



### Principales

Gamme de produit	Relais de temporisation Harmony
Type de produit ou équipement	Relais multifonctions
Type de sortie logique	Relais
Nom de l'appareil	RE22
Courant de sortie nominal	8 A

### Complémentaires

Type et composition des contacts	1 &nbsp;F/O contact temporisé ou instantané, sans cadmium 2 "O/F" contact temporisé, sans cadmium
Type de temporisation	Puissance d'enclenchement Durée d'inhibition Clignotement asymétrique Intervalle Étoile-triangle
Plage de temporisation	3...30 min 30...300 min 0,3...3 s 3...30 H 10...100 s 1...10 s 0,05...1 s 30...300 s 30...300 H 3...30 s
Type de commande	Bouton rotatif Bouton de diagnostic Potentiomètre externe
[Us] tension d'alimentation	24...240 V CA/CC 50/60 Hz
Libération de la tension d'entrée	<= 2,4 V
Plage d'utilisation en tension	0,85 à 1,1 Us
Fréquence d'alimentation	50...60 Hz +/- 5 %
Mode de raccordement	Bornes à vis, 1 x 0,5 à 1 x 3,3 mm <sup>2</sup> (AWG 20 à AWG 12) rigide sans embout Bornes à vis, 2 x 0,5 à 2 x 2,5 mm <sup>2</sup> (AWG 20 à AWG 14) rigide sans embout Bornes à vis, 1 x 0,2 à 1 x 2,5 mm <sup>2</sup> (AWG 24...AWG 14) souple avec embout Bornes à vis, 2 x 0,2 à 2 x 1,5 mm <sup>2</sup> (AWG 24 à AWG 16) souple avec embout
Couple de serrage	0,6...1 N.m se conformer à CEI 60947-1
Matière du boîtier	Auto-extinguible
Précision de répétition	+/- 0,5% se conformer à CEI 61812-1
Dérive en température	+/- 0,05 %/°C
Dérive en tension	+/- 0,2 %/V
Réglage exact du temps de retard	+/- 10 % pleine échelle à 25 °C se conformer à CEI 61812-1
Largeur d'impulsion du signal de commande	100 Ms avec charge en parallèle 30 ms
Résistance d'isolement	100 MΩ à 500 V CC se conformer à CEI 60664-1
Temps de récupération	120 ms sur désexcitation
Immunité aux micro-coupures	10 ms
Puissance consommée en VA	3 VA à 240 V CA

Puissance consommée en W	1,5 W à 240 V CC
Capacité de commutation en VA	2000 VA
Courant commuté minimum	10 mA à 5 V CC
Courant commuté maximum	8 A
Tension de coupure maximale	250 V CA
Durée de vie électrique	100000 Cycle, 8 A à 250 V, AC-1 100000 cycle, 2 A à 24 V, DC-1
Endurance mécanique	10000000 cycle
Tension assignée de tenue aux chocs	5 kV pour 1,2...50 µs se conformer à CEI 60664-1
Délai de mise sous tension	100 ms
Distance de fuite	4 kV/3 se conformer à CEI 60664-1
Catégorie de surtension	III se conformer à CEI 60664-1
Données de fiabilité de la sécurité	B10d = 160000 MTTFd = 171,2 années
Position de montage	Toutes positions
Support de montage	Rail DIN 35 mm se conformer à EN/CEI 60715
Etat LED	Vert rétro-éclairage à DEL (fixe) pour indication de l'aiguille du cadran Jaune LED (fixe) pour relais de sortie sous tension Jaune LED (clignotement rapide) pour temporisation en cours et relais de sortie hors tension Jaune LED (clignotement lent) pour temporisation en cours et relais de sortie sous tension
Fonction disponible	A- Power on-delay relay-2 "O/F" At- Power on-delay relay w/ pause/summation (X1)-2 "O/F" Aw- Power on-delay relay w/ retrigger/restart-2 "O/F" C- Off-delay relay w/ control signal-2 "O/F" Ct- Off-delay relay w/ control signal and pause/summation-2 "O/F" D- Symmetrical flashing relay (starting pulse-off)-2 "O/F" Dt- Symmetrical flashing relay (starting pulse-off) w/ pause/summation (X1)-2 "O/F" F" Dw- Symmetrical flashing relay (starting pulse-off) w/ retrigger/restart-2 "O/F" Di- Symmetrical flashing relay (starting pulse-on)-2 "O/F" Dit- Symmetrical flashing relay (starting pulse-on) w/ pause/summation (X1)-2 "O/F" F" Diw- Symmetrical flashing relay (starting pulse-on) w/ retrigger/restart-2 "O/F" H- Interval relay-2 "O/F" Ht- Interval relay w/ pause/summation (X1)-2 "O/F" Hw- Interval relay w/ retrigger/restart-2 "O/F" Qg- Star-delta relay (2 CO outputs w/ same common)-2 "O/F" Qgt- Star-delta relay (2 CO outputs w/ same common) w/ pause/summation-2 "O/F" F" Qt- Star-delta relay (2 CO outputs w/ split common)-2 "O/F" Qtt- Star-delta relay (2 CO outputs w/ split common) w/ pause/summation (X1)-2 "O/F" W- Interval relay w/ control signal off-2 "O/F" Wt- Interval relay w/ control signal off and pause/summation-2 "O/F"
Largeur	22,5 mm
Poids du produit	0,105 kg

## Environnement

Tenue diélectrique	2,5 kV pour 1 mA/1 minute à 50 Hz entre sortie de relais et alimentation avec isolement de base se conformer à CEI 61812-1
Normes	UL 508 CEI 61812-1
Règlement Européen	2004/108/CE - compatibilité électromagnétique 2006/95/CE - directive basse tension
Certifications du produit	RCM CE EAC CSA CCC UL GL
Température ambiante de fonctionnement	-20...60 °C
Température ambiante de stockage	-40...70 °C
Degré de protection IP	IP40 enveloppe: se conformer à CEI 60529 IP20 bornes: se conformer à CEI 60529 IP50 face avant: se conformer à CEI 60529

Degré de pollution	3 se conformer à CEI 60664-1
Tenue aux vibrations	20 m/s <sup>2</sup> (f= 10...150 Hz) se conformer à CEI 60068-2-6
Tenue aux chocs mécaniques	15 gn non fonctionnant pour 11 ms se conformer à CEI 60068-2-27 5 gn en marche pour 11 ms se conformer à CEI 60068-2-27
Humidité relative	95 % à 25...55 °C
Compatibilité électromagnétique	Test d'immunité des transitoires rapides - niveau de test : 1 kV (clip de connexion capacitive)niveau 3 se conformer à CEI 61000-4-4 Test d'immunité aux surtensions - niveau de test : 1 kV (mode différentiel)niveau 3 se conformer à CEI 61000-4-5 Test d'immunité aux surtensions - niveau de test : 2 kV (mode commun)niveau 3 se conformer à CEI 61000-4-5 Décharge électrostatique - niveau de test : 6 kV (décharge par contact)niveau 3 se conformer à CEI 6100-4-11 Décharge électrostatique - niveau de test : 8 kV (décharge dans l'air)niveau 3 se conformer à CEI 6100-4-11 Test d'immunité aux champs électromagnétiques radio-fréquences rayonnés - niveau de test : 10 V/m (80 MHz...1 GHz)niveau 3 se conformer à CEI 61000-4-3 Perturbations RF transmises par conduction - niveau de test : 10 V (0,15 à 80 MHz)niveau 3 se conformer à CEI 61000-4-6 Transitoire rapide en salves - niveau de test : 2 kV (contact direct)niveau 3 se conformer à CEI 61000-4-4 Immunité aux micro-coupures et baisses de tension - niveau de test : 30 % (500 ms) se conformer à CEI 61000-4-11 Immunité aux micro-coupures et baisses de tension - niveau de test : 100 % (20 ms) se conformer à CEI 61000-4-11

## Emballage

Type d'emballage 1	PCE
Nb produits dans l'emballage 1	1
Hauteur de l'emballage 1	2,6 cm
Largeur de l'emballage 1	8,2 cm
Longueur de l'emballage 1	9,5 cm
Poids de l'emballage 1	116,0 g
Type d'emballage 2	S02
Nb produits dans l'emballage 2	40
Hauteur de l'emballage 2	15,0 cm
Largeur de l'emballage 2	30,0 cm
Longueur de l'emballage 2	40,0 cm
Poids de l'emballage 2	5,153 kg
Type d'emballage 3	P06
Nb produits dans l'emballage 3	640
Hauteur de l'emballage 3	75,0 cm
Largeur de l'emballage 3	60,0 cm
Longueur de l'emballage 3	80,0 cm
Poids de l'emballage 3	74,24 kg

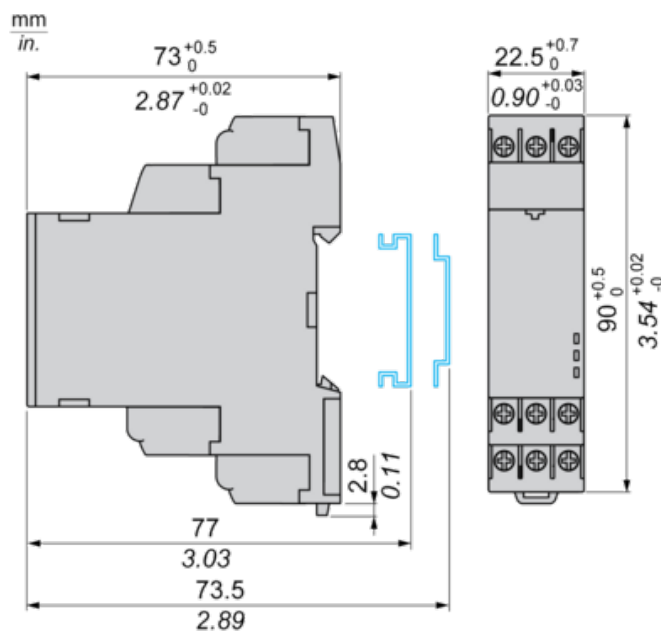
## Durabilité de l'offre

Statut environnemental de l'offre	Produit Green Premium
Régulation REACH	<a href="#">Déclaration REACH</a>
Directive RoHS UE	Conformité pro-active (Produit en dehors du scope légal RoHS UE) <a href="#">Déclaration RoHS UE</a>
Sans mercure	Oui
Régulation RoHS Chine	<a href="#">Déclaration RoHS Pour La Chine</a>
Information sur les exemptions RoHS	<a href="#">Oui</a>
Profil environnemental	<a href="#">Profil Environnemental Du Produit</a>
Profil de circularité	<a href="#">Informations De Fin De Vie</a>

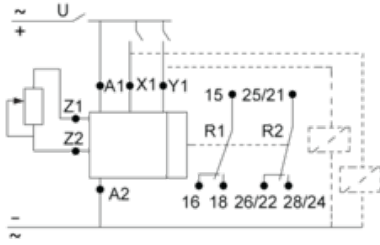
## Garantie contractuelle

Garantie	18 mois
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Dimensions



Wiring Diagram

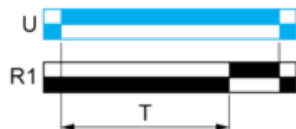


Function A: Power On-Delay

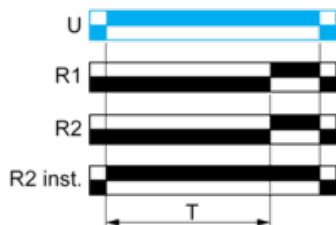
Description

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

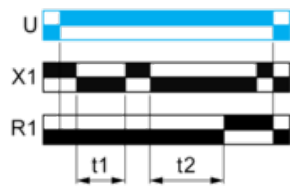


Function At: Power On-Delay with Pause / Summation Control

Description

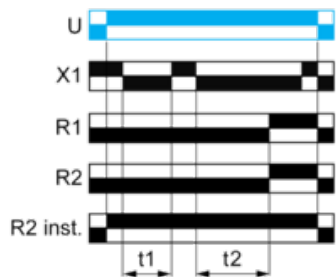
On energisation of power supply, the timing period T starts. Timing can be interrupted / paused each time X1 energizes. Except for RE17\*, RE22R2AMU, RE22R2MMW, RE22R2MMU, RE22R2MJU, timing can be interrupted / paused each time Y1 energizes. When the cumulative total of time periods elapsed reaches the 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



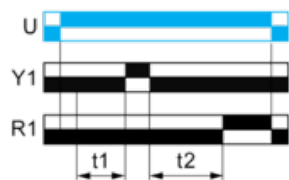
$T = t1 + t2 + \dots$

Function: 2 Outputs with Pause / Summation Control



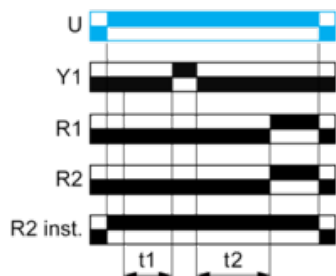
$T = t1 + t2 + \dots$

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



$T = t1 + t2 + \dots$

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



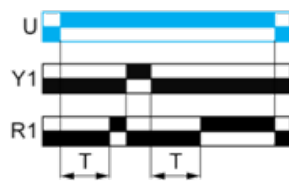
$T = t1 + t2 + \dots$

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

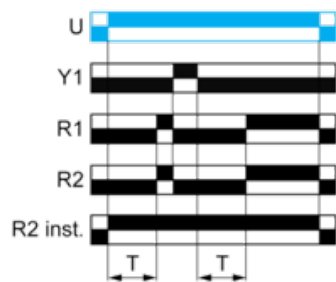
#### Description

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

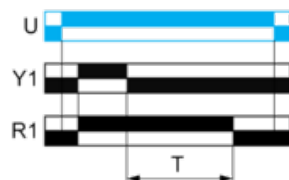


### Function C: Off-Delay Relay with Control Signal

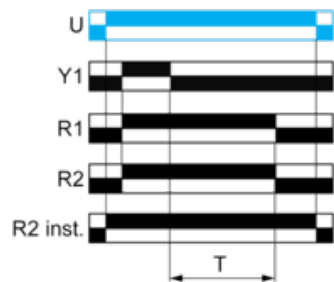
#### Description

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

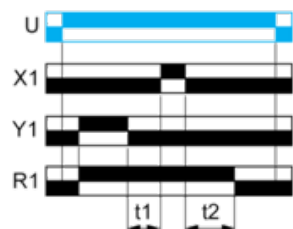


### Function Ct: Off-Delay Relay with Control Signal & With Pause / Summation Control

#### Description

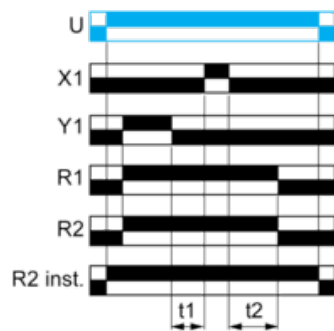
After energisation of power supply and energization of Y1 cause output(s) R close(s). When Y1 deenergizes, timing starts and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their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



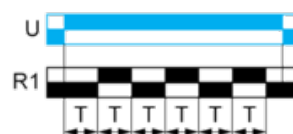
$$T = t1 + t2 + \dots$$

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

#### Description

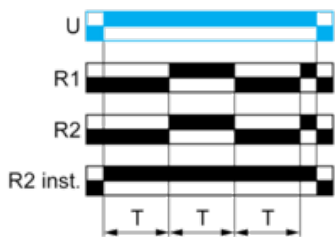
On energisation of power supply, output(s) R starts at its/their initial state for timing duration T then change(s) to output(s) R close(s) for the same timing duration T. This cycle is repeated indefinitely until power supply removal. Specially for RE17\*, RE22R2AMU, RE22R2MMW, RE22R2MMU, RE22R2MJU, 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





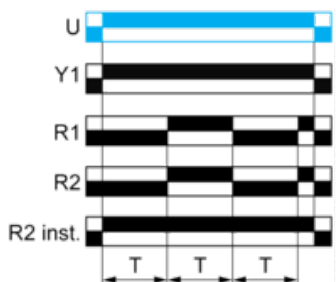
### Function: 2 Outputs



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



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

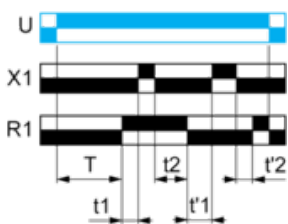


### Function Dt: Symmetrical Flashing Relay (Starting Pulse Off) & With Pause / Summation Control

#### 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").

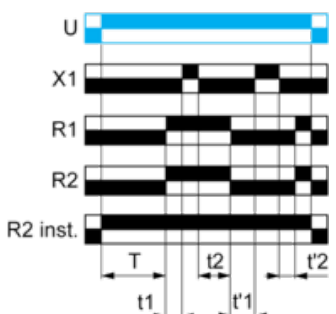
#### Function: 1 Output



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

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

#### Function: 2 Outputs



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

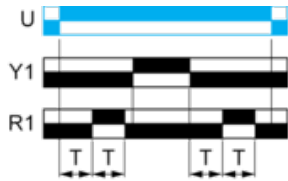
$$T = t'1 + t'2 + \dots$$

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

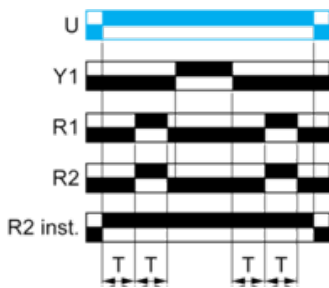
### Description

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

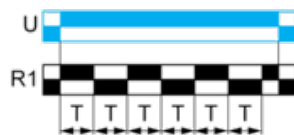


## Function Di: Symmetrical Flashing Relay (Starting Pulse On)

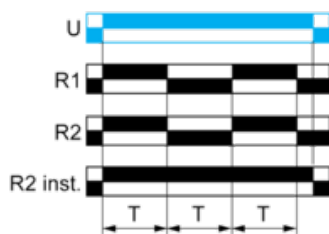
### Description

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

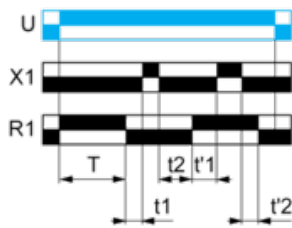


## Function Dit: Symmetrical Flashing Relay (Starting Pulse On) & With Pause / Summation Control

### 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").

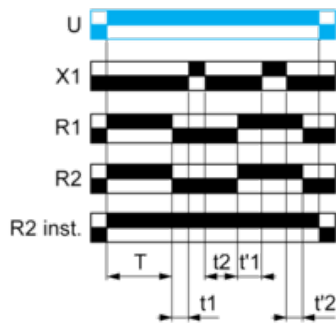
### Function: 1 Output



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

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

### Function: 2 Outputs



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

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

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

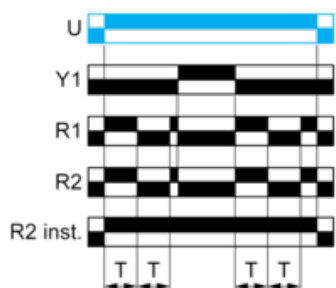
### Description

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

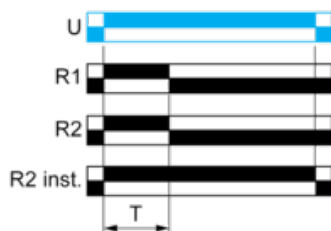
### Description

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.

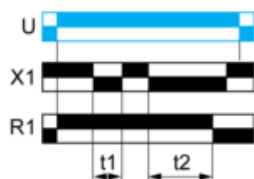
The timing can be interrupted / paused each time X1 energizes.

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.

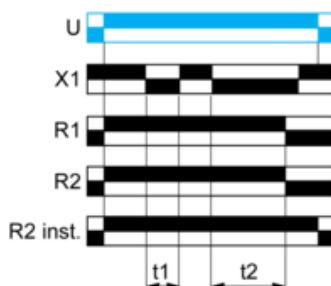
The second output (R2) can be either timed (when set to "TIMED" or instantaneous (when set to "INST").

### Function: 1 Output



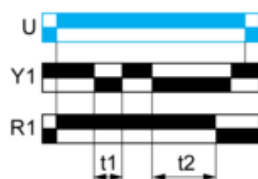
$$T = t1 + t2 + \dots$$

### Function: 2 Outputs



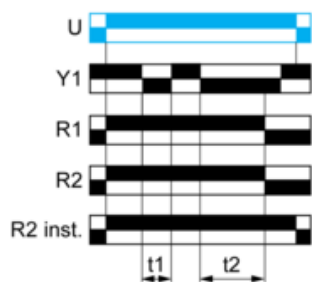
$$T = t1 + t2 + \dots$$

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



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

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



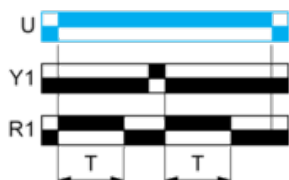
$T = t1 + t2 + \dots$

### Function Hw: Interval Relay & with Retrigger / Restart Control

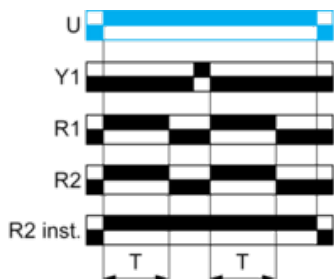
#### Description

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

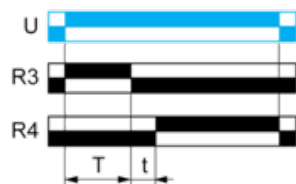


### Function Qg: Star-Delta Relay (2 CO with same Common)

#### Description

On energisation of power supply, the output R3 closes 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 reverts to its initial state 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 Outputs



t : 20, 40, 60, 80, 100, 120, 140 ms

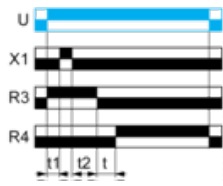
### Function Qgt: Star-Delta Relay (2 CO with same common) with Pause / Summation Control

#### Description

On energisation of power supply, the output R3 closes 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 X1

energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, R3 reverts to its initial state 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 Outputs



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

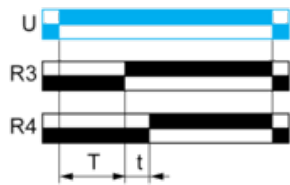
NOTE: RE22R2MYMR is with fixed transition time, t: 50ms

### Function Qt: Star-Delta Relay (2 CO 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 Outputs



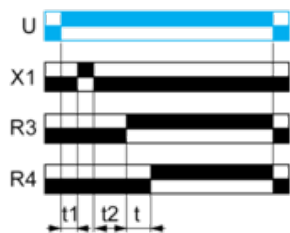
t : 20, 40, 60, 80, 100, 120, 140 ms

### Function Qtt: Star-Delta Relay (2 CO with same common) with Pause / Summation Control

#### 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 X1 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 Outputs



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

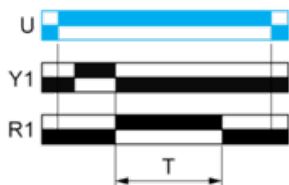
NOTE: RE22R2MYMR is with fixed transition time, t: 50ms

### Function W: Interval Relay with Control Signal Off

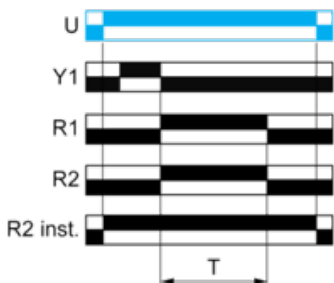
#### Description

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

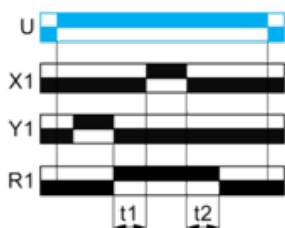


## Function Wt: Interval Relay with Control Signal Off & with Pause / Summation Control

### Description

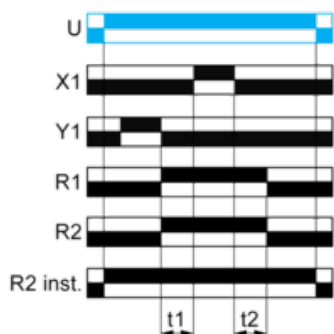
After energisation of power supply and on energization of Y1, the output(s) R close(s) and starts the timing T. Timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their initial state.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

Ta -	Adjustable On-delay
Tr -	Adjustable Off-delay
X1 -	Pause / Summation control
Y1 -	Retrigger / Restart control
X2 -	Function Selection
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