



Main

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| 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 | Oversvoltage detection |
| Time delay | Without |
| Switching capacity in VA | 2000 VA |
| Minimum switching current | 10 mA 5 V DC |
| Maximum switching current | 8 A AC |
| Power consumption in VA | 3.5 VA AC |
| Measurement range | 15...500 V voltage AC/DC 50/60 Hz |
| Utilisation category | AC-15 IEC 60947-5-1 DC-13 IEC 60947-5-1 AC-1 IEC 60947-4-1 DC-1 IEC 60947-4-1 |
| Contacts type and composition | 2 C/O |

Complementary

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| Reset time | 1500 ms at maximum voltage |
| Maximum switching voltage | 250 V AC |
| [Us] Rated Supply Voltage | 24...240 V AC/DC 50/60 Hz |
| Supply voltage limits | 20.4...264 V AC/DC |
| 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 |
| Maximum measuring cycle | 100 ms measurement cycle as true rms value |
| Hysteresis | 5...50 % adjustable threshold setting |
| Delay at power up | 600 ms |
| 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 |
| Oversvoltage category | III IEC 60664-1 |
| Insulation resistance | > 100 MOhm 500 V DC |
| [Ui] rated insulation voltage | 250 V IEC 60664-1 |
| [Uimp] rated impulse withstand voltage | 5 kV 1.2/50 µs IEC 60255-27 |
| Insulation | Between supply and measurement |

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| Connections - terminals | Screw terminals, 2 x 0.5...2 x 2.5 mm ² AWG 20...AWG 14) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm ² AWG 24...AWG 16) flexible with cable end Screw terminals, 1 x 0.5...1 x 3.3 mm ² AWG 20...AWG 12) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm ² AWG 24...AWG 14) flexible with cable end |
| Tightening torque | 5.31...8.85 lbf.in (0.6...1 N.m) IEC 60947-1 |
| Housing material | Self-extinguishing plastic |
| Mounting support | 35 mm DIN rail conforming to IEC 60715 |
| Electrical durability | 100000 cycles |
| Mechanical durability | 10000000 cycles |
| Contacts material | Cadmium free |
| Safety reliability data | MTTFd = 308.2 years B10d = 290000 |
| Width | 0.89 in (22.5 mm) |
| Net Weight | 0.24 lb(US) (0.11 kg) |
| Compatibility code | RM22 |

Environment

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| Electromagnetic compatibility | 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 |
| Standards | IEC 60255-1 |
| Product Certifications | CE[RETURN]CCC[RETURN]GL[RETURN]RCM[RETURN]JUL[RETURN]EAC[RETURN]CSA |
| Ambient Air Temperature for Storage | -40...158 °F (-40...70 °C) |
| Ambient air temperature for operation | -4...122 °F (-20...50 °C) 60 Hz -4...140 °F (-20...60 °C) 50 Hz |
| Relative humidity | 93...97 % 77...131 °F (25...55 °C) IEC 60068-2-30 |
| Vibration resistance | 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 |
| Shock resistance | 15 gn 11 ms) not in operation IEC 60068-2-27 5 gn 11 ms) in operation IEC 60068-2-27 |
| IP degree of protection | IP20 IEC 60529 terminals) IP40 IEC 60529 housing) IP50 IEC 60529 front panel) |
| Pollution degree | 3 IEC 60664-1 |
| Dielectric test voltage | 2.5 kV AC 50 Hz, 1 min IEC 60255-27 |

Ordering and shipping details

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|-------------------|--------------------------------------|
| Category | 22380-RELAYS-MEASUREMENT (RM17-RM35) |
| Discount Schedule | CP2 |
| GTIN | 3606480792229 |
| Returnability | No |
| Country of origin | ID |

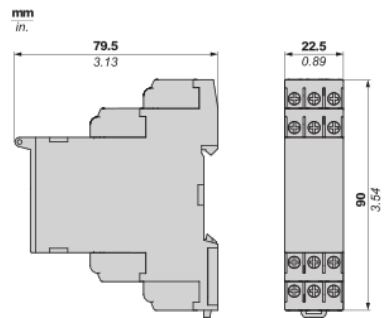
Packing Units

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| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 1.02 in (2.6 cm) |
| Package 1 Width | 3.23 in (8.2 cm) |
| Package 1 Length | 3.74 in (9.5 cm) |
| Package 1 Weight | 4.27 oz (121.0 g) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 40 |
| Package 2 Height | 5.91 in (15.0 cm) |
| Package 2 Width | 11.81 in (30.0 cm) |
| Package 2 Length | 15.75 in (40.0 cm) |
| Package 2 Weight | 11.58 lb(US) (5.252 kg) |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 640 |
| Package 3 Height | 31.50 in (80.0 cm) |
| Package 3 Width | 31.50 in (80.0 cm) |
| Package 3 Length | 23.62 in (60.0 cm) |
| Package 3 Weight | 205.52 lb(US) (93.22 kg) |

Offer Sustainability

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| Sustainable offer status | Green Premium product |
| 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 |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS Declaration |
| RoHS exemption information | Yes |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins. |

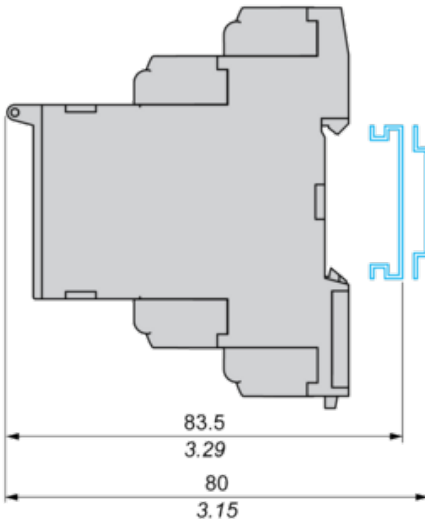
Dimensions



Mounting and Clearance

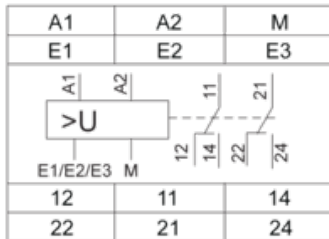
Rail Mounting

mm
in.



Overvoltage Control Relay

Wiring Diagram



A1,A2 : Supply voltage

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

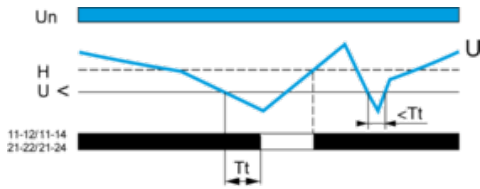
11-14,12 : 1st C/O contact of output relay

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

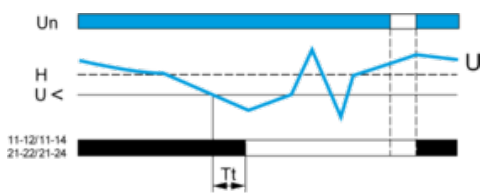
Function Diagrams

Undervoltage Control

Without memory ("No Memory" mode)

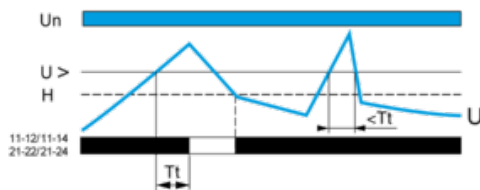


With memory ("Memory" mode)

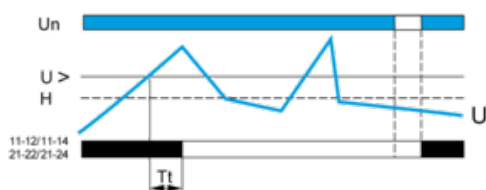


Overvoltage Control

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.