

# Product data sheet

Specifications



voltage control relay, Harmony Control Relays, 8A, 2CO, overvoltage or undervoltage detection, 15â€¦500V AC DC, 24â€¦240V AC DC

RM22UA33MR

Product availability: Stock - Normally stocked in distribution facility

**Price\*: 126.39 USD**

## Main

Range Of Product	Harmony Control Relays
Relay Type	Voltage control relay
Product Or Component Type	Voltage control relay
Phase	1 phase
Supply Circuit Type	DC
Relay Name	RM22UA
Relay Monitored Parameters	Undervoltage and overvoltage in window mode Overvoltage or undervoltage detection
Time Delay	Adjustable 0.1...30 s, +/- 10 % of the full scale value Tt- time delay upon fault
Switching Capacity In Va	2000 VA
Measurement Range	15...500 V AC/DC
Contacts Type And Composition	2 C/O

## Complementary

Reset Time	1500 ms at maximum voltage
Maximum Switching Voltage	250 V AC
Minimum Switching Current	10 mA 5 V DC
Maximum Switching Current	8 A AC
Supply Voltage Limits	20.4...264 V AC/DC
Power Consumption In Va	3.5 VA AC
Maximum Power Consumption In W	1.5 W DC
Immunity To Microbreaks	10 ms
Resistance Across Terminals	150 kOhm E2-M terminals 300 kOhm E1-M terminals 500 kOhm E3-M terminals
Output Contacts	2 C/O
Nominal Output Current	8 A
Hysteresis	3 % fixed full scale for window mode 5...50 % adjustable threshold setting

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

<b>Delay At Power Up</b>	600 ms
<b>Maximum Measuring Cycle</b>	100 ms measurement cycle as true rms value
<b>Repeat Accuracy</b>	+/- 0.5 % input and measurement circuit +/- 2 % time delay
<b>Measurement Error</b>	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation
<b>Response Time</b>	<= 500 ms
<b>Insulation Resistance</b>	> 100 MOhm 500 V DC
<b>Overvoltage Category</b>	III IEC 60664-1
<b>Insulation</b>	Between supply and measurement
<b>Connections - Terminals</b>	Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> AWG 20...AWG 14) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> AWG 24...AWG 16) flexible with cable end Screw terminals, 1 x 0.5...1 x 3.3 mm <sup>2</sup> AWG 20...AWG 12) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> AWG 24...AWG 14) flexible with cable end
<b>Tightening Torque</b>	5.31...8.85 lbf.in (0.6...1 N.m) IEC 60947-1
<b>Housing Material</b>	Self-extinguishing plastic
<b>Mounting Support</b>	35 mm DIN rail conforming to IEC 60715
<b>Electrical Durability</b>	100000 cycles
<b>Mechanical Durability</b>	10000000 cycles
<b>Utilisation Category</b>	AC-15 IEC 60947-5-1 DC-13 IEC 60947-5-1 AC-1 IEC 60947-4-1 DC-1 IEC 60947-4-1
<b>[Un] Rated Nominal Voltage</b>	24...240 V AC/DC 50/60 Hz, non self-powered
<b>Safety Reliability Data</b>	MTTFd = 308.2 years B10d = 290000
<b>Contacts Material</b>	Cadmium free
<b>Control Type</b>	With test button
<b>Width</b>	0.89 in (22.5 mm)
<b>Net Weight</b>	0.24 lb(US) (0.11 kg)

## Environment

<b>Electromagnetic Compatibility</b>	Immunity for residential, commercial and light-industrial environments conforming to IEC 61000-6-1 Immunity for industrial environments conforming to IEC 61000-6-2 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Emission standard for industrial environments conforming to IEC 61000-6-4 Electrostatic discharge - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m level 3 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test - test level: 4 kV level 4 (direct) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 2 kV level 4 (capacitive coupling) conforming to IEC 61000-4-4 Surge immunity test - test level: 4 kV level 4 (common mode) conforming to IEC 61000-4-5 Surge immunity test - test level: 2 kV level 4 (differential mode) conforming to IEC 61000-4-5 Conducted and radiated emissions class B group 1 conforming to CISPR 11 Conducted and radiated emissions class B conforming to CISPR 22
<b>Ambient Air Temperature For Operation</b>	-4...122 °F (-20...50 °C) 60 Hz -4...140 °F (-20...60 °C) 50 Hz

<b>Standards</b>	IEC 60255-1
<b>Product Certifications</b>	RCM UL EAC CSA CE GL CCC
<b>Ambient Air Temperature For Storage</b>	-40...158 °F (-40...70 °C)
<b>Relative Humidity</b>	93...97 % 77...131 °F (25...55 °C) IEC 60068-2-30
<b>Vibration Resistance</b>	0.075 mm 10...58.1 Hz) not in operation IEC 60068-2-6 1 gn 10...58.1 Hz) not in operation IEC 60068-2-6 0.035 mm 58.1...150 Hz) in operation IEC 60068-2-6 0.5 gn 58.1...150 Hz) in operation IEC 60068-2-6
<b>Shock Resistance</b>	15 gn 11 ms) not in operation IEC 60068-2-27 5 gn 11 ms) in operation IEC 60068-2-27
<b>Ip Degree Of Protection</b>	IP20 IEC 60529 terminals) IP40 IEC 60529 housing) IP50 IEC 60529 front panel)
<b>Pollution Degree</b>	3 IEC 60664-1
<b>Dielectric Test Voltage</b>	2.5 kV AC 50 Hz, 1 min IEC 60255-27

## Ordering and shipping details

<b>Category</b>	US10CP222380
<b>Discount Schedule</b>	0CP2
<b>Gtin</b>	3606480792250
<b>Returnability</b>	Yes
<b>Country Of Origin</b>	ID

## Packing Units

<b>Unit Type Of Package 1</b>	PCE
<b>Number Of Units In Package 1</b>	1
<b>Package 1 Height</b>	1.02 in (2.6 cm)
<b>Package 1 Width</b>	3.23 in (8.2 cm)
<b>Package 1 Length</b>	3.74 in (9.5 cm)
<b>Package 1 Weight</b>	4.30 oz (122 g)

## 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

 Mercury Free

 Rohs Exemption Information Yes

## Certifications & Standards

Reach Regulation [REACH Declaration](#)

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

China Rohs Regulation [China RoHS declaration](#)

Environmental Disclosure [Product Environmental Profile](#)

Weee The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

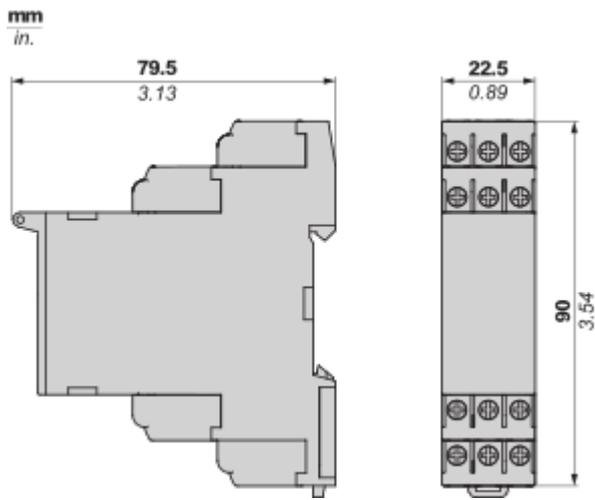
Circularity Profile [End of Life Information](#)

California Proposition 65 WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Dimensions Drawings

Dimensions

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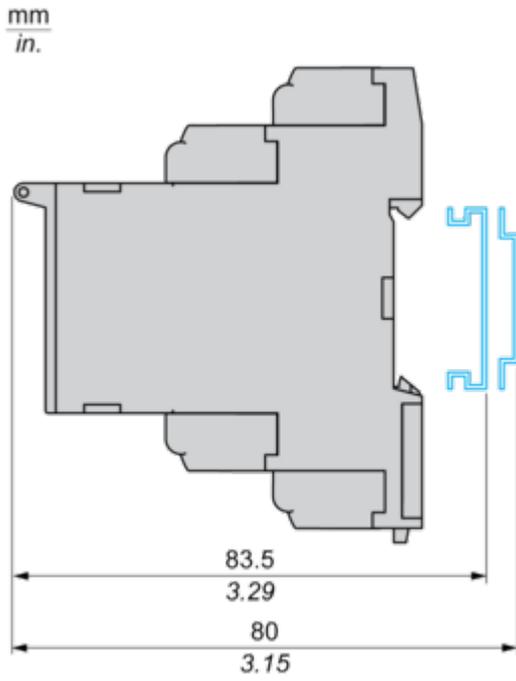


Mounting and Clearance

Mounting and Clearance

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Rail Mounting

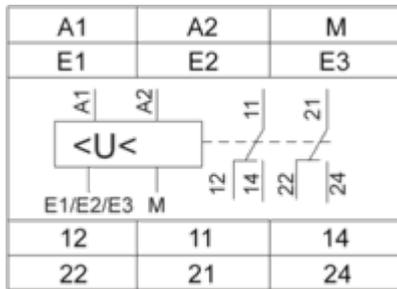


Connections and Schema

Voltage Measurement Relay

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Wiring Diagram



A1,A2 : Supply voltage

E1,E2,E3,M : Voltages to be measured

11-14,12 : 1st C/O contact of output relay

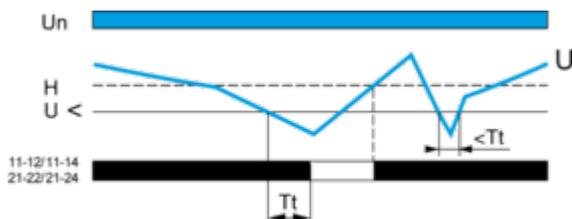
21-24,22 : 2nd C/O contact of output relay

Technical Description

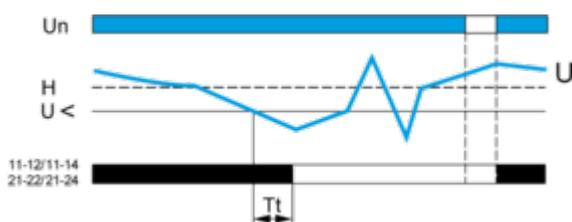
Function Diagrams

Undervoltage Control

Without memory ("No Memory" mode)

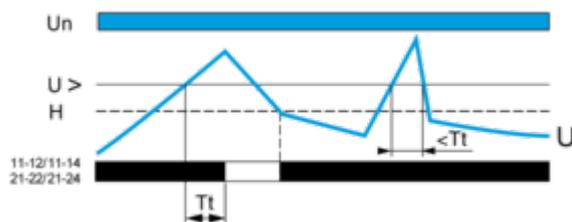


With memory ("Memory" mode)

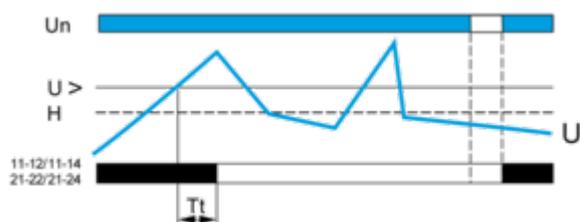


Overvoltage Control

Without memory ("No Memory" mode)



With memory ("Memory" mode)



Legend

- Tt Time delay after crossing of threshold
- Un Nominal supply voltage
- U Monitored supply voltage
- H Hysteresis
- U> Overvoltage threshold
- U< Undervoltage threshold
- 11-12/11-14, 21-22/21-24 Output relay connections
- Relay status: black color = energized.

**NOTE:** In "Memory" mode, the relay opens when crossing of the threshold is detected and then stays in that position. The power supply voltage must be switched off to reset the product.

