



Osnovne informacije

Grupa proizvoda	Harmony Timer Relays
Tip proizvoda ili komponente	Multifunction relay
Tip digitalnog izlaza	Relej
Kratko ime uređaja	RE22
Nazivna izlazna struja	8 A

Dopunske informacije

Tip i sastav kontakta	1 C/O vremenski podesivi kontakt, bez kadmijuma
Tip kašnjenja	Power on-delay Kašnjenje isključenja On-delay and off-delay Symmetrical flashing Interval
Opseg vremenskog kašnjenja	30...300 s 10...100 s 3...30 s 30...300 min 3...30 min 0.3...3 s 0.05...1 s 30...300 h 1...10 s 3...30 h
Način upravljanja	Zakretna ručica Dijagnostički taster Potenciometar spoljašnji
[us] nazivni napon napajanja	24...240 V AC/DC 50/60 Hz
Release input voltage	≤ 2.4 V
Opseg napona	0.85...1.1 Us
Frekvencija napajanja	50...60 Hz +/- 5 %
Povezivanje - priključci	Vijčani priključci, 1 x 0.5...1 x 3.3 mm ² (AWG 20...AWG 12) jednožični bez kablovskog završetka Vijčani priključci, 2 x 0.5...2 x 2.5 mm ² (AWG 20...AWG 14) jednožični bez kablovskog završetka Vijčani priključci, 1 x 0.2...1 x 2.5 mm ² (AWG 24...AWG 14) fleksibilni sa kablovskim završetkom Vijčani priključci, 2 x 0.2...2 x 1.5 mm ² (AWG 24...AWG 16) fleksibilni sa kablovskim završetkom
Moment pritezanja	0,6...1 N.m u skladu sa IEC 60947-1
Materijal kućišta	Samogasivi
Tačnost ponavljanja	+/- 0.5 % u skladu sa IEC 61812-1
Temperaturni drift	+/- 0.05 %/°C
Naponski drift	+/- 0.2 %/V
Podešavanje tačnosti kašnjenja	+/- 10 % od pune skale pri 25 °C u skladu sa IEC 61812-1
Control signal pulse width	100 Milisekundi sa opterećenjem u paraleli 30 milisekundi
Otpornost izolacije	100 MOhm pri 500 V DC u skladu sa IEC 60664-1
Recovery time	120 milisekundi pri isključenju

Otpornost na mikroprekide	10 milisekundi
Snaga potrošnje u va	3 VA pri 240 V AC
Snaga potrošnje u w	1,5 W pri 240 V DC
Preklopna moć u va	2000 VA
Minimalna struja preklapanja	10 mA pri 5 V DC
Maksimalna struja preklapanja	8 A
Maksimalni napon preklapanja	250 V AC
Električna trajnost	100000 Ciklusa, 8 A pri 250 V, AC-1 100000 ciklusa, 2 A pri 24 V, DC-1
Mehanička trajnost	10000000 ciklusa
Rated impulse withstand voltage	5 kV za 1,2...50 mikrosekundi u skladu sa IEC 60664-1
Power on delay	100 milisekundi
Puzna staza	4 kV/3 u skladu sa IEC 60664-1
Kategorija prenapona	III u skladu sa IEC 60664-1
Sigurnosni podaci o pouzdanosti	MTTFd = 205.4 godina B10d = 190000
Pozicija montaže	Bilo koja pozicija
Držač za montažu	35 mm DIN šina u skladu sa EN/IEC 60715
Statusne led lampice	Zelena LED pozadinsko osvetljenje (trajna) za indikacija izbornog prekidača Žuta LED lampica (trajna) za izlazni relej aktiviran Žuta LED lampica (brzo treperenje) za vremenska funkcija aktivna i relejni izlaz neaktivan Žuta LED lampica (sporo treperenje) za vremenska funkcija aktivna i relejni izlaz aktivan
Dostupna funkcija	A- Power on-delay relay-1 C/O Ac- On-delay and off-delay relay w/ control signal-1 C/O At- Power on-delay relay w/ pause/summation (X1)-1 C/O Aw- Power on-delay relay w/ retrigger/restart-1 C/O Act- On-delay and off-delay relay w/ control signal and pause/summation-1 C/O C- Off-delay relay w/ control signal-1 C/O Ct- Off-delay relay w/ control signal and pause/summation-1 C/O D- Symmetrical flashing relay (starting pulse-off)-1 C/O Dt- Symmetrical flashing relay (starting pulse-off) w/ pause/summation (X1)-1 C/O O Dw- Symmetrical flashing relay (starting pulse-off) w/ retrigger/restart-1 C/O Di- Symmetrical flashing relay (starting pulse-on)-1 C/O Dit- Symmetrical flashing relay (starting pulse-on) w/ pause/summation (X1)-1 C/O O Diw- Symmetrical flashing relay (starting pulse-on) w/ retrigger/restart-1 C/O H- Interval relay-1 C/O Ht- Interval relay w/ pause/summation (X1)-1 C/O Hw- Interval relay w/ retrigger/restart-1 C/O W- Interval relay w/ control signal off-1 C/O Wt- Interval relay w/ control signal off and pause/summation-1 C/O
Širina	22,5 mm
Masa proizvoda	0,1 kg

Okruženje

Dielektrična snaga	2,5 kV za 1 mA/1 minut pri 50 Hz između izlaznog releja i napajanja sa osnovna izolacija u skladu sa IEC 61812-1
Standardi	IEC 61812-1 UL 508
Direktive	2004/108/EC - elektromagnetna kompatibilnost 2006/95/EC - niskonaponska direktiva
Sertifikacija proizvoda	RCM GL EAC CE CSA CCC UL
Temperatura okoline za rad uređaja	-20...60 °C
Temperatura okoline za skladištenje	-40...70 °C
Ip stepen zaštite	IP40 kućište: u skladu sa IEC 60529 IP50 prednja strana: u skladu sa IEC 60529 IP20 priključci: u skladu sa IEC 60529
Stepen zaprljanosti	3 u skladu sa IEC 60664-1

Otpornost na vibracije	20 m/s ² (f= 10...150 Hz) u skladu sa IEC 60068-2-6
Otpornost na udare	15 gn kada uređaj nije u radu za 11 milisekundi u skladu sa IEC 60068-2-27 5 gn u radu za 11 milisekundi u skladu sa IEC 60068-2-27
Relativna vlažnost	95 % pri 25...55 °C
Elektromagnetna kompatibilnost	Test otpornosti brzih prelaza - test nivo: 1 kV nivo 3 (spojnica za kapacitivno povezivanje) u skladu sa IEC 61000-4-4 Test otpornosti udara - test nivo: 1 kV nivo 3 (diferencijalni mod) u skladu sa IEC 61000-4-5 Test otpornosti udara - test nivo: 2 kV nivo 3 (asimetrični napon) u skladu sa IEC 61000-4-5 Elektrostatička pražnjenja - test nivo: 6 kV nivo 3 (kontakt pražnjenja) u skladu sa IEC 61000-4-2 Elektrostatička pražnjenja - test nivo: 8 kV nivo 3 (pražnjenje u vazduhu) u skladu sa IEC 61000-4-2 Test otpornosti na emisije vezane sa zračenjem EM polja - test nivo: 10 V/m nivo 3 (80 MHz...1 GHz) u skladu sa IEC 61000-4-3 Radio smetnje emisije vezane sa vodovima - test nivo: 10 V nivo 3 (0.15...80 MHz) u skladu sa IEC 61000-4-6 Brzi prelazni kratki signal - test nivo: 2 kV nivo 3 (direktni kontakt) u skladu sa IEC 61000-4-4 Otpornost na mikroprekide i propade napona - test nivo: 30 % (500 ms) u skladu sa IEC 61000-4-11 Otpornost na mikroprekide i propade napona - test nivo: 100 % (20 ms) u skladu sa IEC 61000-4-11

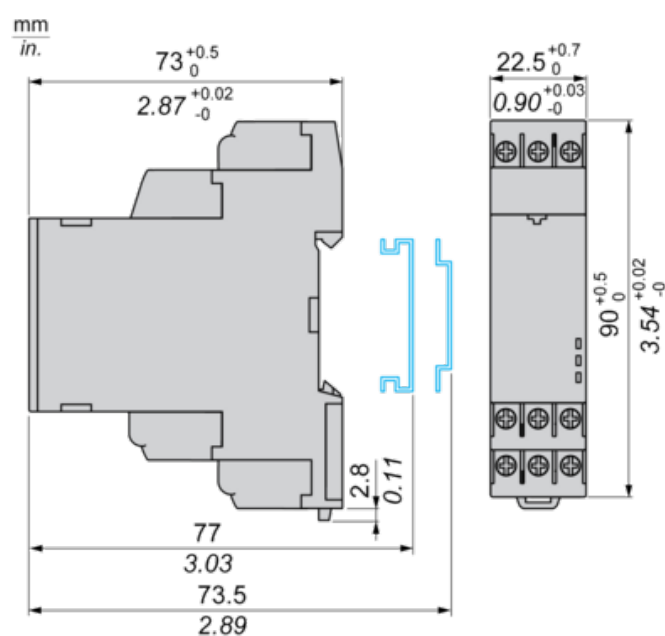
Pakovanje

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2,6 cm
Package 1 Width	8,2 cm
Package 1 Length	9,5 cm
Package 1 Weight	98 g

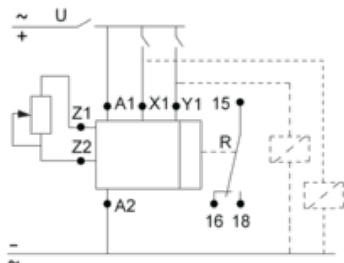
Održivost ponude

Status održive ponude	Green Premium proizvod
Propis REACh	 REACh Deklaracija
EU RoHS direktiva	Proaktivna usaglašenost (proizvod nije u zakonskom okviru direktive EU RoHS)  EU RoHS deklaracija
Bez žive	Da
Informacije o RoHS izuzecima	 Da
RoHS regulativa za Kinu	 RoHS Deklaracija Za Kinu
Izjava o zaštiti okoliša	 Profil Ekološke Prihvatljivosti Proizvoda
Profil cirkularnosti	 Informacije O Kraju Radnog Veka

Dimensions



Wiring Diagram

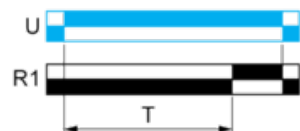


Function A: Power On-Delay

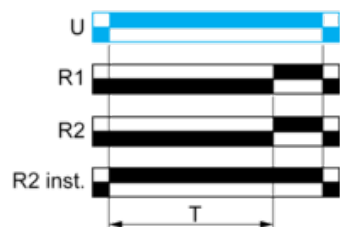
Description

On energisation of power supply, the timing period T starts. After timing, the output(s) R close(s). The second output ($R2$) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



Function: 2 Outputs



Function Ac: On-Delay & Off-Delay with Control Signal

Description

After energisation of power supply and energization of $Y1$ causes the timing period T to start.

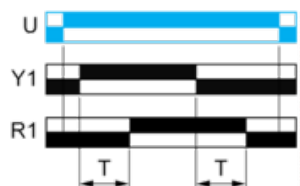
At the end of this timing period, the output(s) R close(s).

When deenergization of $Y1$, the timing T starts.

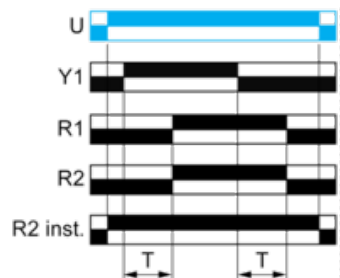
At the end of this timing period T , the output(s) R revert(s) to its/their initial position.

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

Function: 1 Output



Function: 2 Outputs

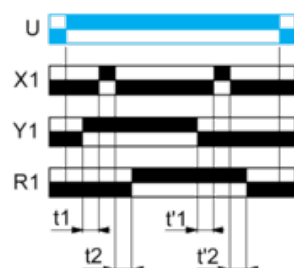


Function Act: On-Delay & Off-Delay with Control Signal & With Pause / Summation Control

Description

After energisation of power supply and energization of Y1 causes the timing period T to start and 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 close(s). When deenergization of Y1, the timing T starts and 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 position. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

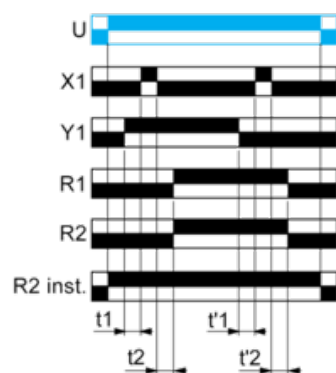
Function: 1 Output



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

$$T = t'1 + t'2 + \dots$$

Function: 2 Outputs



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

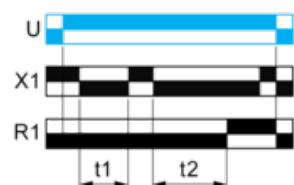
$$T = t'1 + t'2 + \dots$$

Function At: Power On-Delay with Pause / Summation Control

Description

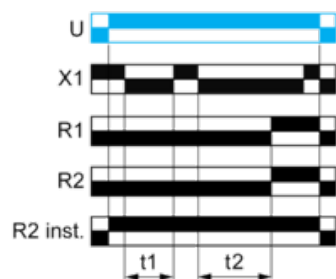
On energisation of power supply, the timing period T starts. Timing can be interrupted / paused each time X1 energizes. Except for RE17*, RE22R2AMU, RE22R2MMW, RE22R2MMU, RE22R2MJU, timing can be interrupted / paused each time Y1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R close(s). The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output with Pause / Summation Control



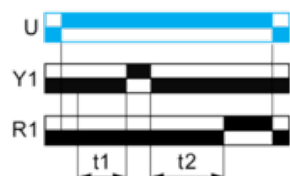
$$T = t1 + t2 + \dots$$

Function: 2 Outputs with Pause / Summation Control



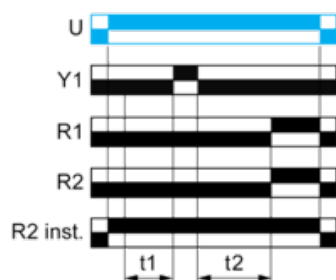
$$T = t1 + t2 + \dots$$

Function: 1 Output with Retrigger / Restart Control



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

Function: 2 Outputs with Retrigger / Restart Control



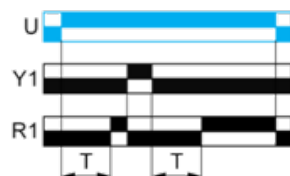
$$T = t1 + t2 + \dots$$

Function Aw : Power On-Delay With Retrigger / Restart Control

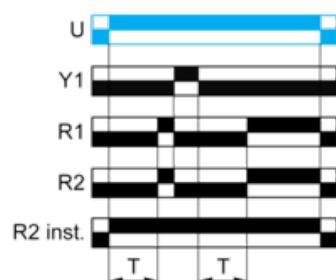
Description

On energisation of power supply, the timing period T starts. At the end of the timing period T, the output(s) R close(s). Energization of Y1 makes the output(s) R open(s). Deenergization of Y1 restarts timing period T. At the end of timing period T, the output(s) R close(s). The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST")

Function: 1 Output



Function: 2 Outputs

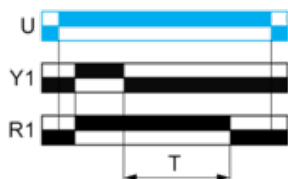


Function C: Off-Delay Relay with Control Signal

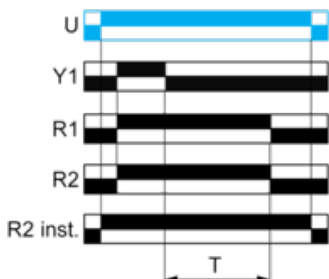
Description

After energisation of power supply and energization of Y1 causes output(s) R close(s). When Y1 deenergizes, timing T starts. At the end of this timing period T, the output(s) R revert(s) to its/their initial position. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



Function: 2 Outputs

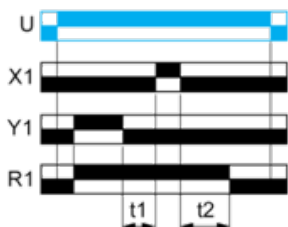


Function Ct: Off-Delay Relay with Control Signal & With Pause / Summation Control

Description

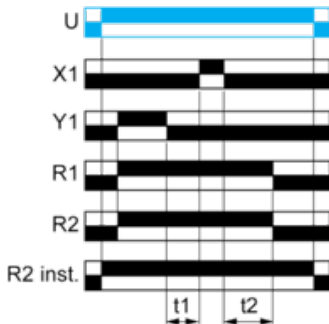
After energisation of power supply and energization of Y1 cause output(s) R close(s). When Y1 deenergizes, timing starts and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their initial state. 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



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

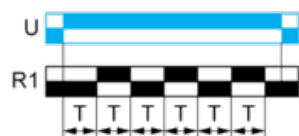
Function D: Symmetrical Flashing Relay (Starting Pulse Off)

Description

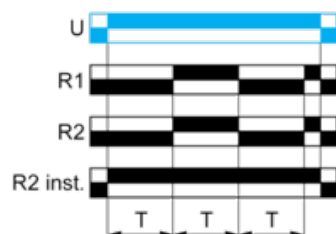
On energisation of power supply, output(s) R starts at its/their initial state for timing duration T then change(s) to output(s) R close(s) for the same timing duration T. This cycle is repeated indefinitely until power supply removal. Specially for RE17*, RE22R2AMU, RE22R2MMW,

RE22R2MMU, RE22R2MJU, this D function can only be initiated by energizing Y1 permanently. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



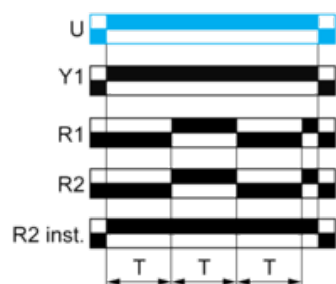
Function: 2 Outputs



Function: 1 Output with Retrigger / Restart Control



Function: 2 Output with Retrigger / Restart Control

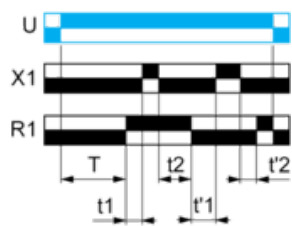


Function Dt: Symmetrical Flashing Relay (Starting Pulse Off) & With Pause / Summation Control

Description

On energisation of power supply, output(s) R starts at its/their initial state for timing duration T and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, then changes to output(s) R close(s). The output(s) R close state will remain for the same timing duration T and 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. This cycle is repeated indefinitely until power supply removal. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

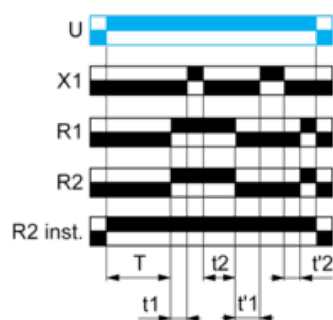
Function: 1 Output



$$T = t_1 + t_2 + \dots$$

$$T = t'_1 + t'_2 + \dots$$

Function: 2 Outputs



$$T = t_1 + t_2 + \dots$$

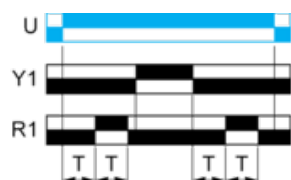
$$T = t'_1 + t'_2 + \dots$$

Function DW: Symmetrical Flashing Relay (Starting Pulse Off) & With Retrigger / Restart Control

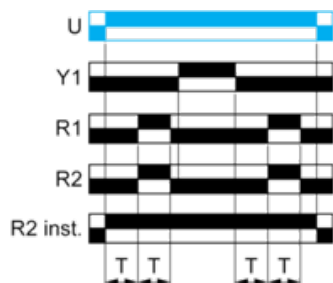
Description

On energisation of power supply, output(s) R starts at its/their initial state for timing duration T then change(s) to output(s) R close(s) for the same timing duration T. This cycle is repeated indefinitely until power supply removal. Specially for RE17*, RE22R2AMU, RE22R2MMW, RE22R2MMU, RE22R2MJU, this D function can only be initiated by energizing Y1 permanently. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



Function: 2 Outputs

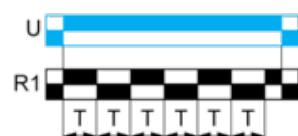


Function Di: Symmetrical Flashing Relay (Starting Pulse On)

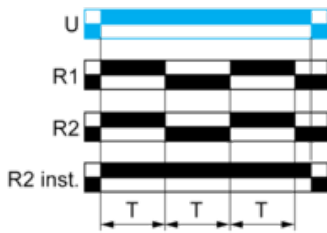
Description

On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration T then revert(s) to its/their initial state for the same timing duration T. This cycle is repeated indefinitely until power supply removal. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



Function: 2 Outputs

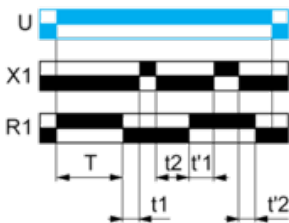


Function Dit: Symmetrical Flashing Relay (Starting Pulse On) & With Pause / Summation Control

Description

On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration T and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, then revert(s) to its/their initial state. The output(s) R at initial state will remain for the same timing duration T and 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 change(s) to close state. This cycle is repeated indefinitely until power supply removal. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

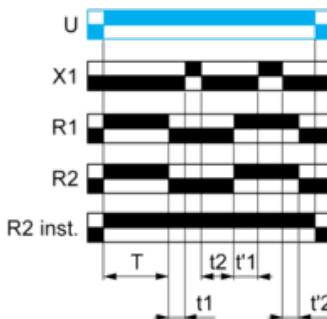
Function: 1 Output



$$T = t_1 + t_2 + \dots$$

$$T = t'_1 + t'_2 + \dots$$

Function: 2 Outputs



$$T = t_1 + t_2 + \dots$$

$$T = t'_1 + t'_2 + \dots$$

Function Diw: Symmetrical Flashing Relay (Starting Pulse On) & With Retrigger / Restart Control

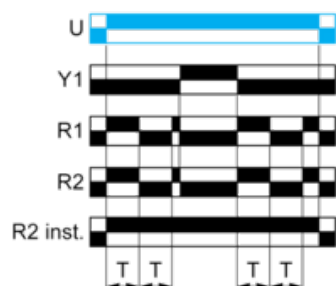
Description

On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration T then revert(s) to its/their initial state for the same timing duration T. This cycle is repeated indefinitely until power supply removal. At any state of the output(s) R when Y1 energizes, the output(s) R will revert to its/their initial state and followed by Y1 deenergizes then restarts the same operation as described at the beginning. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



Function: 2 Outputs



Function H: Interval Relay

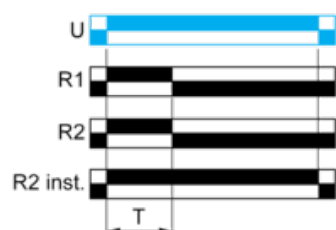
Description

On energisation of power supply, output(s) R close(s) and timing period T starts. At the end of the timing period T, the output(s) R revert(s) to its/their initial state. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



Function: 2 Outputs



Function Ht: Interval Relay & With Pause / Summation Control

Description

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

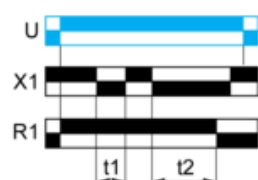
The timing can be interrupted / paused each time X1 energizes.

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.

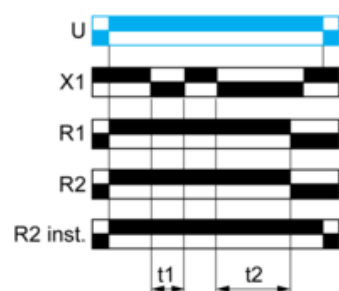
The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



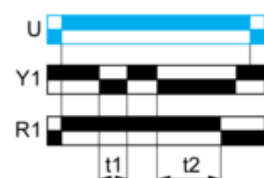
$$T = t1 + t2 + \dots$$

Function: 2 Outputs



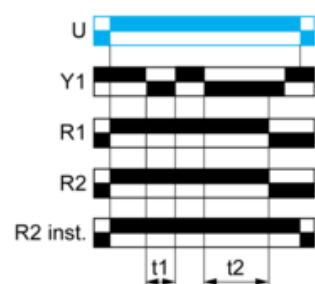
$$T = t1 + t2 + \dots$$

Function: 1 Output with Retrigger / Restart Control



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

Function: 2 Outputs with Retrigger / Restart Control



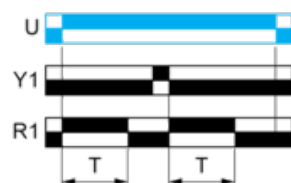
$$T = t1 + t2 + \dots$$

Function Hw: Interval Relay & with Retrigger / Restart Control

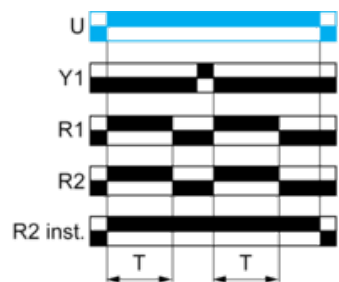
Description

On energisation of power supply, output(s) R close(s) and timing period T starts. At the end of the timing period T, the output(s) R revert(s) to its/their initial state. At any state of the output(s) R when Y1 energizes followed by deenergizes, the output(s) R close(s) then restarts the same operation as described at the beginning. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



Function: 2 Outputs

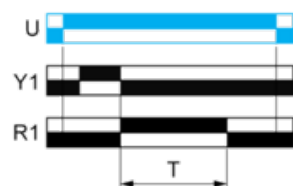


Function W: Interval Relay with Control Signal Off

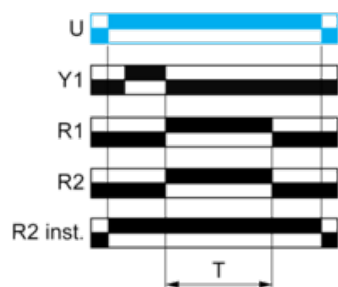
Description

After energisation of power supply and on energization of Y1 following by deenergization of Y1, the output(s) R close(s) and starts the timing T. At the end of the timing period, the output(s) R revert(s) to its/their initial state. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



Function: 2 Outputs

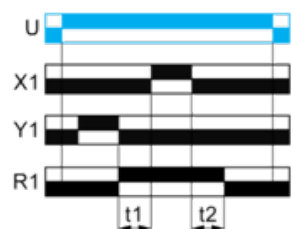


Function Wt: Interval Relay with Control Signal Off & with Pause / Summation Control

Description

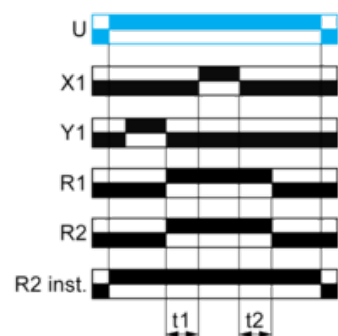
After energisation of power supply and on energization of Y1 following by deenergization of Y1, the output(s) R close(s) and starts the timing T. Timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their initial state. 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



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

Legend

Relay de-energised

Relay energised

Output open

Output closed

U -	Supply
R1/R2 -	2 timed outputs
X1 -	Pause / Summation control
Y1 -	Retrigger / Restart control
R2 inst. -	The second output is instantaneous if the right position is selected
T -	Timing period