

# RXG13BDPV

Harmony, Interface plug-in relay pre-assembled, 10 A, 1 CO, with LED, with protection circuit, 24 V DC



## Main

|                               |                                         |
|-------------------------------|-----------------------------------------|
| Range of Product              | Harmony Electromechanical Relays        |
| Series name                   | Interface relay                         |
| Product or Component Type     | Pre-assembled plug-in relay with socket |
| Device short name             | RXG                                     |
| Contacts type and composition | 1 C/O                                   |

## Complementary

|                                                          |                                                                                                                                                                                                                                                |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Status LED                                               | With                                                                                                                                                                                                                                           |
| Contacts material                                        | Silver alloy (AgSnO <sub>2</sub> In <sub>2</sub> O <sub>3</sub> )                                                                                                                                                                              |
| Maximum contact resistance                               | 100 mOhm                                                                                                                                                                                                                                       |
| [I <sub>th</sub> ] conventional enclosed thermal current | 10 A                                                                                                                                                                                                                                           |
| [I <sub>e</sub> ] rated operational current              | 10 A 30 V DC) UL<br>10 A 30 V DC) IEC<br>10 A 250 V AC) IEC<br>10 A 250 V AC) UL                                                                                                                                                               |
| Maximum switching voltage                                | 250 V                                                                                                                                                                                                                                          |
| Load current                                             | 10 A                                                                                                                                                                                                                                           |
| Maximum switching capacity                               | 2500 VA AC<br>300 W DC                                                                                                                                                                                                                         |
| Minimum switching capacity                               | 500 mW at 100 mA, 5 V DC                                                                                                                                                                                                                       |
| Operating rate                                           | <= 1800 cycles/hour under load<br><= 18000 cycles/hour no-load                                                                                                                                                                                 |
| Utilisation coefficient                                  | 20 %                                                                                                                                                                                                                                           |
| Mechanical durability                                    | 10000000 cycles                                                                                                                                                                                                                                |
| Electrical durability                                    | 100000 cycles resistive                                                                                                                                                                                                                        |
| [U <sub>i</sub> ] rated insulation voltage               | 250 V IEC                                                                                                                                                                                                                                      |
| [U <sub>imp</sub> ] rated impulse withstand voltage      | 6 kV 1.2/50 µs between coil and contact<br>1.2 kV 1.2/50 µs between contacts<br>2.5 kV 1.2/50 µs between terminals and LTB area<br>1.5 kV 1.2/50 µs between terminals and base                                                                 |
| Dielectric strength                                      | 1000 V AC between contacts with micro disconnection<br>1300 V between terminals and base with basic insulation<br>3000 V between terminals and LTB area with basic insulation<br>5000 V AC between coil and contact with reinforced insulation |
| Coil resistance                                          | 1100 Ohm +/- 10 %                                                                                                                                                                                                                              |
| Insulation resistance                                    | 1000 MOhm at 500 V DC                                                                                                                                                                                                                          |
| Test levels                                              | Level A                                                                                                                                                                                                                                        |
| Mounting position                                        | Any position                                                                                                                                                                                                                                   |
| Average coil consumption                                 | 0.53 W DC                                                                                                                                                                                                                                      |
| Drop-out voltage threshold                               | >= 0.1 U <sub>c</sub> DC                                                                                                                                                                                                                       |
| Coil insulation class                                    | Class F                                                                                                                                                                                                                                        |
| Operate time                                             | 20 ms                                                                                                                                                                                                                                          |
| Release time                                             | 20 ms                                                                                                                                                                                                                                          |
| [U <sub>c</sub> ] control circuit voltage                | 24 V DC                                                                                                                                                                                                                                        |

|                         |                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety reliability data | B10d = 100000                                                                                                                                                                                                                                                                                                                                                    |
| Colour of cover         | Transparent                                                                                                                                                                                                                                                                                                                                                      |
| Torque Value            | 7.08 Lbf.in (0.8 N.m)<br>7.0 lbf.in (0.79 N.m)                                                                                                                                                                                                                                                                                                                   |
| Connections - terminals | Connector, 1 x 0.25...1 x 2.5 mm <sup>2</sup> AWG 22...AWG 14) flexible with cable end<br>Connector, 2 x 0.25...2 x 1 mm <sup>2</sup> AWG 22...AWG 17) flexible with cable end<br>Connector, 1 x 0.5...1 x 2.5 mm <sup>2</sup> AWG 20...AWG 14) solid without cable end<br>Connector, 2 x 0.5...2 x 1.5 mm <sup>2</sup> AWG 20...AWG 16) solid without cable end |
| Net Weight              | 0.13 lb(US) (0.058 kg)                                                                                                                                                                                                                                                                                                                                           |
| Device presentation     | Complete product                                                                                                                                                                                                                                                                                                                                                 |

## Environment

|                                       |                                                                                          |
|---------------------------------------|------------------------------------------------------------------------------------------|
| Vibration resistance                  | 3 gn +/- 1.5 mm 10...150 Hz)in operation<br>5 gn +/- 1.5 mm 10...150 Hz)not in operation |
| IP Degree of Protection               | IP20                                                                                     |
| Shock resistance                      | 20 gn in operation<br>100 gn not in operation                                            |
| Protection category                   | RT I                                                                                     |
| Standards                             | IEC 61810-1<br>CSA C22.2 No 14<br>UL 508<br>IEC 61984                                    |
| Product Certifications                | EAC<br>CSA<br>UL<br>CE                                                                   |
| Pollution degree                      | 2                                                                                        |
| Overvoltage category                  | III                                                                                      |
| Ambient Air Temperature for Storage   | -40...185 °F (-40...85 °C)                                                               |
| Ambient air temperature for operation | -40...158 °F (-40...70 °C)                                                               |
| Relative humidity                     | 10...85 %                                                                                |

## Ordering and shipping details

|                       |                               |
|-----------------------|-------------------------------|
| Category              | 21127 - ZELIO ICE CUBE RELAYS |
| Discount Schedule     | CP2                           |
| GTIN                  | 3606489562830                 |
| Nbr. of units in pkg. | 1                             |
| Package weight(Lbs)   | 2.05 oz (58 g)                |
| Returnability         | No                            |

## Packing Units

|                              |                          |
|------------------------------|--------------------------|
| Unit Type of Package 1       | PCE                      |
| Package 1 Height             | 3.13 in (7.96 cm)        |
| Package 1 width              | 0.61 in (1.56 cm)        |
| Package 1 Length             | 2.83 in (7.2 cm)         |
| Unit Type of Package 2       | BB1                      |
| Number of Units in Package 2 | 30                       |
| Package 2 Weight             | 4.23 lb(US) (1.918 kg)   |
| Package 2 Height             | 7.09 in (18 cm)          |
| Package 2 width              | 3.54 in (9 cm)           |
| Package 2 Length             | 10.63 in (27 cm)         |
| Unit Type of Package 3       | S03                      |
| Number of Units in Package 3 | 180                      |
| Package 3 Weight             | 26.53 lb(US) (12.035 kg) |
| Package 3 Height             | 11.81 in (30 cm)         |
| Package 3 width              | 11.81 in (30 cm)         |
| Package 3 Length             | 15.75 in (40 cm)         |

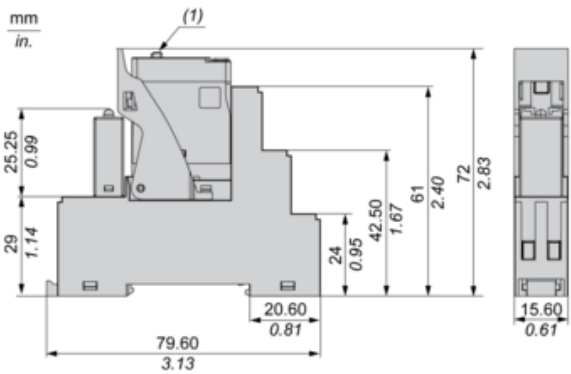
## Offer Sustainability

|                            |                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</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.                                                                                                                                                                                                                                           |

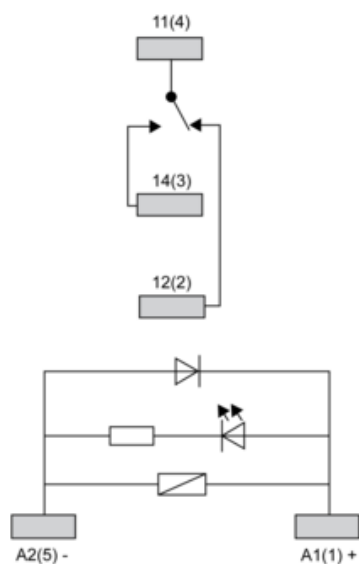
## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Dimensions



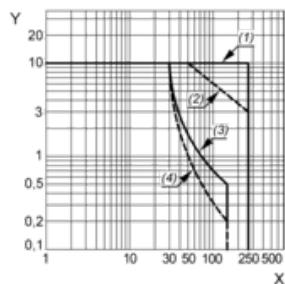
## Wiring Diagram



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

## Performance Curves

### Maximum Switching Capacity



X : Switching voltage (V)

Y : Switching current (A)

(1) AC Resistive Load

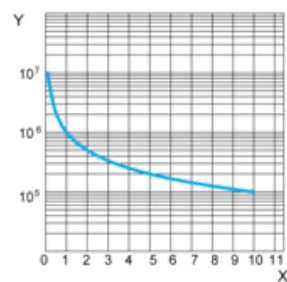
(2) AC Inductive Load  $\cos(\phi)=0.4$

(3) DC Resistive Load

(4) DC Inductive Load ( $L/R=7\text{ms}$ )

### Life Expectancy

Resistive Load

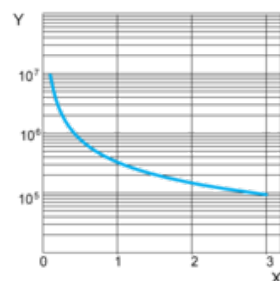


X : Contact Current (A)

Y : Operating Cycle Number

### Life Expectancy

Inductive Load



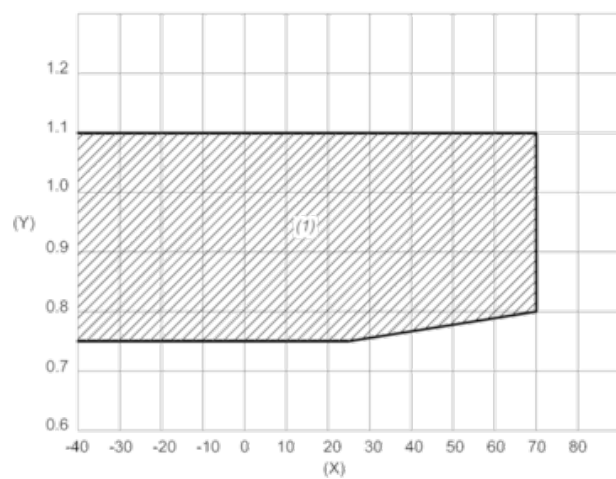
X : Contact Current (A)

Y : Operating Cycle Number

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

### Coil Operating Range

## DC Coil Operating Range VS Ambient Temperature



X : Ambient temperature (°C)

Y : Coil voltage (U/Uc)

(1) Permitted operating range area

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