



## Main

Range of Product	Harmony Timer Relays
Product or Component Type	Multifunction relay
Discrete output type	Relay
Device short name	RE22
Nominal output current	8 A

## Complementary

Contacts type and composition	1 C/O timed contact 1 C/O timed or instantaneous contact
Time delay type	Power on-delay On-delay and off-delay Interval Off-delay Symmetrical flashing
Time delay range	10...100 h 6...60 s 0.1...1 s 1...10 h 1...10 s 1...10 min 6...60 min
Control type	Rotary knob front panel
[Us] rated supply voltage	24...240 V AC 24 V DC
Voltage range	0.85...1.1 Us
Supply frequency	50...60 Hz +/- 5 %
Connections - terminals	Screw terminals, 2 x 1.5 mm <sup>2</sup> with cable end Screw terminals, 2 x 2.5 mm <sup>2</sup> without cable end
Tightening torque	5.31...8.85 lbf.in (0.6...1 N.m) IEC 60947-1
Housing material	Self-extinguishing
Repeat accuracy	+/- 0.5 % IEC 61812-1
Temperature Drift	+/- 0.05 %/°C
Voltage drift	+/- 0.2 %/V
Setting accuracy of time delay	+/- 10 % of full scale 25 °C IEC 61812-1
Control signal pulse width	30 Ms 100 ms under load
Insulation resistance	100 MOhm 500 V DC IEC 60664-1
Recovery time	120 ms on de-energisation
Immunity to microbreaks	10 ms
Power consumption in VA	50 VA 240 V AC
Power consumption in W	0.7 W 24 V DC
Breaking capacity	2000 VA
Minimum switching current	10 mA 5 V
Maximum switching current	8 mA

Maximum switching voltage	250 V
Electrical durability	100000 cycles for resistive load, 8 A at 250 V, AC
Mechanical durability	10000000 cycles
Rated impulse withstand voltage	5 kV 1.2...50 µs IEC 60664-1 5 kV IEC 61812-1
Power on delay	100 ms
Safety reliability data	MTTFd = 182.6 years B10d = 170000
Mounting position	Any position in relation to normal vertical mounting plane
Mounting support	35 mm DIN rail conforming to EN/IEC 60715
Status LED	Green LED flashing)timing in progress Green LED steady)power ON Yellow LEDrelay energised
Width	0.89 in (22.5 mm)
Net Weight	0.20 lb(US) (0.09 kg)

## Environment

Dielectric strength	2.5 kV 1 mA/1 minute 50 Hz IEC 61812-1
Standards	IEC 61812-1 EN 61000-6-1 EN 61000-6-2 EN 61000-6-3 EN 61000-6-4
Directives	2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive
Product Certifications	CULus CSA CE CCC RCM GL EAC
Ambient Air Temperature for Operation	-4...140 °F (-20...60 °C)
Ambient Air Temperature for Storage	-22...140 °F (-30...60 °C)
IP degree of protection	Housing IP40 IEC 60529 Terminal block IP20 IEC 60529 Front face IP40 IEC 60529
Vibration resistance	20 m/s <sup>2</sup> 10...150 Hz)IEC 60068-2-6
Shock resistance	15 gn 11 ms IEC 60068-2-27
Relative humidity	93 %, without condensation IEC 60068-2-30
Electromagnetic compatibility	Electrostatic discharge immunity test 6 kV contact discharge)level 3 EN/IEC 61000-4-2 Electrostatic discharge immunity test 8 kV air discharge)level 3 EN/IEC 61000-4-2 Fast transients immunity test 1 kV capacitive connecting clip)level 3 IEC 61000-4-4 Fast transients immunity test 2 kV direct contact)level 3 IEC 61000-4-4 Surge immunity test 1 kV differential mode)level 3 IEC 61000-4-5 Surge immunity test 2 kV common mode)level 3 IEC 61000-4-5 Radiated radio-frequency electromagnetic field immunity test 10 V 0.15...80 MHz)level 3 IEC 61000-4-6 Electromagnetic field immunity test 10 V/m 80 MHz...1 GHz)level 3 IEC 61000-4-3 Immunity to microbreaks and voltage drops 30 % 500 ms) IEC 61000-4-11 Immunity to microbreaks and voltage drops 100 % 20 ms) IEC 61000-4-11 Conducted and radiated emissionsclass B EN 55022







## Ordering and shipping details

Category	22376-RELAYS-MEASUREMENT(RM4)
Discount Schedule	CP2
GTIN	3606480676581
Nbr. of units in pkg.	1
Package weight(Lbs)	3.63 oz (103.0 g)
Returnability	No
Country of origin	ID

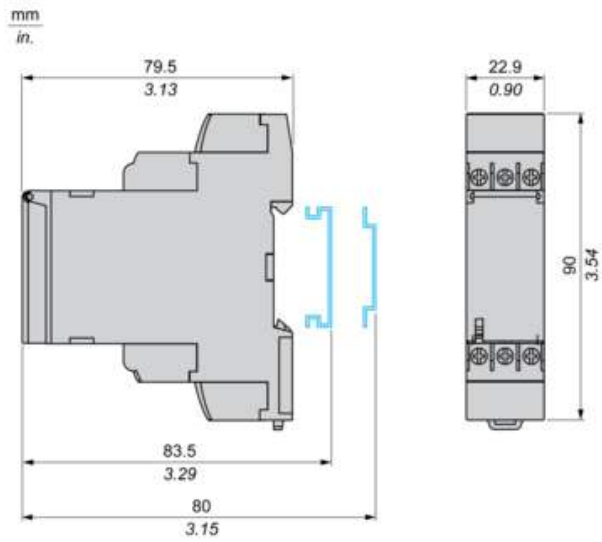
## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	0.98 in (2.5 cm)
Package 1 width	3.23 in (8.2 cm)
Package 1 Length	3.74 in (9.5 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Weight	9.96 lb(US) (4.519 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)

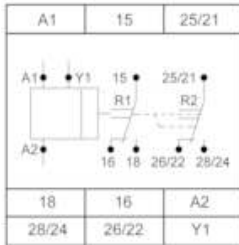
## Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
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>

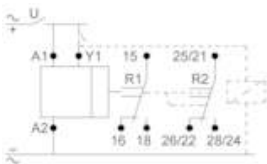
Dimensions



## Internal Wiring Diagram



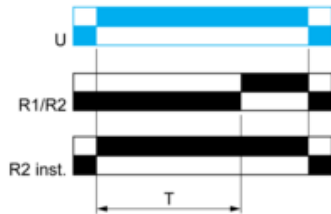
## Wiring Diagram



Function A : Power on Delay Relay

Description

The timing period T begins on energization. After timing, the output(s) relay close(s).



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

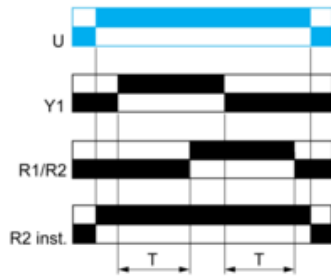
Function Ac : On- and Off-Delay Relay with Control Signal

Description

After power-up, closing of the control contact Y1 causes the timing period T to start (timing can be interrupted by operating the Gate control contact G). At the end of this timing period, the relay closes.

When control contact Y1 re-opens, the timing T starts. At the end of this timing period T

At the end of this timing period T, the output reverts to its initial position (timing can be interrupted by operating the Gate control contact G).

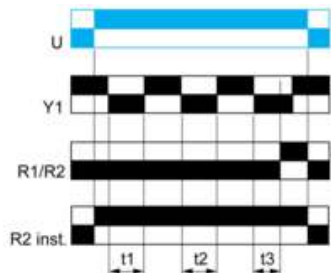


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Function At : Power on Delay Relay (Summation) with Control Signal

Description

After power-up, the first opening of control contact Y1 starts the timing. Timing can be interrupted each time control contact closes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output relay closes.

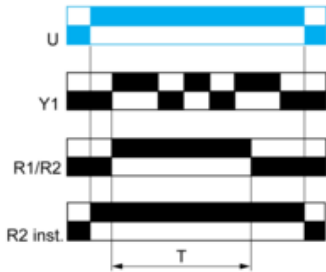


$T = t_1 + t_2 + t_3$

Function B : Interval Relay with Control Signal

Description

After power-up, pulsing or maintaining control contact Y1 starts the timing T. The output relay closes for the duration of the timing period T then reverts to its initial state.



### Function Bw : Double Interval Relay with Control Signal

#### Description

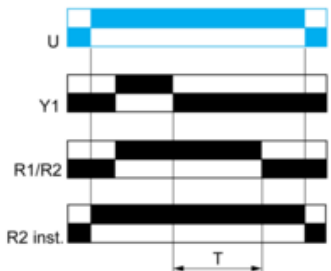
On closing and opening of control contact Y1, the output relay closes for the duration of the timing period T.



### Function C : Off-Delay Relay with Control Signal

#### Description

After power-up and closing of the control contact Y1, the output relay closes. When control contact Y1 re-opens, timing T starts. At the end of the timing period, the output(s) relay revert(s) to its/their initial state.

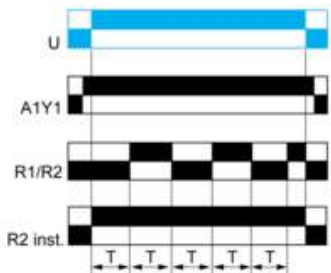


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

### Function D : Symmetrical Flasher Relay (Starting Pulse Off)

#### Description

Repetitive cycle with two timing periods T of equal duration, with output(s) relay changing state at the end of each timing period T.



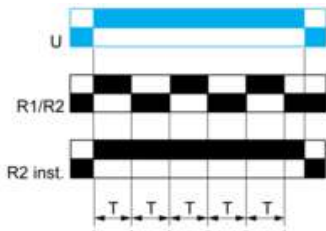
Before power-up Y1 should be permanently connected to A1.

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

### Function D : Symmetrical Flasher Relay (Starting Pulse On)

#### Description

Repetitive cycle with two timing periods T of equal duration, with output(s) relay changing state at the end of each timing period T.

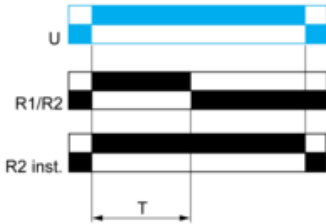


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

## Function H : Interval Relay

### Description

On energization of the relay, timing period T starts and the output(s) relay close(s). At the end of the timing period T, the output(s) relay revert(s) to its/their initial state



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

Y1 :	Control contact
R1/R2 :	2 timed outputs
R2 inst. :	The second output is instantaneous if the right position is selected
T :	Timing period
U :	Supply

## Function Ht: Interval Relay & With Pause / Summation Control

### Description

On energisation of power supply, output(s) R close(s) and timing period T starts.

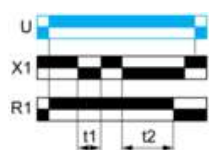
The timing can be interrupted / paused each time X1 energizes.

When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their initial state Reenergization of X1 will also cause output(s) R close(s) if the time has elapsed and restart the same operation as described at the beginning.

Except for RE17\*, RE22R2MMW, RENF22R2MMW, RE22R2MMU and RE22R2MJU, timing can be interrupted / paused each time Y1 energizes.

The second output (R2) can be either timed (when set to "TIMED" or instantaneous (when set to "INST").

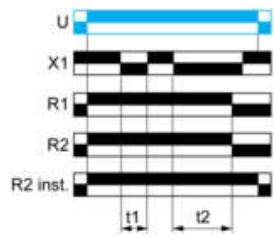
### Function: 1 Output



$T = t1 + t2 + \dots$

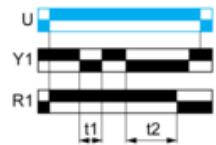


### Function: 2 Outputs



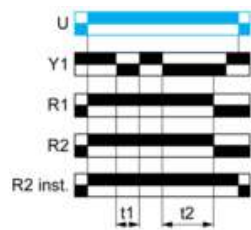
$$T = t1 + t2 + \dots$$

### Function: 1 Output with Retrigger / Restart Control



$$T = t1 + t2 + \dots$$

### Function: 2 Outputs with Retrigger / Restart Control



$$T = t1 + t2 + \dots$$