



### Main

Range of product	Harmony Relay
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	48 V AC
[Ithe] conventional enclosed thermal current	16 A at -40...40 °C
Status LED	Without
Control type	Without push-button

### Complementary

Shape of pin	Flat (PCB type)
Average coil resistance	1540 Ohm network: AC at 20 °C +/- 10 %
[Ue] rated operational voltage	38.4...72 V AC 50/60 Hz
[Ui] rated insulation voltage	400 V conforming to EN/IEC 60947
[Uimp] rated impulse withstand voltage	IEC 61000-4-5 3.6 kV
Contacts material	Silver alloy (AgNi)
[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	10 mA
Maximum switching voltage	250 V DC conforming to IEC
Minimum switching voltage	12 V
Maximum switching capacity	4000 VA/448 W
Resistive rated load	16 A at 250 V AC 16 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	10000000 cycles
Electrical durability	100000 Cycles, 16 A at 250 V, AC-1 NO 100000 cycles, 8 A at 250 V, AC-1 NC
Operating time	20 ms operating 20 ms reset
Marking	CE
Average coil consumption	0.75 VA AC
Drop-out voltage threshold	>= 0.15 U <sub>c</sub> AC
Safety reliability data	B10d = 100000
Protection category	RT I
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	CSA C22.2 No 14 EN/IEC 61810-1 UL 508
Product certifications	UL EAC CSA
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)

## Packing Units

Package 1 Weight	0.014 kg
Package 1 Height	0.170 dm
Package 1 width	3.330 dm
Package 1 Length	0.270 dm

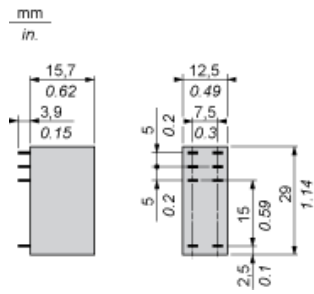
## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</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

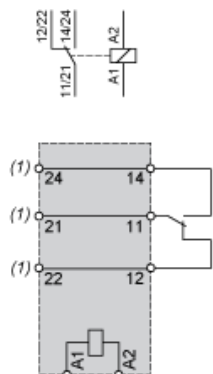
## Contractual warranty

Warranty	18 months
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Dimensions



## Wiring Diagram



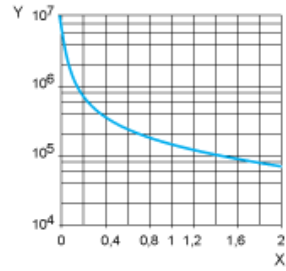
(1) Terminals 11 and 21, 14 and 24, 12 and 22 must be linked for this references

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

Electrical Durability of Contacts

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

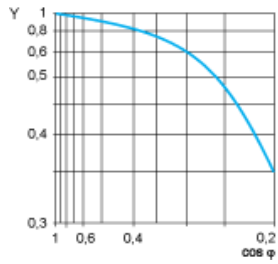
Resistive AC load



X Switching capacity (kVA)

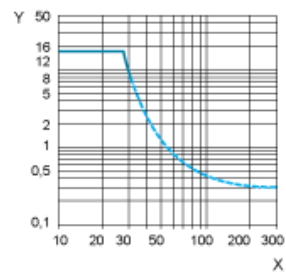
Y Durability (Number of operating cycles)

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.