

# Product data sheet

Specifications



## voltage control relay, Harmony Control Relays, 5A, 2CO, range 1..100V, 24..240V AC DC

RM35UA12MW

**Product availability: Non-Stock - Not normally stocked in distribution facility**

### Main

Range of Product	Harmony Control Relays
Relay Type	Multifunction voltage control relay
Product or Component Type	Voltage control relay
Relay name	RM35UA
Relay monitored parameters	Overvoltage or undervoltage detection
time delay	Adjustable 0.3...30 s, 0 + 10 % Tt- time delay upon fault
Switching capacity in VA	1250 VA
Measurement range	1...100 V AC/DC
Contacts type and composition	2 C/O

### Complementary

Reset time	1500 ms time delay
Maximum switching voltage	250 V AC/DC
Minimum switching current	10 mA 5 V DC
Maximum switching current	5 A AC/DC
operating voltage tolerance	- 15 % + 10 % Un
Supply voltage limits	20.4...264 V AC/DC
Power consumption in VA	0...3.5 VA AC
Maximum power consumption in W	0.6 W DC
Control circuit frequency	40...70 Hz +/- 10 %
Immunity to microbreaks	10 ms
Resistance across terminals	110 mOhm E2-M terminals 22 mOhm E1-M terminals 220 mOhm E3-M terminals
Output contacts	2 C/O
nominal output current	5 A
Hysteresis	5...50 % threshold setting
Measurement accuracy	+/- 10 % of the full scale value
Polarity	Non reversible polarity on DC supply
delay at power up	600 ms
Maximum measuring cycle	30 ms measurement cycle as true rms value
Repeat accuracy	+/- 0.5 % input and measurement circuit +/- 2 % time delay

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

<b>Measurement error</b>	+/- 0.05 %/°C with temperature variation < 1 % over the whole range with voltage variation
<b>Sensitivity scale</b>	1...10 V E1-M terminals 10...100 V E3-M terminals 5...50 V E2-M terminals
<b>Threshold setting</b>	10...100 %
<b>Quality labels</b>	CE
<b>Insulation resistance</b>	> 500 MOhm 500 V DC between supply and relay output IEC 60255-5 > 500 MOhm 500 V DC between measurement and relay output IEC 60664-1 > 1 MOhm 500 V DC between supply and measurement IEC 60255-5 > 500 MOhm 500 V DC between supply and relay output IEC 60664-1 > 500 MOhm 500 V DC between measurement and relay output IEC 60255-5 > 1 MOhm 500 V DC between supply and measurement IEC 60664-1
<b>Operating position</b>	Any position without derating
<b>Local signalling</b>	LED (green) for power ON LED (yellow) for relay ON
<b>Overvoltage category</b>	III conforming to IEC 60664-1
<b>[Ui] rated insulation voltage</b>	250 V IEC 60664-1 600 V IEC 60664-1
<b>Connections - terminals</b>	Screw terminals, 1 x 0.5...1 x 4 mm <sup>2</sup> 20 AWG...11 AWG) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> 20 AWG...14 AWG) solid without cable end Screw terminals, 1 x 0.2...2 x 2.5 mm <sup>2</sup> 24 AWG...12 AWG) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> 24 AWG...16 AWG) flexible with cable end
<b>Tightening torque</b>	5.3...8.9 lbf.in (0.6...1 N.m) IEC 60947-1
<b>Housing material</b>	Polycarbonate
<b>Mounting support</b>	35 mm symmetrical DIN rail conforming to IEC 60715
<b>Electrical durability</b>	100000 cycles
<b>Mechanical durability</b>	30000000 cycles
<b>Operating rate</b>	<= 360 operations/hour full load
<b>Utilisation category</b>	AC-12 IEC 60947-5-1 AC-13 IEC 60947-5-1 AC-14 IEC 60947-5-1 AC-15 IEC 60947-5-1 DC-12 IEC 60947-5-1 DC-14 IEC 60947-5-1
<b>[Un] rated nominal voltage</b>	24...240 V AC/DC 50/60 Hz, non self-powered
<b>Safety reliability data</b>	B10d = 290000 MTTFd = 308.2 years
<b>Control Type</b>	Without test button
<b>Width</b>	1.4 in (35 mm)
<b>Height</b>	3.5 in (90 mm)
<b>Depth</b>	2.8 in (72 mm)
<b>Product Weight</b>	0.29 lb(US) (0.13 kg)

## Environment

<b>Electromagnetic compatibility</b>	Emission standard for industrial environments conforming to IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Immunity for industrial environments conforming to NF EN/IEC 61000-6-2
<b>Ambient air temperature for operation</b>	-4...122 °F (-20...50 °C)
<b>Vibration resistance</b>	0.35 mm (f= 5...57.6 Hz) conforming to IEC 60068-2-6 1 gn (f= 57.6...150 Hz) conforming to IEC 60255-21-1

<b>Shock resistance</b>	5 gn IEC 60068-2-27
<b>Standards</b>	IEC 60255-6
<b>Product Certifications</b>	GOST C-tick UL GL CSA
<b>Ambient Air Temperature for Storage</b>	-40...158 °F (-40...70 °C)
<b>Relative humidity</b>	95 % 131 °F (55 °C) IEC 60068-2-30
<b>IP degree of protection</b>	IP20 IEC 60529 terminals) IP30 IEC 60529 casing)
<b>Pollution degree</b>	3 IEC 60664-1
<b>Directives</b>	73/23/EEC - low voltage directive 89/336/EEC - electromagnetic compatibility
<b>Dielectric test voltage</b>	2 kV AC 50 Hz, 1 min IEC 60255-5 2 kV AC 50 Hz, 1 min IEC 60664-1
<b>Non-dissipating shock wave</b>	4 kV IEC 60255-5 4 kV IEC 60664-1 4 kV IEC 61000-4-5

## Ordering and shipping details

<b>Category</b>	US10CP222380
<b>Discount Schedule</b>	0CP2
<b>GTIN</b>	3389119405300
<b>Returnability</b>	Yes
<b>Country of origin</b>	ID

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Nbr. of units in pkg.</b>	1
<b>Package 1 Height</b>	1.8 in (4.5 cm)
<b>Package 1 Width</b>	3.07 in (7.8 cm)
<b>Package 1 Length</b>	3.7 in (9.5 cm)
<b>Package weight(Lbs)</b>	4.8 oz (137.0 g)
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	48
<b>Package 2 Height</b>	11.8 in (30.0 cm)
<b>Package 2 Width</b>	11.8 in (30.0 cm)
<b>Package 2 Length</b>	15.7 in (40.0 cm)
<b>Package 2 Weight</b>	16.105 lb(US) (7.305 kg)

## Contractual warranty

<b>Warranty (in months)</b>	18
-----------------------------	----



## Environmental Data

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

Total lifecycle Carbon footprint	50 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	9 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	40 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.3 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

### Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	5e3fdf99-611b-4d07-ad17-6eba84ab488b
EU RoHS Directive	<a href="#">Compliant By Exemption</a>
REACH Regulation	<a href="#">Reference contains Substances of Very High Concern above the threshold</a>
California proposition 65	<b>WARNING:</b> 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

### Use Longer



### Lifetime extension

Repair	No
--------	----

### Use Again



### Repack and remanufacture

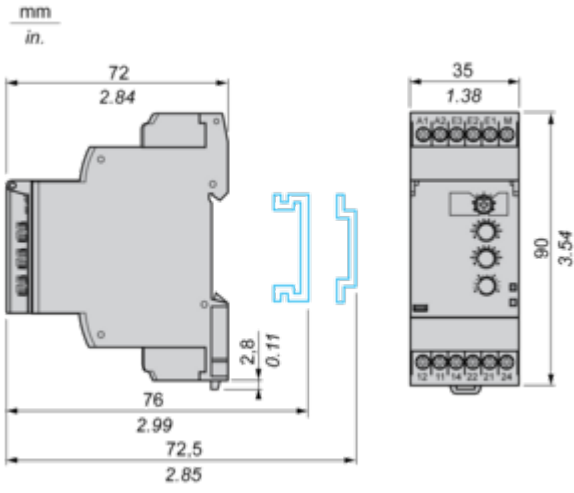
Recyclability potential, in %	8
Circularity Profile	<a href="#">End of Life Information</a>
Take-back	No

Dimensions Drawings

Multifunction Voltage Control Relays

---

Dimensions and Mounting

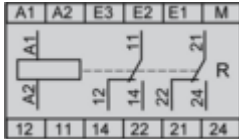


Connections and Schema

Multifunction Voltage Control Relays

---

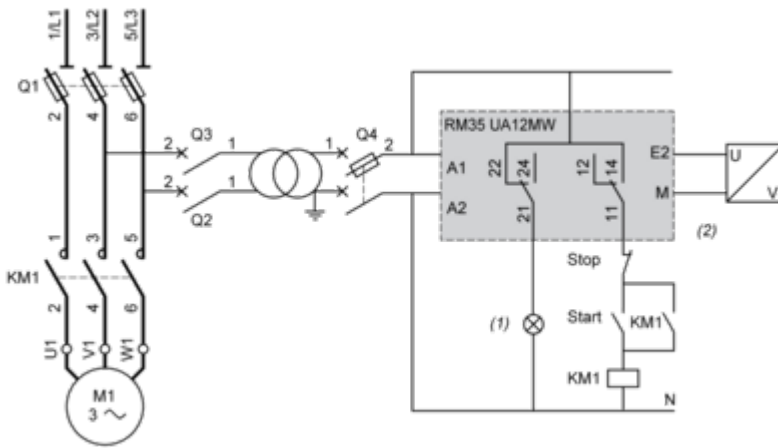
Wiring Diagram



Application Scheme

---

Example: Overspeed Monitoring (Undervoltage Function)



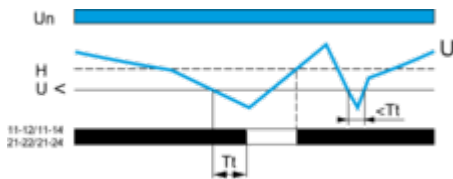
- (1) Overspeed
- (2) Tachogenerator

Technical Description

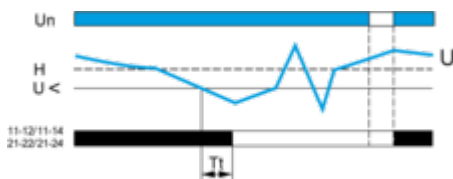
Function Diagrams

Undervoltage Control

Without memory ("No Memory" mode)

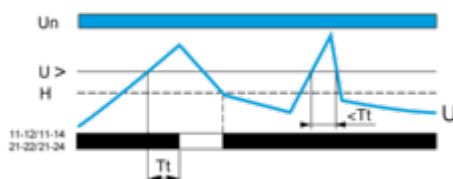


With memory ("Memory" mode)

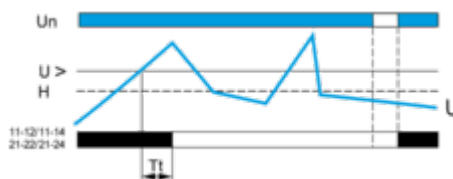


Overvoltage Control

Without memory ("No Memory" mode)



With memory ("Memory" mode)



Legend

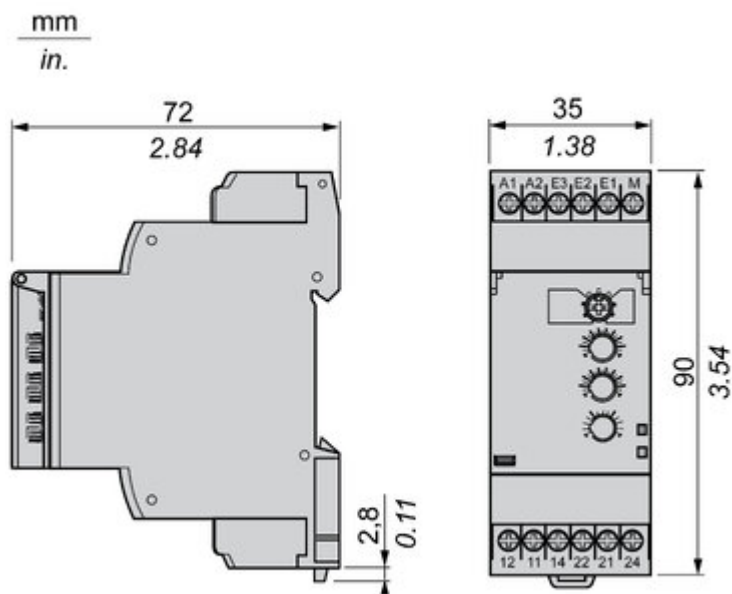
- Tt Time delay after crossing of threshold
- Un Nominal supply voltage
- U Monitored supply voltage
- H Hysteresis
- U> Overvoltage threshold
- U< Undervoltage threshold
- 11-12/11-14, 21-22/21-24 Output relay connections
- Relay status: black color = energized.

**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.

Technical Illustration

Dimensions

---



Offer Marketing Illustration

Product benefits / Features

---

## Features

### Harmony Control Relay



Wide monitoring parameters (phase, current, voltage, liquid level, frequency, speed, temperature, and pump control) to meet your application needs.



True RMS measurement that minimizes the possibility of unexpected trips from highly polluted networks (except RM17TG and RM22TG)





Experience unprecedented accuracy, predictive maintenance, and superior security.



Green Premium labelled products, promising compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> product



Compatible with a wide range of applications, such as hoisting, packaging, lifts, textile, pumping, and water.

Offer Marketing Illustration

Product benefits / Features

---

## Technical Benefits

Harmony Control Relay

Compliant with IEC 60255-1 standard, and a wide array of product certifications such as UL, CE, CSA, EAC.

Dust and unintended human intervention avoided thanks to the IP50 lead-sealable settings protection cover.

Different product width to meet your needs:  
17.5 mm/0.69 in.,  
22.5 mm/0.88 in.,  
35 mm/1.38 in.

Diagnostic button to check downstream circuit immediately, shorten the commission and troubleshooting time

A Dial-Pointer LED indicator that enhances ease of operation in difficult environments such as dusty or low-light conditions



Image of product / Alternate images

Alternative

---

