

RE22R2MMU

Harmony, Modular timing relay, 8 A, 2 CO, 0.1 s... 100 h, multifunction, 24 V DC / 24...240 V AC/DC



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 ² with cable end Screw terminals, 2 x 2.5 mm ² 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

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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/s² 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

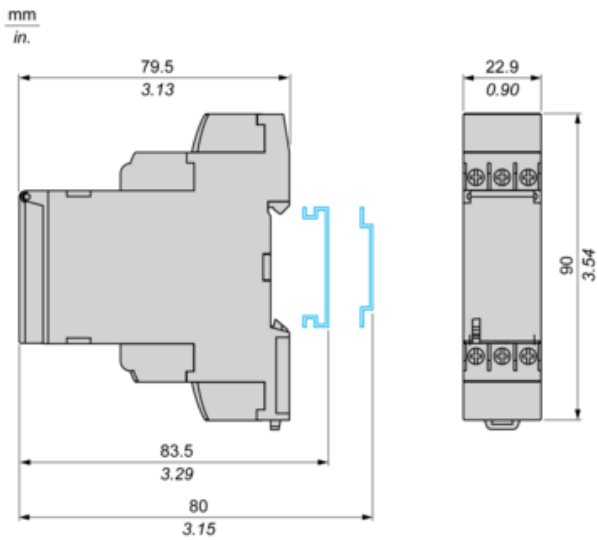
Packing Units

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)

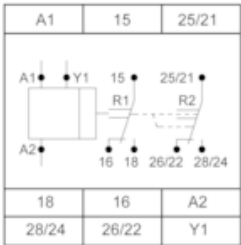
Offer Sustainability

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 www.P65Warnings.ca.gov
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

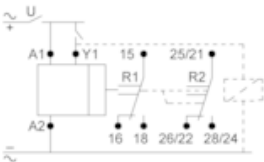
Dimensions



Internal Wiring Diagram



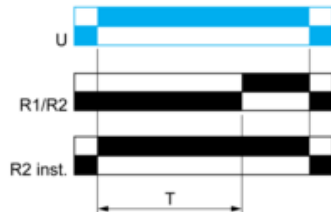
Wiring Diagram



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.)

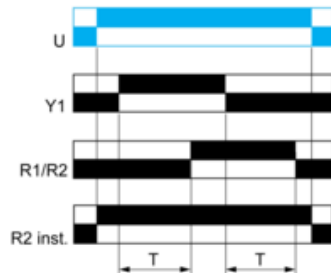
Function Ac : On- and Off-Delay Relay with Control Signal

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).

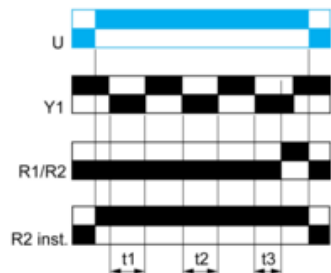


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

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.

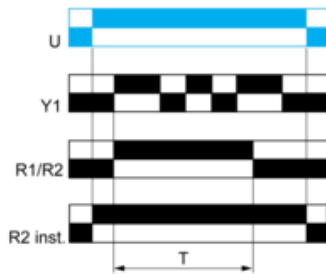


$T = t_1 + t_2 + t_3$

Function B : Interval Relay with Control Signal

Description

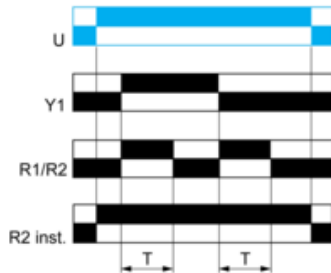
After power-up, pulsing or maintaining control contact Y1 starts the timing T. The output relay closes for the duration of the timing period T then reverts to its initial state.



Function Bw : Double Interval Relay with Control Signal

Description

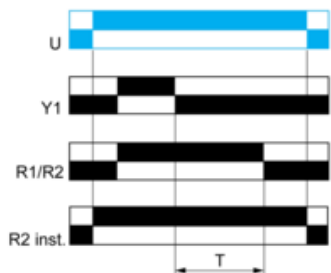
On closing and opening of control contact Y1, the output relay closes for the duration of the timing period T.



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.

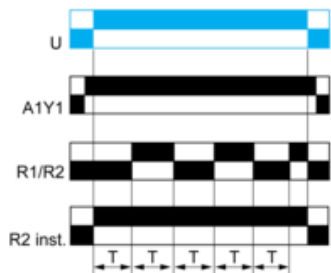


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

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.



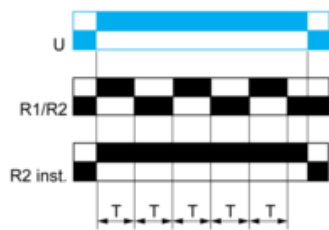
Before power-up Y1 should be permanently connected to A1.

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.

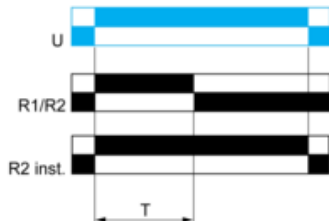


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

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.

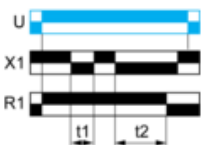
The timing can be interrupted / paused each time X1 energizes.

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.

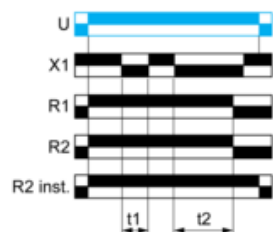
The second output (R2) can be either timed (when set to "TIMED" or instantaneous (when set to "INST").

Function: 1 Output



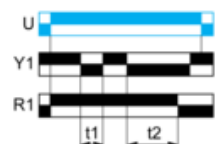
$$T = t1 + t2 + \dots$$

Function: 2 Outputs



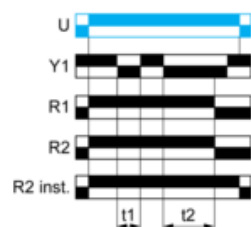
$$T = t1 + t2 + \dots$$

Function: 1 Output with Retrigger / Restart Control



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

Function: 2 Outputs with Retrigger / Restart Control



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

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