

# ABS2EC01EB

input interface module - 9.5 mm - solid state - 24 V  
DC



## Main

Range of product	Interface for discrete signals
Product or component type	Slim solid state input interface module
Contacts type and composition	1 NC
[Uc] control circuit voltage	24 V
Control circuit type	DC
[In] rated current	<= 12 mA
Reverse polarity protection	Internal for control circuit Internal for output circuit
Short-circuit protection	0.25 A external fuse fast blow (Ik <= 100 A DC)
Local signalling	1 LED indicating control signal state
Sale per indivisible quantity	5
Width pitch dimension	9.5 mm

## Complementary

Control circuit voltage limits	28.8 V
Voltage state 1 guaranteed	16.9 V
Current state 1 guaranteed	7.7 mA
Voltage state 0 guaranteed	5.6 V
Current state 0 guaranteed	2 mA
[Ue] rated operational voltage	5...48 V
Output circuit type	DC
Rated operational voltage limits	2...60 V
Maximum switching current	50 mA
Minimum switching current	1 mA
Residual current	0.1 mA at state 0
Drop-out voltage	<= 1 V at state 1
Response time	<= 0.05 ms from state 0 to state 1 Ue <= 30 V and Ie >= 5 mA <= 0.4 ms from state 1 to state 0 Ue <= 30 V and Ie >= 5 mA
Switching frequency	<= 1000 Hz 50 % Ue <= 30 V and Ie >= 5 mA
[Ui] rated insulation voltage	250 V conforming to VDE 0110 group C 300 V conforming to IEC 60947-1
Connections - terminals	Screw clamp terminal
Flame retardance	V0 conforming to UL 94
Cable cross section	0.27...4 mm <sup>2</sup> , 1 wire rigid 0.34...2.5 mm <sup>2</sup> , 1 or 2 wires flexible with cable end 0.6...2.5 mm <sup>2</sup> , 1 or 2 wires flexible without cable end
Operating position	Any position
Installation category	II conforming to IEC 60947-1
Mounting support	Asymmetrical DIN rail Combination rail Symmetrical DIN rail
Product weight	0.029 kg

## Environment

dielectric strength	2500 V between wired interface and earth for 1 minute 4000 V between I/O for 1 minute
standards	IEC 60947-5-1
product certifications	BV CSA DNV

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LROS (Lloyds register of shipping)  
UL

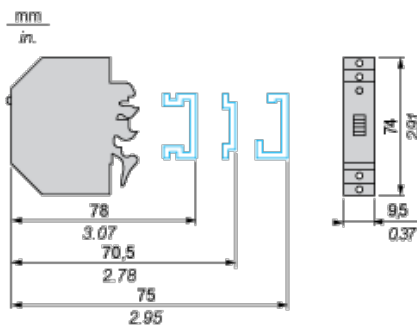
IP degree of protection	IP20 conforming to IEC 60529
protective treatment	TC
fire resistance	960 °C conforming to IEC 60695-2-1
shock resistance	30 gn for 11 ms conforming to IEC 60068-2-27
vibration resistance	5 gn (f = 10...150 Hz) conforming to IEC 68-2-6
electromagnetic compatibility	1.2/50 µs shock waves immunity test, 0.5 kV for U < 50 V conforming to IEC 60947-1 1.2/50 µs shock waves immunity test, 1.5 kV for U < 150 V conforming to IEC 60947-1 1.2/50 µs shock waves immunity test, 2.5 kV for U < 300 V conforming to IEC 60947-1 Electromagnetic field immunity test level 3, 10 V/m between 27...1000 MHz conforming to IEC 61000-4-3 Electrostatic discharge immunity test level 3, 8 kV conforming to IEC 61000-4-2 Fast transients immunity test level 3, on input/output 1 kV conforming to IEC 61000-4-4 Fast transients immunity test level 3, on power supply 2 kV conforming to IEC 61000-4-4
ambient air temperature for operation	-25...70 °C at Us -5...55 °C unrestricted operation
ambient air temperature for storage	-40...80 °C
operating altitude	<= 300 m
pollution degree	2 conforming to IEC 60947-1

### Contractual warranty

Warranty period	18 months
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## Slim Solid-State Interface Module

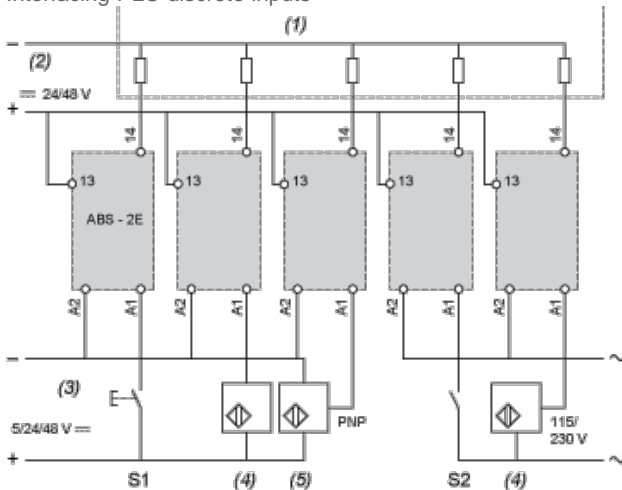
### Dimensions



## Slim Solid-State Interface Module

### Example of Application with PLC

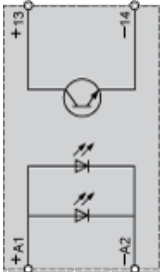
Interfacing PLC discrete inputs



- S1, Pushbuttons series contacts
- S2
  - (1) PLC positive logic discrete inputs
  - (2) Processing power supply
  - (3) Process power supply
  - (4) 2-wire sensors
  - (5) 3-wire sensors

## Solid-State Input Module

### Circuit Diagram



### Wiring Diagram

