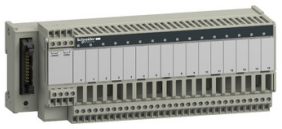
Product data sheet

Specifications



sub-base - soldered solid state output relay ABE7 - 16 inputs - 115 V AC

ABE7S16E2F0

Main

Range of product	Modicon ABE7
Product or component type	Solid state input relay sub-base
[Us] rated supply voltage	110/130 V AC 50/60 Hz (sensor end) 24 V DC (PLC 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, 0.09…1.5 mm² (AWG 28...AWG 16) flexible with cable end Screw type terminals, 1 x 0.14...1 x 2.5 mm², 0.14…2.5 mm² (AWG 26...AWG 12) solid Screw type terminals, 1 x 0.14...1 x 2.5 mm², 0.14…2.5 mm² (AWG 26...AWG 14) flexible without cable end Screw type terminals, 2 x 0.09...2 x 0.75 mm², 0.09…0.75 mm² (AWG 28...AWG 20) flexible with cable end Screw type terminals, 2 x 0.2...2 x 2.5 mm², 0.2…2.5 mm² (AWG 24...AWG 14) solid

Complementary

Terminal block type	Removable
Supply voltage limits	19…30 V DC (PLC end) conforming to 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	0.0083 A
Current state 1 guaranteed	>= 5 mA (sensor end)
Voltage state 1 guaranteed	>= 79 V for sensor end
Maximum switching current	15 mA (PLC end)
Minimum switching current	1 mA for PLC end
Response time	<= 20 ms from state 0 to 1 <= 20 ms from state 1 to 0
Switching frequency	<= 25 Hz duty cycle: 50 %
[Uimp] rated impulse withstand voltage	2.5 kV conforming to IEC 60947-1
[Ui] rated insulation voltage	2000 V
Installation category	II conforming to IEC 60664-1
Tightening torque	0.6 N.m with flat Ø 3.5 mm screwdriver
Width	206 mm

Height	77 mm
Depth	58 mm
Net weight	0.397 kg

Environment

Dielectric strength	2000 V at 50/60 Hz conforming to IEC 60947-1
Product certifications	UL GL DNV CSA EAC
Standards	IEC 61131-2 Type 1
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 (26000000…1000000000 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	7.000 cm
Package 1 Width	8.200 cm
Package 1 Length	21.200 cm
Package 1 Weight	482.000 g
Unit Type of Package 2	S03
Number of Units in Package 2	16
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.093 kg

Contractual warranty

Warranty	18 months

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	1039
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	No
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	1bbe7d20-74c0-4e7e-b98b-d2946f4ab8b4
REACh Regulation	REACh Declaration
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

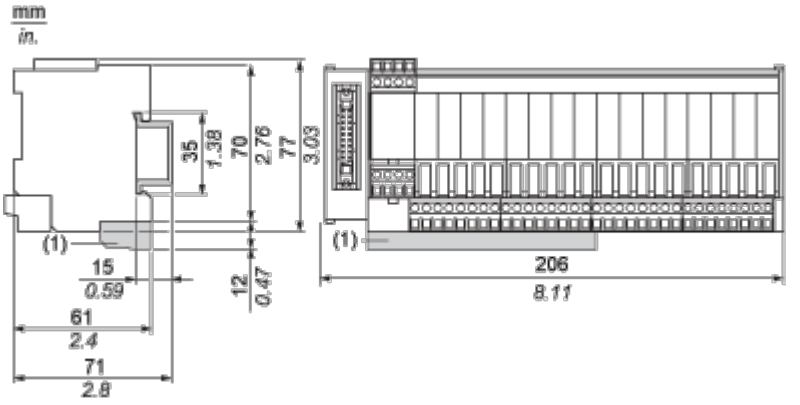
Use Again

Repack and remanufacture

End of life manual availability	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

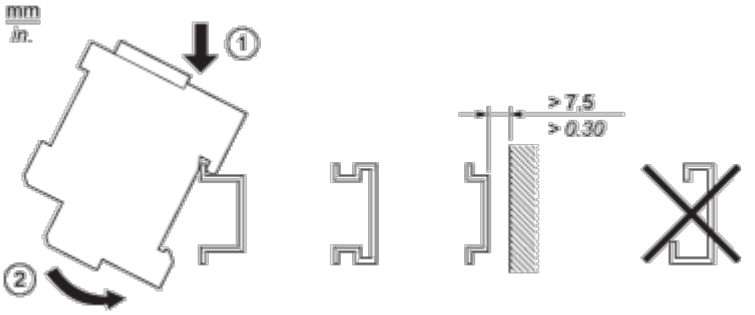
Dimensions



(1) ABE7BV20 / ABE7BV20E

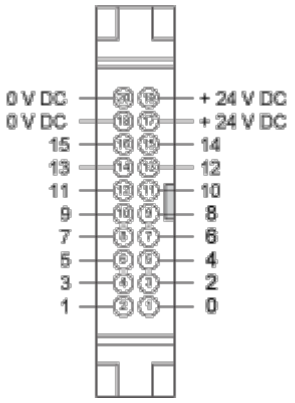
Mounting and Clearance

Mounting

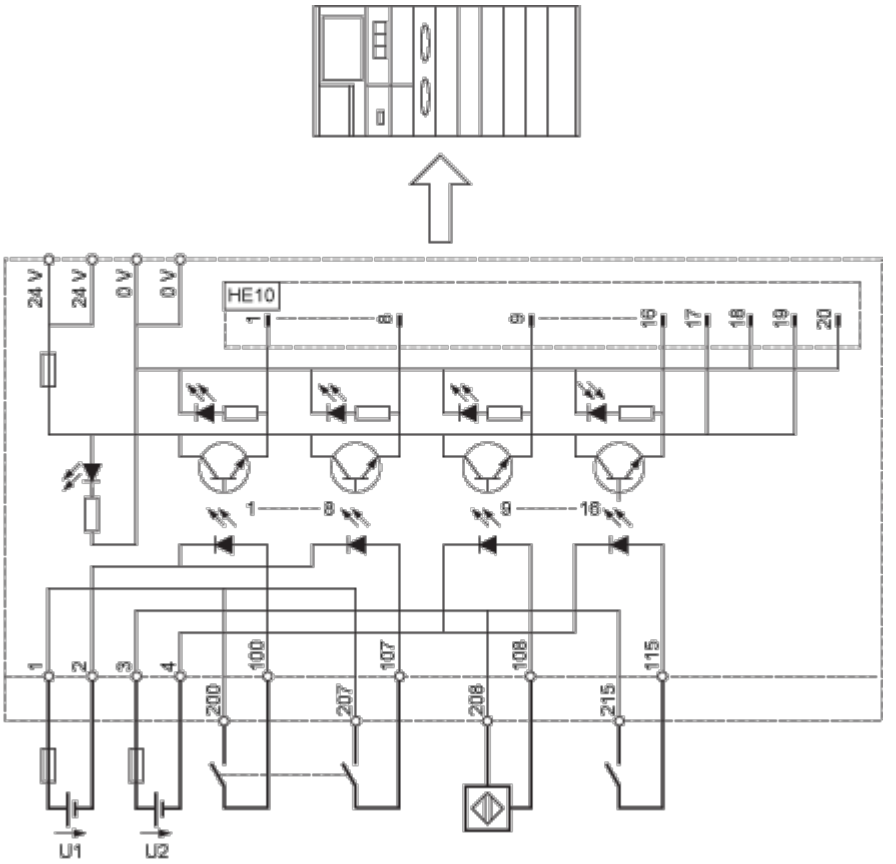


Connections and Schema

HE10 16 Channels



Wiring Diagram

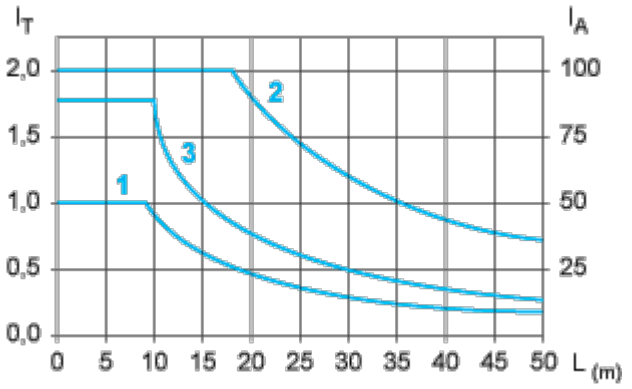


ABE7	U1, U2
S16E2B1 / E2B1E	24 VDC
S16E2E1 / E2E1E	48 VDC
S16E2E0 / E2E0E	48 VAC
S16E2F0 / E2F0E	115 VAC
S16E2M0 / E2M0E	230 VAC

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).

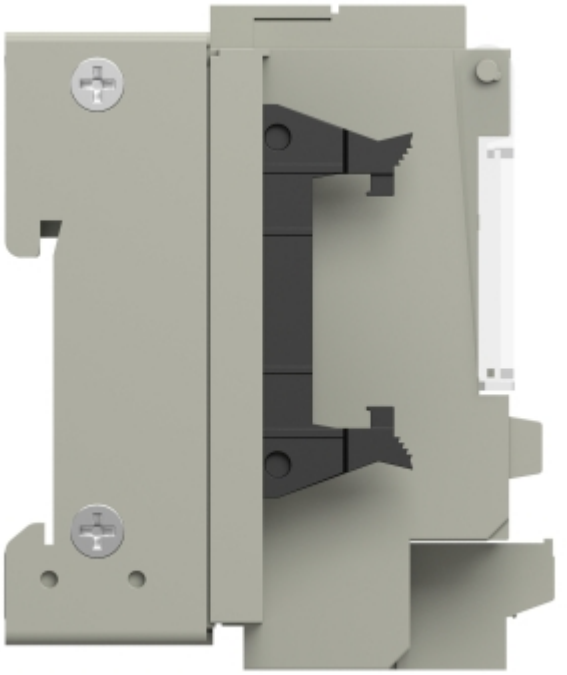
(2) TSXCDP••3 cables with c.s.a. 0.34 mm^2 (AWG 22).

(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




Schneider Electric
Modicon ABE7 - S16E2F0
Resistive : 30Vdc max/0.015A
Made in Xxxxx
PP-yyyy-Www
DE 97828
Marktheidenfeld