

## RM22UA21MR

Trofazni relej za kontrolu prenapona 50mV...5Vac/dc,  
2 C/O



### Glavno

Range of product	Zelio Control
Product or component type	Modular measurement and control relays
Relay type	Voltage control relay
Network number of phases	1 phase
Supply circuit type	DC
Relay name	RM22UA
Relay monitored parameters	Overvoltage detection
Time delay type	Without
Switching capacity in VA	2000 VA
Measurement range	50 mV...5 V voltage AC/DC 50/60 Hz

### Komplementarno

Reset time	<= 1500 ms at maximum voltage
Maximum switching voltage	250 V AC
Minimum switching current	10 mA at 5 V DC
Maximum switching current	8 A AC
[Us] rated supply voltage	24...240 V AC/DC, 50/60 Hz
Supply voltage limits	20.4...264 V AC/DC
Power consumption in VA	3.5 VA AC
Power consumption in W	1.5 W DC
Supply frequency	40...70 Hz +/- 10 %
Resistance across terminals	30 kOhm at E2-M terminals 5 kOhm at E1-M terminals 50 kOhm at E3-M terminals
Output contacts	2 C/O
Hysteresis	5...50 % adjustable of threshold setting
Run-up delay at power-up	<= 600 ms
Measuring cycle	100 ms measurement cycle as true rms value
Repeat accuracy	+/- 0.5 % input and measurement circuit
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation
Response time	<= 500 ms
Overvoltage category	III conforming to IEC 60664-1
Insulation resistance	> 100 MOhm at 500 V DC conforming to IEC 60255-27
Insulation	Between supply and measurement
Mounting position	Any position
Connections - terminals	Screw terminals 2 x 0.5...2 x 2.5 mm <sup>2</sup> - AWG 20...AWG 14, solid cable without cable end Screw terminals 2 x 0.2...2 x 1.5 mm <sup>2</sup> - AWG 24...AWG 16, flexible cable with cable end Screw terminals 1 x 0.5...1 x 3.3 mm <sup>2</sup> - AWG 20...AWG 12, solid cable without cable end Screw terminals 1 x 0.2...1 x 2.5 mm <sup>2</sup> - AWG 24...AWG 14, flexible cable with cable end
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Status LED	LED yellow for relay ON LED green for power ON

Informacije dane u ovoj dokumentaciji sadrže opće opise i/ili tehničke karakteristike o performansama ovdje sadržanih proizvoda. Ova dokumentacija nije namijenjena kao zamjena za niti bi se trebala koristiti za određivanje prikladnosti ili pouzdanosti predmetnih proizvoda za konkretne korisničke primjene. Svaki takav korisnik ili integrator dužan je provesti odgovarajuću i potpunu analizu rizika, procjenu i ispitivanje proizvoda u odnosu na odgovarajuću specifičnu primjenu ili uporabu istog. Niti društvo Schneider Electric Industries SAS niti bilo koje od njegovih povezanih poduzeća ili podružnica neće preuzeti obvezu ili snositi odgovornost za pogrešnu upotrebu ovdje sadržanih informacija.

Mounting support	35 mm DIN rail conforming to EN/IEC 60715
Electrical durability	100000 cycles
Mechanical durability	10000000 cycles
Utilisation category	AC-15 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1 AC-1 conforming to IEC 60947-4-1 DC-1 conforming to IEC 60947-4-1
Safety reliability data	MTTFd = 308.2 years B10d = 290000
Contacts material	Cadmium free
Width	22.5 mm
Product weight	0.11 kg

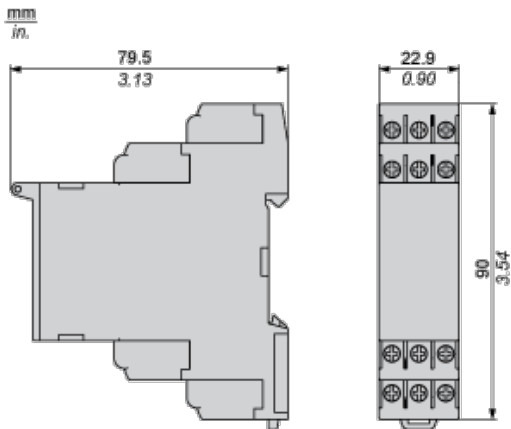
## Okolina

immunity to microbreaks	10 ms
electromagnetic compatibility	Emission standard for industrial environments conforming to EN/IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-3 Immunity for industrial environments conforming to EN/IEC 61000-6-2 Conducted and radiated emissions class B conforming to CISPR 22 Immunity for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-1 Electrostatic discharge 6 kV level 3 contact discharge conforming to IEC 61000-4-2 Electrostatic discharge 8 kV level 3 air discharge conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test 10 V/m level 3 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test 4 kV level 4 direct conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test 2 kV level 4 capacitive coupling conforming to IEC 61000-4-4 Surge immunity test 4 kV level 4 common mode conforming to IEC 61000-4-5 Surge immunity test 2 kV level 4 differential mode conforming to IEC 61000-4-5 Conducted and radiated emissions class B group 1 conforming to CISPR 11
standards	EN/IEC 60255-1
product certifications	CCC CE CSA GL UL RCM EAC China RoHS
ambient air temperature for storage	-40...70 °C
ambient air temperature for operation	-20...50 °C at 60 Hz -20...60 °C at 50 Hz AC/DC
relative humidity	93...97 % at 25...55 °C conforming to IEC 60068-2-30
vibration resistance	0.075 mm (f = 10...58.1 Hz) (not in operation) conforming to IEC 60068-2-6 1 gn (f = 10...58.1 Hz) (not in operation) conforming to IEC 60068-2-6 0.035 mm (f = 58.1...150 Hz) (in operation) conforming to IEC 60068-2-6 0.5 gn (f = 58.1...150 Hz) (in operation) conforming to IEC 60068-2-6
shock resistance	15 gnfor 11 ms (not in operation) conforming to IEC 60068-2-27 5 gnfor 11 ms (in operation) conforming to IEC 60068-2-27
IP degree of protection	IP20 on terminals conforming to IEC 60529 IP40 on housing conforming to IEC 60529 IP50 on front panel conforming to IEC 60529
pollution degree	3 conforming to IEC 60664-1
dielectric test voltage	2.5 kVfor 1 min AC 50 Hz conforming to IEC 60255-27

## Offer Sustainability

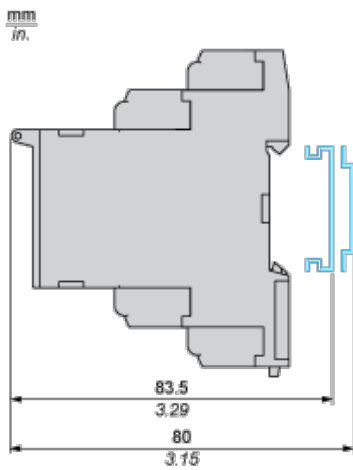
Green Premium product	Green Premium product
Compliant - since 0701 - Schneider Electric declaration of conformity	Compliant - since 0701 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available

## Dimensions



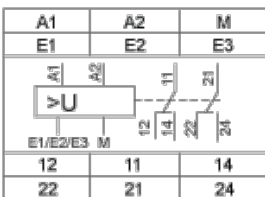
## Mounting and Clearance

### Rail Mounting



## Overvoltage Control Relay

### Wiring Diagram



A1,A2 : Supply voltage

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

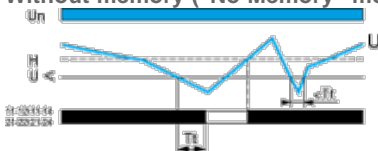
11-14,12 : 1st C/O contact of output relay

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

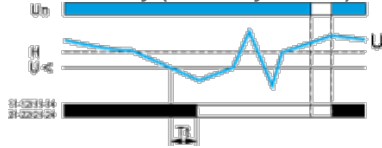
## Function Diagrams

### Undervoltage Control

Without memory ("No Memory" mode)

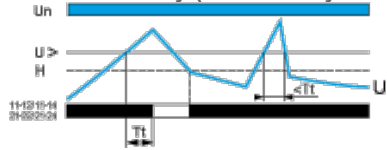


### With memory ("Memory" mode)

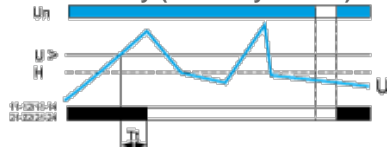


### Overvoltage Control

#### 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.