

RM17UBE16

voltage control relay RM17-U - range 20..80 V
AC



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	Overvoltage and 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	<= 3.9 VA AC
Measurement range	20...80 V voltage DC 20...80 V voltage AC 50/60 Hz
Utilisation category	DC-14 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1 DC-12 conforming to IEC 60947-5-1 AC-15 conforming to IEC 60947-5-1 AC-14 conforming to IEC 60947-5-1 AC-13 conforming to IEC 60947-5-1 AC-12 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	24...48 V AC/DC, 50/60 Hz +/- 10 %
Supply voltage limits	15...100 V AC/DC
Power consumption in W	<= 1.6 W DC
Immunity to microbreaks	20 ms
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	3 % fixed of threshold setting
Delay at power up	<= 500 ms AC <= 100 ms DC
Measurement accuracy	+/- 10 % of the full scale value
Repeat accuracy	+/- 1 % for time delay +/- 0.5 % for input and measurement circuit
Measurement error	0.2 %/°C with temperature variation < 1 % over the whole range with voltage 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 60664-1 > 500 MOhm at 500 V DC conforming to IEC 60255-5

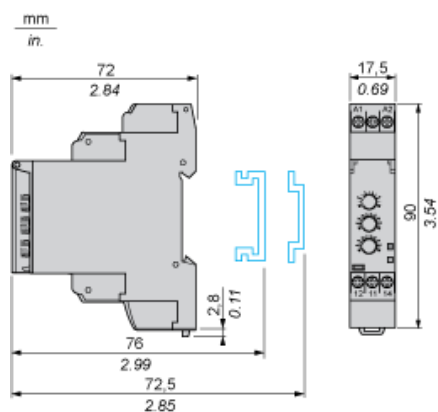
[Ui] rated insulation voltage	400 V conforming to IEC 60664-1 250 V conforming to IEC 60664-1
Operating position	Any position without derating
Connections - terminals	Screw terminals 2 x 0.2...2 x 1.5 mm ² - AWG 24...AWG 16, flexible cable with cable end Screw terminals 1 x 0.2...2 x 2.5 mm ² - AWG 24...AWG 12, flexible cable with cable end Screw terminals 2 x 0.5...2 x 2.5 mm ² - AWG 20...AWG 14, solid cable without cable end Screw terminals 1 x 0.5...1 x 4 mm ² - AWG 20...AWG 11, solid cable without cable end
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Local signalling	LED yellow for relay ON LED green for power 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 under full load
Width	17.5 mm
Product weight	0.08 kg

Environment

Electromagnetic compatibility	Immunity for industrial environments conforming to NF EN/IEC 61000-6-2 Emission standard for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-3 Emission standard for industrial environments conforming to EN/IEC 61000-6-4
Standards	EN/IEC 60255-6
Product certifications	CSA C-Tick GL GOST UL
Directives	89/336/EEC - electromagnetic compatibility 73/23/EEC - low voltage directive
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	1 gn (f = 57.6...150 Hz) conforming to IEC 60255-21-1 0.35 mm (f = 5...57.6 Hz) conforming to IEC 60068-2-6
Shock resistance	5 gn conforming to IEC 60068-2-27
IP degree of protection	IP30 (casing) conforming to IEC 60529 IP20 (terminals) 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 60664-1 2 kV AC 50 Hz, 1 min conforming to IEC 60255-5
Non-dissipating shock wave	4 kV conforming to IEC 61000-4-5 4 kV conforming to IEC 60664-1 4 kV conforming to IEC 60255-5

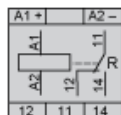
Single-Phase and DC Voltage Control Relays

Dimensions and Mounting

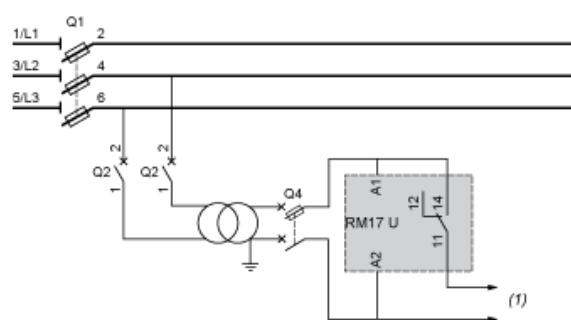


Single-Phase and DC Voltage Control Relays

Wiring Diagram



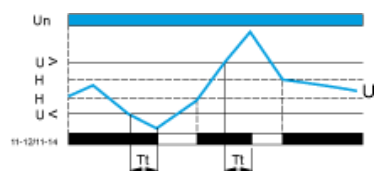
Application Scheme



(1) To sensitive loads

Function Diagram

Control of Overvoltage and Undervoltage in Window 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 Output relay connections

Relay status: black color = energized.