



Principal

Gama de producto	Relés temporizadores Harmony
Tipo de Producto o Componente	Relé multifunción
Tipo de salida digital	Relé
Nombre Corto del Dispositivo	RE22 ((*))
Corriente de salida nominal	8 A

Complementario

Tipo y composición de contactos	1 C/O cont. tempor.,sin cadmio
Tipo de tiempo de retraso	Retardo a la puesta en marcha Retraso apagado Retardo a la conexión y a la desconexión Parpadeo simétrico Intervalo
Rango de temporización	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
Tipo de control	Mando giratorio Diagnostic button ((*)) Potenciometro external ((*))
[Us] tensión de alimentación asignada	24...240 V CA/CC 50/60 Hz
Tensión de entrada de liberación	<= 2.4 V ((*))
Rango de tensiones	0,85...1,1 Us
Frecuencia de alimentación	50...60 Hz +/- 5 %
Conexiones - terminales	Terminales de tornillo, 1 x 0.5...1 x 3.3 mm ² - tipo de cable: AWG 20...AWG 12) sólido sin terminal Terminales de tornillo, 2 x 0.5...2 x 2.5 mm ² - tipo de cable: AWG 20...AWG 14) sólido sin terminal Terminales de tornillo, 1 x 0,2...1 x 2,5 mm ² - tipo de cable: AWG 24...AWG 14) Flexible con terminal Terminales de tornillo, 2 x 0,2...2 x 1,5 mm ² - tipo de cable: AWG 24...AWG 16) Flexible con terminal
Par de apriete	0,6...1 N.m acorde a IEC 60947-1
Material de carcasa	Autoextinguible
Precisión de repetición	+/- 0.5 % acorde a IEC 61812-1
Variación de temperatura	+/- 0,05 %/°C
Variación de tensión	+/-0.2 %/V
Precisión ajuste de temporización	+/- 10 % de escala completa en 25 °C acorde a IEC 61812-1
Ancho de pulso de la señal de control	100 Ms con carga en paralelo 30 ms

Resistencia de aislamiento	100 MOhm en 500 V CC acorde a IEC 60664-1
Tiempo de recuperación	120 ms en desexcitación
Inmunidad a microcortes	10 ms
Consumo de potencia en VA	3 VA en 240 V AC
Consumo de energía en W	1,5 W en 240 V DC
Capacidad de conmutación en VA	2000 VA
Corriente mínima de conmutación	10 mA en 5 V CC
Corriente conmutación máxima	8 A
Tensión máxima de conmutación	250 V AC
Durabilidad eléctrica	100000 Ciclos, 8 A en 250 V, AC-1 100000 Ciclos, 2 A en 24 V, DC-1
Endurancia mecánica	10000000 Ciclos
Tensión nominal de resistencia a los impulsos	5 kV para 1,2...50 µs acorde a IEC 60664-1
Retardo de encendido	100 ms
Distancia de desplazamiento	4 kV/3 acorde a IEC 60664-1
Categoría de sobretensión	III acorde a IEC 60664-1
Datos de fiabilidad de seguridad	MTTFd = 205.4 years ((*)) B10d = 190000 ((*))
Posición de montaje	Cualquier posición
Soporte de montaje	Carril DIN de 35 mm acorde a IEC 60715
LED de estado	Verde retroiluminación de LED - tipo de cable: Fijo) para dial pointer indication ((*)) Amarillo LED - tipo de cable: Fijo) para output relay energised ((*)) Amarillo LED - tipo de cable: fast flashing ((*)) para timing in progress and output relay de-energised ((*)) Amarillo LED - tipo de cable: slow flashing ((*)) para timing in progress and output relay energised ((*))
Miembros transversales	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
Ancho	22,5 mm
Peso del producto	0,1 kg
Number of functions	18

Entorno

Fuerza dieléctrica	2,5 kV para 1 mA/1 minuto en 50 Hz between relay output and power supply ((*)) con capacidad de sujeción: basic insulation ((*)) acorde a IEC 61812-1
Normas	IEC 61812-1 UL 508
Directivas	2004/108/CE - compatibilidad electromagnética Directiva de Baja Tensión 2006/95/CEE
Certificaciones de Producto	RCM[RETURN]GL[RETURN]EAC[RETURN]CE[RETURN]CSA[RETURN]CCC[RETURN]JUL
Temperatura ambiente de funcionamiento	-20...60 °C
Temperatura ambiente de almacenamiento	-40...70 °C
Grado de protección IP	IP40 carcasa: conforming to IEC 60529 IP50 frontal: conforming to IEC 60529 IP20 terminales: conforming to IEC 60529
Grado de contaminación	3 acorde a IEC 60664-1

Resistencia a las vibraciones	20 m/s ² (f = 10...150 Hz) acorde a IEC 60068-2-6
Resistencia a los choques	15 gn sin funcionamiento para 11 ms acorde a IEC 60068-2-27 5 gn en funcionamiento para 11 ms acorde a IEC 60068-2-27
Humedad relativa	95 % en 25...55 °C
Compatibilidad electromagnética	Prueba de inmunidad ante oscilaciones rápidas - test level: 1 kV level 3 ((*)) (clic conexión capacitivo) conforming to IEC 61000-4-4 Prueba de inmunidad frente a sobretensión - test level: 1 kV level 3 ((*)) (modo diferencial) conforming to IEC 61000-4-5 Prueba de inmunidad frente a sobretensión - test level: 2 kV level 3 ((*)) (modo común) conforming to IEC 61000-4-5 Descarga electrostática - test level: 6 kV level 3 ((*)) (descarga de contacto) conforming to IEC 61000-4-2 Descarga electrostática - test level: 8 kV level 3 ((*)) (descarga de aire) conforming to IEC 61000-4-2 Prueba de inmunidad de la radiofrecuencia radiada del campo electromagnético - test level: 10 V/m level 3 ((*)) (80 MHz...1 GHz) conforming to IEC 61000-4-3 Perturbaciones RF conducidas - test level: 10 V level 3 ((*)) (0,15...80 MHz) conforming to IEC 61000-4-6 Rajadas momentáneas rápidas - test level: 2 kV level 3 ((*)) (contacto directo) conforming to IEC 61000-4-4 Inmunidad frente a microrrupturas y caídas de tensión - test level: 30 % ((*)) (500 ms) conforming to IEC 61000-4-11 Inmunidad frente a microrrupturas y caídas de tensión - test level: 100 % (20 ms ((**))) conforming to IEC 61000-4-11

Unidades de embalaje

Tipo de unidad de paquete 1	PCE
Número de unidades en el paquete 1	1
Paquete 1 Altura	2,6 cm
Paquete 1 Ancho	8,2 cm
Paquete 1 Longitud	9,5 cm
Paquete 1 Peso	98 g

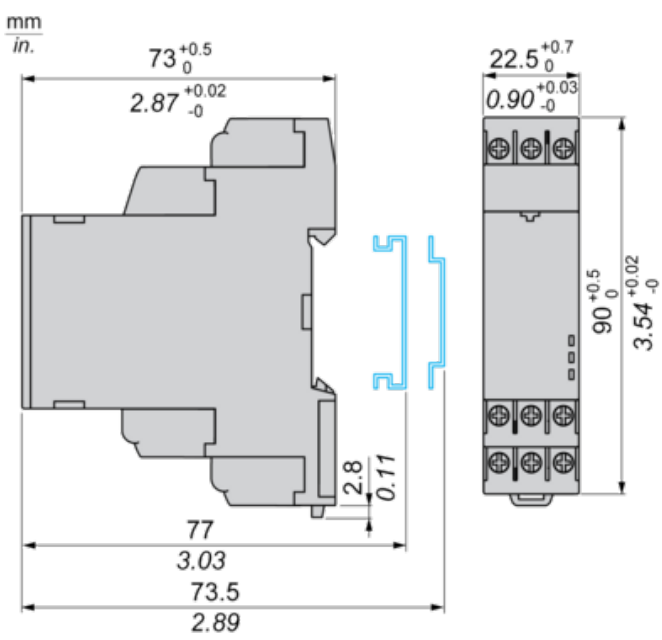
Sostenibilidad de la oferta

Estado de oferta sostenible	Producto Green Premium
Reglamento REACH	 Declaración De REACH
Directiva RoHS UE	Cumplimiento proactivo (producto fuera del alcance de la normativa RoHS UE)
Sin mercurio	Si
Normativa de RoHS China	 Declaración RoHS China
Información sobre exenciones de RoHS	 Si
Comunicación ambiental	 Perfil Ambiental Del Producto
Perfil de circularidad	 Información De Fin De Vida Útil

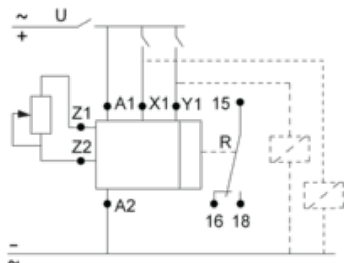
Garantía contractual

Periodo de garantía	18 Meses
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Dimensions



Wiring Diagram

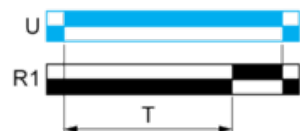


Function A: Power On-Delay

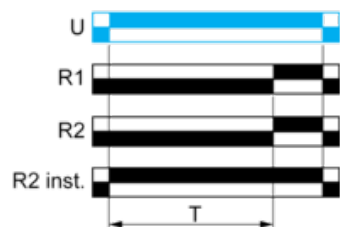
Description

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 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.

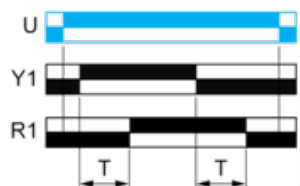
At the end of this timing period, the output(s) R close(s).

When deenergization of Y1, the timing T starts.

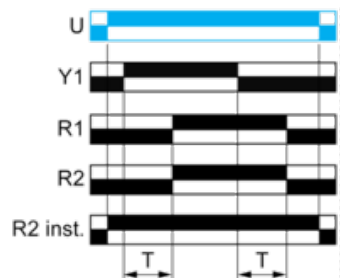
At the end of this timing period T, the output(s) R revert(s) to its/their initial position.

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

Function: 1 Output



Function: 2 Outputs

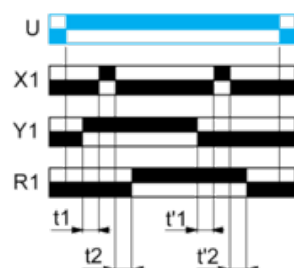


Function Act: On-Delay & Off-Delay with Control Signal & With Pause / Summation Control

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").

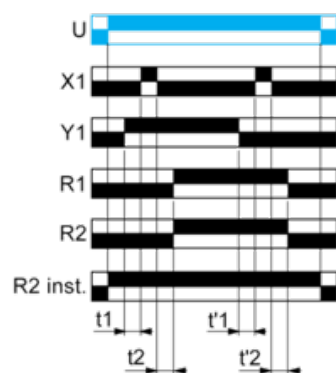
Function: 1 Output



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

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

Function: 2 Outputs



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

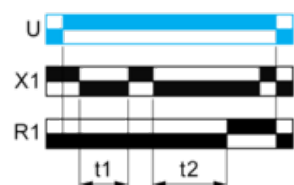
$$T = t'1 + t'2 + \dots$$

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

Description

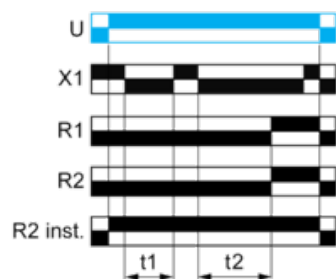
On energisation of power supply, the timing period T starts. Timing can be interrupted / paused each time X1 energizes. Except for RE17*, RE22R2AMU, RE22R2MMW, RE22R2MMU, RE22R2MJU, timing can be interrupted / paused each time Y1 energizes. When the cumulative total of time periods elapsed reaches the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



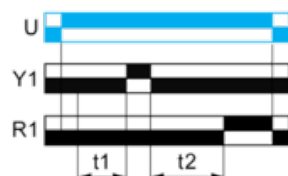
$$T = t1 + t2 + \dots$$

Function: 2 Outputs with Pause / Summation Control



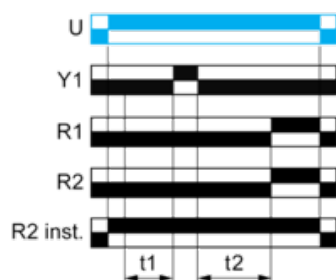
$$T = t1 + t2 + \dots$$

Function: 1 Output with Retrigger / Restart Control



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

Function: 2 Outputs with Retrigger / Restart Control



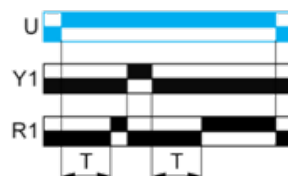
$$T = t1 + t2 + \dots$$

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

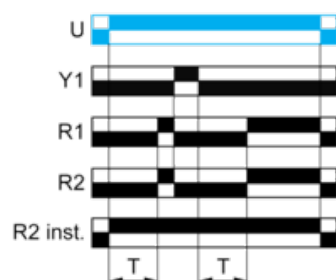
Description

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

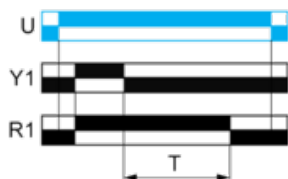


Function C: Off-Delay Relay with Control Signal

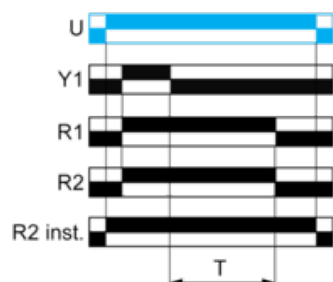
Description

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

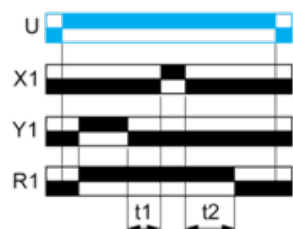


Function Ct: Off-Delay Relay with Control Signal & With Pause / Summation Control

Description

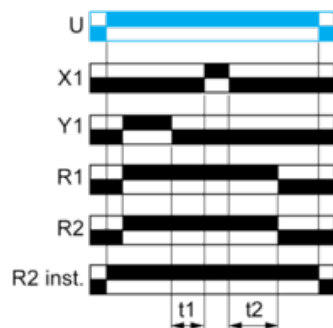
After energisation of power supply and energization of Y1 cause output(s) R close(s). When Y1 deenergizes, timing starts and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their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



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

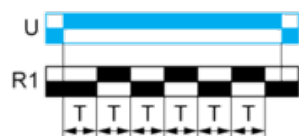
Function D: Symmetrical Flashing Relay (Starting Pulse Off)

Description

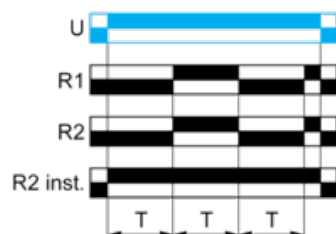
On energisation of power supply, output(s) R starts at its/their initial state for timing duration T then change(s) to output(s) R close(s) for the same timing duration T. This cycle is repeated indefinitely until power supply removal. Specially for RE17*, RE22R2AMU, RE22R2MMW,

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



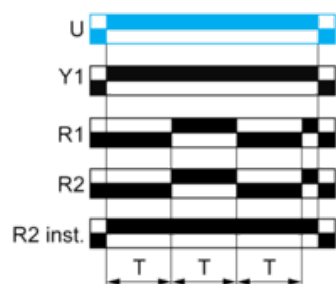
Function: 2 Outputs



Function: 1 Output with Retrigger / Restart Control



Function: 2 Output with Retrigger / Restart Control

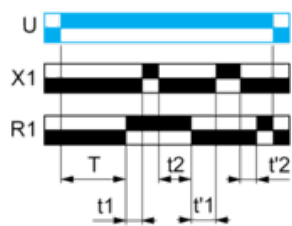


Function Dt: Symmetrical Flashing Relay (Starting Pulse Off) & With Pause / Summation Control

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").

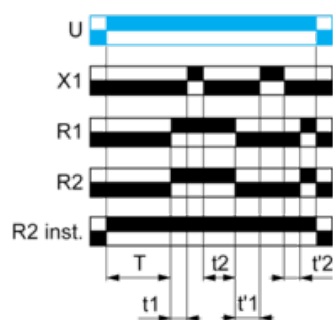
Function: 1 Output



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

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

Function: 2 Outputs



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

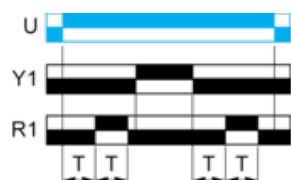
$$T = t'_1 + t'_2 + \dots$$

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

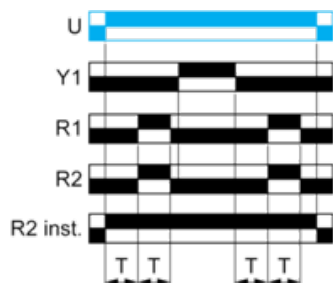
Description

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

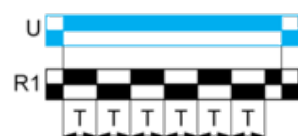


Function Di: Symmetrical Flashing Relay (Starting Pulse On)

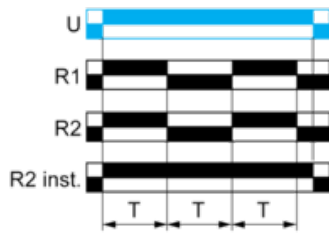
Description

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

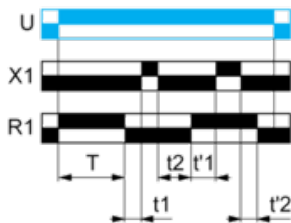


Function Dit: Symmetrical Flashing Relay (Starting Pulse On) & With Pause / Summation Control

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").

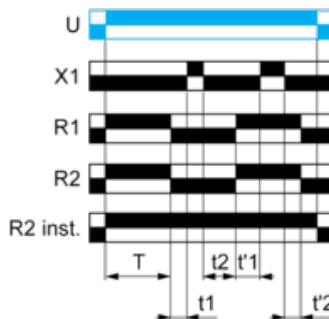
Function: 1 Output



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

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

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

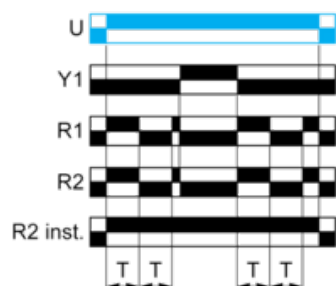
Description

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

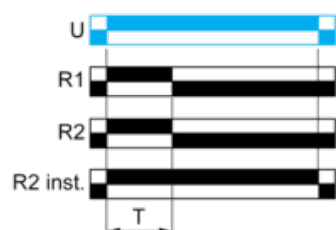
Description

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.

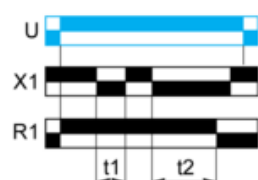
The timing can be interrupted / paused each time X1 energizes.

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.

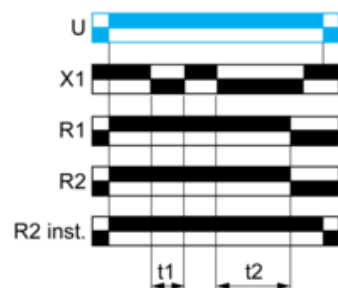
The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



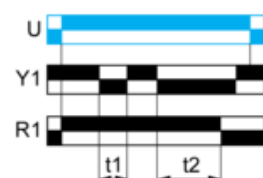
$$T = t1 + t2 + \dots$$

Function: 2 Outputs



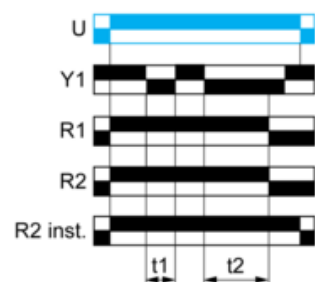
$$T = t1 + t2 + \dots$$

Function: 1 Output with Retrigger / Restart Control



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

Function: 2 Outputs with Retrigger / Restart Control



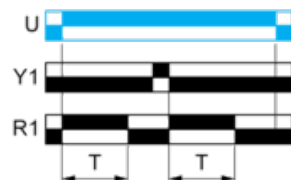
$$T = t1 + t2 + \dots$$

Function Hw: Interval Relay & with Retrigger / Restart Control

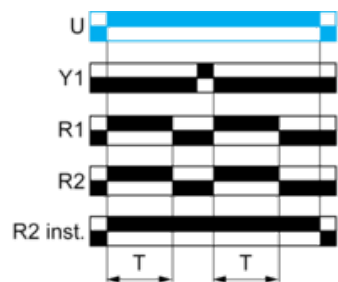
Description

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

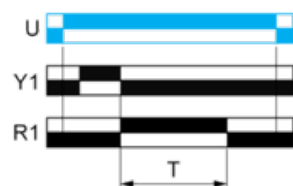


Function W: Interval Relay with Control Signal Off

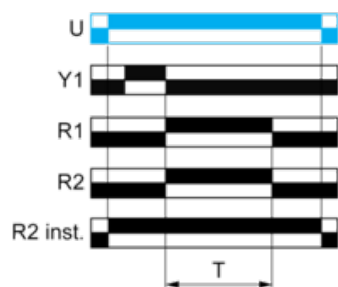
Description

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

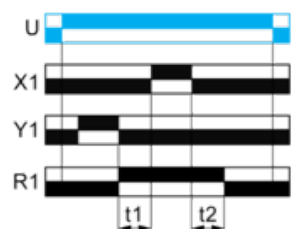


Function Wt: Interval Relay with Control Signal Off & with Pause / Summation Control

Description

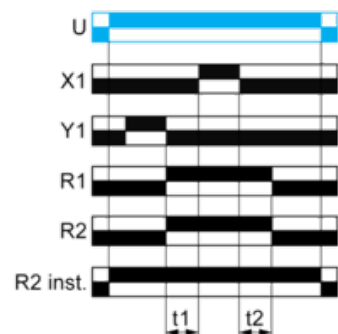
After energisation of power supply and on energization of Y1 following by deenergization of Y1, the output(s) R close(s) and starts the timing T. Timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s)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