



Main

Range of product	Harmony Timer Relays
Product or component type	Pulse delayed relay Safe-guard relay Bistable relay Interval relay
Discrete output type	Relay
Width	17.5 mm
Device short name	RE17R
Time delay type	Ad Ah N O P Pt TI Tt W
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 ² (AWG 20...AWG 12) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm ² (AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm ² (AWG 24...AWG 14) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm ² (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 ² (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	<p>Electrostatic discharge immunity test: (in contact), level 3, 6 kV, conforming to IEC 61000-4-2</p> <p>Electrostatic discharge immunity test: (in air), level 3, 8 kV, conforming to IEC 61000-4-2</p> <p>Susceptibility to electromagnetic fields: (80 MHz to 1 GHz), level 3, 10 V/m, conforming to IEC 61000-4-3</p> <p>Electrical fast transient/burst immunity test: (capacitive connecting clip), level 3, 1 kV, conforming to IEC 61000-4-4</p> <p>Electrical fast transient/burst immunity test: (direct), level 3, 2 kV, conforming to IEC 61000-4-4</p> <p>1.2/50 µs shock waves immunity test: (differential mode), level 3, 1 kV, conforming to IEC 61000-4-5</p> <p>1.2/50 µs shock waves immunity test: (common mode), level 3, 2 kV, conforming to IEC 61000-4-5</p> <p>Conducted RF disturbances: (0.15...80 MHz), level 3, 10 V, conforming to IEC 61000-4-6</p> <p>Voltage dips and interruptions immunity test: (1 cycle), 0 %, conforming to IEC 61000-4-11</p> <p>Voltage dips and interruptions immunity test: (25/30 cycles), 70 %, conforming to IEC 61000-4-11</p> <p>Conducted and radiated emissions: , class B, conforming to EN 55022</p>

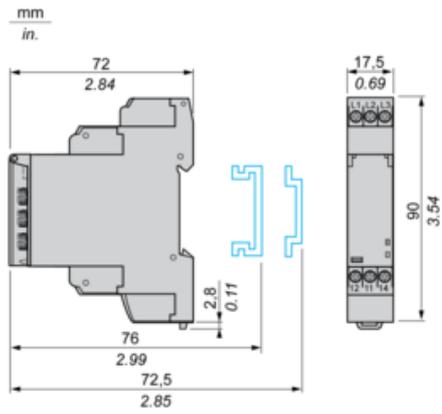
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	78 g
Package 1 Height	2.6 cm
Package 1 width	7.8 cm
Package 1 Length	9.5 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

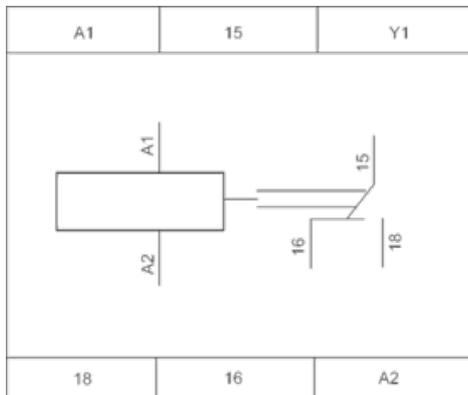
Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information

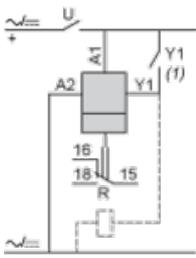
Width 17.5 mm



Internal Wiring Diagram



Wiring Diagram



1) Contact Y1:

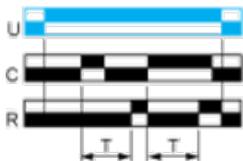
- Control for functions B, C, Ac, Bw, Ad, Ah, N, O, W, T, Tt.
- Partial stop for functions At, Ht and Pt.
- Function D if Di selected.
- Not used for functions A, H and P.

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

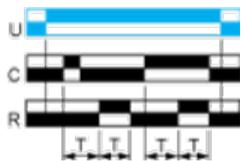


Function Ah : Pulse Delayed Relay (Single Cycle) with Control Signal

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

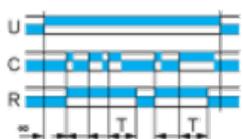


Function N : Retriggerable Interval Relay with Control Signal On

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

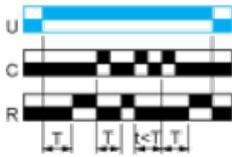


Function O : Retriggerable Interval Delayed Relay with Control Signal On

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

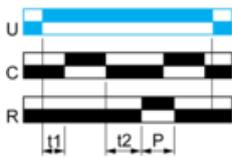
Function Pt : Pulse Delayed Relay (Summation and Fixed Pulse Length) with Control Signal Off

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



$T = t_1 + t_2 + \dots$

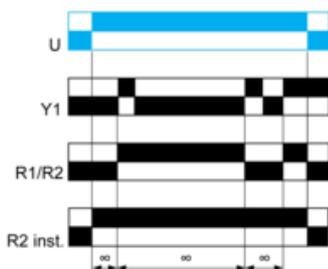
P = 500 ms

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

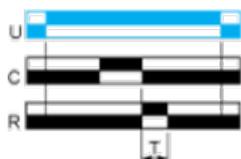
Description

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

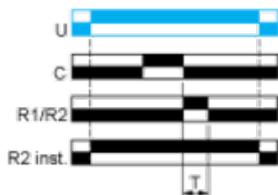
At the end of this timing period the output(s) revert(s) to its/their initial state.

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