Product data sheet Characteristics

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
[In] rated current Reverse polarity protection	<= 12 mA Internal for output circuit Internal for control circuit
Reverse polarity pro-	Internal for output circuit
Reverse polarity protection	Internal for output circuit Internal for control circuit
Reverse polarity protection Short circuit protection	Internal for output circuit Internal for control circuit 0.25 A external fuse fast blow (Ik <= 100 A DC)

Complementary

Control 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	548 V
Output circuit type	DC
Rated operational voltage limits	260 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	<= 0.4 ms from state 1 to state 0 Ue <= 30 V and le >= 5 mA <= 0.05 ms from state 0 to state 1 Ue <= 30 V and le >= 5 mA
Switching frequency	<= 1000 Hz 50 % Ue <= 30 V and le >= 5 mA
[Ui] rated insulation voltage	300 V conforming to IEC 60947-1 250 V conforming to VDE 0110 group C
Connections - terminals	Screw clamp terminal
Flame retardance	V0 conforming to UL 94
Cable cross section	0.62.5 mm², 1 or 2 wires flexible without cable end 0.342.5 mm², 1 or 2 wires flexible with cable end 0.274 mm², 1 wire rigid
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	4000 V between I/O for 1 minute 2500 V between wired interface and earth for 1 minute
Standards	IEC 60947-5-1
Product certifications	BV CSA DNV 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 = 10150 Hz) conforming to IEC 68-2-6
Electromagnetic compatibility	Fast transients immunity test level 3, on power supply 2 kV conforming to IEC 61000-4-4 Fast transients immunity test level 3, on input/output 1 kV conforming to IEC 61000-4-4 Electrostatic discharge immunity test level 3, 8 kV conforming to IEC 61000-4-2 Electromagnetic field immunity test level 3, 10 V/m between 271000 MHz conforming to IEC 61000-4-3 1.2/50 µs shock waves immunity test, 2.5 kV for U < 300 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, 0.5 kV for U < 50 V conforming to IEC 60947-1
Ambient air temperature for operation	-555 °C unrestricted operation -2570 °C at Us
Ambient air temperature for storage	-4080 °C
Operating altitude	<= 300 m
Pollution degree	2 conforming to IEC 60947-1

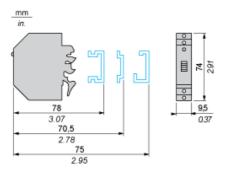


Product data sheet Dimensions Drawings

ABS2EC01EB

Slim Solid-State Interface Module

Dimensions

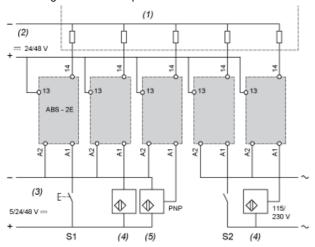


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Slim Solid-State Interface Module

Example of Application with PLC

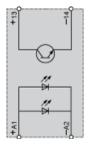
Interfacing PLC discrete inputs



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

Solid-State Input Module

Circuit Diagram



Wiring Diagram

