# **ABR1E318E**



#### Main

Range of product	Interface for discrete signals
Product or component type	Electromechanical input interface module
Contacts type and composition	1 C/O
[Uc] control circuit voltage	48 V
Control circuit type	AC/DC
Control circuit frequency	50/60 Hz
Width pitch dimension	0.69 in (17.5 mm)
[In] rated current	<= 32 mA AC <= 36 mA DC
Reverse polarity protection	With
Short-circuit protection	16 A external fuse gF (lk <= 2.5 kA AC and lk <= 100 A DC) 16 A external fuse gG (lk <= 2.5 kA AC and lk <= 100 A DC)
[Ith] conventional free air thermal current	2 A conforming to IEC 60947-1
Local signalling	Green mechanical indicator for position of contacts and 1 green LED control signal state

## Complementary

Control circuit voltage limits	53 V energization threshold: 34 V
Housing colour	Grey
Connections - terminals	Screw clamp terminal
Drop-out voltage	<= 8.5 V
Holding current	>= 4.7 mA DC >= 5.4 mA AC
Power dissipation in W	<= 1.5 W
Maximum switching voltage	125 V DC 252 V AC
System Voltage	<= 125 V DC conforming to IEC 60947-5-1 <= 230 V AC conforming to IEC 60947-5-1
Network frequency	50/60 Hz
[le] rated operational current	1 A AC-13 Ue: 230 V per 1000000 cycles conforming to IEC 60947-5-1 1 A AC-14 Ue: 230 V per 1000000 cycles conforming to IEC 60947-5-1 1 A AC-15 Ue: 230 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 2 A AC-12 Ue: 230 V per 1000000 cycles conforming to IEC 60947-5-1 2 A DC-12 Ue: 24 V per 1000000 cycles conforming to IEC 60947-5-1
Minimum switching current	3 mA
Minimum switching voltage	17 V
Electrical reliability	<= 0.00000001
Operating time	<= 12 ms between de-energisation of coil and closing of NC contact <= 12 ms between de-energisation of coil and closing of NO contact <= 12 ms between energisation of coil and closing of NC contact <= 12 ms between energisation of coil and closing of NO contact
Contact bounce time	<= 3 ms
Operating rate in Hz	<= 6 Hz at no-load <= 0.5 Hz at le
Mechanical durability	>= 10000000 cycles
[Ui] rated insulation voltage	250 V conforming to IEC 60947-1 250 V conforming to VDE 0110 group C
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 00 in <sup>2</sup> (0.272.5 mm <sup>2</sup> ), 2 wires 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	0.21 lb(US) (0.095 kg)	

## **Environment**

immunity to microbreaks	10 ms
dielectric strength	1500 V between independent contacts 2500 V between wired interface and earth 4000 V between coil circuit and contact circuits
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	1562 °F (850 °C) conforming to IEC 60695-2-1
shock resistance	50 gn 11 ms conforming to IEC 60068-2-27
vibration resistance	6 gn (f = 1055 Hz) conforming to IEC 60068-2-6
electromagnetic compatibility	1.2/50 ms shock waves immunity test, 0.25 kV for U > 50 V conforming to IEC 255-4 1.2/50 ms shock waves immunity test, 0.5 kV for U < 50 V conforming to IEC 255-4 Electrostatic discharge immunity test level 3, 8 kV conforming to IEC 61000-4-2 Rapid transients immunity test, on input/output 1 kV conforming to IEC 61000-4-4 Rapid transients immunity test, on power supply 2 kV conforming to IEC 61000-4-4
ambient air temperature for operation	-4140 °F (-2060 °C) at Un 23104 °F (-540 °C) unrestricted operation
ambient air temperature for storage	-40158 °F (-4070 °C)
operating altitude	<= 9842.52 ft (3000 m)
pollution degree	3 conforming to IEC 60947-5-1

## Offer Sustainability

WARNING: This product can expose you to chemicals including:	WARNING: This product can expose you to chemicals including:
Nickel compounds, which is known to the State of California to cause cancer, and	Nickel compounds, which is known to the State of California to cause cancer, and
Di-isodecyl phthalate (DIDP), which is known to the Sta of California to cause birth defects or other reproductive harm.	teDi-isodecyl phthalate (DIDP), which is known to the State of California to cause birth e defects or other reproductive harm.
For more information go to www.p65warnings.ca.gov	For more information go to www.p65warnings.ca.gov

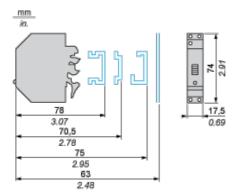
## Contractual warranty

Contractual waitanty		
Warranty period	18 months	

## **Electromechanical Interface Module**

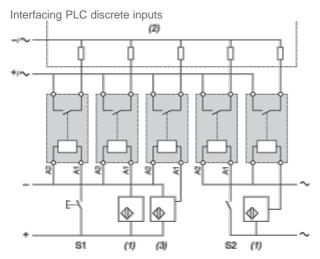
**Dimensions** 





### **Electromechanical Interface Module**

#### **Example of Application with PLC**



S1, Pushbuttons series contacts

S2

- (1) 2-wire sensors
- (2) PLC positive logic discrete inputs
- (3) 3-wire sensors

### Interface with Mechanical Indication + LED

### **Circuit Diagram**

