# Product datasheet Characteristics

# ABS2EC01EA



#### 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	5 V
Control circuit type	DC
Line Rated Current	<= 13.6 mA
Reverse polarity protection	Internal control circuit Internal 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	0.37 in (9.5 mm)

### Complementary

Control circuit voltage limits	6 V negative TTL	
Voltage state 1 guaranteed	3.75 V	
Current state 1 guaranteed	4.5 mA	
Voltage state 0 guaranteed	2 V	
Current state 0 guaranteed	0.09 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	<= 0.05 ms from state 0 to state 1 Ue <= 30 V and le >= 5 mA <= 0.4 ms from state 1 to state 0 Ue <= 30 V and le >= 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	00.01 in <sup>2</sup> (0.274 mm <sup>2</sup> ), 1 wire rigid 00 in <sup>2</sup> (0.342.5 mm <sup>2</sup> ), 1 or 2 wires flexible with cable end 00 in <sup>2</sup> (0.62.5 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	0.06 lb(US) (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 LROS (Lloyds register of shipping)



	UL
IP degree of protection	IP20 conforming to IEC 60529
protective treatment	TC
fire resistance	1760 °F (960 °C) conforming to IEC 60695-2-1
shock resistance	30 gn 11 ms conforming to IEC 60068-2-27
vibration resistance	5 gn (f = 10150 Hz) conforming to IEC 68-2-6
electromagnetic compatibility	<ul> <li>1.2/50 μs shock waves immunity test, 0.5 kV for U &lt; 50 V conforming to IEC 60947-1</li> <li>1.2/50 μs shock waves immunity test, 1.5 kV for U &lt; 150 V conforming to IEC 60947-1</li> <li>1.2/50 μs shock waves immunity test, 2.5 kV for U &lt; 300 V conforming to IEC 60947-1</li> <li>Electromagnetic field immunity test level 3, 10 V/m between 271000 MHz</li> <li>conforming to IEC 61000-4-3</li> <li>Electrostatic discharge immunity test level 3, 8 kV conforming to IEC 61000-4-2</li> <li>Fast transients immunity test level 3, on input/output 1 kV conforming to IEC 61000-4-4</li> <li>Fast transients immunity test level 3, on power supply 2 kV conforming to IEC 61000-4-4</li> </ul>
ambient air temperature for operation	-13158 °F (-2570 °C) at Us 23131 °F (-555 °C) unrestricted operation
ambient air temperature for storage	-40176 °F (-4080 °C)
operating altitude	<= 984.25 ft (300 m)
pollution degree	2 conforming to IEC 60947-1

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#### **Offer Sustainability**

WARNING: This product can expose you to chemicals WARNING: This product can expose you to chemicals including: including:

Lead and lead compounds, which is known to the State Lead and lead compounds, which is known to the State of California to cause cancer of California to cause cancer and birth defects or other and birth defects or other reproductive harm.

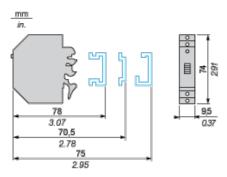
For more information go to www.p65warnings.ca.gov For more information go to www.p65warnings.ca.gov

#### Contractual warranty

Warranty period 18 months

#### Slim Solid-State Interface Module

#### Dimensions

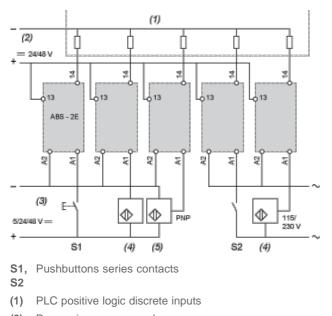


#### Slim Solid-State Interface Module

Example of Application with PLC

Interfacing PLC discrete inputs

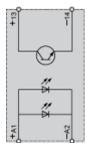




- (2) Processing power supply
- (3) Process power supply
- (4) 2-wire sensors
- (5) 3-wire sensors

# Solid-State Input Module

# Circuit Diagram



#### Wiring Diagram

