



## Main

Range of product	Harmony Timer Relays
Product or component type	Multifunction relay
Discrete output type	Relay
Width	17.5 mm
Device short name	RE17R
Time delay type	Pulse delay Safe-guard Bistable Interval
Time delay range	6...60 s 1...10 min 0.1...1 s 1...10 h 1...10 s 6...60 min 10...100 h
Nominal output current	8 A

## Complementary

Contacts type and composition	1 C/O
Contacts material	Cadmium free
Height	90 mm
Depth	72 mm
Control type	Selector switch front panel
[Us] rated supply voltage	24...240 V AC 50/60 Hz 24 V DC
Voltage range	0.85...1.1 Us
Supply frequency	50...60 Hz +/- 5 %
Release of input voltage	10 V
Connections - terminals	Screw terminals, 1 x 0.5...1 x 3.3 mm <sup>2</sup> (AWG 20...AWG 12) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end 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
Repeat accuracy	+/- 0.5 % conforming to IEC 61812-1
Temperature drift	+/- 0.05 %/°C
Voltage drift	+/- 0.2 %/V
Setting accuracy of time delay	+/- 10 % of full scale at 25 °C conforming to IEC 61812-1
Control signal pulse width	100 ms with load in parallel typical 30 ms typical
Insulation resistance	100 MOhm at 500 V DC conforming to IEC 60664-1
Reset time	120 ms on de-energisation typical
On-load factor	100 %
Power consumption in VA	0...32 VA at 240 V AC
Maximum power consumption in W	0.6 W at 24 V DC
Minimum switching current	10 mA at 5 V DC
Maximum switching current	8 A AC/DC

Maximum switching voltage	250 V AC
Breaking capacity	2000 VA
Operating frequency	10 Hz
Electrical durability	100000 cycles (8 A at 250 V AC maximum) for resistive load
Mechanical durability	10000000 cycles
Dielectric strength	2.5 kV 1 mA/1 minute 50 Hz conforming to IEC 61812-1
[Uimp] rated impulse withstand voltage	5 kV during 1.2/50 µs
Power on delay	100 ms
Marking	CE
Creepage distance	4 kV/3 conforming to IEC 60664-1
Safety reliability data	MTTFd = 296.8 years B10d = 270000
Mounting position	Any position in relation to normal vertical mounting plane
Mounting support	35 mm DIN rail conforming to EN/IEC 60715
Local signalling	LED indicator for on steady: relay energised, no timing in progress LED indicator for flashing: timing in progress 80 % ON and 20 % OFF LED indicator for pulsing: relay de-energised, no timing in progress (except function Di-D, Li-L) 5 % ON and 95 % OFF
Net weight	0.07 kg
Time delay type	Ad, Ah, N, O, P, Pt, TI, Tt, W
Functionality	Multifunction
Compatibility code	RE17

## Environment

Immunity to microbreaks	20 ms
Standards	2006/95/EC 2004/108/EC EN 61000-6-1 EN 61000-6-4 EN 61000-6-2 EN 61000-6-3 IEC 61812-1
Product certifications	CULus GL CSA
Ambient air temperature for storage	-30...60 °C
Ambient air temperature for operation	-20...60 °C
IP degree of protection	IP20 (terminal block) conforming to IEC 60529 IP40 (housing) conforming to IEC 60529 IP50 (front panel) conforming to IEC 60529
Vibration resistance	20 m/s <sup>2</sup> (f= 10...150 Hz) conforming to IEC 60068-2-6
Shock resistance	15 gn for 11 ms conforming to IEC 60068-2-27
Relative humidity	93 % without condensation conforming to IEC 60068-2-30
Electromagnetic compatibility	Electrostatic discharge immunity test: (in contact), level 3, 6 kV, conforming to IEC 61000-4-2 Electrostatic discharge immunity test: (in air), level 3, 8 kV, conforming to IEC 61000-4-2 Susceptibility to electromagnetic fields: (80 MHz to 1 GHz), level 3, 10 V/m, conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test: (capacitive connecting clip), level 3, 1 kV, conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test: (direct), level 3, 2 kV, conforming to IEC 61000-4-4 1.2/50 µs shock waves immunity test: (differential mode), level 3, 1 kV, conforming to IEC 61000-4-5 1.2/50 µs shock waves immunity test: (common mode), level 3, 2 kV, conforming to IEC 61000-4-5 Conducted RF disturbances: (0.15...80 MHz), level 3, 10 V, conforming to IEC 61000-4-6 Voltage dips and interruptions immunity test: (1 cycle), 0 %, conforming to IEC 61000-4-11 Voltage dips and interruptions immunity test: (25/30 cycles), 70 %, conforming to IEC 61000-4-11 Conducted and radiated emissions: , class B, conforming to EN 55022

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	82.0 g
Package 1 Height	3 cm
Package 1 width	8.3 cm
Package 1 Length	9.6 cm
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Weight	3.725 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm

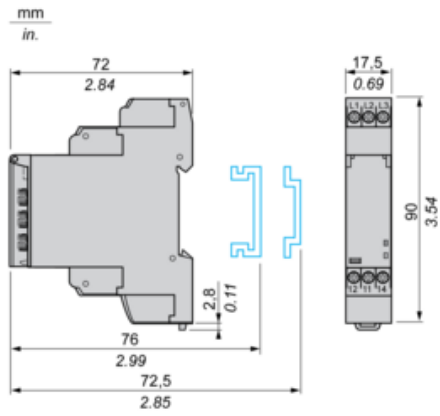
## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
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	<a href="#">Yes</a>
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>

## Contractual warranty

Warranty	18 months
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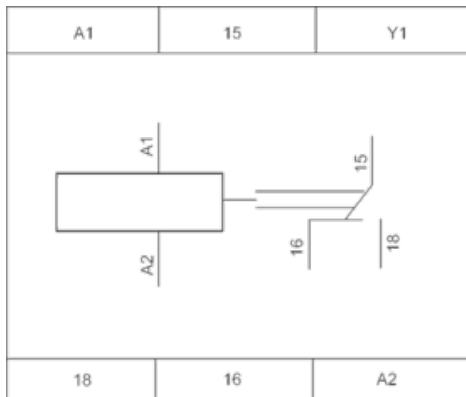
Width 17.5 mm



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Internal Wiring Diagram

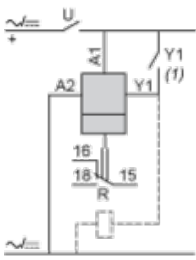
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Wiring Diagram

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1) Contact Y1:

- Control for functions B, C, Ac, Bw, Ad, Ah, N, O, W, T, Tt.
- Partial stop for functions At, Ht and Pt.
- Function D if Di selected.
- Not used for functions A, H and P.

Function Ad : Pulse Delayed Relay with Control Signal

Description

After power-up, pulsing or maintaining of control contact C starts the timing T.  
 At the end of this timing period T, the output R closes.  
 The output R will be reset the next time control contact C is pulsed or maintained.

Function: 1 Output



Function Ah : Pulse Delayed Relay (Single Cycle) with Control Signal

Description

After power-up, pulsing or maintaining of control contact C starts the timing T. A single cycle then starts with 2 timing periods T of equal duration (start with output in rest position).  
 Output R closes at the end of the first timing period T and reverts to its initial position at the end of the second timing period T.  
 Control contact C must be reset in order to re-start the single flashing cycle.

Function: 1 Output



Function N : Retriggerable Interval Relay with Control Signal On

Description

After power-up and an initial control pulse C, the output R closes.  
 If the interval between two control pulses C is greater than the set timing period T, timing elapses normally and the output R closes at the end of the timing period. If the interval is not greater than the set timing period, the output R remains closed until this condition is met.

Function: 1 Output

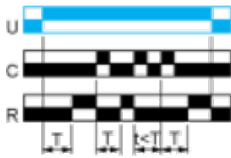


Function O : Retriggerable Interval Delayed Relay with Control Signal On

Description

An initial timing period T begins on energisation. At the end of this timing period, the output R closes.  
 As soon as there is a control pulse C, the output R reverts to its initial state until the interval between two control pulses is less than the value of the set timing period T. Otherwise, the output R closes at the end of the timing period T.

### Function: 1 Output



### Function P : Pulse Delayed Relay with Fixed Pulse Length

#### Description

The timing period T begins on energisation.

At the end of this period, the output R closes for a fixed time P.

### Function: 1 Output



P = 500 ms

### Function Pt : Pulse Delayed Relay (Summation and Fixed Pulse Length) with Control Signal Off

#### Description

On energisation, timing period T starts (it can be interrupted by operating the Gate control contact G).

At the end of this period, the output R closes for a fixed time P.

### Function: 1 Output



$T = t_1 + t_2 + \dots$

P = 500 ms

### Function TL : Bistable Relay with Control Signal On

#### Description

After power-up, pulsing or maintaining of control contact Y1 switches the output on.

A second pulse on the control contact Y1 switches the output relay off.



### Function Tt : Retriggerable Bistable Relay with Control Signal On

#### Description

After power-up, pulsing or maintaining of control contact C switches output R on and starts timing T.

The output switches off at the end of the timing period T or following a second pulse on the control contact C.

### Function: 1 Output



### Function W : Interval Relay with Control Signal Off

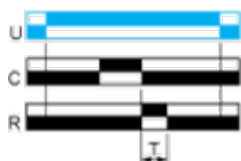
#### Description

After power-up and opening of the control contact, the output(s) close(s) for a timing period T.

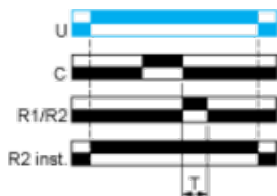
At the end of this timing period the output(s) revert(s) to its/their initial state.

The second output can be either timed or instantaneous.

### Function: 1 Output



### Function: 2 Outputs



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.).

### Legend

Relay de-energised

Relay energised

Output open

Output closed

C	Control contact
G	Gate
R	Relay or solid state output
R1/R2	2 timed outputs
R2 inst.	The second output is instantaneous if the right position is selected
T	Timing period
Ta -	Adjustable On-delay
Tr -	Adjustable Off-delay
U	Supply