



# Interface plug in relay, Harmony, 8A, 2CO, 24V DC

RSB2A080BD

#### 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	2 C/O
Contact operation	Standard
[Uc] control circuit voltage	24 V DC
[Ithe] conventional enclosed thermal current	8 A at -4040 °C
Status LED	Without
Control type	Without push-button

### Complementary

Shape of pin	Flat (PCB type)
Average coil resistance	1440 Ohm network: DC at 20 °C +/- 10 %
[Ue] rated operational voltage	16.836 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 (AgNi)
[le] rated operational current	4 A (AC-1/DC-1) NC conforming to IEC 8 A (AC-1/DC-1) NO conforming to IEC
Minimum switching current	10 mA
Maximum switching voltage	300 V DC conforming to IEC
Minimum switching voltage	12 V
Maximum switching capacity	2000 VA/224 W
Resistive rated load	8 A at 250 V AC 8 A at 28 V DC
Minimum switching capacity	120 mW at 10 mA, 12 V
Operating rate	<= 600 cycles/hour under load <= 18000 cycles/hour no-load
Mechanical durability	30000000 cycles

Electrical durability	100000 cycles, 8 A at 250 V, AC-1 NO 100000 cycles, 4 A at 250 V, AC-1 NC
Operating time	20 ms operating 20 ms reset
Marking	CE
Average coil consumption	0.45 W DC
Drop-out voltage threshold	>= 0.1 Uc DC
Safety reliability data	B10d = 100000
Protection category	RTI
Test levels	Level A group mounting
Operating position	Any position
Net weight	0.014 kg
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	UL 508 CSA C22.2 No 14 EN/IEC 61810-1
Product certifications	UL CSA EAC
Ambient air temperature for	-4085 °C
storage	
Vibration resistance	+/- 1 mm (f= 1055 Hz) conforming to EN/IEC 60068-2-6
	+/- 1 mm (f= 1055 Hz) conforming to EN/IEC 60068-2-6  IP40 conforming to EN/IEC 60529
Vibration resistance	
Vibration resistance  IP degree of protection	IP40 conforming to EN/IEC 60529  10 gn (duration = 11 ms) for not operating conforming to EN/IEC 60068-2-27
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation	IP40 conforming to EN/IEC 60529  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
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for	IP40 conforming to EN/IEC 60529  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
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation  Packing Units	IP40 conforming to EN/IEC 60529  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  -4085 °C (DC)
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation  Packing Units  Unit Type of Package 1	IP40 conforming to EN/IEC 60529  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  -4085 °C (DC)  PCE
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1	IP40 conforming to EN/IEC 60529  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  -4085 °C (DC)  PCE  1
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Height	IP40 conforming to EN/IEC 60529  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  -4085 °C (DC)  PCE  1 1.800 cm
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Height  Package 1 Width	IP40 conforming to EN/IEC 60529  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  -4085 °C (DC)  PCE  1  1.800 cm  2.100 cm
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Height  Package 1 Width  Package 1 Length	IP40 conforming to EN/IEC 60529  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  -4085 °C (DC)  PCE  1 1.800 cm 2.100 cm
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Height  Package 1 Width  Package 1 Length  Package 1 Weight	IP40 conforming to EN/IEC 60529  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  -4085 °C (DC)  PCE  1 1.800 cm 2.100 cm 3.000 cm
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Height  Package 1 Width  Package 1 Length  Package 1 Weight  Unit Type of Package 2	IP40 conforming to EN/IEC 60529  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  -4085 °C (DC)  PCE  1 1.800 cm 2.100 cm 3.000 cm 13.000 g  BB1
Vibration resistance  IP degree of protection  Shock resistance  Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Height  Package 1 Width  Package 1 Weight  Unit Type of Package 2  Number of Units in Package 2	IP40 conforming to EN/IEC 60529  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  -4085 °C (DC)  PCE  1 1.800 cm 2.100 cm 3.000 cm 13.000 g  BB1
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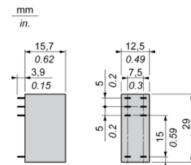
Package 3 Height	15.000 cm
Package 3 Width	15.000 cm
Package 3 Length	40.000 cm
Package 3 Weight	5.312 kg
Offer Sustainability	
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
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: 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

# **Contractual warranty**

Warranty 18 months

**Dimensions Drawings** 

#### **Dimensions**

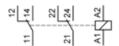


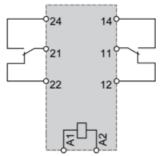
## **Product data sheet**

## RSB2A080BD

Connections and Schema

## Wiring Diagram





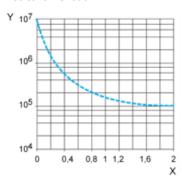
NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

**Performance Curves** 

#### **Electrical Durability of Contacts**

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

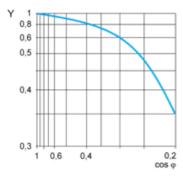
Resistive AC load



X Switching capacity (kVA)

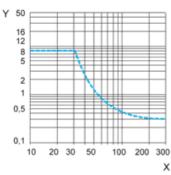
Y Durability (Number of operating cycles)

Reduction coefficient for inductive AC load (depending on power factor  $\cos \phi$ )



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.

## Recommended replacement(s)