# ABR2E111M

# input interface module - 9.5 mm - electromechanical - 230/240 V AC - 1 NC





#### 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                | 230240 V                                      |
| Control circuit type                        | AC  |
| Control circuit frequency                   | 50/60 Hz                                      |
| Width pitch dimension                       | 9.5 mm  |
| Maximum [In] rated current                  | 0.015 A                                       |
| Short-circuit protection                    | 2 A external fuse type fast blow              |
| [Ith] conventional free air thermal current | 1 A conforming to IEC 60947-1                 |
| Local signalling                            | Green LED for control signal state            |
| Quantity per set                            | Set of 5                                      |

#### Complementary

| Complementary                  |  |
|--------------------------------|--|
| Control circuit voltage limits | 264 V  |
| Connections - terminals        | Screw clamp terminal   |
| Operating threshold            | 186 V  |
| Drop-out voltage               | 48 V   |
| Holding current                | 2.5 mA   |
| Power dissipation in W         | 0.54 W 50 Hz<br>0.77 W 60 Hz   |
| Maximum switching voltage      | 125 V DC<br>140 V AC   |
| [Ue] rated operational voltage | <= 100 V DC conforming to IEC 60947-5-1 for built-in contacts <= 127 V AC conforming to IEC 60947-5-1 for 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<br>1 A DC-12 Ue: 24 V per 1000000 cycles conforming to IEC 60947-5-1<br>1 A DC-13 Ue: 24 V per 1000000 cycles conforming to IEC 60947-5-1<br>0.5 A AC-14 Ue: 127 V per 1000000 cycles conforming to IEC 60947-5-1<br>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                 | <= 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   |
| Contact bounce time            | <= 5 ms  |
| Operating rate in Hz           | 10 Hz at no-load<br>0.5 Hz at le   |
| Mechanical durability          | 20000000 cycles  |
| [Ui] rated insulation voltage  | 250 V conforming to VDE 0110 group C<br>300 V conforming to IEC 60947-1  |
| Flame retardance               | V0 conforming to UL 94   |
| Cable cross section            | 0.274 Mm², 1 wire rigid 0.342.5 Mm², 1 or 2 wires flexible with cable end 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      | Combination rail<br>Asymmetrical DIN rail<br>Symmetrical DIN rail |  |
| Product weight        | 0.036 kg  |  |

### Environment

| Immunity to microbreaks               | 10 ms  |
|---------------------------------------|--|
| Dielectric strength                   | 2000 V between coil circuit and contact circuits<br>2500 V between wired interface and earth<br>750 V between open contacts  |
| Standards                             | IEC 60947-5-1  |
| Product certifications                | UL<br>DNV<br>LROS (Lloyds register of shipping)<br>CSA<br>BV   |
| 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                  | 3 gn conforming to IEC 60068-2-6 (f = 10150 Hz)  |
| Electromagnetic compatibility         | 1.2/50 µs shock waves immunity test 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 | -2570 °C at Us<br>-540 °C unrestricted operation<br>-555 °C from 0.851.1 Us  |
| Ambient air temperature for storage   | -4080 °C   |
| Operating altitude                    | <= 3000 m  |
| Pollution degree                      | 2 conforming to IEC 60947-1  |

# Packing Units

| Unit Type of Package 1       | PCE     |  |
|------------------------------|---------|--|
| Number of Units in Package 1 | 1       |  |
| Package 1 Height             | 7 cm    |  |
| Package 1 Width              | 9 cm    |  |
| Package 1 Length             | 10.8 cm |  |
| Package 1 Weight             | 44 g    |  |
|                              |         |  |

### Offer Sustainability

| Sustainable offer status   | Green Premium product                                      |
|----------------------------|--|
| REACh Regulation           | ☑ REACh Declaration  |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) |
| Mercury free               | Yes  |
| China RoHS Regulation      | China RoHS Declaration                                     |
| RoHS exemption information | €Yes   |
| Environmental Disclosure   | Product Environmental Profile                              |

| WEEE                      | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins   |
|---------------------------|---|
| California proposition 65 | 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. For more information go to www.P65Warnings.ca.gov |
| Contractual warranty      |   |

18 months

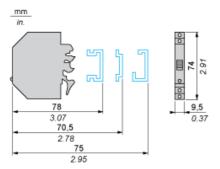
Warranty

# Product data sheet Dimensions Drawings

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#### Slim Electromechanical Interface Module

#### **Dimensions**

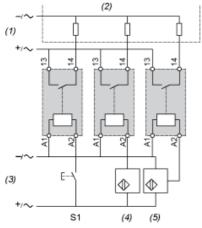


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#### Slim Electromechanical Interface Module

#### 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

1 N/O

