Product datasheet

Specifications

Green Premium™

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

RE22R2MYMR

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 (AWG 20...AWG 12) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm² (AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² (AWG 24...AWG 14) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm² (AWG 24...AWG 16) flexible with cable end
Tightening torque	0.6…1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing
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

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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	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 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

Contractual warranty

Warranty	18 months

Sustainability

Green Premium^{TM} label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency RoHS/REACh

Well-being performance

✓ Mercury Free

✓ Rohs Exemption Information   Yes
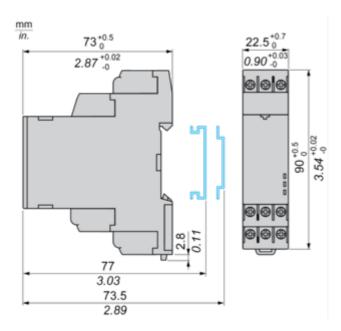
Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

Dimensions Drawings

Dimensions

$\dfrac{mm}{in.}$

$73^{+0.5}_{0}$

$2.87^{+0.02}_{-0}$

$22.5^{+0.7}_{0}$

$0.90^{+0.03}_{-0}$

$90^{+0.5}_{0}$

$3.54^{+0.02}_{-0}$

2.8

0.11

77

3.03

73.5

2.89

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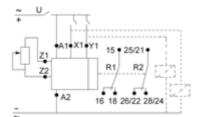
Connections and Schema

Wiring Diagram

Technical Description
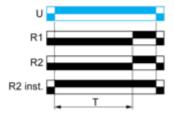
Function A: Power On-Delay

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").
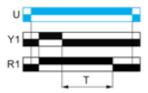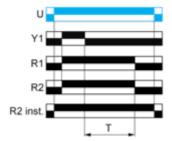
Function: 1 Output

Function: 2 Outputs
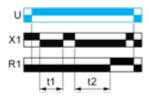
Function At: Power On-Delay with Pause / Summation Control

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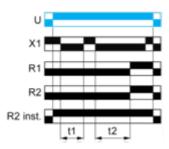
On energisation of power supply, the timing period T starts.Timing can be interrupted / paused each time X1 energizes.Except for RE17*, RE22R2AMU, RE22R2MMW, RE22R2MMU, RE22R2MJU, timing can be interrupted / paused each time Y1 energizes.When the cumulative total of time periods elapsed reaches the pre-set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


$T = t1 + t2 + …$
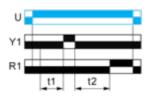
Function: 2 Outputs with Pause / Summation Control
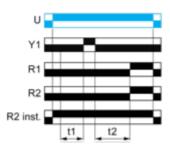
$T = t1 + t2 + …$

Function: 1 Output with Retrigger / Restart Control

$T = t1 + t2 + …$

Function: 2 Outputs with Retrigger / Restart Control
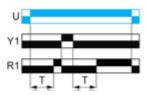
$T = t1 + t2 + …$
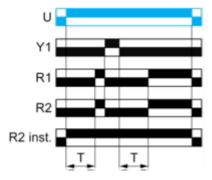
Function Aw : Power On-Delay With Retrigger / Restart Control

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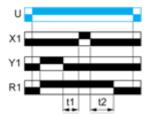
Function Ct: Off-Delay Relay with Control Signal & With Pause / Summation Control

Description
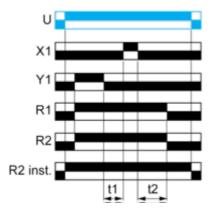
After energisation of power supply and energization of Y1 cause output(s) R close(s).When Y1 deenergizes, timing starts and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsedreaches the pre-set value T, the output(s) R revert(s) to its/their 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
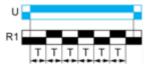
T = t1 + t2 +…
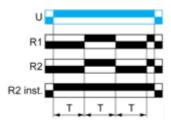
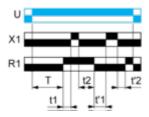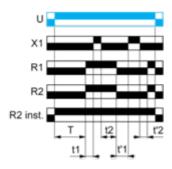## Function D: Symmetrical Flashing Relay (Starting Pulse Off)

Description
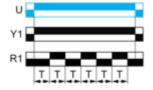
On energisation of power supply, output(s) R starts at its/their initial state for timing duration T then change(s) to output(s) R close(s) for the same timing duration T.This cycle is repeated indefintely until power supply removal.Specially for RE17*, RE22R2AMU, RE22R2MMW, RE22R2MMU, RE22R2MJU,this 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
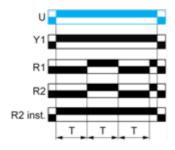
Function: 1 Output with Retrigger / Restart Control

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
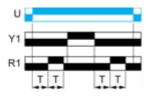
T = t1 + t2 +...
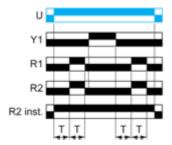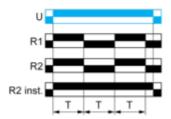**T =** t'1 + t'2 +...

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").
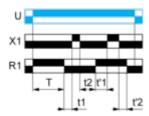
Function: 1 Output

Function: 2 Outputs

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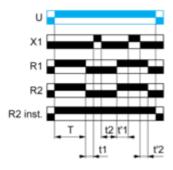
Description

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
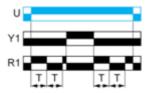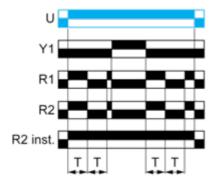

T = t1 + t2 +…
T = t'1 + t'2 +…

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").
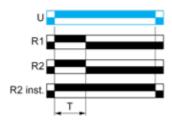
Function: 1 Output

Function: 2 Outputs

23-Aug-2024

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.
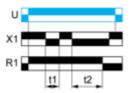
When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their initial state Reenergization of X1 will also cause output(s) R close(s) if the time has elapsed and restart the same operation as described at the beginning.

Except for RE17*, RE22R2MMW, RENF22R2MMW, RE22R2MMU and RE22R2MJU, timing can be interrupted / paused each time Y1 energizes.
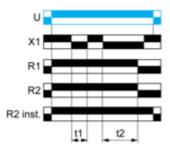
The second output (R2) can be either timed (when set to "TIMED" or instantaneous (when set to "INST").
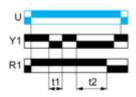
Function: 1 Output

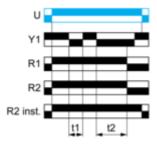T = t1 + t2 +...

Function: 2 Outputs

T = t1 + t2 +...

Function: 1 Output with Retrigger / Restart Control

T = t1 + t2 +...

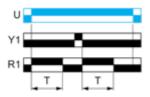### Function: 2 Outputs with Retrigger / Restart Control
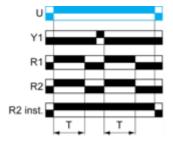

T = t1 + t2 +...

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").
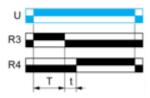
Function: 1 Output

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.

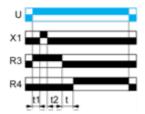**Function: 2 Outputs**

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.

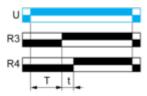### Function: 2 Outputs

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.

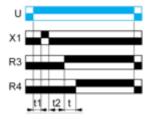**Function: 2 Outputs**

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.
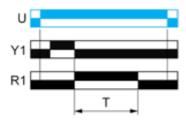
Function: 2 Outputs

T = t1 + t2 +…

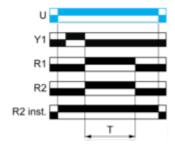## NOTE: RE22R2MYMR is with fixed transition time, t: 50ms

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
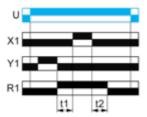

Function: 2 Outputs

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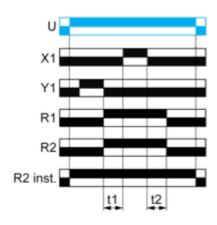
Description

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").
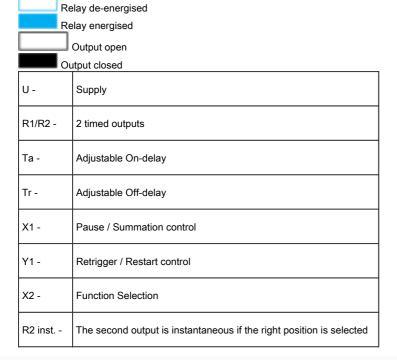
Function: 1 Output

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