



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

Local distributor code: 389836351 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 storage	-4085 °C		
Vibration resistance	+/- 1 mm (f= 1055 Hz) conforming to EN/IEC 60068-2-6		
IP degree of protection	IP40 conforming to EN/IEC 60529		
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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		
Shock resistance  Ambient air temperature for operation			
Ambient air temperature for operation	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27		
Ambient air temperature for	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27		
Ambient air temperature for operation  Packing Units	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27 -4085 °C (DC)		
Ambient air temperature for operation  Packing Units Unit Type of Package 1	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27 -4085 °C (DC)  PCE		
Ambient air temperature for operation  Packing Units Unit Type of Package 1  Number of Units in Package 1	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1		
Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1  16.0 g		
Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1  16.0 g  2.1 cm		
Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height  Package 1 width	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1  16.0 g  2.1 cm  2.5 cm		
Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height  Package 1 width  Package 1 Length	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1  16.0 g  2.1 cm  2.5 cm  31.1 cm		
Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height  Package 1 width  Package 1 Length  Unit Type of Package 2	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1  16.0 g  2.1 cm  2.5 cm  31.1 cm  BB1		
Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height  Package 1 width  Package 1 Length  Unit Type of Package 2  Number of Units in Package 2	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1  16.0 g  2.1 cm  2.5 cm  31.1 cm  BB1		
Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height  Package 1 Length  Unit Type of Package 2  Number of Units in Package 2  Package 2 Weight	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1  16.0 g  2.1 cm  2.5 cm  31.1 cm  BB1  10  157.0 g		
Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height  Package 1 Length  Unit Type of Package 2  Number of Units in Package 2  Package 2 Weight  Package 2 Height	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1  16.0 g  2.1 cm  31.1 cm  BB1  10  157.0 g  2.1 cm		
Ambient air temperature for operation  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Weight  Package 1 Height  Package 1 Length  Unit Type of Package 2  Number of Units in Package 2  Package 2 Weight  Package 2 Height  Package 2 width	5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27  -4085 °C (DC)  PCE  1  16.0 g  2.1 cm  2.5 cm  31.1 cm  BB1  10  157.0 g  2.1 cm  2.5 cm		

Package 3 Weight	194.9 kg	
Package 3 Height	77 cm	
Package 3 width	80 cm	
Package 3 Length	60 cm	
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	
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**

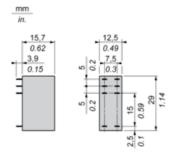
Warranty	18 months	
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# **Product datasheet**

# RSB2A080BD

**Dimensions Drawings** 

#### **Dimensions**



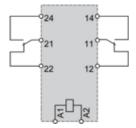
## **Product datasheet**

## RSB2A080BD

Connections and Schema

## Wiring Diagram





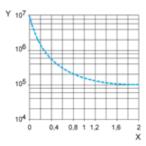
NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

**Performance Curves** 

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

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

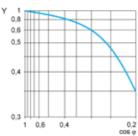
Resistive AC load



X Switching capacity (kVA)

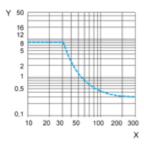
Y Durability (Number of operating cycles)

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

 $\textbf{Note}: \ \ \text{These are typical curves, actual durability depends on load, environment, duty cycle, etc.}$