

Product data sheet

Specifications



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

RM35UA12MW

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 at 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 at E2-M terminals 22 mOhm at E1-M terminals 220 mOhm at E3-M terminals
Output contacts	2 C/O
nominal output current	5 A
Hysteresis	5...50 % of 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

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

Repeat accuracy	+/- 0.5 % for input and measurement circuit +/- 2 % for time delay
Measurement error	+/- 0.05 %/°C with temperature variation < 1 % over the whole range with voltage variation
Sensitivity scale	1...10 V E1-M terminals 10...100 V E3-M terminals 5...50 V E2-M terminals
Threshold setting	10...100 %
Quality labels	CE
Insulation resistance	> 500 MOhm at 500 V DC between supply and relay output conforming to IEC 60255-5 > 500 MOhm at 500 V DC between measurement and relay output conforming to IEC 60664-1 > 1 MOhm at 500 V DC between supply and measurement conforming to IEC 60255-5 > 500 MOhm at 500 V DC between supply and relay output conforming to IEC 60664-1 > 500 MOhm at 500 V DC between measurement and relay output conforming to IEC 60255-5 > 1 MOhm at 500 V DC between supply and measurement conforming to IEC 60664-1
Operating position	Any position without derating
Local signalling	LED (green) for power ON LED (yellow) for relay ON
Overvoltage category	III conforming to IEC 60664-1
[UI] rated insulation voltage	250 V conforming to IEC 60664-1 600 V conforming to IEC 60664-1
Connections - terminals	Screw terminals, 1 x 0.5...1 x 4 mm ² (AWG 20...AWG 11) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm ² (AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...2 x 2.5 mm ² (AWG 24...AWG 12) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm ² (AWG 24...AWG 16) flexible with cable end
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Mounting support	35 mm symmetrical DIN rail conforming to IEC 60715
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles
Operating rate	<= 360 operations/hour full load
Utilisation category	AC-12 conforming to IEC 60947-5-1 AC-13 conforming to IEC 60947-5-1 AC-14 conforming to IEC 60947-5-1 AC-15 conforming to IEC 60947-5-1 DC-12 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1 DC-14 conforming to IEC 60947-5-1
[Un] rated nominal voltage	24...240 V AC/DC 50/60 Hz, non self-powered
Safety reliability data	B10d = 290000 MTTFd = 308.2 years
Control type	Without test button
Width	35 mm
Product weight	0.08 kg

Environment

Electromagnetic compatibility	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
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Ambient air temperature for operation	-20...50 °C
Vibration resistance	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
Shock resistance	5 gn conforming to IEC 60068-2-27
Standards	IEC 60255-6
Product certifications	GOST C-Tick UL GL CSA
Ambient air temperature for storage	-40...70 °C
Relative humidity	95 % at 55 °C conforming to IEC 60068-2-30
IP degree of protection	IP20 (terminals) conforming to IEC 60529 IP30 (casing) conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Directives	73/23/EEC - low voltage directive 89/336/EEC - electromagnetic compatibility
Dielectric test voltage	2 kV, 1 min AC 50 Hz conforming to IEC 60255-5 2 kV, 1 min AC 50 Hz conforming to IEC 60664-1
Non-dissipating shock wave	4 kV conforming to IEC 60255-5 4 kV conforming to IEC 60664-1 4 kV conforming to IEC 61000-4-5

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.5 cm
Package 1 Width	7.8 cm
Package 1 Length	9.5 cm
Package 1 Weight	137.0 g
Unit Type of Package 2	S03
Number of Units in Package 2	48
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.305 kg

Contractual warranty

Warranty	18 months
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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
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)
SCIP Number	5e3fdf99-611b-4d07-ad17-6eba84ab488b
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

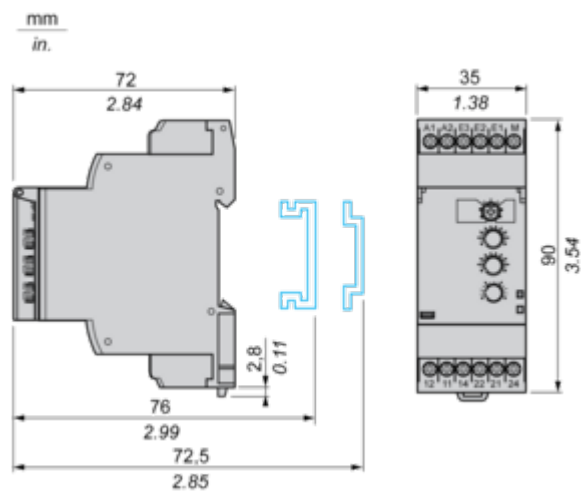
Use Again

 Repack and remanufacture	
End of life manual availability	End of Life Information
Take-back	No

Dimensions Drawings

Multifunction Voltage Control Relays

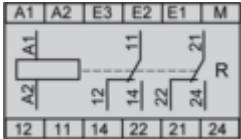
Dimensions and Mounting



Connections and Schema

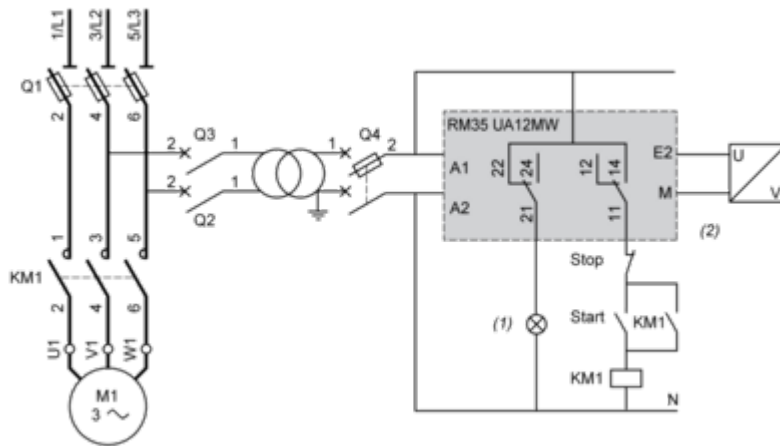
Multifunction Voltage Control Relays

Wiring Diagram



Application Scheme

Example: Overspeed Monitoring (Undervoltage Function)



(1) Overspeed

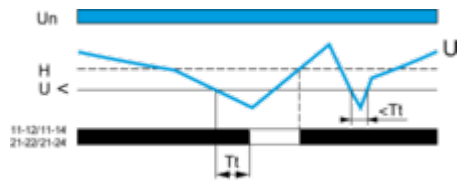
(2) Tachogenerator

Technical Description

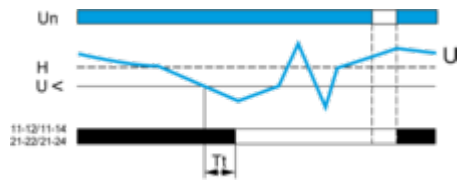
Function Diagrams

Undervoltage Control

Without memory ("No Memory" mode)

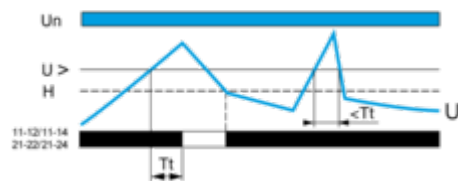


With memory ("Memory" mode)

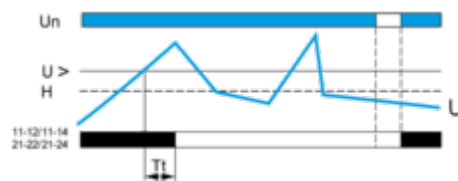


Overvoltage Control

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

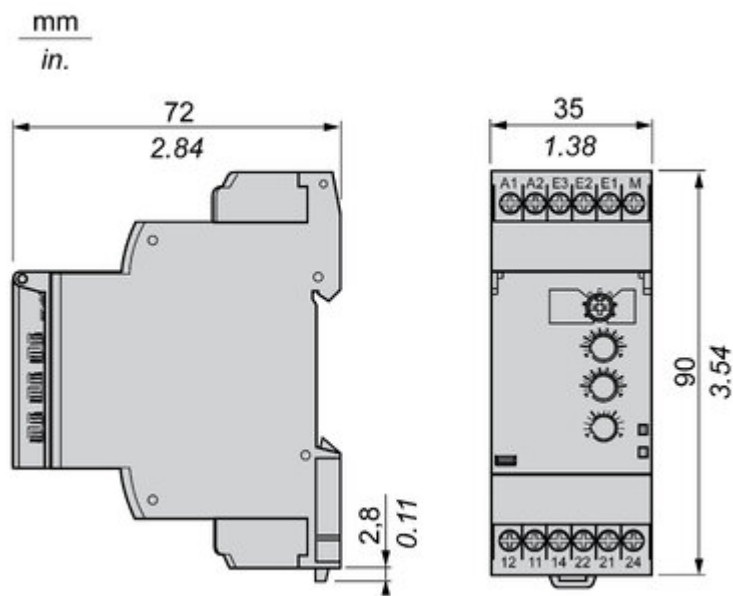


Image of product / Alternate images

Alternative

