# ABR2E116F



### Main

Range of product	Interface for discrete signals
Product or component type	Slim electromechanical input interface module
Contacts type and composition	1 NO
[Uc] control circuit voltage	120127 V
Control circuit type	AC/DC
Control circuit frequency	60 Hz
Width pitch dimension	0.37 in (9.5 mm)
Line Rated Current	<= 0.016 A
Short-circuit protection	2 A external fuse fast blow
[lth] conventional free air thermal current	1 A conforming to IEC 60947-1
Local signalling	1 LED indicating control signal state
Quantity per set	Set of 5

## Complementary

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Control circuit voltage limits	140 V
Connections - terminals	Screw clamp terminal
Operating threshold	97 V
Drop-out voltage	<= 25.4 V
Holding current	2.5 mA
Power dissipation in W	0.73 W
Maximum switching voltage	125 V DC 140 V AC
System Voltage	<= 100 V DC conforming to IEC 60947-5-1 built-in contacts <= 127 V AC conforming to IEC 60947-5-1 built-in contacts
Network frequency	50/60 Hz
[le] rated operational current	1 A AC-12 Ue: 127 V per 1000000 cycles conforming to IEC 60947-5-1 1 A DC-12 Ue: 24 V per 1000000 cycles conforming to IEC 60947-5-1 1 A DC-13 Ue: 24 V per 1000000 cycles conforming to IEC 60947-5-1 0.5 A AC-14 Ue: 127 V per 1000000 cycles conforming to IEC 60947-5-1 0.5 A AC-15 Ue: 127 V per 1000000 cycles conforming to IEC 60947-5-1
Minimum switching current	1 mA
Minimum switching voltage	5 V
Electrical reliability	1e-008
Operating time	<= 10 ms between energisation of coil and closing of NO contact DC <= 30 ms between de-energisation of coil and closing of NO contact AC <= 30 ms between energisation of coil and closing of NO contact AC <= 6 ms between de-energisation of coil and closing of NO contact DC
Contact bounce time	<= 5 ms
Operating rate in Hz	10 Hz at no-load 0.5 Hz at le
Mechanical durability	>= 20000000 cycles
[Ui] rated insulation voltage	250 V conforming to VDE 0110 group C 300 V conforming to IEC 60947-1
Flame retardance	V0 conforming to UL 94
Cable cross section	00.01 in² (0.274 mm²), 1 wire rigid 00 in² (0.342.5 mm²), 1 or 2 wires flexible with cable end 00 in² (0.62.5 mm²), 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

## **Environment**

immunity to microbreaks	10 ms
dielectric strength	2000 V between coil circuit and contact circuits 2500 V between wired interface and earth 750 V between open contacts
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	3 gn (f = 10150 Hz) conforming to IEC 60068-2-6
electromagnetic compatibility	1.2/50 µs shock waves immunity test, 0.5 kV for U < 50 V conforming to IEC 947-1 1.2/50 µs shock waves immunity test, 1.5 kV for U < 150 V conforming to IEC 947-1 1.2/50 µs shock waves immunity test, 2.5 kV for U < 300 V conforming to IEC 947-1 Electromagnetic field immunity test level 3, 10 V/m between 271000 MHz conforming to IEC 61000-4-3 Electrostatic discharge immunity test level 3, 8 kV conforming to IEC 61000-4-2 Rapid transients immunity test level 3, on input/output 1 kV conforming to IEC 61000-4-4 Rapid transients immunity test level 3, on power supply 2 kV conforming to IEC 61000-4-4
ambient air temperature for operation	23104 °F (-540 °C) unrestricted operation -13158 °F (-2570 °C) at Us 23131 °F (-555 °C) from 0.851.1 Us
ambient air temperature for storage	-40176 °F (-4080 °C)
operating altitude	<= 9842.52 ft (3000 m)
pollution degree	2 conforming to IEC 60947-1

# Offer Sustainability

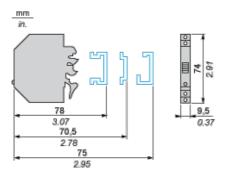
WARNING: This product can expose you to chemicals including:	WARNING: This product can expose you to chemicals including:
Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.	Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.
For more information go to www.p65warnings.ca.gov	For more information go to www.p65warnings.ca.gov

# Contractual warranty

Warranty period 18 months
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# **Slim Electromechanical Interface Module**

## Dimensions

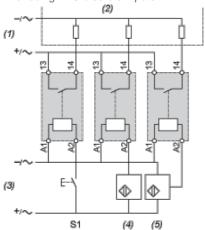




### Slim Electromechanical Interface Module

# **Example of Application with PLC**

Interfacing PLC discrete inputs



#### ABR 2E

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

## **Slim Electromechanical Interface Module**

### **Circuit Diagram**

