

# Product datasheet

Specifications



## Universal plug-in relay, 10 A, 3 CO, 24 V DC

RUMC31BD

### Main

Range of product	Harmony Electromechanical Relays
Series name	Universal
Product or component type	Plug-in relay
Device short name	RUM
Contacts type and composition	3 C/O
[Uc] control circuit voltage	24 V DC
[Ithe] conventional enclosed thermal current	10 A at -40...55 °C
Status LED	Without
Control type	Lockable test button
Utilisation coefficient	20 %

### Complementary

Shape of pin	Cylindrical
[Uj] rated insulation voltage	250 V conforming to IEC 300 V conforming to CSA 300 V conforming to UL
[Uimp] rated impulse withstand voltage	4 kV (1.2/50 µs)
Contacts material	AgNi
[Ie] rated operational current	10 A at 277 V AC conforming to UL 10 A at 30 V DC conforming to UL 10 A at 277 V AC (same polarity) conforming to CSA 10 A at 30 V DC conforming to CSA 5 A at 250 V AC (NC) conforming to IEC 5 A at 28 V DC (NC) conforming to IEC 10 A at 250 V AC (NO) conforming to IEC 10 A at 28 V DC (NO) conforming to IEC
Maximum switching voltage	250 V conforming to IEC
Resistive rated load	10 A at 250 V AC 10 A at 28 V DC
Maximum switching capacity	2500 VA/280 W
Minimum switching capacity	170 mW at 10 mA, 17 V
Operating rate	<= 18000 cycles/hour no-load <= 1200 cycles/hour under load
Mechanical durability	5000000 cycles
Electrical durability	100000 cycles for resistive load
Average coil consumption in W	1.4 W

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Drop-out voltage threshold	$\geq 0.1 U_c$ DC
Operate time	20 ms at nominal voltage
Release time	20 ms at nominal voltage
Average coil resistance	470 Ohm at 20 °C +/- 15 %
Rated operational voltage limits	19.2...26.4 V DC
Protection category	RT I
Test levels	Level A group mounting
Safety reliability data	B10d = 100000
Operating position	Any position
Net weight	0.086 kg
Device presentation	Complete product

## Environment

Dielectric strength	1500 V AC between contacts with micro disconnection 2500 V AC between coil and contact with reinforced 2000 V AC between poles with basic
product certifications	EAC UL CSA
Standards	IEC 61810-1 CSA C22.2 No 14 UL 508
Ambient air temperature for storage	-40...85 °C
Ambient air temperature for operation	-40...55 °C
Vibration resistance	3 gn, amplitude = +/- 1 mm (f = 10...150 Hz)5 cycles in operation 4 gn, amplitude = +/- 1 mm (f = 10...150 Hz)5 cycles not operating
IP degree of protection	IP40
Shock resistance	10 gn (duration = 11 ms) for in operation conforming to IEC 60068-2-27 10 gn (duration = 11 ms) for not operating conforming to IEC 60068-2-27
Pollution degree	2

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.6 cm
Package 1 Width	3.5 cm
Package 1 Length	6.9 cm
Package 1 Weight	89 g
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	4 cm
Package 2 Width	14.6 cm
Package 2 Length	20 cm
Package 2 Weight	960 g
Unit Type of Package 3	S02

<b>Number of Units in Package 3</b>	60
<b>Package 3 Height</b>	15 cm
<b>Package 3 Width</b>	30 cm
<b>Package 3 Length</b>	40 cm
<b>Package 3 Weight</b>	6.179 kg

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

## Well-being performance

Reach Free Of Svhc

Rohs Exemption Information Yes

## Certifications & Standards

Reach Regulation [REACH Declaration](#)

Eu Rohs Directive Pro-active compliance (Product out of EU RoHS legal scope)  
[EU RoHS Declaration](#)

China Rohs Regulation [China RoHS declaration](#)

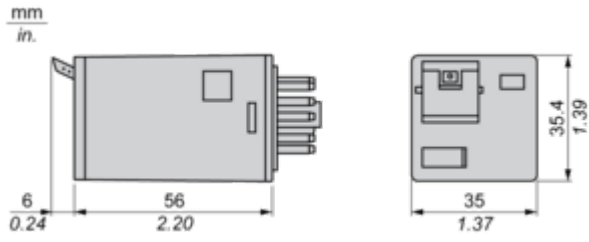
Environmental Disclosure [Product Environmental Profile](#)

Circularity Profile No need of specific recycling operations

Dimensions Drawings

Dimensions

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Connections and Schema

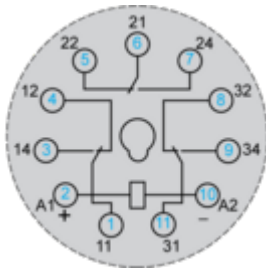
Wiring Diagram

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Wiring Diagram

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Symbols shown in blue correspond to Nema marking.

Performance Curves

**Electrical Durability of Contacts**

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**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 φ)



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.

Technical Illustration

Dimensions

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