

# Product datasheet

Specifications



## Interface plug in relay with socket, Harmony, 16A, 1CO, 24V DC

RSB1A160BDS

 **Discontinued on:** Jan 31, 2023

 **Discontinued**

### Main

Range Of Product	Harmony Electromechanical Relays
Series Name	Interface relay
Product Or Component Type	Plug-in relay
Device Short Name	RSB
Contacts Type And Composition	1 C/O
Contact Operation	Standard
[Uc] Control Circuit Voltage	24 V DC
[Ithe] Conventional Enclosed Thermal Current	16 A at -40...40 °C
Status Led	Without
Control Type	Without push-button

### Complementary

Shape Of Pin	Flat
Average Coil Resistance	1440 Ohm network: DC at 20 °C +/- 10 %
[Ue] Rated Operational Voltage	19.2...26.4 V DC
[Ui] Rated Insulation Voltage	400 V conforming to EN/IEC 60947
[Uimp] Rated Impulse Withstand Voltage	3.6 kV conforming to IEC 61000-4-5
Contacts Material	Silver alloy (Ag/Ni)
[Ie] Rated Operational Current	16 A (AC-1/DC-1) NO conforming to IEC 8 A (AC-1/DC-1) NC conforming to IEC
Minimum Switching Current	5 mA
Maximum Switching Voltage	300 V DC 400 V AC
Minimum Switching Voltage	5 V
Maximum Switching Capacity	4000 VA AC 448 W DC
Resistive Rated Load	16 A at 250 V AC 16 A at 28 V DC
Minimum Switching Capacity	300 mW at 5 mA
Operating Rate	<= 600 cycles/hour under load <= 72000 cycles/hour no-load
Mechanical Durability	30000000 cycles

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Electrical Durability	100000 cycles, 16 A at 250 V, AC-1 NO 100000 cycles, 8 A at 250 V, AC-1 NC
Operating Time	4 ms between coil de-energisation and making of the Off-delay contact 9 ms between coil energisation and making of the On-delay contact
Marking	CE
Average Coil Consumption	0.45 W DC
Drop-Out Voltage Threshold	>= 0.1 U <sub>c</sub> DC
Safety Reliability Data	B10d = 100000
Protection Category	RT I
Operating Position	Any position
Sale Per Indivisible Quantity	10
Device Presentation	Complete product

## Environment

Dielectric Strength	1000 V AC between contacts 2500 V AC between poles 5000 V AC between coil and contact
Standards	EN/IEC 61810-1 CSA C22.2 No 14 UL 508
Product Certifications	CSA GOST UL
Ambient Air Temperature For Storage	-40...85 °C
Vibration Resistance	+/- 1 mm (f= 10...55 Hz) conforming to EN/IEC 60068-2-6
Ip Degree Of Protection	IP40 conforming to EN/IEC 60529
Shock Resistance	10 gn (duration = 11 ms) for not operating conforming to EN/IEC 60068-2-27 5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27
Ambient Air Temperature For Operation	-40...70 °C (AC) -40...85 °C (DC)

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	8 cm
Package 1 Width	10 cm
Package 1 Length	34 cm
Package 1 Weight	65 g
Unit Type Of Package 2	BB1
Number Of Units In Package 2	20
Package 2 Height	7.5 cm
Package 2 Width	10.3 cm
Package 2 Length	34 cm
Package 2 Weight	1.31 kg
Unit Type Of Package 3	S02
Number Of Units In Package 3	60

Package 3 Height	15 cm
Package 3 Width	30 cm
Package 3 Length	40 cm
Package 3 Weight	4 kg

## Contractual warranty

Warranty	18 months
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency

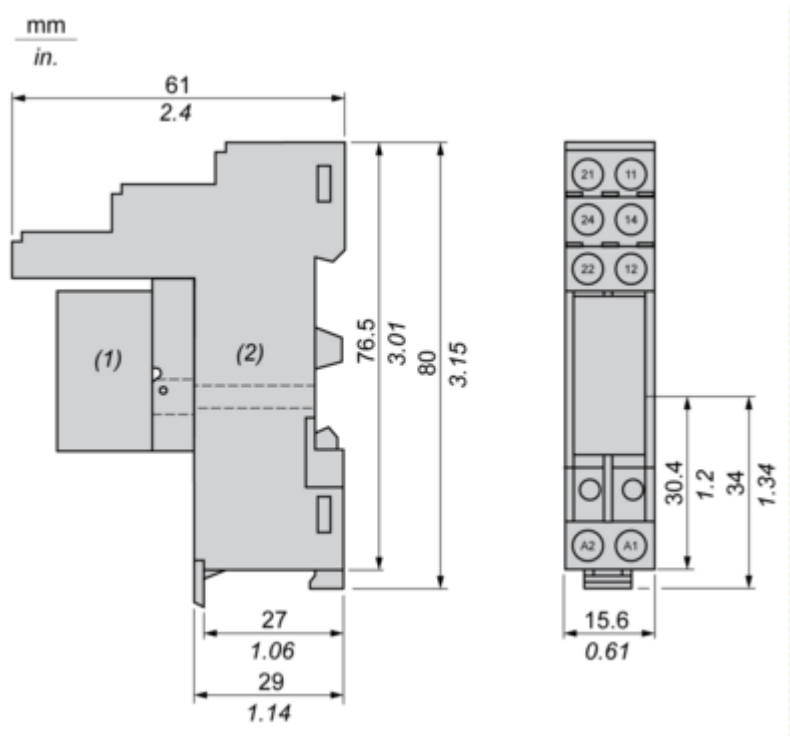
## Well-being performance

✓ Toxic Heavy Metal Free	
✓ Mercury Free	
✓ Rohs Exemption Information	Yes
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

Dimensions

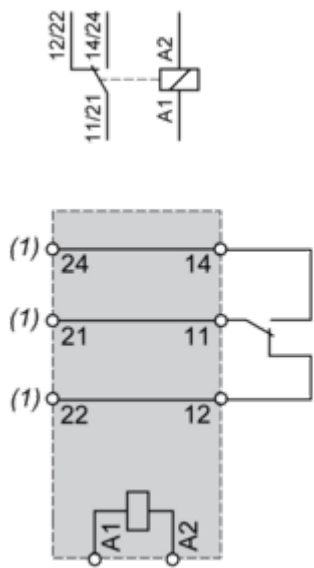
Relay Complete with Socket



- (1) Relays
- (2) Socket

Connections and Schema

Wiring Diagram



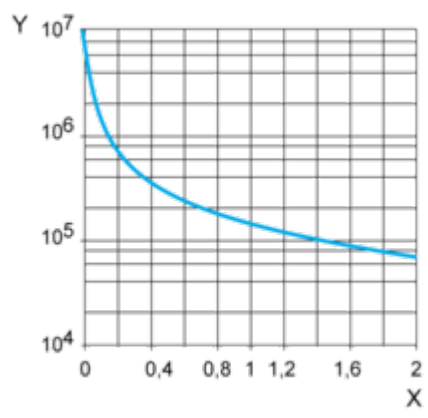
(1) Terminals 11 and 21, 14 and 24, 12 and 22 must be linked for this references

**NOTE:** For DC input, A1 have to be +, otherwise it would short circuit from protection module

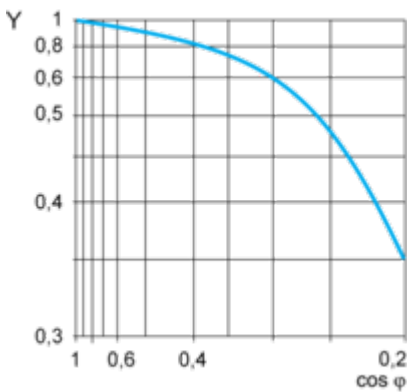
Performance Curves

Electrical Durability of Contacts

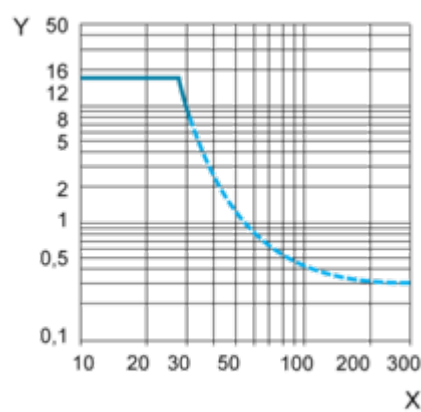
Durability (inductive load) = durability (resistive load) x reduction coefficient.  
Resistive AC load



X Switching capacity (kVA)  
Y Durability (Number of operating cycles)  
Reduction coefficient for inductive AC load (depending on power factor cos φ)



Y Reduction coefficient (A)  
Maximum switching capacity on resistive DC load



X Voltage DC  
Y Current DC  
**Note** : These are typical curves, actual durability depends on load, environment, duty cycle, etc.

