

- › **RU2R1**
- › **Timers**
- › **DIN rail mount**
- › **22.5 mm - 2 Relays 8A**

- › Relay output
- › Multi-function or mono-function
- › Multi-range
- › Multi-voltage
- › Screw terminals
- › LED status indicator



Specifications						
Functions	Timing	Output	Nominal rating	Connections	Supply voltage	Code
A - Ac - At - B - Bw - C - D - Di - H - Ht	0,1 s → 100 h	2 changeover relay	2 x 8 A	Screw terminals	24 V DC / 24 → 240 V AC	88866305

Timing	
Timing ranges (7 ranges)	1 s - 10 s - 1 min - 10 min - 1 h - 10 h - 100 h
Repetition accuracy with constant parameters	± 0.5 % (IEC/EN 61812-1)
Drift Temperature	± 0,05 % / °C
Drift Voltage	± 0,2 % / V
Display accuracy according to IEC/EN 61812-1	± 10 % / 25 °C
Immunity from micro power cuts : typical	< 10 ms
Minimum pulse duration typically	30 ms
Minimum pulse duration typically (under load)	100 ms
Maximum reset time by de-energisation typically	120 ms

Supply	
Multi-voltage power supply	Depending on version
Frequency (Hz)	50 / 60
Operating factor	100 %
Operating range	85 → 110 % Un
Max. absorbed power	15 VA (400 VAC) 50 VA (240 VAC) 0,7 W (24 VDC) 1,2 VA (12 VAC) 0,5 W (12 VDC)

Output specification	
Rated power	2000 VA/80 W
Maximum breaking current	8 AAC 250 VAC resistive 8 ADC 30 VDC resistive
Minimum breaking current	10 mA / 5 VDC

Output specification	
Voltage breaking capacity	250 VAC / 8 AAC resistive 250 VDC / 0,3 A resistive
Electrical life (operations)	10 ⁵ 8 A 250 VAC resistive
Mechanical life (operations)	10 x 10 ⁶
Breakdown voltage acc. to IEC/EN 61812-1	2,5 kV / 1 min / 1 mA / 50 Hz
Impulse voltage acc. to IEC/EN 60664-1, IEC/EN 61812-1	5 kV wave 1.2 / 50 µs
2 changeover relays, AgNi (cadmium-free)	2 C/O RQR1- RQR62 open contacts

General characteristics	
Conformity to standards	IEC/EN 61812-1 IEC/EN 61000-6-1 IEC/EN 61000-6-2 IEC/EN 61000-6-3 IEC/EN 61000-6-4
Certifications	CE, UL, cUL, CSA, GL
Temperature limits use (°C)	-20 → +60
Temperature limits stored (°C)	-30 → +60
Installation category (acc. to IEC/EN 60664-1)	Voltage surge category III
Creepage distance and clearance acc. to IEC/EN 60664-1	4 kV / 3 mm
Protection (IEC/EN 60529)	IP20
	IP40
Degree of protection acc. to IEC/EN 60529 Front face	IP50
Vibration resistance acc. to IEC/EN 60068-2-6	20 m/s ² 10 Hz → 150 Hz
Relative humidity no condensation acc. to IEC/EN 60068-2-30	93 % non-condensing
Electromagnetic compatibility - Immunity to electrostatic discharges acc to IEC/EN 61000-4-2	Level III (Air 8 kV / Contact 6 kV)
Immunity to radiated, radio-frequency, electromagnetic field acc. IEC/EN 61000-4-3	Level I (1 V/m : 2,0 G Hz → 2,7 G Hz) Level II (3 V/m : 1,4 G Hz → 2,0 G Hz) Level III (10 V/m : 80 M Hz → 1 G Hz)
Immunity to rapid transient bursts acc. to IEC/EN 61000-4-4	Level III (direct 2 kV / Capacitive coupling clamp 1 kV)
Immunity to shock waves on power supply acc. to IEC/EN 61000-4-5	Level III (2 kV / common mode 2 kV/residual current mode 1 kV)
Immunity to radio frequency in common mode acc. to IEC/EN 61000-4-6	Level III (10V rms : 0.15 M Hz to 80 M Hz)
Immunity to voltage dips and breaks acc. to IEC/EN 61000-4-11	0 % residual voltage, 1 cycle 70 % residual voltage, 25/30 cycles
Mains-borne and radiated emissions acc. to EN 55022 (CISPR22), EN55011 (CISPR11)	Class B
Fixing : Symmetrical DIN rail	35 mm
Terminal capacity Single-wire without ferrule	1 x 0,5 → 3,3 mm ² (AWG 20 → AWG 12) 2 x 0,5 → 2,5 mm ² (AWG 20 → AWG 14)
Terminal capacity Multi-wire with ferrule	1 x 0,5 → 2,5 mm ² (AWG 20 → AWG 14) 2 x 0,5 → 1,5 mm ² (AWG 20 → AWG 16)
Housing material	Self-extinguishing
Shock test IEC/EN 60068-2-27	15 g - 11 ms
Short interruption on power line acc to IEC/EN 61000-4-11	0 % residual voltage, 250/300 cycles
Weight : casing 22,5 mm	88 866 175 (RQR1) : 81 g 88 866 176 (RQR6) : 81 g 88 866 215 (RA2R1) : 87 g 88 866 300 (RU2R4) : 86 g 88 866 303 (RU2R3) : 90 g 88 866 305 (RU2R1) : 88 g 88 866 385 (RX2R1) : 88 g

General characteristics	
Insulation resistance according to IEC/EN 60664-1	> 500 MOhm(s) (500 VDC)
Dimensions	
RU2R1	
Curves	
Function A Delay on energisation	
Function Ac Timing after closing and opening of control contact	
Function At Timing on energisation with memory	
Function B Timing on impulse one shot	
Function Bw Pulse output (adjustable)	
Function C Timing after impulse delay OFF	
Function D Flip-flop Pause start	
Function Di Flip-flop Pulse start	
Function H Timing on energisation	
Function Ht Delay on energisation with memory	
Connections	
2 changeover relay outputs	