

Tehničke karakteristike proizvoda Karakteristike

RENF22R2MMW

vremenski relej NFC 0.1 s..999h - 2C/O 24-240VDC/AC



Osnovne informacije

Grupa proizvoda	Harmony Timer Relays
Tip proizvoda ili komponente	Multifunction relay
Kratko ime uređaja	RENF22
Supported OS	Android
Verzija softvera	V4.4 i iznad
App for product	Zelio NFC (može se preuzeti sa Google Play prodavnice)

Dopunske informacije

Tip digitalnog izlaza	Releji
Nazivna izlazna struja	8 A
Tip i sastav kontakta	2 C/O vremenski podesivi kontakt, bez kadmijuma 1 C/O trenutno i zakasnelo uključivanje kontakta, bez kadmijuma
Tip kašnjenja	Power on-delay On-delay and off-delay Pulse delay Asymmetrical on-delay and off-delay Interval Kašnjenje isključenja Symmetrical flashing Safe-guard Star-delta Asymmetrical flashing Bistable
Opseg vremenskog kašnjenja	0.1 s...999 h
Kompatibilnost proizvoda	Mobilni uređaj sa NFC-om
[us] nazivni napon napajanja	24...240 V AC/DC
Release input voltage	<= 2.4 V
Opseg napona	0.85...1.1 Un
Maximum RF power transmitted	0,0002 mW
NFC operating frequency	13.56 MHz
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 0,60...0,99 N.m u skladu sa IEC 60947-1
Materijal kućišta	Samogasivi
Tačnost ponavljanja	+/- 0.2 % za 10 s...999 h +/- 0.5 % za 100 ms...10 s
Temperaturni drift	+/- 0.05 %/°C

Naponski drift	+/- 0.2 %/V
Podešavanje tačnosti kašnjenja	+/- 1 % za 1...999 h pri 25 °C +/- 2 % za 1 h pri 25 °C +/- 20 ms za 100 ms...10 s pri 25 °C
Control signal pulse width	100 Milisekundi sa opterećenjem u paraleli 60 milisekundi bez opterećenja
Otpornost izolacije	100 MOhm pri 500 V DC u skladu sa IEC 60664-1
Recovery time	120 milisekundi pri isključenju
Snaga potrošnje u va	3 VA pri 240 V AC
Snaga potrošnje u w	1,5 W pri 240 V DC 0,6 W pri 24 V DC
Preklopna moć u va	2000 VA
Minimalna struja preklapanja	10 mA pri 5 V
Maksimalna struja preklapanja	8 A
Maksimalni napon preklapanja	250 V
Električna trajnost	100000 ciklusa za rezistivno opterećenje, 8 A pri 250 V, AC
Mehanička trajnost	10000000 ciklusa
Rated impulse withstand voltage	5 kV 1.2/50 µs 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
Podaci o sigurnosnoj pouzdanosti	MTTFd = 227.5 godina 100 % ciklusa za neprekidni rad pri 30 °C
Pozicija montiranja ručice	Bilo koja pozicija
Držač za montažu	35 mm DIN šina u skladu sa EN/IEC 60715
Status LED	Un, zelena LED trajna) za uključen uređaj R1, tamnožuta LED trajna) za kalem pod naponom R2, tamnožuta LED trajna) za kalem pod naponom Uparivanje, zelena LED trajna) za status komunikacije Un, zelena LED brzo treperenje) za režim dijagnostike R1, tamnožuta LED treperenje) za vremenska funkcija aktivna R2, tamnožuta LED treperenje) za vremenska funkcija aktivna
Maximum communication distance	10 mm
Vreme odziva	2 s
Širina	22,5 mm
Masa proizvoda	0,0904 kg

Okruženje







Otpornost na mikroprekide	10 milisekundi
Dielektrična snaga	2,5 KV za 1 mA/1 minut pri 50 Hz sa između relejnog izlaza u osnovne izolacije Sa osnovna izolacija
Standardi	EN 61000-6-1 EN 61000-6-2 EN 61000-6-4 EN 61812-1 EN 61000-6-3
Direktive	2014/35/EU - niskonaponska direktiva 2014/53/EU - direktiva za radio opremu 2014/30/EU - elektromagnetna kompatibilnost
Sertifikacija proizvoda	CE CSA KC UL CCC EAC DNV-GL
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 IP40 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	<p>Test otpornosti elektrostatičkog pražnjenja - test nivo: 6 kV nivo 3 (kontakt pražnjenja) u skladu sa EN/IEC 61000-4-2</p> <p>Test otpornosti elektrostatičkog pražnjenja - test nivo: 8 kV nivo 3 (pražnjenje u vazduhu) u skladu sa EN/IEC 61000-4-2</p> <p>Test otpornosti brzih prelaza - test nivo: 1 kV nivo 3 (spojnica za kapacitivno povezivanje) u skladu sa IEC 61000-4-4</p> <p>Test otpornosti brzih prelaza - test nivo: 2 kV nivo 3 (direktni kontakt) u skladu sa IEC 61000-4-4</p> <p>Test otpornosti udara - test nivo: 1 kV nivo 3 (diferencijalni mod) u skladu sa IEC 61000-4-5</p> <p>Test otpornosti udara - test nivo: 2 kV nivo 3 (asimetrični napon) u skladu sa IEC 61000-4-5</p> <p>Test otpornosti na emisije vezane sa zračenjem EM polja - test nivo: 10 V nivo 3 (0.15...80 MHz) u skladu sa IEC 61000-4-6</p> <p>Test otpornosti elektromagnetnog polja - test nivo: 10 V/m nivo 3 (80 MHz...1 GHz) u skladu sa IEC 61000-4-3</p> <p>Otpornost na mikroprekide i propade napona - test nivo: 30 % (500 ms) u skladu sa IEC 61000-4-11</p> <p>Otpornost na mikroprekide i propade napona - test nivo: 100 % (20 ms) u skladu sa IEC 61000-4-11</p> <p>Emisije vezane sa zračenjem klasa B u skladu sa EN 55022</p> <p>Emisije vezane sa vodovima klasa A u skladu sa EN 55022</p> <p>Test otpornosti elektromagnetnog polja - test nivo: 3 V/m nivo 2 (1.4 GHz...2 GHz) u skladu sa IEC 61000-4-3</p> <p>Test otpornosti elektromagnetnog polja - test nivo: 1 V/m nivo 1 (2...2.7 GHz) u skladu sa IEC 61000-4-3</p>

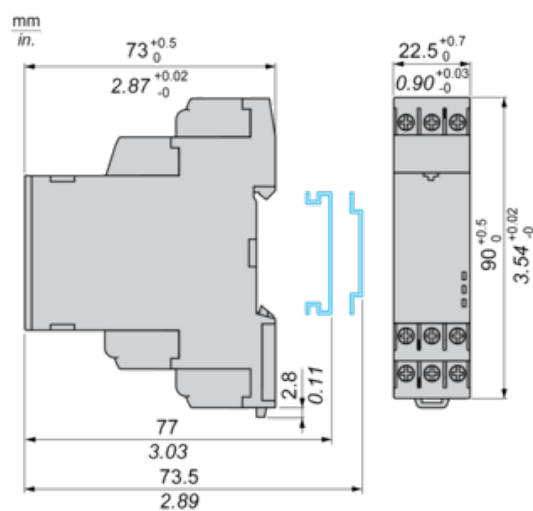
Pakovanje

Tip jedinice pakovanja 1	PCE
Broj jedinica u pakovanju 1	1
Pakovanje 1 težina	103,635 g
Pakovanje 1 visina	2,4 cm
Pakovanje 1 širina	8,05 cm
Pakovanje 1 dužina	9,45 cm
Tip jedinice pakovanja 2	S02
Broj jedinica u pakovanju 2	40
Pakovanje 2 težina	4,616 kg
Pakovanje 2 visina	15 cm
Pakovanje 2 širina	30 cm
Pakovanje 2 visina	40 cm
Tip jedinice pakovanja 3	P06
Broj jedinica u pakovanju 3	640
Pakovanje 3 težina	84,13 kg
Pakovanje 3 visina	70 cm
Pakovanje 3 širina	60 cm
Pakovanje 3 visina	80 cm

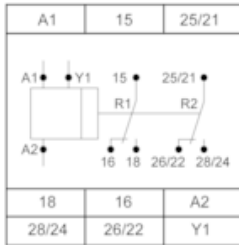
Održivost ponude

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

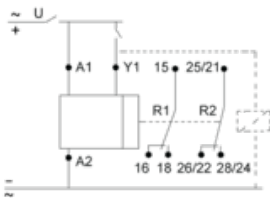
Dimensions



Internal Wiring Diagram



Wiring Diagram

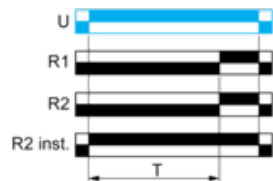


Function A: Power On-Delay Relay

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: 2 Output

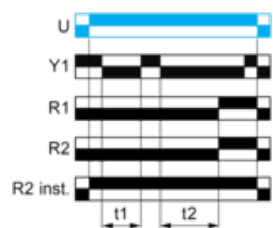


Function At: Power On-Delay Relay with Pause / Summation Control Signal

Description

On energisation of power supply, the timing period T starts. 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: 2 Output



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

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

Description

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

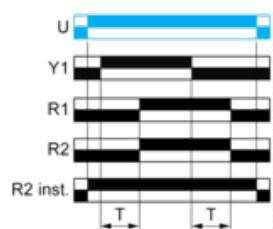
At the end of this timing period, the output(s) R close(s).

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: 2 Output



Function Ad : Pulse Delayed Relay with Control Signal

Description

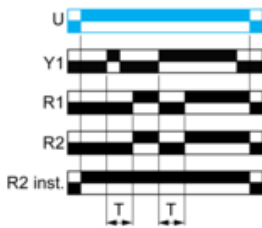
After energisation of power supply, pulsing or maintaining of energization of Y1 starts the timing T.

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

The output(s) R reverts to its initial position the next time Y1 is energized in pulsation or permanent energized manner.

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

Function: 2 Output



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

Description

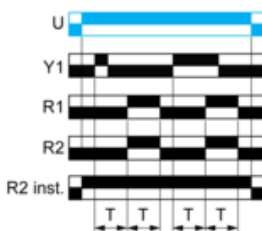
After energisation of power supply, pulsing or maintaining of energization of Y1 starts the timing T.

A single flashing cycle then starts with 2 timing periods T of equal duration (start with output(s) R in initial position). Output(s) 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.

Re-energizing of Y1, either in pulsation or permanent energized manner, will re-start the single flashing cycle again.

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

Function: 2 Output



Function Ak: Asymmetrical On-Delay and Off-Delay Relay With Control Signal

Description

After energisation of power supply and energization of Y1, timing starts for a period Ta.

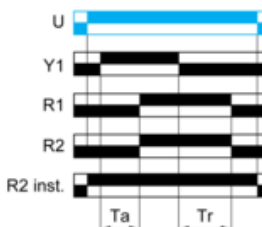
At the end of this timing period Ta, the output(s) R closes.

Deenergization of Y1 causes a second timing period Tr to start.

At the end of this timing period Tr, the output(s) R reverts to its initial state.

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

Function: 2 Output



Function B: Single Interval Relay with Control Signal

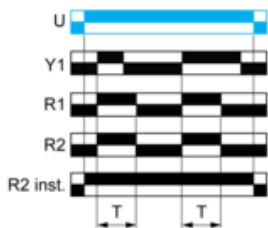
Description

After energisation of power supply, pulsing or maintaining of energization of Y1 starts the timing T.

The output(s) R close(s) for the duration of the timing period T then 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: 2 Output



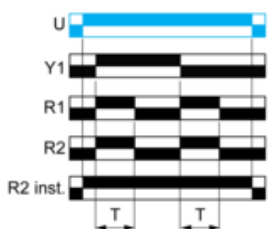
Function Bw : Double Interval Relay with Control Signal

Description

After energisation of power supply, transition of Y1 (either from energization to deenergization or vice-versa) will cause the output(s) R close(s) for the duration of the timing period T then 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: 2 Output

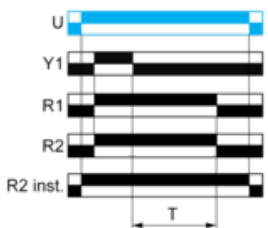


Function C: Off-Delay Relay with Control Signal

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: 2 Output

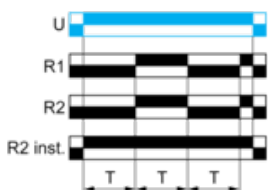


Function D: Symmetrical Flashing Relay (Starting Pulse-Off)

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

Function: 2 Output

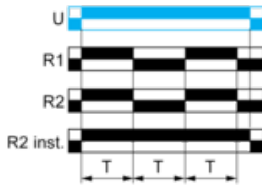


Function Di: Symmetrical Flashing Relay (Starting Pulse-On)

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: 2 Output

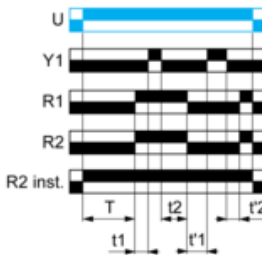


Function Dt: Symmetrical Flashing Relay (Starting Pulse-Off) With Pause / Summation Control Signal

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 Y1 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 Y1 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: 2 Output



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

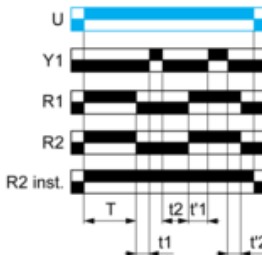
$$T = t'_1 + t'_2 + \dots$$

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

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 Y1 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 Y1 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: 2 Output



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

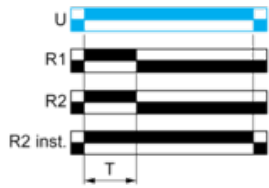
$$T = t'_1 + t'_2 + \dots$$

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: 2 Output

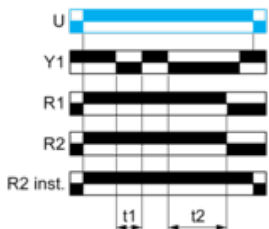


Function Ht: Interval Relay With Pause / Summation Control Signal

Description

On energisation of power supply, output(s) R close(s) and timing period T starts. The 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 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: 2 Output



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

Function L: Asymmetrical Flashing Relay (Starting Pulse-Off)

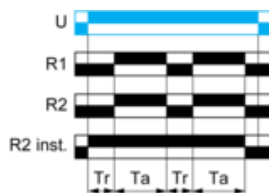
Description

On energisation of power supply, output(s) R starts at its/their initial state for timing duration T_r then change(s) to output(s) R close(s) for the another timing duration T_a .

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: 2 Output



Function Li: Asymmetrical Flashing Relay (Starting Pulse-On)

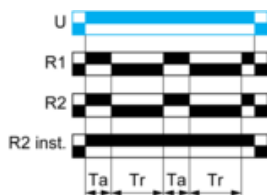
Description

On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration T_a then change(s) to its/their initial state for timing duration T_r .

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: 2 Output



Function Lt: Asymmetrical Flashing Relay (Starting Pulse-Off) With Pause / Summation Control Signal

Description

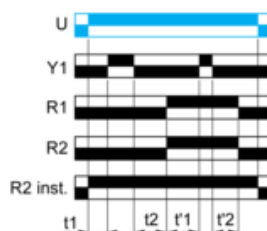
On energisation of power supply, output(s) R starts at its/their initial state for timing duration T_r and the timing can be interrupted / paused each time Y1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T_r , then changes to output(s) R close(s).

The output(s) R close state will remain for the same timing duration T_a and the timing can be interrupted / paused each time Y1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T_a , 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: 2 Output



$$T_r = t_1 + t_2 + \dots$$

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

Function Lit: Asymmetrical Flashing Relay (Starting Pulse-On) With Pause / Summation Control Signal

Description

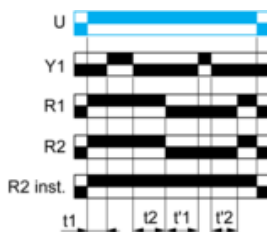
On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration T_a and the timing can be interrupted / paused each time Y1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T_a , the output(s) R revert(s) to its/their initial state.

The output(s) R at initial state will remain for timing duration T_r the timing can be interrupted / paused each time Y1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T_r , then changes to output(s) R close(s)

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: 2 Output



$$T_a = t_1 + t_2 + \dots$$

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

Function N : Safe-Guard Relay

Description

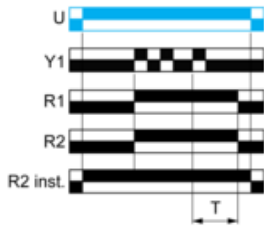
After energisation of power supply and on energization of Y1 cause the output(s) R close(s) and starts the timing T.

If the duration interval between 2 consecutive energization of Y1 is greater than the pre-set value T, the output(s) R close(s) at the end of the timing period.

If the duration interval between 2 consecutive energization of Y1 is less than the pre-set value T, the output(s) R remain(s) closed and timing restarted base on the last energization of Y1.

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

Function: 2 Output



Function O : Delayed Safe-Guard Relay

Description

On energisation of power supply, the timing T starts.

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

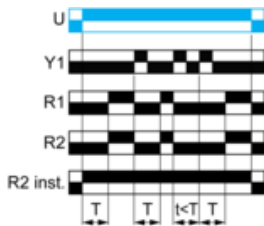
On energization of Y1, the output(s) R revert(s) to its/their initial state and the timing T restarts.

If the duration interval between 2 consecutive energization of Y1 is greater than the pre-set value T, the output(s) R close(s) at the end of the timing period.

If the duration interval between 2 consecutive energization of Y1 is less than the pre-set value T, the output(s) R remain(s) at its/their initial state and timing restarted base on the last energization of Y1.

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

Function: 2 Output



Function P : Pulse Delayed Relay with Fixed Pulse Length

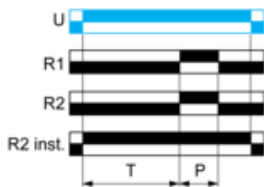
Description

On energisation of power supply, the timing T starts.

At the end of this period, the output(s) R close(s) for a fixed time P then 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: 2 Output



P = 500ms

Function Pt : Pulse Delayed Relay With Fixed Pulse Length and Pause / Summation Control Signal

Description

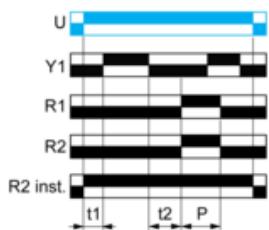
On energisation of power supply, the timing T starts.

The 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) for a fixed time P then 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: 2 Output



$T = t1 + t2 + \dots$

$P = 500\text{ms}$

Function Qt: Star-Delta Relay (2 CO Outputs with Split Common)

Description

On energisation of power supply, the output R3 & R4 initializes at its initial state such that energizes STAR CONTACTOR + MAIN CONTACTOR and the timing T starts (STAR connection time duration starts). At the end of the timing period T, the output R3 closes such that deenergizes STAR CONTACTOR and causes t transition time starts. At the end of the transition time, the output R4 closes such that energizes DELTA CONTACTOR. Diagnostic feature not available.

Function: 2 Output



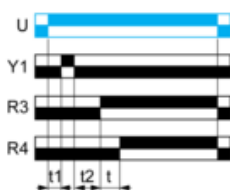
$T = 50, 60 \dots \text{ms}$

Function Qtt: Star-Delta Relay (2 CO Outputs With Split Common) with Pause / Summation Control Signal

Description

On energisation of power supply, the output R3 & R4 initializes at its initial state such that energizes STAR CONTACTOR + MAIN CONTACTOR and the timing T starts (STAR connection time duration starts). During STAR connection time, the 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 R3 closes such that deenergizes STAR CONTACTOR and causes t transition time starts. At the end of the transition time, the output R4 closes such that energizes DELTA CONTACTOR. Diagnostic feature not available.

Function: 2 Output



$T = t1 + t2 + \dots$

$t = 50, 60 \dots \text{ms}$

Function TL : Bistable Relay with Control Signal On

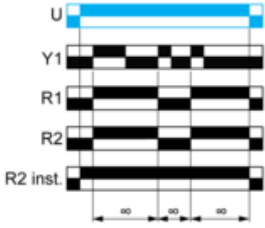
Description

After energisation of power supply and on energization of Y1 cause the output(s) R close(s). The subsequent on energization of Y1 cause 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: 2 Output



Function Tt : Retriggerable Bistable Relay with Control Signal On

Description

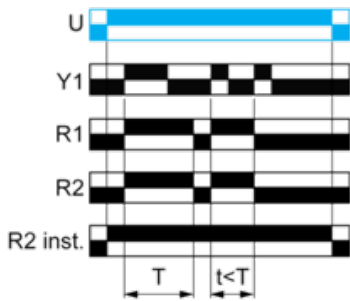
After energisation of power supply and on energization of Y1 cause the output(s) R close(s) and starts the timing T.

If the duration interval between 2 consecutive energization of Y1 is greater than the pre-set value T, the output(s) R will toggle from its/their present status the end of the timing period.

If the duration interval between 2 consecutive energization of Y1 is less than the pre-set value T, the output(s) R toggle from its/their present status as soon as Y1 energizes without completing T duration.

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

Function: 2 Output

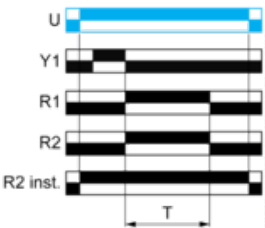


Function W: Interval Relay with Control Signal Off

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: 2 Output



Legend

- Relay de-energised
- Relay energised
- Output open
- Output closed

U -	Supply
R1/R2 -	2 timed outputs
Ta -	Adjustable On-delay
Tr -	Adjustable Off-delay
Y1 -	Retrigger / Restart control

R2 inst. -	The second output is instantaneous if the right position is selected
T -	Timing period
R4 -	Delta contact output
t -	Delay to switch ON Delta contact output
R3 -	Star-Delta contact output