# Product data sheet

Specifications

## sub-base - soldered solid state output relay ABE7 - 16 outputs - 0.5 A

ABE7S16S2B0

## Main

| | |
|---|---|
| **Range of product** | Modicon ABE7 |
| **Product or component type** | Solid state output relay sub-base |
| **[Us] rated supply voltage** | 24 V DC for PLC end<br>24 V DC for preactuator end |
| **Number of channels** | 16 |
| **Number of terminal per channel** | 2 |
| **Relay type** | Soldered solid state relay |

## Complementary

| | |
|---|---|
| **Terminal block type** | Removable |
| **Isolation PLC/operative part** | No |
| **Fixing mode** | By clips (35 mm symmetrical DIN rail)<br>By screws (solid plate with fixing kit) |
| **Current state 0 guaranteed** | 0.4 mA (PLC end) |
| **Voltage state 0 guaranteed** | 3.4 V for PLC end |
| **Current state 1 guaranteed** | 3.1 mA (PLC end) |
| **Voltage state 1 guaranteed** | 16.9 V for PLC end |
| **Maximum current per output common** | 8 A |
| **Current per channel** | 0.5 A for preactuator end |
| **Minimum switching current** | 1 mA |
| **Drop-out voltage** | 0.6 V (preactuator end) |
| **Maximum switching current** | 500 mA DC-12<br>500 mA DC-13 |
| **Maximum tungsten load** | <10 W DC-6 |
| **Maximum residual current** | 0.3 mA preactuator end |
| **Fault type** | Overload<br>Short-circuit |
| **Fault indication** | Yes |
| **Switchable inductive energy L/R** | <= 400(U.I) ms |
| **Maximum circuit breaker threshold** | 0.75 A |
| **Response time** | <= 0.02 ms from state 1 to 0<br><= 0.1 ms from state 0 to 1 |
| **Switching frequency** | < 0.6/LI² Hz |

| | |
|---|---|
| **Installation category** | II conforming to IEC 60664-1 |
| **Tightening torque** | 0.6 N.m with flat Ø 3.5 mm screwdriver |
| **Width** | 206 mm |
| **Net weight** | 0.405 kg |

## Environment

| | |
|---|---|
| **Product certifications** | UL<br>GL<br>CSA<br>DNV<br>EAC |
| **IP degree of protection** | IP2X conforming to IEC 60529 |
| **Protective treatment** | TC |
| **Resistance to incandescent wire** | 750 °C, extinction time <30 s conforming to IEC 60695-2-11 |
| **Shock resistance** | 15 gn for 11 ms conforming to IEC 60068-2-27 |
| **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** | 7.0 cm |
| **Package 1 Width** | 8.2 cm |
| **Package 1 Length** | 21.0 cm |
| **Package 1 Weight** | 456.0 g |
| **Unit Type of Package 2** | S03 |
| **Number of Units in Package 2** | 16 |
| **Package 2 Height** | 30.0 cm |
| **Package 2 Width** | 30.0 cm |
| **Package 2 Length** | 40.0 cm |
| **Package 2 Weight** | 7.971 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 |

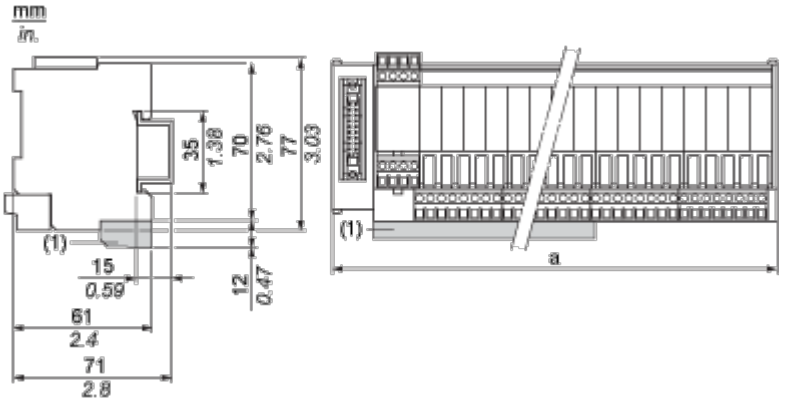
## Use Again

### 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

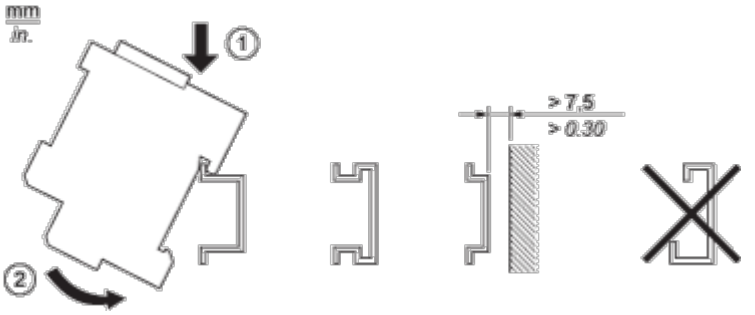



(1) ABE7BV20 / ABE7BV20E

| ABE7 | a in mm | a in in. |
|---|---|---|
| S08S2B0 / S08S2B0E | 125 | 4.92 |
| S08S2B1 / S08S2B1E | 206 | 8.11 |
| S16S2B0 / S16S2B0E | 206 | 8.11 |

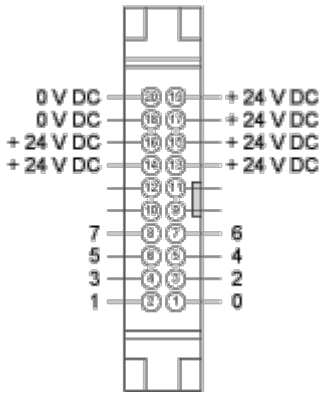
Mounting and Clearance

## Mounting

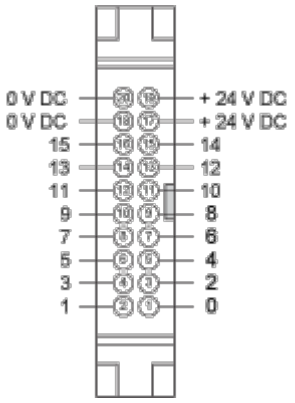


Connections and Schema

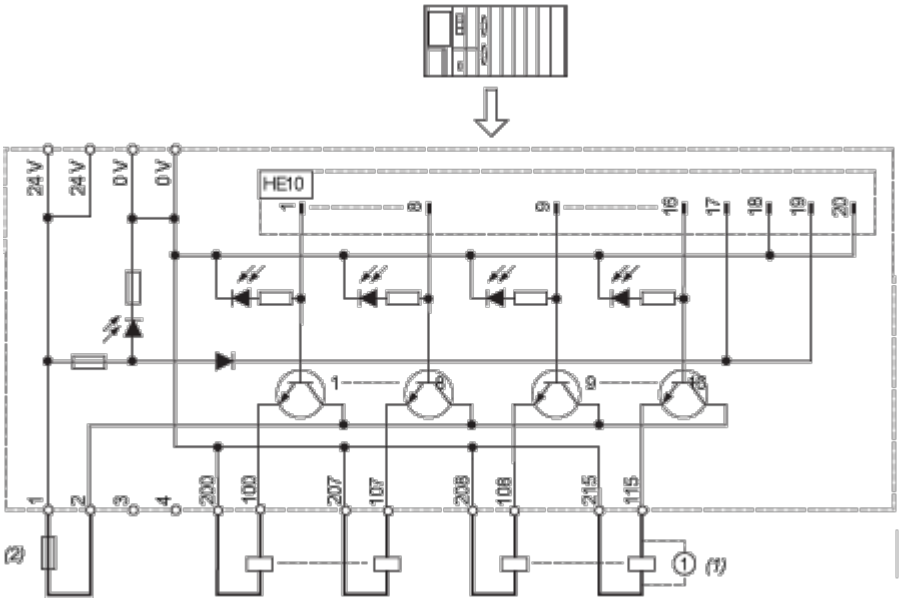
**HE10 8 Channels**



## HE10 16 Channels



## Wiring Diagram



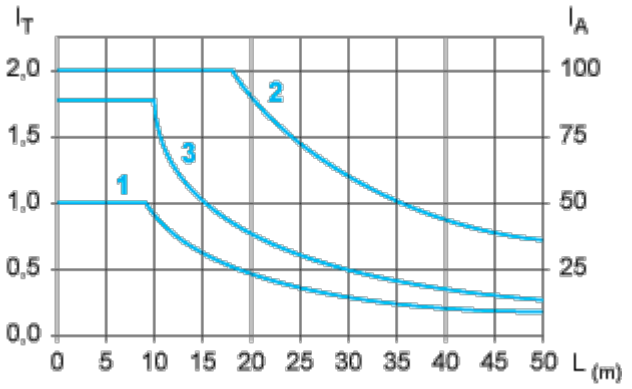

(1) Inductive load

(2) AB1FUSE435U5X + quick acting FUSE 5 x 20 type F.

## 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**