



# miniature plug-in relay - Zelio RXM2L - 4 C/O - 24 V AC - 3 A - with LED

RXM4LB2B7

#### Main

Range of product	Harmony Electromechanical Relays
Series name	Miniature
Product or component type	Plug-in relay
Device short name	RXM
Coil interference suppression	Without
Utilisation coefficient	20 %
Sale per indivisible quantity	10

#### Complementary

Complementary	
Contacts type and composition	4 C/O
Contact operation	Standard
[Uc] control circuit voltage	24 V AC 50/60 Hz
[Ithe] conventional enclosed thermal current	3 A at -4055 °C
Status LED	With
Control type	Without push-button
[Ui] rated insulation voltage	250 V conforming to IEC
[Uimp] rated impulse withstand voltage	2.5 kV during 1.2/50 µs conforming to IEC 61810-7
Contacts material	Silver alloy (Ag/Ni)
[le] rated operational current	3 A (AC-1/DC-1) NO conforming to IEC 1.5 A (AC-1/DC-1) NC conforming to IEC
Minimum switching current	10 mA
Maximum switching voltage	250 V AC 28 V DC
Minimum switching voltage	17 V
Load current	3 A at 250 V AC 3 A at 28 V DC
Maximum switching capacity	750 VA AC 84 W DC
Minimum switching capacity	170 mW
Operating rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load

Mechanical durability	10000000 cycles
Electrical durability	100000 cycles for resistive load
Average coil consumption in VA	1.2 AC
Drop-out voltage threshold	>= 0.15 Uc AC
Operating time	20 ms between coil de-energisation and making of the Off-delay contact 20 ms between coil energisation and making of the On-delay contact
Average resistance	180 Ohm at 23 °C +/- 10 %
Rated operational voltage limits	19.226.4 V AC
Protection category	RTI
Test levels	Level A group mounting
Operating position	Any position
CAD overall width	21 mm
CAD overall height	27 mm
CAD overall depth	46 mm
Net weight	0.035 kg
Dielectric strength	2000 V AC between coil and contact with basic insulation 2000 V AC between poles with basic insulation 1000 V AC between contacts with micro disconnection
Safety reliability data	B10d = 100000
Environment	
Standards	IEC 61810-1 (iss. 2) CE
Ambient air temperature for storage	-4085 °C
	-4055 °C
Ambient air temperature for operation	
· ·	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6
operation	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6
Vibration resistance	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6
Vibration resistance  IP degree of protection	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529
Vibration resistance  IP degree of protection  Pollution degree	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27
Operation  Vibration resistance  IP degree of protection  Pollution degree  Shock resistance	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27
Vibration resistance  IP degree of protection  Pollution degree  Shock resistance  Packing Units	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27 10 gn for in operation conforming to IEC 60068-2-27
Vibration resistance  IP degree of protection  Pollution degree  Shock resistance  Packing Units  Unit Type of Package 1	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27 10 gn for in operation conforming to IEC 60068-2-27
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Operation  Vibration resistance  IP degree of protection  Pollution degree  Shock resistance  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Height	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27 10 gn for in operation conforming to IEC 60068-2-27  PCE  1  2.1 cm
Operation  Vibration resistance  IP degree of protection  Pollution degree  Shock resistance  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Height  Package 1 Width	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27 10 gn for in operation conforming to IEC 60068-2-27  PCE  1  2.1 cm  2.8 cm
Operation  Vibration resistance  IP degree of protection  Pollution degree  Shock resistance  Packing Units  Unit Type of Package 1  Number of Units in Package 1  Package 1 Height  Package 1 Width  Package 1 Length	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27 10 gn for in operation conforming to IEC 60068-2-27  PCE  1  2.1 cm  2.8 cm  4.1 cm
Operation  Vibration resistance  IP degree of protection  Pollution degree  Shock resistance  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	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27 10 gn for in operation conforming to IEC 60068-2-27  PCE  1  2.1 cm  2.8 cm  4.1 cm  37 g
Vibration resistance  IP degree of protection  Pollution degree  Shock resistance  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	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27 10 gn for in operation conforming to IEC 60068-2-27  PCE  1  2.1 cm  2.8 cm  4.1 cm  37 g  CAR
Vibration resistance  IP degree of protection  Pollution degree  Shock resistance  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	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27 10 gn for in operation conforming to IEC 60068-2-27  PCE  1  2.1 cm  2.8 cm  4.1 cm  37 g  CAR
Operation  Vibration resistance  IP degree of protection  Pollution degree  Shock resistance  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  Number of Units in Package 2  Package 2 Height	3 gn, amplitude = +/- 1 mm (f = 1050 Hz)operating conforming to IEC 60068-2-6 6 gn, amplitude = +/- 1 mm (f = 1050 Hz)not operating conforming to IEC 60068-2-6  IP40 conforming to IEC 60529  2  30 gn for not operating conforming to IEC 60068-2-27 10 gn for in operation conforming to IEC 60068-2-27  PCE  1  2.1 cm  2.8 cm  4.1 cm  37 g  CAR  10  3 cm

# Offer Sustainability

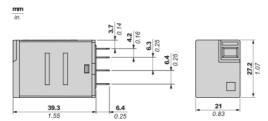
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

# **Contractual warranty**

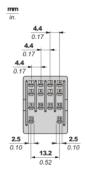
Warranty 18 months

**Dimensions Drawings** 

#### **Dimensions**



Pin Side View

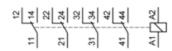


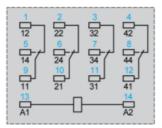
# **Product datasheet**

# RXM4LB2B7

Connections and Schema

## Wiring Diagram





Symbols shown in blue correspond to Nema marking.

## **Product datasheet**

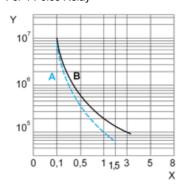
## RXM4LB2B7

Performance Curves

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

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

For 4 Poles Relay



X: Contact current (A)

Y: Durability (Number of operating cycles)

**A**: Inductive load **B**: Resistive load

Note: These are typical curves, actual durability depends on load, environment, duty cycle, etc.

For inductive load, to increase relay life cycles, please add a proper load protection circuit (eg: RC protection/Varistor/free Wheeling diode -DC load only- )

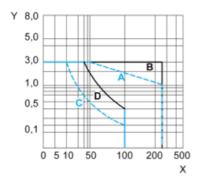
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**Performance Curves** 

#### **Maximum Switching Capacity**

#### For 4 Poles Relay



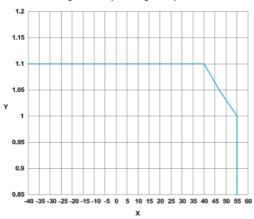
X : Contact voltage (v)
Y : Contact current (A)
A : Inductive AC load
B : Resistive AC load
C : Inductive DC load
D : Resistive DC load

Note: These are typical curves, actual durability depends on load, environment, duty cycle, etc.

For inductive load, to increase relay life cycles, please add a proper load protection circuit (eg: RC protection/Varistor/free Wheeling diode -DC load only- )

For low level loads (below 10mA), we recommend to use RXM\*GB series with bifurcated contacts relays instead.

AC Coil Voltage and Operating Temperature under continuous duty



 ${\bf X}$  : Operating temperature (°C)

Y: AC coil voltage (UC)

#### Recommended replacement(s)