Product data sheet

Specifications



sub-base - soldered solid state output relay ABE7 - 16 inputs - 48 V DC

ABE7S16E2E1

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Modicon ABE7
Product or Component Type	Solid state input relay sub-base
[Us] rated supply voltage	24 V DC PLC end) 48 V DC sensor end)
Number of Channels	16
Number of terminal per channel	2
Connections - terminals	Screw type terminals, 1 x 0.09...1 x 1.5 mm², 0.0001…0.002 in² (0.09…1.5 mm²) 28 AWG...16 AWG) flexible with cable end Screw type terminals, 1 x 0.14...1 x 2.5 mm², 0.0002…0.004 in² (0.14…2.5 mm²) 26 AWG...12 AWG) solid Screw type terminals, 1 x 0.14...1 x 2.5 mm², 0.0002…0.004 in² (0.14…2.5 mm²) 26 AWG...14 AWG) flexible without cable end Screw type terminals, 2 x 0.09...2 x 0.75 mm², 0.0001…0.001 in² (0.09…0.75 mm²) 28 AWG...20 AWG) flexible with cable end Screw type terminals, 2 x 0.2...2 x 2.5 mm², 0.0003…0.004 in² (0.2…2.5 mm²) 24 AWG...14 AWG) solid

Complementary

Terminal block type	Removable
Supply voltage limits	19…30 V DC PLC end)IEC 61131-2
Isolation PLC/operative part	Yes
Protection type	Internal fuse 1 A 5 x 20 mm fast blow PLC end Adjustable by external fuse fast blow sensor end
Fixing mode	By clips (35 mm symmetrical DIN rail) By screws (solid plate with fixing kit)
Current per channel	0.013 A
Current state 1 guaranteed	>= 6 mA sensor end)
Voltage state 1 guaranteed	>= 30 V sensor end
Maximum switching current	15 mA PLC end)
Minimum switching current	1 mA for PLC end
Response time	<= 0.05 ms from state 0 to 1 <= 0.4 ms from state 1 to 0
Switching frequency	<= 1000 Hz 50 %
[Uimp] rated impulse withstand voltage	2.5 kV IEC 60947-1
[Ui] Rated Insulation Voltage	2000 V
Installation category	II IEC 60664-1
Tightening torque	5.3 lbf.in (0.6 N.m) flat Ø 3.5 mm
Net Weight	0.82 lb(US) (0.37 kg)

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

Environment

Dielectric strength	2000 V 50/60 Hz IEC 60947-1
Product Certifications	CSA UL DNV GL EAC
Standards	IEC 61131-2 Type 2
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) 26000000…1000000000 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	3389110546255
Returnability	No
Country of origin	LV

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	2.8 in (7.0 cm)
Package 1 Width	3.3 in (8.3 cm)
Package 1 Length	8.3 in (21.1 cm)
Package weight(Lbs)	15.7 oz (446.0 g)
Unit Type of Package 2	S03
Number of Units in Package 2	16
Package 2 Height	11.8 in (30.0 cm)
Package 2 Width	11.8 in (30.0 cm)
Package 2 Length	15.7 in (40.0 cm)
Package 2 Weight	16.82 lb(US) (7.63 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**62 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**13 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.1 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.1 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**49 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**1 kg CO2 eq.**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
SCIP Number	**1bbe7d20-74c0-4e7e-b98b-d2946f4ab8b4**
EU RoHS Directive	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**
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**

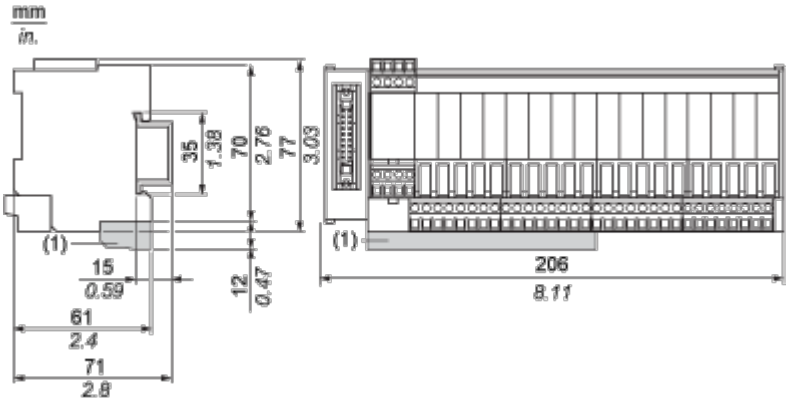
Use Again

Repack and remanufacture

Recyclability potential, in %	**6**
Circularity Profile	**End of Life Information**
Take-back	**No**
WEEE Label	**The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.**

Dimensions Drawings

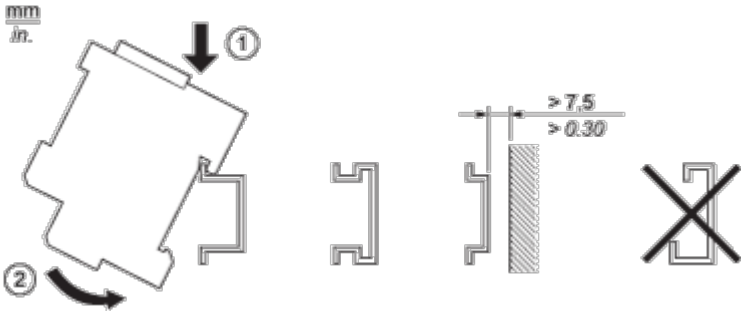
Dimensions



(1) ABE7BV20 / ABE7BV20E

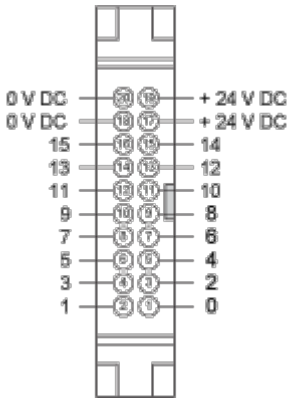
Mounting and Clearance

Mounting

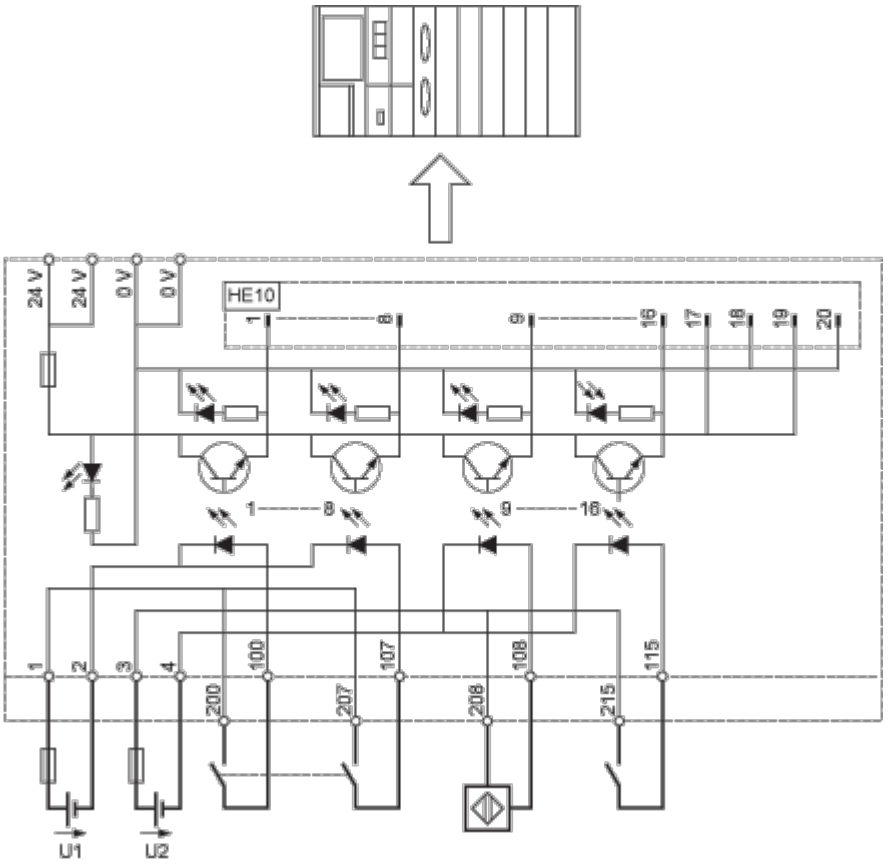


Connections and Schema

HE10 16 Channels



Wiring Diagram

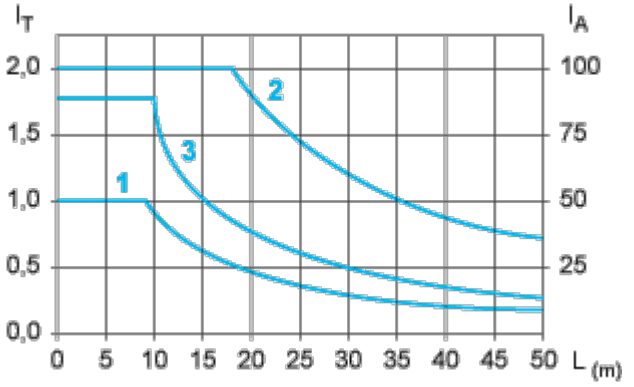


ABE7	U1, U2
S16E2B1 / E2B1E	24 VDC
S16E2E1 / E2E1E	48 VDC
S16E2E0 / E2E0E	48 VAC
S16E2F0 / E2F0E	115 VAC
S16E2M0 / E2M0E	230 VAC

Performance Curves

Curves for Determining Cable Type and Length According to the Current

16-channel Sub-base



L Cable length

I_T Total current per sub base (A)

I_A Average current per channel (mA)

(1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm^2 (AWG 28).

(2) TSXCDP••3 cables with c.s.a. 0.34 mm^2 (AWG 22).

(3) Cables with c.s.a. 0.13 mm^2 (AWG 26).

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.

Image of product / Alternate images

Alternative

