

Product data sheet

Characteristics

ABR2EB312B

input interface module - 9.5 mm -
electromechanical - 24 V DC - 1 C/O low-level



Main

Range of product	Interface for discrete signals
Product or component type	Slim electromechanical input interface module
Product specific application	For very low level switching
Contacts type and composition	1 C/O
[Uc] control circuit voltage	24 V
Control circuit type	DC
Width pitch dimension	17.5 mm
Maximum [In] rated current	0.023 A
Reverse polarity protection	Control circuit: internal
Short-circuit protection	0.4 A external fuse type fast blow
[Ith] conventional free air thermal current	0.05 A conforming to IEC 60947-1
Local signalling	Green LED for control signal state

Complementary

Control circuit voltage limits	28.8 V
Connections - terminals	Screw clamp terminal
Operating threshold	16.9 V
Drop-out voltage	3.8 V
Holding current	2 mA
Power dissipation in W	0.55 W
Maximum switching voltage	60 V AC 60 V DC
[Ue] rated operational voltage	<= 48 V AC conforming to IEC 60947-5-1 for built-in contacts <= 48 V DC conforming to IEC 60947-5-1 for built-in contacts
Network frequency	50/60 Hz
Minimum switching current	0.01 mA
Minimum switching voltage	0.01 V
Electrical reliability	1e-008
Operating time	<= 6 ms between de-energisation of coil and closing of NO contact DC <= 6 ms between energisation of coil and closing of NO contact DC <= 6 ms between de-energisation of coil and closing of NC contact <= 6 ms between energisation of coil and closing of NC contact
Contact bounce time	<= 2 ms
Non-overlap time	2 Ms de-energisation 5 ms energisation
Operating rate in Hz	10 Hz at no-load
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	0.27...4 Mm ² , 1 wire rigid 0.34...2.5 Mm ² , 1 or 2 wires flexible with cable end 0.6...2.5 mm ² , 1 or 2 wires flexible without cable end
Operating position	Any position

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Installation category	II conforming to IEC 60947-1
Mounting support	Symmetrical DIN rail Asymmetrical DIN rail Combination rail
Net weight	0.048 kg

Environment

Immunity to microbreaks	1 ms
Dielectric strength	1000 V between open contacts 1500 V between coil circuit and contact circuits 2500 V between wired interface and earth
Standards	IEC 60947-5-1
Product certifications	LROS (Lloyds register of shipping) CSA BV DNV UL
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 = 10...150 Hz)
Electromagnetic compatibility	1.2/50 μ s shock waves immunity test conforming to IEC 947-1 Electromagnetic field immunity test, level 3 10 V/m between 27...1000 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	-25...70 °C at Us -5...40 °C unrestricted operation -5...55 °C from 0.85...1.1 Us
Ambient air temperature for storage	-40...80 °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 Weight	54 g
Package 1 Height	7.5 cm
Package 1 width	8 cm
Package 1 Length	10.8 cm
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Weight	270 g
Package 2 Height	7.5 cm
Package 2 width	8 cm
Package 2 Length	10.8 cm
Unit Type of Package 3	S01
Number of Units in Package 3	25
Package 3 Weight	1.596 kg
Package 3 Height	15 cm
Package 3 width	15 cm
Package 3 Length	40 cm

Offer Sustainability

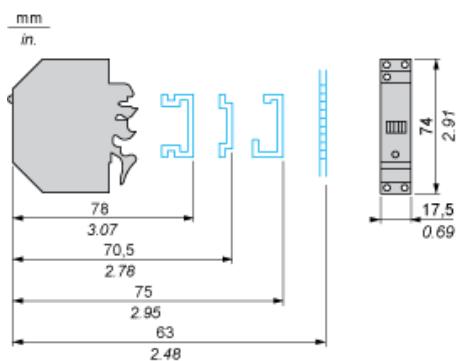
Sustainable offer status	Green Premium product
REACH Regulation	<input checked="" type="checkbox"/> REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <input checked="" type="checkbox"/> EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	<input checked="" type="checkbox"/> Yes
China RoHS Regulation	<input checked="" type="checkbox"/> China RoHS Declaration
Environmental Disclosure	<input checked="" type="checkbox"/> 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
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Slim Electromechanical Interface Module

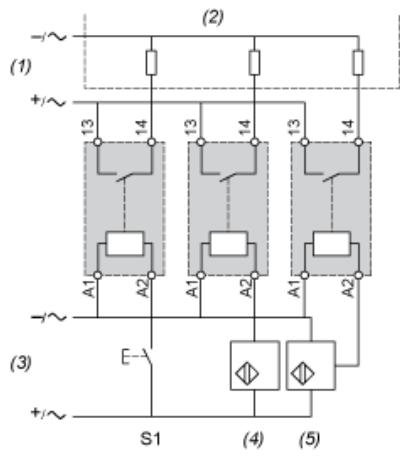
Dimensions



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

1 C/O

