# Product data sheet

Specifications

## sub-base - soldered solid state output relay ABE7 - 16 inputs - 24 V DC

ABE7S16E2B1

**Product availability: Non-Stock - Not 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)<br>24 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) AWG 28...AWG 16) flexible with cable end<br>Screw type terminals, 1 x 0.14...1 x 2.5 mm², 0.0002…0.004 in² (0.14…2.5 mm²) AWG 26...AWG 12) solid<br>Screw type terminals, 1 x 0.14...1 x 2.5 mm², 0.0002…0.004 in² (0.14…2.5 mm��) AWG 26...AWG 14) flexible without cable end<br>Screw type terminals, 2 x 0.09...2 x 0.75 mm², 0.0001…0.001 in² (0.09…0.75 mm²) AWG 28...AWG 20) flexible with cable end<br>Screw type terminals, 2 x 0.2...2 x 2.5 mm², 0.0003…0.004 in² (0.2…2.5 mm²) AWG 24...AWG 14) 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<br>Adjustable by external fuse fast blow sensor end |
| **Fixing mode** | By clips (35 mm symmetrical DIN rail)<br>By screws (solid plate with fixing kit) |
| **Current per channel** | 0.012 A |
| **Current state 1 guaranteed** | >= 2 mA sensor end) |
| **Voltage state 1 guaranteed** | >= 15 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<br><= 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 |

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

| | |
|---|---|
| **Net Weight** | 0.82 lb(US) (0.37 kg) |

## Environment

| | |
|---|---|
| **Dielectric strength** | 2000 V 50/60 Hz IEC 60947-1 |
| **Product Certifications** | UL<br>DNV<br>CSA<br>GL<br>EAC |
| **Standards** | IEC 61131-2 Type 1 |
| **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<br>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** | 3389110546248 |
| **Returnability** | No |
| **Country of origin** | LV |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 2.76 in (7.0 cm) |
| **Package 1 Width** | 3.27 in (8.3 cm) |
| **Package 1 Length** | 8.27 in (21.0 cm) |
| **Package 1 Weight** | 15.4 oz (438.0 g) |
| **Unit Type of Package 2** | S03 |
| **Number of Units in Package 2** | 16 |
| **Package 2 Height** | 11.81 in (30.0 cm) |
| **Package 2 Width** | 11.81 in (30.0 cm) |
| **Package 2 Length** | 15.75 in (40.0 cm) |
| **Package 2 Weight** | 16.486 lb(US) (7.478 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

| | |
|---|---|
| Carbon footprint (kg CO2 eq, Total Life cycle) | **1038** |
| 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** |

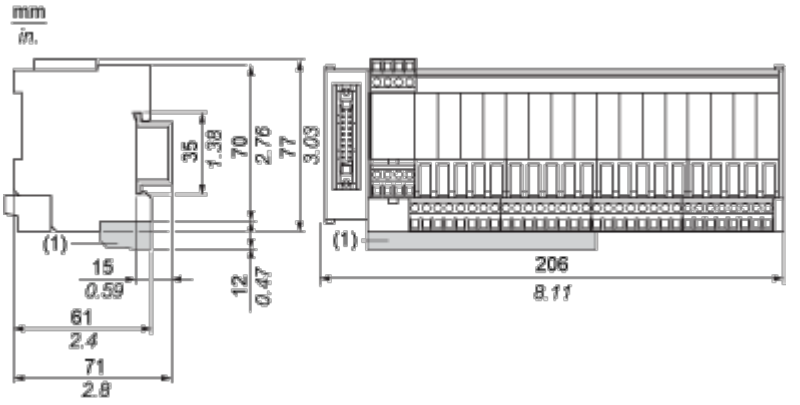
## Use Again

### Repack and remanufacture

| | |
|---|---|
| Take-back | **No** |
| WEEE | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.** |

Dimensions Drawings

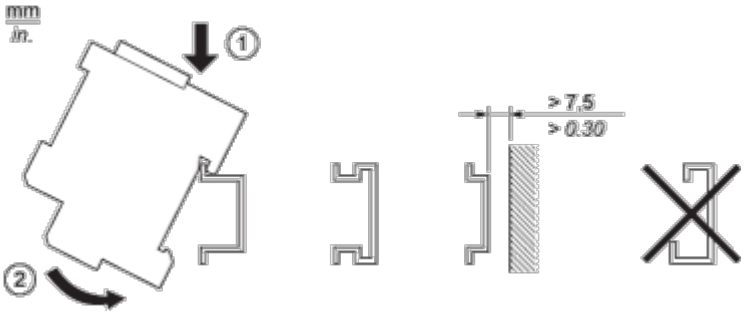
## Dimensions




(1) ABE7BV20 / ABE7BV20E

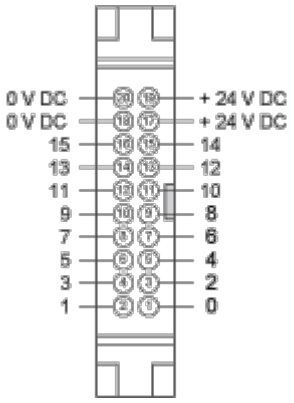
Mounting and Clearance

## Mounting

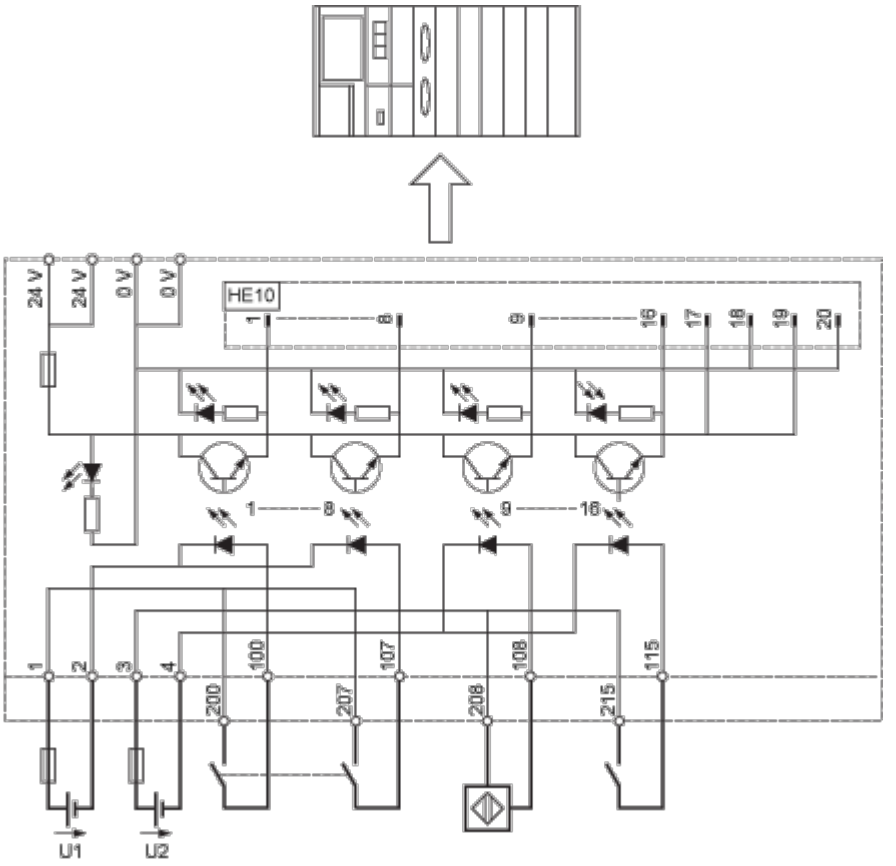


Connections and Schema

**HE10 16 Channels**



## Wiring Diagram

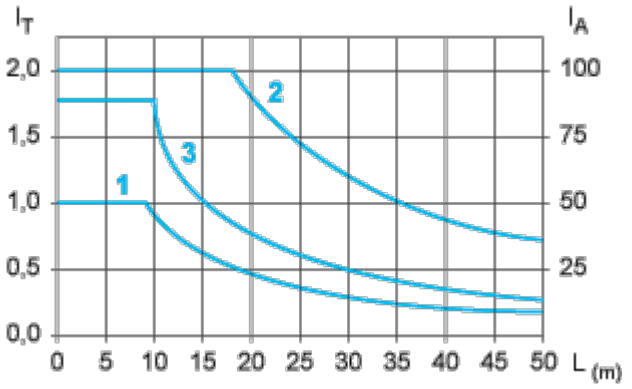



| ABE7 | U1, U2 |
|---|---|
| S16E2B1 / E2B1E | 24 VDC |
| S16E2E1 / E2E1E | 48 VDC |
| S16E2E0 / E2E0E | 48 VAC |
| S16E2F0 / E2F0E | 115 VAC |
| S16E2M0 / E2M0E | 230 VAC |

## 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**