



### Main

|                              |   |
|------------------------------|---|
| Range of product             | Zelio Control   |
| Product or component type    | Modular measurement and control relays  |
| Relay type                   | Voltage control relay   |
| Product specific application | For single-phase and DC supply  |
| Relay name                   | RM17UBE   |
| Relay monitored parameters   | Self-powered<br>Overvoltage and undervoltage detection  |
| Time delay                   | Adjustable 0.1...10 s, 0 + 10 % on crossing the threshold   |
| Switching capacity in VA     | 1250 VA   |
| Minimum switching current    | 10 mA at 5 V DC   |
| Maximum switching current    | 5 A AC/DC   |
| Power consumption in VA      | 0...3 VA AC   |
| Measurement range            | 65...260 V voltage AC/DC  |
| Utilisation category         | AC-12 conforming to IEC 60947-5-1<br>AC-13 conforming to IEC 60947-5-1<br>AC-14 conforming to IEC 60947-5-1<br>AC-15 conforming to IEC 60947-5-1<br>DC-12 conforming to IEC 60947-5-1<br>DC-13 conforming to IEC 60947-5-1<br>DC-14 conforming to IEC 60947-5-1 |

### Complementary

|                                |  |
|--------------------------------|--|
| Reset time                     | 1500 ms time delay   |
| Maximum switching voltage      | 250 V AC/DC  |
| [Us] rated supply voltage      | 110...240 V AC/DC 50/60 Hz +/- 10 %  |
| Supply voltage limits          | 50...270 V AC/DC   |
| Maximum power consumption in W | 1 W DC   |
| Immunity to microbreaks        | 20 ms  |
| Control circuit frequency      | 50...60 Hz +/- 10 %  |
| Output contacts                | 1 C/O  |
| Nominal output current         | 5 A  |
| Maximum measuring cycle        | 150 ms measurement cycle as true rms value   |
| Hysteresis                     | 3 % fixed of threshold setting   |
| Delay at power up              | 100 Ms DC<br>500 ms AC   |
| Measurement accuracy           | +/- 10 % of the full scale value   |
| Repeat accuracy                | +/- 0.5 % for input and measurement circuit<br>+/- 1 % for time delay                                |
| Measurement error              | < 1 % over the whole range with voltage variation<br>0.2 %/°C with temperature variation             |
| Polarity                       | Non reversible polarity on DC supply   |
| Quality labels                 | CE   |
| Overvoltage category           | III conforming to IEC 60664-1  |
| Insulation resistance          | > 500 MOhm at 500 V DC conforming to IEC 60255-5<br>> 500 MOhm at 500 V DC conforming to IEC 60664-1 |


|                               |  |
|-------------------------------|--|
| [Ui] rated insulation voltage | 250 V conforming to IEC 60664-1<br>400 V conforming to IEC 60664-1   |
| Operating position            | Any position without   |
| Connections - terminals       | Screw terminals, 1 x 0.5...1 x 4 mm <sup>2</sup> (AWG 20...AWG 11) solid without cable end<br>Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end<br>Screw terminals, 1 x 0.2...2 x 2.5 mm <sup>2</sup> (AWG 24...AWG 12) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (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   |
| Local signalling              | LED (green)power ON:<br>LED (yellow)relay ON:  |
| Mounting support              | 35 mm symmetrical DIN rail conforming to EN/IEC 60715  |
| Electrical durability         | 100000 cycles  |
| Mechanical durability         | 30000000 cycles  |
| Operating rate                | <= 360 operations/hour full load   |
| Safety reliability data       | B10d = 470000<br>MTTFd = 502.2 years   |
| Width                         | 17.5 mm  |
| Product weight                | 0.08 kg  |
| Functionality                 | Overvoltage and undervoltage detection   |
| Compatibility code            | RM17   |

## Environment

|                                       |  |
|---------------------------------------|--|
| Electromagnetic compatibility         | Emission standard for industrial environments conforming to EN/IEC 61000-6-4<br>Emission standard for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-3<br>Immunity for industrial environments conforming to NF EN/IEC 61000-6-2 |
| Standards                             | EN/IEC 60255-6   |
| Product certifications                | UL<br>GL<br>GOST<br>C-Tick<br>CSA  |
| Directives                            | 73/23/EEC - low voltage directive<br>89/336/EEC - electromagnetic compatibility  |
| Ambient air temperature for storage   | -40...70 °C  |
| Ambient air temperature for operation | -20...50 °C  |
| Relative humidity                     | 95 % at 55 °C conforming to IEC 60068-2-30   |
| Vibration resistance                  | 0.35 mm (f= 5...57.6 Hz) conforming to IEC 60068-2-6<br>1 gn (f= 57.6...150 Hz) conforming to IEC 60255-21-1   |
| Shock resistance                      | 5 gn conforming to IEC 60068-2-27  |
| IP degree of protection               | IP20 (terminals) conforming to IEC 60529<br>IP30 (casing) conforming to IEC 60529  |
| Pollution degree                      | 3 conforming to IEC 60664-1  |
| Dielectric test voltage               | 2 KV, 1 min AC 50 Hz conforming to IEC 60255-5<br>2 kV, 1 min AC 50 Hz conforming to IEC 60664-1   |
| Non-dissipating shock wave            | 4 KV conforming to IEC 60255-5<br>4 KV conforming to IEC 60664-1<br>4 kV conforming to IEC 61000-4-5   |

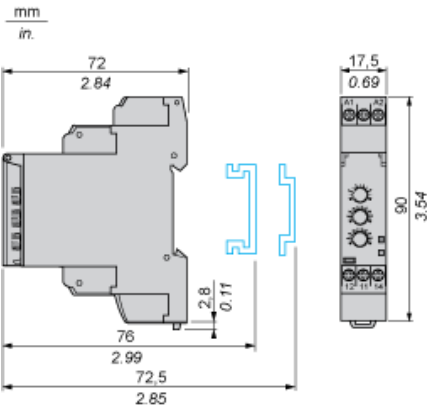
## Offer Sustainability

|                            |  |
|----------------------------|--|
| Sustainable offer status   | Green Premium product  |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes  |
| RoHS exemption information |  Yes  |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>   |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a>  |

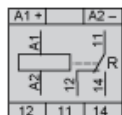
|                             |   |
|-----------------------------|---|
| Circularity Profile         | <a href="#"> End Of Life Information</a>    |
| WEEE                        | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| <b>Contractual warranty</b> |   |
| Warranty                    | 18 months   |

Single-Phase and DC Voltage Control Relays

Dimensions and Mounting



## Wiring Diagram



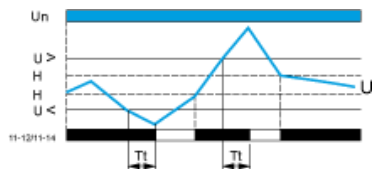
(1) To sensitive loads

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## Function Diagram

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### Control of Overvoltage and Undervoltage in Window Mode



### Legend

$T_t$  Time delay after crossing of threshold

$U_n$  Nominal supply voltage

$U$  Monitored supply voltage

$H$  Hysteresis

$U >$  Overvoltage threshold

$U <$  Undervoltage threshold

11-12, 11-14 Output relay connections

Relay status: black color = energized.