



### 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	RM17UAS
Relay monitored parameters	Overvoltage or undervoltage detection Self-powered
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	<= 3 VA AC
Measurement range	65...260 V voltage AC 50/60 Hz 65...260 V voltage DC
Electrical connection	1 conductor cable 0.2...2.5 mm² AWG24...AWG12 flexible cablewith cable end conforming to IEC 60947-1 1 conductor cable 0.5...4 mm² AWG20...AWG11 solid cablewithout cable end conforming to IEC 60947-1 2 conductors cable 0.2...1.5 mm² AWG24...AWG16 flexible cablewith cable end conforming to IEC 60947-1 2 conductors cable 0.5...2.5 mm² AWG20...AWG14 solid cablewithout cable end conforming to IEC 60947-1
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

### Complementary

Reset time	1500 ms for time delay
Maximum switching voltage	250 V AC/DC
[Us] rated supply voltage	110...240 V AC/DC
Supply voltage limits	50...270 V AC/DC
Power consumption in W	<= 1 W DC
Control circuit frequency	50...60 Hz +/- 10 %
Output contacts	1 C/O
Nominal output current	5 A
Measuring cycle	<= 150 ms measurement cycle as true rms value
Hysteresis	5...20 % of threshold setting
Delay at power up	1 s DC 0.5 s AC
Measurement accuracy	+/- 10 % of the full scale value

Repeat accuracy	+/- 0.5 % for input and measurement circuit +/- 1 % for time delay
Measurement error	< 1 % over the whole range with voltage variation 0.2 %/°C with temperature variation
Polarity	Non reversible polarity on DC supply
Marking	CE : 73/23/EEC CE : EMC 89/336/EEC
Overvoltage category	III conforming to IEC 60664-1
Insulation resistance	> 500 MOhm at 500 V DC conforming to IEC 60255-5 > 500 MOhm at 500 V DC conforming to IEC 60664-1
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1 400 V conforming to IEC 60664-1
Supply frequency	50/60 Hz +/- 10 %
Operating position	Any position without derating
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Status LED	1 LED green for power ON 1 LED yellow for relay ON
Mounting support	35 mm symmetrical DIN rail conforming to EN/IEC 60715
Electrical durability	100000 cycles
Mechanical durability	3000000 cycles
Operating rate	<= 360 operations/hour under full load
Width	17.5 mm
Product weight	0.08 kg

## Environment

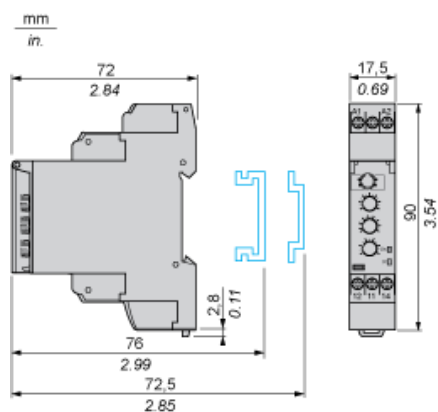
Immunity to microbreaks	20 ms
Electromagnetic compatibility	Emission standard for industrial environments conforming to EN/IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-3 Immunity for industrial environments conforming to NF EN/IEC 61000-6-2
Standards	EN/IEC 60255-6
Product certifications	CSA C-Tick GL GOST UL
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/IEC 60255-21-1 1 gn (f = 57.6...150 Hz) conforming to IEC 60068-2-6/IEC 60255-21-1
Shock resistance	5 gn conforming to IEC 60068-2-27
IP degree of protection	IP20 (terminals) conforming to IEC 60529 IP30 (casing) conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Dielectric test voltage	2 kV AC 50 Hz, 1 min conforming to IEC 60255-5 2 kV AC 50 Hz, 1 min 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
RoHS EUR status	Compliant
RoHS EUR conformity date	0701

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Single-Phase and DC Voltage Control Relays

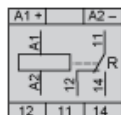
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Dimensions and Mounting

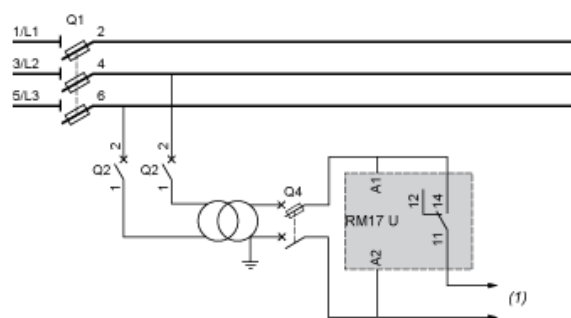


## Single-Phase and DC Voltage Control Relays

### Wiring Diagram



### Application Scheme

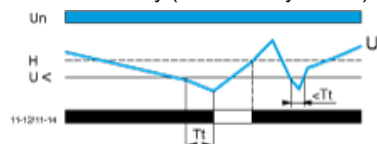


(1) To sensitive loads

## Function Diagrams

### Undervoltage Control

Without memory ("No Memory" mode)



$T_t$  Time delay after crossing of threshold (adjustable from 0.1 s to 10 s)

$U_n$  Nominal supply voltage

$U$  Monitored supply voltage

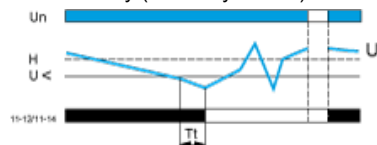
$H$  Hysteresis adjusted by means of a potentiometer graduated from 5...20% of the threshold setting

$U<$  Undervoltage threshold (set by means of a graduated potentiometer)

11-12 Output relay connections (refer to Connections and Schema)

Relay status: black color = energized.

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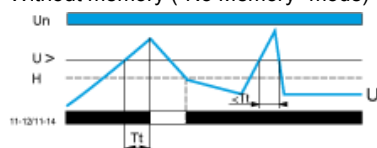
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In "Memory" mode, the relay opens when crossing of the threshold is detected and then stays in that position. The power supply voltage must be switched off to reset the product.

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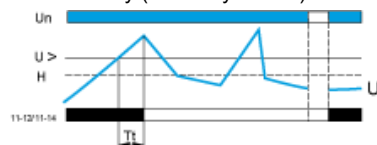
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