# **Product datasheet**

Specification





# multifunction relay, Harmony Timer Relays, 8A, 2CO, 0.1s…100h, 24V DC or 24...240V AC DC

RE22R2MMU

#### Main

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

### Complementary

Complementary	
Contacts type and composition	1 C/O timed contact 1 C/O timed or instantaneous contact
time delay type	Power on-delay On-delay and off-delay Interval Off-delay Symmetrical flashing
time delay range	10100 h 660 s 0.11 s 110 h 110 s 110 min 660 min
Control type	Rotary knob front panel
[Us] rated supply voltage	24240 V AC 24 V DC
Voltage range	0.851.1 Us
Supply frequency	5060 Hz +/- 5 %
Connections - terminals	Screw terminals, 2 x 1.5 mm² with cable end Screw terminals, 2 x 2.5 mm² without cable end
Tightening torque	0.61 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
Control signal pulse width	30 ms 100 ms under load
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	50 VA at 240 V AC
Power consumption in W	0.7 W at 24 V DC
Breaking capacity	2000 VA
Minimum switching current	10 mA at 5 V
Maximum switching current	8 mA
Maximum switching voltage	250 V
Electrical durability	100000 cycles for resistive load, 8 A at 250 V, AC
Mechanical durability	10000000 cycles
Rated impulse withstand voltage	5 kV for 1.250 μs conforming to IEC 60664-1 5 kV conforming to IEC 61812-1
Power on delay	100 ms
Safety reliability data	MTTFd = 182.6 years B10d = 170000
Mounting position	Any position in relation to normal vertical mounting plane
Mounting support	35 mm DIN rail conforming to IEC 60715
Status LED	LED green (flashing) for timing in progress LED green (steady) for power ON LED yellow for relay energised
Function available	A- Power on-delay relay-2 C/O Ac- On-delay and off-delay relay w/ control signal-2 C/O At- Power on-delay relay w/ pause/summation (Y1)-2 C/O B- Single interval relay w/ control signal-2 C/O Bw- Double interval relay w/ control signal-2 C/O C- Off-delay relay w/ control signal-2 C/O D- Symmetrical flashing relay (starting pulse-off)-2 C/O Di- Symmetrical flashing relay (starting pulse-on)-2 C/O H- Interval relay-2 C/O Ht- Interval relay w/ pause/summation (Y1)-2 C/O
Width	22.5 mm
Net weight	0.09 kg
Control type	With test button
Number of functions	10

# **Environment**

Dielectric strength	2.5 kV for 1 mA/1 minute at 50 Hz conforming to IEC 61812-1
Standards	IEC 61812-1 IEC 61000-6-1 IEC 61000-6-2 IEC 61000-6-3 IEC 61000-6-4
Directives	2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive
Product certifications	CULUS CSA CE CCC RCM GL EAC
Ambient air temperature for operation	-2060 °C
ambient air temperature for storage	-3060 °C

IP degree of protection	IP40 housing: conforming to IEC 60529 IP20 terminal block: conforming to IEC 60529 IP40 front face: conforming to IEC 60529
Vibration resistance	20 m/s² (f= 10150 Hz) conforming to IEC 60068-2-6
Shock resistance	15 gn for 11 ms conforming to IEC 60068-2-27
Relative humidity	93 %, without condensation conforming to IEC 60068-2-30
Electromagnetic compatibility	Electrostatic discharge immunity test - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge immunity test - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2 Fast transients immunity test - test level: 1 kV level 3 (capacitive connecting clip) conforming to IEC 61000-4-4 Fast transients immunity test - test level: 2 kV level 3 (direct contact) 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 Particular radio frequency electromagnetic field immunity test - test level: 10 V level 3
	Radiated radio-frequency electromagnetic field immunity test - test level: 10 V level 3 (0.1580 MHz) conforming to IEC 61000-4-6 Electromagnetic field immunity test - test level: 10 V/m level 3 (80 MHz1 GHz) conforming to IEC 61000-4-3 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 Conducted and radiated emissions class B conforming to EN 55022

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.500 cm
Package 1 Width	8.200 cm
Package 1 Length	9.500 cm
Package 1 Weight	105.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	4.667 kg

# Sustainability Green Premium\*

**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> 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

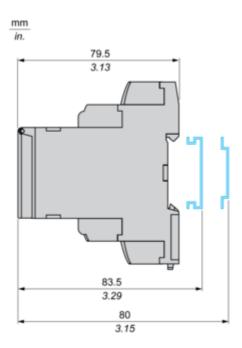
#### **Certifications & Standards**

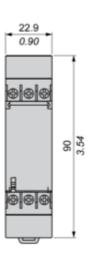
Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

18 July 2024

## **Dimensions Drawings**

#### **Dimensions**



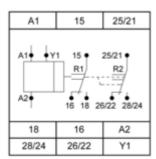


## **Product datasheet**

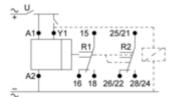
#### RE22R2MMU

#### Connections and Schema

#### **Internal Wiring Diagram**



#### Wiring Diagram



## **Product datasheet**

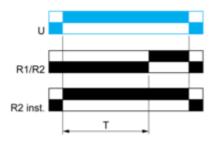
#### RE22R2MMU

**Technical Description** 

#### Function A : Power on Delay Relay

#### Description

The timing period T begins on energization. After timing, the output(s) relay close(s).



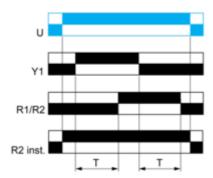
#### Function Ac: On- and Off-Delay Relay with Control Signal

#### **Description**

After power-up, closing of the control contact Y1 causes the timing period T to start (timing can be interrupted by operating the Gate control contact G). At the end of this timing period, the relay closes.

When control contact Y1 re-opens, the timing T starts.At the end of this timing period T

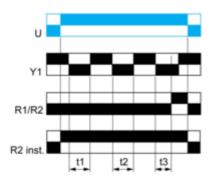
At the end of this timing period T, the output reverts to its initial position (timing can be interrupted by operating the Gate control contact G).



#### Function At: Power on Delay Relay (Summation) with Control Signal

#### **Description**

After power-up, the first opening of control contact Y1 starts the timing. Timing can be interrupted each time control contact closes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output relay closes.

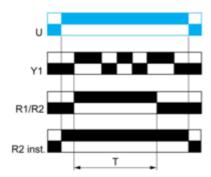


T = t1+t2+t3

#### Function B : Interval Relay with Control Signal

#### Description

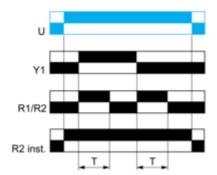
After power-up, pulsing or maintaining control contact Y1 starts the timing T. The output relay closes for the duration of the timing period T then reverts to its initial state.



#### Function Bw : Double Interval Relay with Control Signal

#### Description

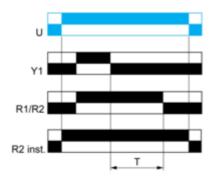
On closing and opening of control contact Y1, the output relay closes for the duration of the timing period T.



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

#### **Description**

After power-up and closing of the control contact Y1, the output relay closes. When control contact Y1 re-opens, timing T starts. At the end of the timing period, the output(s) relay revert(s) to its/their initial state.

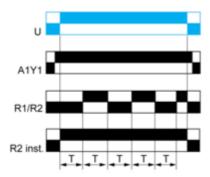


#### Function D : Symmetrical Flasher Relay (Starting Pulse Off)

#### **Description**

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Repetitive cycle with two timing periods T of equal duration, with output(s) relay changing state at the end of each timing period T.

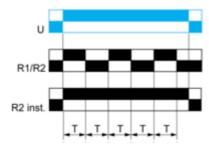


Before power-up Y1 should be permanently connected to A1. 2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

#### Function D : Symmetrical Flasher Relay (Starting Pulse On)

#### **Description**

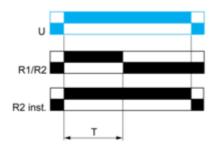
Repetitive cycle with two timing periods T of equal duration, with output(s) relay changing state at the end of each timing period T.



#### Function H : Interval Relay

#### **Description**

On energization of the relay, timing period T starts and the output(s) relay close(s). At the end of the timing period T, the output(s) relay revert(s) to its/their initial state



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

# Relay de-energised Relay energised Output open Output closed Y1: Control contact R1/R2: 2 timed outputs R2 inst.: The second output is instantaneous if the right position is selected T: Timing period U: Supply

#### Function Ht: Interval Relay & With Pause / Summation Control

#### **Description**

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

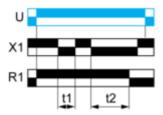
The timing can be interrupted / paused each time X1 energizes.

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.

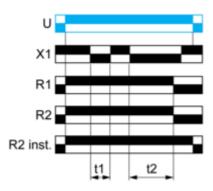
The second output (R2) can be either timed (when set to "TIMED" or instantaneous (when set to "INST").

#### **Function: 1 Output**



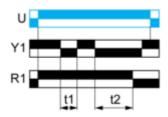
T = t1 + t2 +...

#### **Function: 2 Outputs**



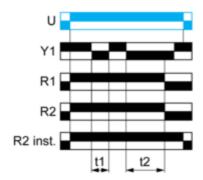
T = t1 + t2 +...

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



T = t1 + t2 +...

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



T = t1 + t2 +...