# Product data sheet
## Characteristics

# ABR1S618E
## output interface module - 17.5 mm - electromechanical - 48 V AC/DC - 1 NC + 1 NO

## Main

| | |
|---|---|
| Range of Product | Interface for discrete signals |
| Product or Component Type | Electromechanical output interface module |
| Contacts type and composition | 1 NC + 1 NO |
| [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) |
| Maximum [In] rated current | 32 MA AC<br>36 mA DC |
| Reverse polarity protection | With |
| Short-circuit protection | 16 A external fuse gF Ik <= 2.5 kA AC and Ik <= 100 A DC)<br>16 A external fuse gG Ik <= 2.5 kA AC and Ik <= 100 A DC) |
| [Ith] conventional free air thermal current | 12 A IEC 60947-1 |
| Local signalling | Green mechanical indicator for position of contacts 1<br>green LED control signal state |

## Complementary

| | |
|---|---|
| Control circuit voltage limits | 53 V 34 V |
| Maximum switching voltage | 125 V DC |
| Housing Colour | Grey |
| Connections - Terminals | Screw clamp terminal |
| Drop-out voltage | 8.5 V |
| Minimum holding current | 4.7 MA DC<br>5.4 mA AC |
| Maximum power dissipation in W | 1.5 W |
| [Ue] rated operational voltage | <= 125 V DC IEC 60947-5-1<br><= 230 V AC IEC 60947-5-1 |
| Network Frequency | 50/60 Hz |
| [Ie] rated operational current | 1 A AC-13 Ue: 230 V 1000000 cycles IEC 60947-5-1<br>1 A AC-14 Ue: 230 V 1000000 cycles IEC 60947-5-1<br>1 A AC-15 Ue: 230 V 1000000 cycles IEC 60947-5-1<br>1 A DC-13 Ue: 24 V 1000000 cycles IEC 60947-5-1<br>4 A AC-12 Ue: 230 V 1000000 cycles IEC 60947-5-1<br>5 A DC-12 Ue: 24 V 1000000 cycles 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<br><= 12 ms between de-energisation of coil and closing of NO contact<br><= 12 ms between energisation of coil and closing of NC contact<br><= 12 ms between energisation of coil and closing of NO contact |
| Contact bounce time | <= 3 ms |
| Overlap time | 1 ms |
| Operating rate in Hz | 6 Hz at no-load<br>0.5 Hz at Ie |
| Mechanical durability | 10000000 cycles |

| | |
|---|---|
| [Ui] rated insulation voltage | 250 V IEC 60947-1<br>250 V VDE 0110 group C |
| Flame retardance | V0 conforming to UL 94 |
| Cable cross section | 0.00…0.00 In² (0.34…2.5 mm²), 1 or 2 wires flexible with cable end<br>0.00…0.00 In² (0.6…2.5 mm²), 1 or 2 wires flexible without cable end<br>0.00…0.00 In² (0.27…2.5 mm²), 2 wires rigid<br>0.00…0.01 in² (0.27…4 mm²), 1 wire rigid |
| Operating position | Any position |
| Installation category | II IEC 60947-1 |
| Mounting Support | Symmetrical DIN rail<br>Combination rail<br>Asymmetrical DIN rail |
| Net Weight | 0.21 lb(US) (0.095 kg) |

## Environment

| | |
|---|---|
| Immunity to microbreaks | 10 ms |
| Dielectric strength | 1500 V for 1 minute between independent contacts<br>2500 V for 1 minute between wired interface and earth<br>4000 V for 1 minute between coil circuit and contact circuits |
| Standards | IEC 60947-5-1 |
| Product Certifications | CSA<br>UL<br>LROS (Lloyds register of shipping)<br>DNV<br>BV |
| IP degree of protection | IP20 conforming to IEC 60529 |
| Protective treatment | TC |
| Fire resistance | 1562 °F (850 °C) IEC 60695-2-1 |
| Shock resistance | 50 gn 11 ms IEC 60068-2-27 |
| Vibration resistance | 6 gn 10…55 Hz)IEC 60068-2-6 |
| Electromagnetic compatibility | 1.2/50 ms shock waves immunity test IEC 255-4<br>Electrostatic discharge immunity test, level 3 8 kV IEC 61000-4-2<br>Rapid transients immunity test on input/output 1 kV IEC 61000-4-4<br>Rapid transients immunity test on power supply 2 kV IEC 61000-4-4 |
| Ambient Air Temperature for Operation | -4…140 °F (-20…60 °C) at Un<br>23…104 °F (-5…40 °C) unrestricted operation |
| Ambient Air Temperature for Storage | -40…158 °F (-40…70 °C) |
| Operating altitude | <= 9842.52 ft (3000 m) |
| Pollution degree | 3 IEC 60947-5-1 |

## Ordering and shipping details

| | |
|---|---|
| Category | 22375 - INTERFACE MODULE(ABA,R,S) |
| Discount Schedule | CP2 |
| GTIN | 3389110569773 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 3.46 oz (98 g) |
| Returnability | No |
| Country of origin | FR |

## Packing Units

| | |
|---|---|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 0.79 in (2 cm) |
| Package 1 width | 2.76 in (7 cm) |
| Package 1 Length | 3.07 in (7.8 cm) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 50 |
| Package 2 Weight | 11.74 lb(US) (5.327 kg) |
| Package 2 Height | 5.91 in (15 cm) |
| Package 2 width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |

## Offer Sustainability

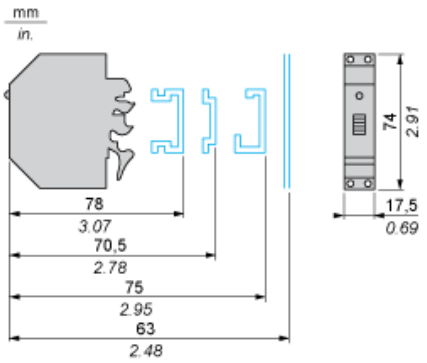
| | |
|---|---|
| Sustainable offer status | Green Premium product |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Nickel compounds, which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |
| REACh Regulation | REACh Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS Declaration |
| 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. |

## Contractual warranty

| | |
|---|---|
| Warranty | 18 months |

## Electromechanical Interface Module

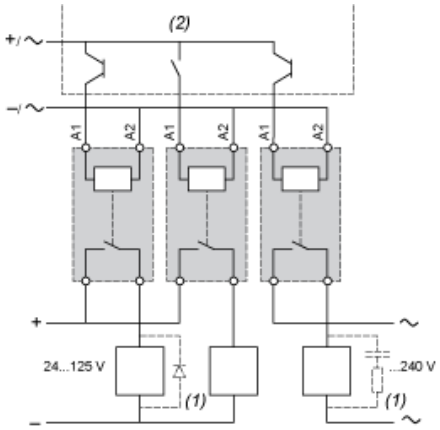
### Dimensions



## Electromechanical Interface Module

### Example of Application with PLC

Interfacing PLC discrete outputs

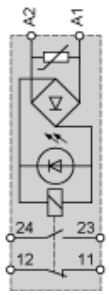



(1) Essential on inductive loads (can be replaced with peak limiter)
(2) PLC positive logic transistor (or relay) outputs

## Interface with Mechanical Indication + LED

### Circuit Diagram

1 N/C + 1 N/O

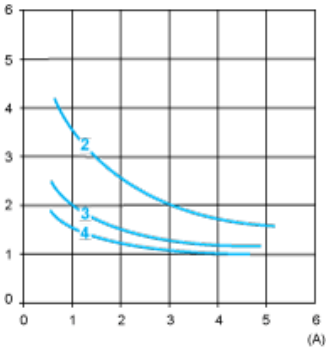


## Electrical Durability of Contacts

### AC Loads

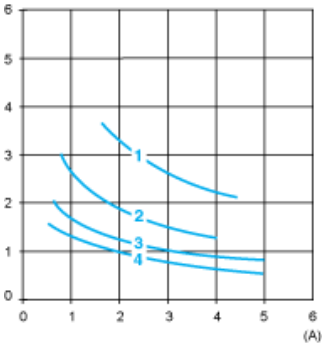
Test conditions: in accordance with standard IEC 947-5-1 set up for rated control voltage, operating rate: 1800 cycles/hour. (0.5 Hz).

AC-12 operating cycles in millions



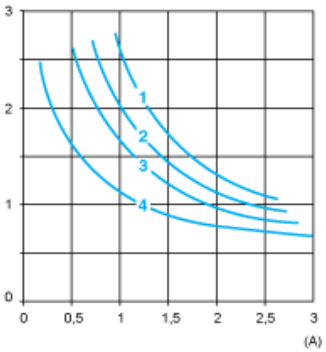

AC-12 Control of resistive loads and isolated solid state loads via optocoupler (cos ϕ ≥ 0.9)
(1) 24 V
(2) 48 V
(3) 127 V
(4) 230 V

AC-13 operating cycles in millions




AC-13 Control of isolated solid state loads via transformer (cos ϕ ≥ 0.65)
(1) 24 V
(2) 48 V
(3) 127 V
(4) 230 V

AC-14 and AC-15 operating cycles in millions

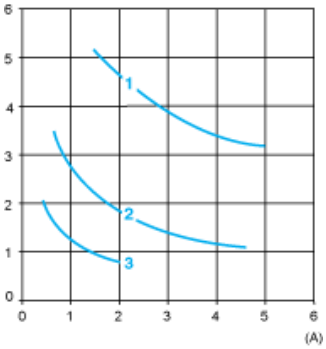



AC-14 Control of weak electromagnetic loads of electromagnets ≤ 72 VA (make: cos ϕ = 0.3, break: cos ϕ = 0.3)
AC-15 Control of electromagnetic loads of electromagnets > 72 VA (make: cos ϕ = 0.7, break: cos ϕ =0.4)
(1) 24 V
(2) 48 V
(3) 127 V
(4) 230 V

## DC Loads

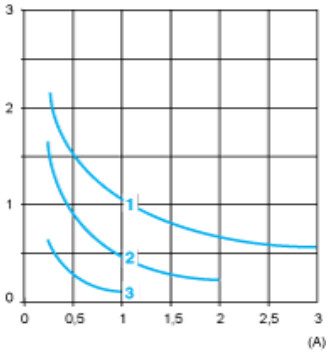
Test conditions: in accordance with standard IEC 947-5-1 set up for rated control voltage, operating rate: 1800 cycles/hour. (0.5 Hz).

DC-12 operating cycles in millions




DC-12: Control of resistive loads and isolated solid state loads via optocoupler (L/R ≤ 1 ms)
(1) 24 V
(2) 48 V
(3) 127 V

DC-13 operating cycles in millions




DC-13: Control of electromagnets (L/R ≤ 2 x (Ue x Ie) in ms, with Ue: rated operating voltage and Ie: rated operating current)
(1) 24 V
(2) 48 V
(3) 127 V

# Mouser Electronics

Authorized Distributor

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ABR1S618E