete I/O sub-base
[Us]	rated supply voltage
24	V DC controller side
24	V DC sensor/controller side
Number	of Channels
16	
Number	of terminal per channel
2	
Connections	- terminals
Screw	type terminals, 1 x 0.09...1 x 1.5 mm ² AWG 28...AWG 16) flexible with cable end
Screw	type terminals, 1 x 0.14...1 x 2.5 mm ² AWG 26...AWG 12) solid
Screw	type terminals, 1 x 0.14...1 x 2.5 mm ² AWG 26...AWG 14) flexible without cable end
Screw	type terminals, 2 x 0.09...2 x 0.75 mm ² AWG 28...AWG 20) flexible with cable end
Screw	typ

3. Product Information

The Schneider Electric ABE7E16EPN20 is a passive discrete I/O sub-base designed for connection purposes in industrial applications. It features 16 terminals available per channel and is specifically suited for use with a 24 Volts DC power supply.

Technical specifications for ABE7E16EPN20

Manufacturer Schneider Electric

Product Type Passive discrete I/O sub-base

Product Line Modicon

Part Number ABE7E16EPN20

EAN 3389110590340

Connector Destination 2

Terminals per Channel 16

For Power Supply

Voltage 24 Volts DC (Channels)

Compatible with Twido programmable controller (Terminals)

Protection Type Screw type

Ambient Temperature IP2X

Storage Temperature -5 to 60 °C

Operational Temperature -40 to 80 °C

Range of Product

Modicon ABE7

Product or Component Type

Passive discrete I/O sub-base

[Us] rated supply voltage

24 V DC controller side

24 V DC sensor/controller side

Number of Channels

16

Number of terminal per channel

2

Connections - terminals

Screw type terminals, 1 x 0.09...1 x 1.5 mm² AWG 28...AWG 16) flexible with cable end

Screw type terminals, 1 x 0.14...1 x 2.5 mm² AWG 26...AWG 12) solid

Screw type terminals, 1 x 0.14...1 x 2.5 mm² AWG 26...AWG 14) flexible without cable end

Screw type terminals, 2 x 0.09...2 x 0.75 mm² AWG 28...AWG 20) flexible with cable end

Screw type terminals, 2 x 0.2...2 x 2.5 mm² AWG 28...AWG 16) solid

Connector destination

Twido programmable controller

Complementary

Supply voltage limits

19...30 V DC controller side)IEC 61131-2

20.4...26.4 V DC sensor/controller side)IEC 61131-2

Discrete input number

16

Discrete input logic

Sink

Discrete output voltage

24 V

Discrete output voltage type

DC

Product Compatibility

TWDDDI16DK

TWDDDI32DK

Status LED

1 LED power ON

Polarity distribution

1 common/16 channels input

Short-circuit protection

2 A internal fuse, 5 x 20 mm, fast blow controller side)

Connector Type

HE-10

Pin number
20 pins
Fixing mode
By clips 35 mm symmetrical DIN rail IEC 60715
By screws
Maximum supply current
2 A
Switched current
15 mA input circuit
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
5.3 lbf.in (0.6 N.m) flat Ø 3.5 mm
Net Weight
0.95 lb(US) (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
1382 °F (750 °C) IEC 60695-2-11
Shock resistance
15 gn 11 ms 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 IEC 61000-4-2
8 kV air) level 3 IEC 61000-4-2
Resistance to radiated fields
9.1 V/m (10 V/m) 80000000...2000000000 Hz)IEC 61000-4-3 level 3
Resistance to fast transients
2 kV level 3 IEC 61000-4-4
Ambient air temperature for operation
23...140 °F (-5...60 °C) IEC 61131-2
Ambient air temperature for storage
-40...176 °F (-40...80 °C) IEC 61131-2
Pollution degree
2 IEC 60664-1
Ordering and shipping details
Category
US10CP222375
Discount Schedule
0CP2
GTIN
3389110590340
Returnability
No
Description
The ABE7E16EPN20 from Schneider Electric is categorized as a passive discrete I/O sub-base, suitable for various applications in industrial environments. This unit offers a total of 16 terminals for each channel, with a specific focus on facilitating connections for power supply systems. It operates at a nominal voltage of 24 volts DC, making it adaptable for different setups.

This sub-base is compatible with Twido programmable controllers, enhancing its utility in automation processes. The screw-type protection mechanism assures reliable connection and durability over time. It maintains an ambient temperature rating of IP2X, indicating that it provides sufficient protection against solid objects larger than 12 mm, while its capacity to function effectively at storage temperatures ranging from -5 °C to 60 °C offers flexibility.

The ABE7E16EPN20 is built to withstand extreme conditions, featuring an operational temperature range from -40 °C to 80 °C, making it robust for various challenging environments. This sub-base serves critical roles in maintaining reliable connectivity and is an essential component for ensuring operational efficiency in diverse applications.