# 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



# Miniature Plug-in relay - HARMONY RXM 4 C/O 48 V DC 6 A with LED

RXM4AB2ED

### Main

| Range of product                             | Harmony Electromechanical Relays |
|--|----------------------------------|
| Series name                                  | RXM series                       |
| Product or component type                    | Plug-in relay                    |
| Relay type                                   | Miniature relay                  |
| Contacts type and composition                | 4 C/O                            |
| Status LED                                   | With                             |
| Control type                                 | Lockable test button             |
| [Uc] control circuit voltage                 | 48 V DC                          |
| [Ithe] conventional enclosed thermal current | 6 A                              |
| Continuous output current                    | 5 A                              |

## Complementary

| Complementary                          |  |
|--|--|
| [Uimp] rated impulse withstand voltage | 2.5 kV during 1.2/50 μs  |
| [le] rated operational current         | 3 A at 28 V (DC) NC conforming to IEC 3 A at 250 V (AC) NC conforming to IEC 6 A at 28 V (DC) NO conforming to IEC 6 A at 250 V (AC) NO conforming to IEC 6 A at 277 V (AC) conforming to UL 8 A at 30 V (DC) conforming to UL |
| Minimum switching capacity             | 170 mW at 10 mA, 17 V  |
| Electrical durability                  | 100000 cycles for resistive load   |
| Rated operational voltage limits       | 38.452.8 V DC  |
| [Ui] rated insulation voltage          | 250 V conforming to IEC<br>300 V conforming to CSA<br>300 V conforming to UL   |
| Maximum switching voltage              | 250 V conforming to IEC  |
| Drop-out voltage threshold             | >= 0.1 Uc  |
| Load current                           | 6 A at 250 V AC<br>6 A at 28 V DC  |
| Operating time                         | 20 ms  |
| Maximum switching capacity             | 1500 VA/168 W  |
| Average resistance                     | 2560 Ohm at 20 °C +/- 10 %   |
| Average coil consumption               | 0.9 W  |
| Mechanical durability                  | 10000000 cycles  |
| Safety reliability data                | B10d = 100000  |

| Operating rate          | <= 1200 cycles/hour under load<br><= 18000 cycles/hour no-load   |  |
|-------------------------|--|--|
| Utilisation coefficient | 20 %   |  |
| CAD overall height      | 79 mm  |  |
| CAD overall depth       | 78.45 mm   |  |
| Reset time              | 20 ms  |  |
| Dielectric strength     | 1300 V AC between contacts with micro disconnection 2000 V AC between coil and contact with basic insulation 2000 V AC between poles with basic insulation |  |
| Compatibility code      | RXM  |  |
| Protection category     | RTI  |  |
| pollution degree        | 2  |  |
| Operating position      | Any position   |  |
| Test levels             | Level A group mounting   |  |
| Device presentation     | Complete product   |  |
| Contacts material       | AgNi   |  |
| Shape of pin            | Flat (faston type)   |  |
| Net weight              | 0.037 kg   |  |

### **Environment**

| Ambient air temperature for operation | -4055 °C   |  |
|---------------------------------------|--|--|
| IP degree of protection               | IP40 conforming to IEC 60529   |  |
| Standards                             | CSA C22.2 No 14<br>UL 508<br>IEC 61810-1   |  |
| Product certifications                | UL Lloyd's CE CSA GOST IECEE CB Scheme   |  |
| Ambient air temperature for storage   | -4085 °C   |  |
| Vibration resistance                  | 3 gn, amplitude = +/- 1 mm (f = 10150 Hz)5 cycles in operation 5 gn, amplitude = +/- 1 mm (f = 10150 Hz)5 cycles not operating |  |
| Shock resistance                      | 10 gn for in operation<br>30 gn for not operating  |  |

# **Packing Units**

| Unit Type of Package 1       | PCE      |
|------------------------------|----------|
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 2.100 cm |
| Package 1 Width              | 2.700 cm |
| Package 1 Length             | 4.800 cm |
| Package 1 Weight             | 35.000 g |
| Unit Type of Package 2       | BB1      |
| Number of Units in Package 2 | 10       |
| Package 2 Height             | 3.100 cm |

| Package 2 Width              | 10.300 cm |
|------------------------------|-----------|
| Package 2 Length             | 12.600 cm |
| Package 2 Weight             | 386.000 g |
| Unit Type of Package 3       | S02       |
| Number of Units in Package 3 | 240       |
| Package 3 Height             | 15.000 cm |
| Package 3 Width              | 30.000 cm |
| Package 3 Length             | 40.000 cm |
| Package 3 Weight             | 9.752 kg  |

# **Contractual warranty**

Warranty 12 months



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

### Environmental Data explained >

How we assess product sustainability >

| ☑ Environmental footprint                             |                               |
|---|-------------------------------|
| Carbon footprint (kg.eq.CO2 per CR, Total Life cycle) | 29                            |
| Environmental Disclosure                              | Product Environmental Profile |

### **Use Better**

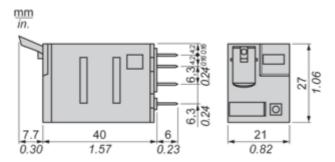
| Materials and Substances               |  |
|--|--|
| Packaging made with recycled cardboard | Yes  |
| Packaging without single use plastic   | Yes  |
| EU RoHS Directive                      | Pro-active compliance (Product out of EU RoHS legal scope) |
| REACh Regulation                       | REACh Declaration  |

### **Use Again**

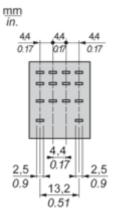
| ○ Repack and remanufacture |   |
|----------------------------|---|
| Circularity Profile        | End of Life Information   |
| Take-back                  | No  |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

### **Dimensions Drawings**

### **Dimensions**



Pin Side View

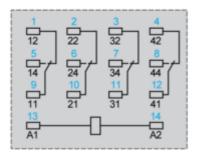


### RXM4AB2ED

Connections and Schema

### Wiring Diagram



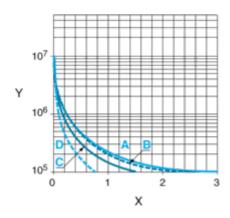


Symbols shown in blue correspond to Nema marking.

### 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)

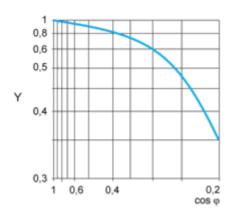
A RXM2AB ···

B RXM3AB\*\*\*

C RXM4AB•••

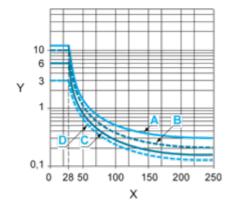
D RXM4GB\*\*\*

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

A RXM2AB\*\*\*

### **Product datasheet**

### RXM4AB2ED

B RXM3AB\*\*\*

C RXM4AB\*\*\*

D RXM4GB\*\*\*

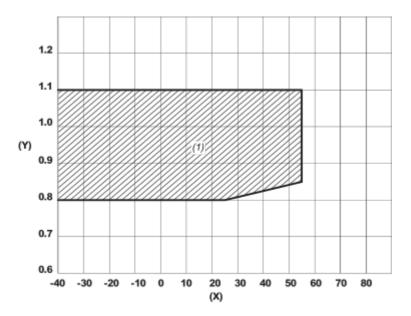
Note: These are typical curves, actual durability depends on load, environment, duty cycle, etc.

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.

### **Coil Operating Range**

### **DC Coil Operating Range VS Ambient Temperature**



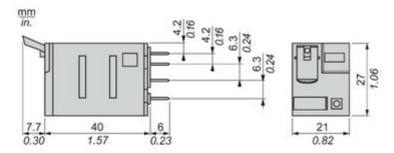
X : Ambient temperature (°C)

Y: AC coil voltage (U/Uc)

(1) Permitted operating range area

### **Technical Illustration**

### **Dimensions**



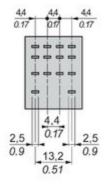


Image of product / Alternate images

### **Alternative**





