Product datasheet

Specifications



Modular timing relay, 8 A, 2 CO, 0.05s…300h, multifunction, 24...240 V AC/DC

Local distributor code:

403002139 RE22R2MYMR

EAN Code: 3606480792533

Main

Range of product	Harmony Timer Relays
Discrete output type	Relay
Product or component type	Modular timing relay
Device short name	RE22
nominal output current	8 A

Complementary

Contacts type and composition	1 C/O timed or instantaneous contact, cadmium free 2 C/O timed contact, cadmium free
Time delay type	Power on-delay Off-delay Symmetrical flashing Interval Star-delta
Time delay range	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
Control type	Rotary knob Diagnostic button Potentiometer external
[Us] rated supply voltage	24...240 V AC/DC 50/60 Hz
Release input voltage	<= 2.4 V
Voltage range	0.85...1.1 Us
Supply frequency	50...60 Hz +/- 5 %
Connections - terminals	Screw terminals, 1 x 0.5...1 x 3.3 mm² (20 AWG...12 AWG) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm² (20 AWG...14 AWG) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² (24 AWG...14 AWG) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm² (24 AWG...16 AWG) flexible with cable end
Tightening torque	0.6…1 N.m conforming to IEC 60947-1
Housing material	Polycarbonate
Repeat accuracy	+/- 0.5 % conforming to IEC 61812-1
Temperature drift	+/- 0.05 %/°C
Voltage drift	+/- 0.2 %/V
Setting accuracy of time delay	+/- 10 % of full scale at 25 °C conforming to IEC 61812-1

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Time delay type	Power on-delay - A- Power on-delay relay Power on-delay - At- Power on-delay relay w/ pause/summation (X1) Power on-delay - Aw- Power on-delay relay w/ retrigger/restart Off-delay - C- Off-delay relay w/ control signal Off-delay - Ct- Off-delay relay w/ control signal and pause/summation Symmetrical flashing - D- Symmetrical flashing relay (starting pulse-off) Symmetrical flashing - Dt- Symmetrical flashing relay (starting pulse-off) w/ pause/summation (X1) Symmetrical flashing - Dw- Symmetrical flashing relay (starting pulse-off) w/ retrigger/restart Symmetrical flashing - Di- Symmetrical flashing relay (starting pulse-on) Symmetrical flashing - Dit- Symmetrical flashing relay (starting pulse-on) w/ pause/summation (X1) Symmetrical flashing - Diw- Symmetrical flashing relay (starting pulse-on) w/ retrigger/restart Interval - H- Interval relay Interval - Ht- Interval relay w/ pause/summation (X1) Interval - Hw- Interval relay w/ retrigger/restart Star-delta - Qg- Star-delta relay (2 CO outputs w/ same common) Star-delta - Qgt- Star-delta relay (2 CO outputs w/ same common) w/ pause/summation Star-delta - Qt- Star-delta relay (2 CO outputs w/ split common) Star-delta - Qtt- Star-delta relay (2 CO outputs w/ split common) w/ pause/summation (X1) Interval - W- Interval relay w/ control signal off Interval - Wt- Interval relay w/ control signal off and pause/summation
Control signal pulse width	100 ms with load in parallel 30 ms
Insulation resistance	100 MOhm at 500 V DC conforming to IEC 60664-1
Recovery time	120 ms on de-energisation
Immunity to microbreaks	10 ms
Power consumption in VA	3 VA at 240 V AC
Power consumption in W	1.5 W at 240 V DC
Switching capacity in VA	2000 VA
Minimum switching current	10 mA at 5 V DC
Maximum switching current	8 A
Maximum switching voltage	250 V AC
Electrical durability	100000 cycles, 8 A at 250 V, AC-1 100000 cycles, 2 A at 24 V, DC-1
Mechanical durability	10000000 cycles
Rated impulse withstand voltage	5 kV for 1.2…50 µs conforming to IEC 60664-1
Power on delay	100 ms
Creepage distance	4 kV/3 conforming to IEC 60664-1
Overvoltage category	III conforming to IEC 60664-1
Safety reliability data	B10d = 160000 MTTFd = 171.2 years
Mounting position	Any position
Mounting support	35 mm DIN rail conforming to IEC 60715
Status LED	LED backlight green (steady) for dial pointer indication LED yellow (steady) for output relay energised LED yellow (fast flashing) for timing in progress and output relay de-energised LED yellow (slow flashing) for timing in progress and output relay energised

Function available	A- Power on-delay relay-2 C/O At- Power on-delay relay w/ pause/summation (X1)-2 C/O Aw- Power on-delay relay w/ retrigger/restart-2 C/O C- Off-delay relay w/ control signal-2 C/O Ct- Off-delay relay w/ control signal and pause/summation-2 C/O D- Symmetrical flashing relay (starting pulse-off)-2 C/O Dt- Symmetrical flashing relay (starting pulse-off) w/ pause/summation (X1)-2 C/O Dw- Symmetrical flashing relay (starting pulse-off) w/ retrigger/restart-2 C/O Di- Symmetrical flashing relay (starting pulse-on)-2 C/O Dit- Symmetrical flashing relay (starting pulse-on) w/ pause/summation (X1)-2 C/O Diw- Symmetrical flashing relay (starting pulse-on) w/ retrigger/restart-2 C/O H- Interval relay-2 C/O Ht- Interval relay w/ pause/summation (X1)-2 C/O Hw- Interval relay w/ retrigger/restart-2 C/O Qg- Star-delta relay (2 CO outputs w/ same common)-2 C/O Qgt- Star-delta relay (2 CO outputs w/ same common) w/ pause/summation-2 C/O Qt- Star-delta relay (2 CO outputs w/ split common)-2 C/O Qtt- Star-delta relay (2 CO outputs w/ split common) w/ pause/summation (X1)-2 C/O W- Interval relay w/ control signal off-2 C/O Wt- Interval relay w/ control signal off and pause/summation-2 C/O
Width	22.5 mm
Net weight	0.105 kg
Control type	With test button
Number of functions	22

Environment

Dielectric strength	2.5 kV for 1 mA/1 minute at 50 Hz between relay output and power supply with basic insulation conforming to IEC 61812-1
Standards	UL 508 IEC 61812-1
Directives	2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive
Product certifications	RCM CE EAC CSA CCC UL GL
Ambient air temperature for operation	-20…60 °C
Ambient air temperature for storage	-40…70 °C
IP degree of protection	IP40 housing: conforming to IEC 60529 IP20 terminals: conforming to IEC 60529 IP50 front panel: conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Vibration resistance	20 m/s² (f= 10…150 Hz) conforming to IEC 60068-2-6
Shock resistance	15 gn not operating for 11 ms conforming to IEC 60068-2-27 5 gn in operation for 11 ms conforming to IEC 60068-2-27
Relative humidity	95 % at 25…55 °C

Electromagnetic compatibility	Fast transients immunity test - test level: 1 kV level 3 (capacitive connecting clip) conforming to IEC 61000-4-4 Surge immunity test - test level: 1 kV level 3 (differential mode) conforming to IEC 61000-4-5 Surge immunity test - test level: 2 kV level 3 (common mode) conforming to IEC 61000-4-5 Electrostatic discharge - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m level 3 (80 MHz...1 GHz) conforming to IEC 61000-4-3 Conducted RF disturbances - test level: 10 V level 3 (0.15...80 MHz) conforming to IEC 61000-4-6 Fast transient bursts - test level: 2 kV level 3 (direct contact) conforming to IEC 61000-4-4 Immunity to microbreaks and voltage drops - test level: 30 % (500 ms) conforming to IEC 61000-4-11 Immunity to microbreaks and voltage drops - test level: 100 % (20 ms) conforming to IEC 61000-4-11

Packing Units

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	116.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	5.153 kg
Unit Type of Package 3	P06
Number of Units in Package 3	640
Package 3 Height	75.0 cm
Package 3 Width	60.0 cm
Package 3 Length	80.0 cm
Package 3 Weight	74.24 kg

Logistical informations

Country of origin	ID

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**54 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**2 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**52 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.1 kg CO2 eq.**
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
SCIP Number	**7bdc2711-0ad2-427c-8ece-532c5e9f09d7**
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold

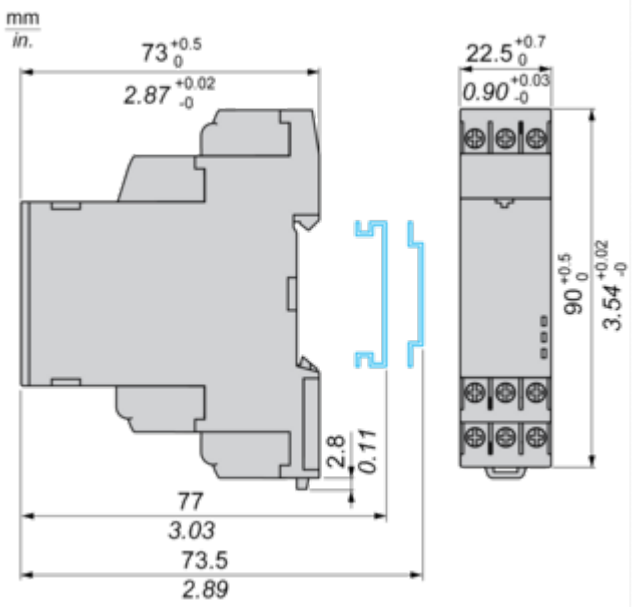
Use Again

Repack and remanufacture

Recyclability potential, in %	**15**
End of life manual availability	End of Life Information
Take-back	**No**

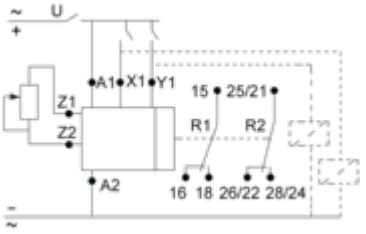
Dimensions Drawings

Dimensions



Connections and Schema

Wiring Diagram



Technical Description

Function A: Power On-Delay

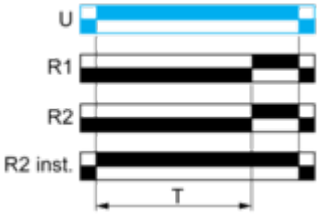
Description

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

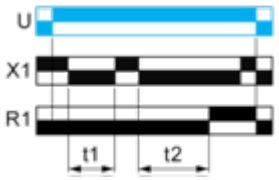


Function At: Power On-Delay with Pause / Summation Control

Description

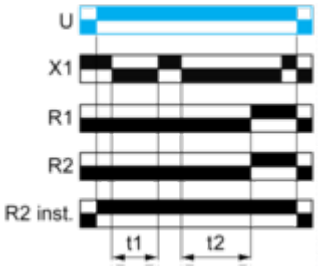
On energisation of power supply, the timing period T starts.Timing can be interrupted / paused each time X1 energizes.Except for RE17*, RE22R2AMU, RE22R2MMW, RE22R2MMU, RE22R2MJU, timing can be interrupted / paused each time Y1 energizes.When the cumulative total of time periods elapsed reaches the pre-set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



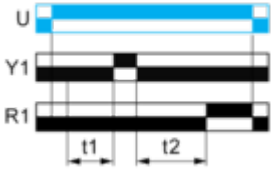
T = t1 + t2 +…

Function: 2 Outputs with Pause / Summation Control



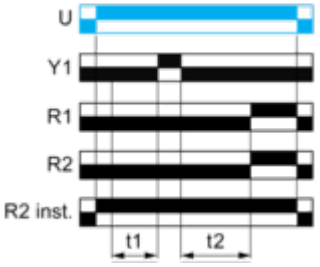
T = t1 + t2 +…

Function: 1 Output with Retrigger / Restart Control



T = t1 + t2 +…

Function: 2 Outputs with Retrigger / Restart Control



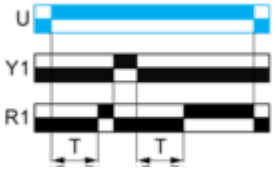
T = t1 + t2 +…

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

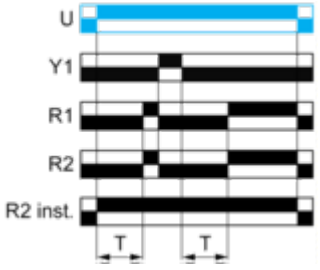
Description

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

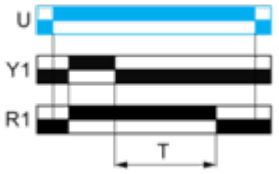


Function C: Off-Delay Relay with Control Signal

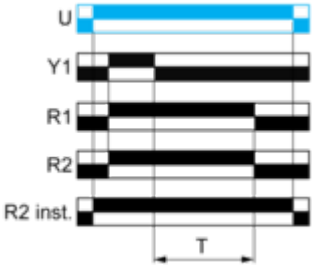
Description

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

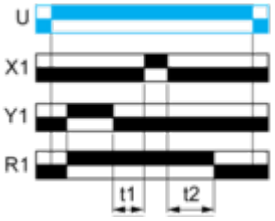


Function Ct: Off-Delay Relay with Control Signal & With Pause / Summation Control

Description

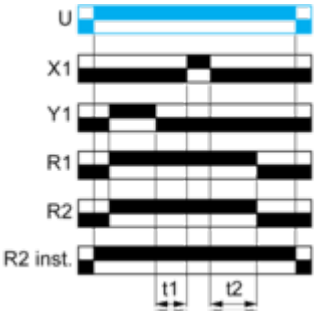
After energisation of power supply and energization of Y1 cause output(s) R close(s).When Y1 deenergizes, timing starts and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsedreaches the pre-set value T, the output(s) R revert(s) to its/their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

Function: 2 Outputs



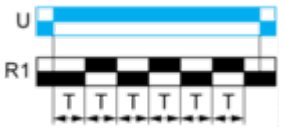
T = t1 + t2 +…

Function D: Symmetrical Flashing Relay (Starting Pulse Off)

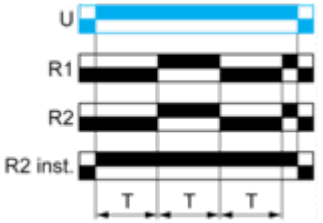
Description

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 indefintely 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").

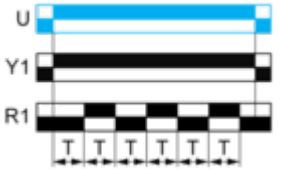
Function: 1 Output



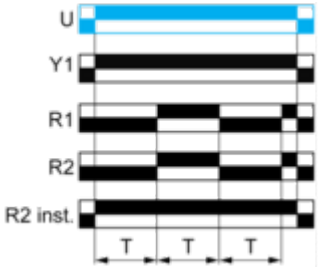
Function: 2 Outputs



Function: 1 Output with Retrigger / Restart Control



Function: 2 Output with Retrigger / Restart Control

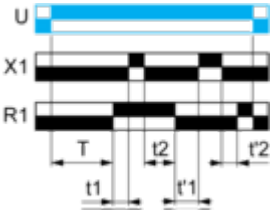


Function Dt: Symmetrical Flashing Relay (Starting Pulse Off) & With Pause / Summation Control

Description

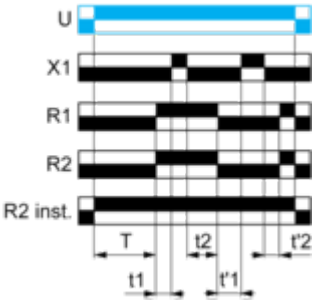
On energisation of power supply, output(s) R starts at its/their initial state for timing duration T and the timing can be interrupted / paused each time X1 energizes.When the cumulative total of time periods elapsed reaches the pre-set value T, then changes to output(s) R close(s).The output(s) R close 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 indefintely 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 = t1 + t2 +…
T = t'1 + t'2 +…

Function: 2 Outputs



T = t1 + t2 +…
T = t'1 + t'2 +…

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

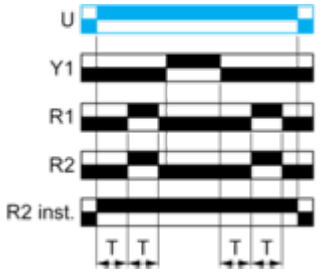
Description

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 indefintely 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)

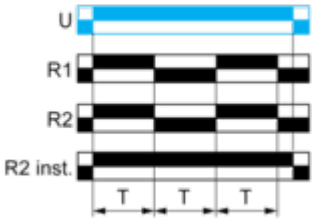
Description

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 indefintely 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

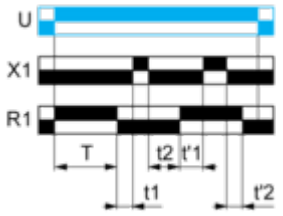


Function Dit: Symmetrical Flashing Relay (Starting Pulse On) & With Pause / Summation Control

Description

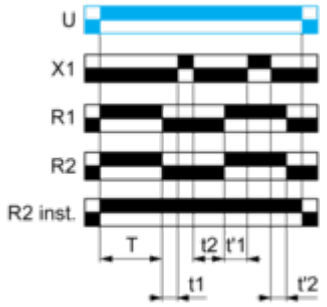
On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration T and the timing can be interrupted / paused each time X1 energizes.When the cumulative total of time periods elapsed reaches the pre-set value T, then revert(s) to its/their initial state.The output(s) R 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 indefintely 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 = t1 + t2 +…
T = t'1 + t'2 +…

Function: 2 Outputs



T = t1 + t2 +…
T = t'1 + t'2 +…

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

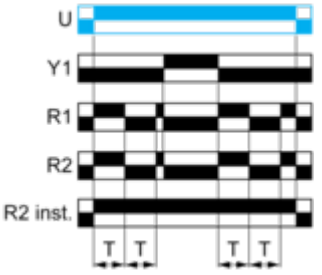
Description

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 indefintely 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

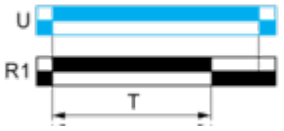


Function H: Interval Relay

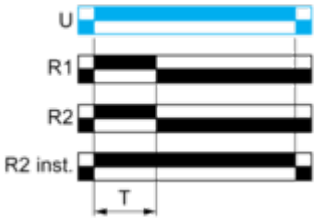
Description

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

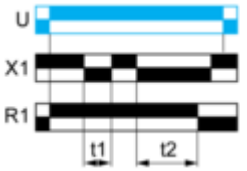


Function Ht: Interval Relay & With Pause / Summation Control

Description

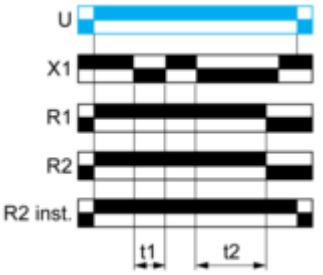
On energisation of power supply, output(s) R close(s) and timing period T starts.
The timing can be interrupted / paused each time X1 energizes.
When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their initial state Reenergization of X1 will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



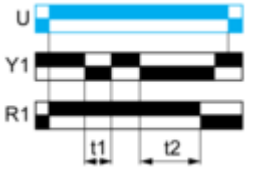
T = t1 + t2 +...

Function: 2 Outputs



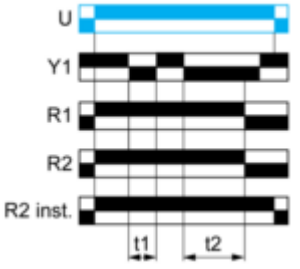
T = t1 + t2 +...

Function: 1 Output with Retrigger / Restart Control



T = t1 + t2 +...

Function: 2 Outputs with Retrigger / Restart Control



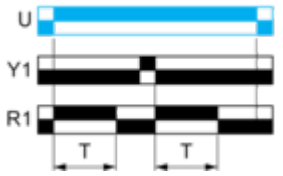
T = t1 + t2 +...

Function Hw: Interval Relay & with Retrigger / Restart Control

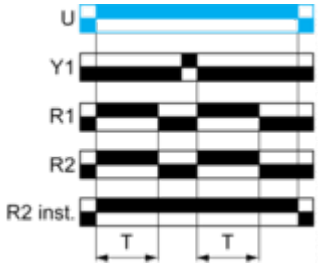
Description

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 = t1 + t2 +…

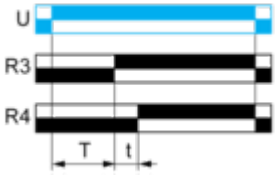
NOTE: RE22R2MYMR is with fixed transition time, t: 50ms

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



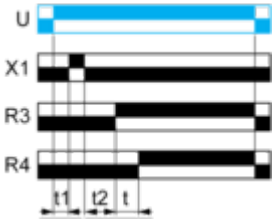
t : 20, 40, 60, 80, 100, 120, 140 ms

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 = t1 + t2 +…

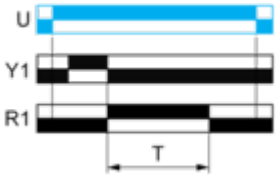
NOTE: RE22R2MYMR is with fixed transition time, t: 50ms

Function W: Interval Relay with Control Signal Off

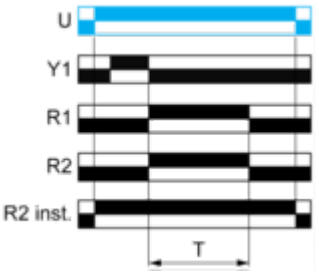
Description

After energisation of power supply and on energization of Y1 following by denergization 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

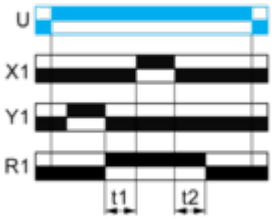


Function Wt: Interval Relay with Control Signal Off & with Pause / Summation Control

Description

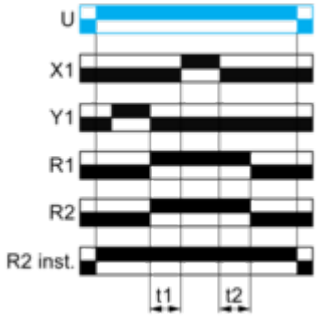
After energisation of power supply and on energization of Y1 following by denergization of Y1, the output(s) R close(s) and starts the timing T.Timing can be interrupted / paused each time X1 energizes.When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s)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

Function: 2 Outputs



T = t1 + t2 +…

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

Image of product / Alternate images

Alternative





