Product data sheet

Specifications

multifunction relay, Harmony Timer Relays, 8A, 1 CO, 0.05sâ€¦300h, asymmetrical flashing, 24...240V AC DC

RE22R1MLMR

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 contact, cadmium free
Time delay type	Asymmetrical flashing
Time delay range	0.05...1 s 30...300 min 30...300 h 30...300 s 3...30 h 0.3...3 s 3...30 min 3...30 s 10...100 s 1...10 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

Time delay type	Asymmetrical flashing - L- Asymmetrical flashing relay (starting pulse-off) Asymmetrical flashing - Lt- Asymmetrical fl ashing relay (starting pulse-off) w/ pause/ summation (Y1) Asymmetrical flashing - Li- Asymmetrical flashing relay (starting pulse-on) Asymmetrical flashing - Lit- Asymmetrical flashing relay (starting pulse-on) w/ pause/ summation (Y1)
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	MTTFd = 194 years B10d = 180000
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	L- Asymmetrical flashing relay (starting pulse-off)-1 C/O Lt- Asymmetrical fl ashing relay (starting pulse-off) w/ pause/summation (Y1)-1 C/O Li- Asymmetrical flashing relay (starting pulse-on)-1 C/O Lit- Asymmetrical flashing relay (starting pulse-on) w/ pause/summation (Y1)-1 C/O
Width	22.5 mm
Product weight	0.1 kg
Control type	With test button
Number of functions	4

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	IEC 61812-1 UL 508
Directives	2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive

Product certifications	EAC UL GL CSA RCM CCC CE
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 IP50 front face: conforming to IEC 60529 IP20 terminals: 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	8.2 cm
Package 1 Width	9.5 cm
Package 1 Length	2.6 cm
Package 1 Weight	107.0 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	4.735 kg
Unit Type of Package 3	PAL
Number of Units in Package 3	640
Package 3 Height	50.0 cm

Package 3 Width	60.0 cm
Package 3 Length	80.0 cm
Package 3 Weight	86.18 kg

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	**64**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
EU RoHS Directive	**Pro-active compliance (Product out of EU RoHS legal scope)**
SCIP Number	**7bdc2711-0ad2-427c-8ece-532c5e9f09d7**
REACh Regulation	**REACh Declaration**
California proposition 65	**WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**

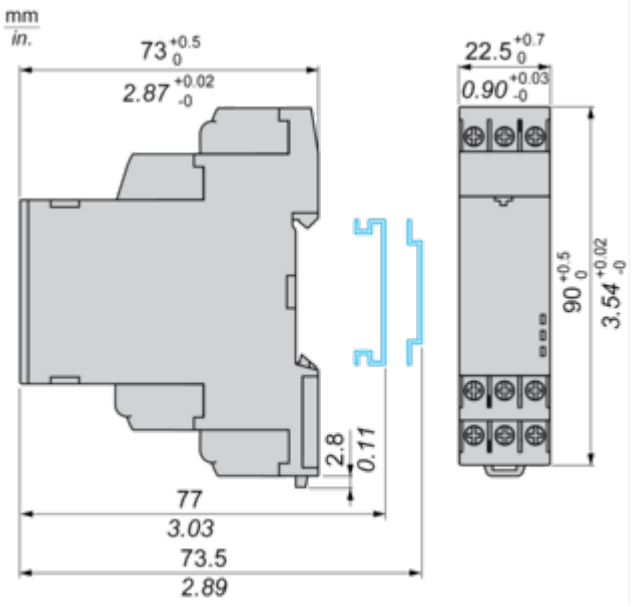
Use Again

Repack and remanufacture

Take-back	**No**

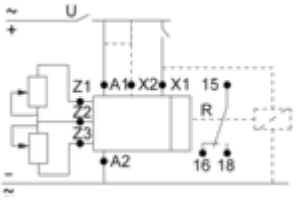
Dimensions Drawings

Dimensions



Connections and Schema

Wiring Diagram



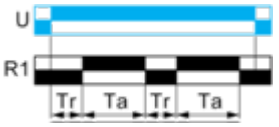
Technical Description

Function L: Asymmetrical Flashing Relay (Starting Pulse Off)

Description

On energisation of power supply, output(s) R starts at its/their initial state for timing duration Tr then change(s) to output(s) R close(s) for the another timing duration Ta.This cycle is repeated indefintely until power supply removal.

Function: 1 Output



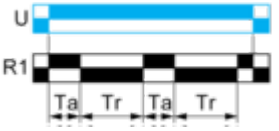
Function Li: Asymmetrical Flashing Relay (Starting Pulse On)

Description

On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration Ta then change(s) to its/ their initial state for timing duration Tr.This cycle is repeated indefintely until power supply removal.Specially for RE22R1MLMR, this Li function can only be initiated by energizing X2 permanently.

Function: 1 Output with Function Selection

Function: 1 Output

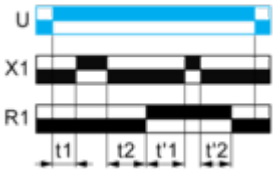


Function Lt: Asymmetrical Flashing Relay (Starting Pulse Off) & with Pause / Summation Control

Description

On energisation of power supply, output(s) R starts at its/their initial state for timing duration Tr and the timing can be interrupted / paused each time X1 energizes.When the cumulative total of time periods elapsed reaches the pre-set value Tr, then changes to output(s) R close(s).The output(s) R close state will remain for the same timing duration Ta and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value Ta, the output(s) R revert(s) to its/their initial state.This cycle is repeated indefinitely until power supply removal.

Function: 1 Output



T = t1 + t2 +…
T = t'1 + t'2 +…

Function Lit: Asymmetrical Flashing Relay (Starting Pulse On) & Pause / Summation Control

Description

On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration Ta and the timing can be interrupted / paused each time X1 energizes.When the cumulative total of time periods elapsed reaches the pre-set value Ta, the output(s) R revert(s) to its/their initial state.The output(s) R at intial state will remain for timing duration Tr the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value Tr, then changes to output(s) R close(s) This cycle is repeated indefintely until power supply removal.Specially for RE22R1MLMR, this Li function can only be initiated by energizing X2 permanently

Function: 1 Output with Function Selection

T = t1 + t2 +…
T = t'1 + t'2 +…

Legend

Relay de-energised
Relay energised
Output open
Output closed

U -	Supply
R1 -	Timed output
Ta -	Adjustable On-delay
Tr -	Adjustable Off-delay
X1 -	Pause / Summation control
X2 -	Function Selection

Technical Illustration

Dimensions

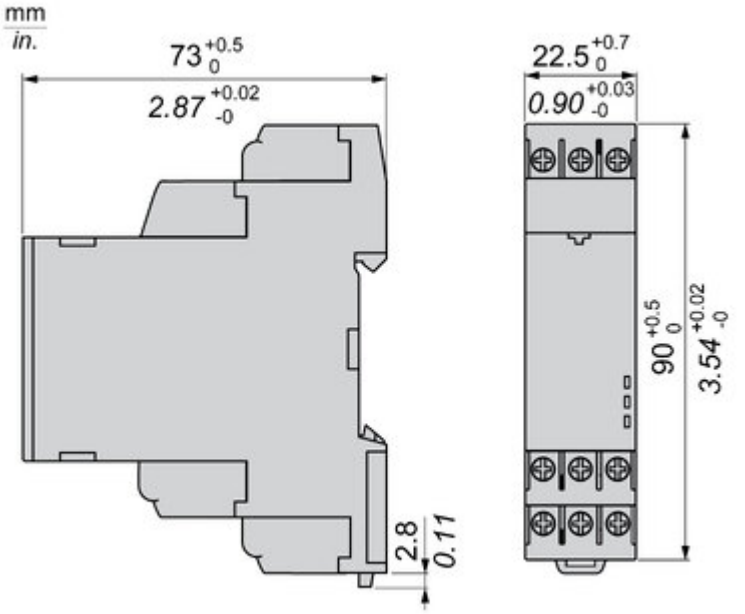
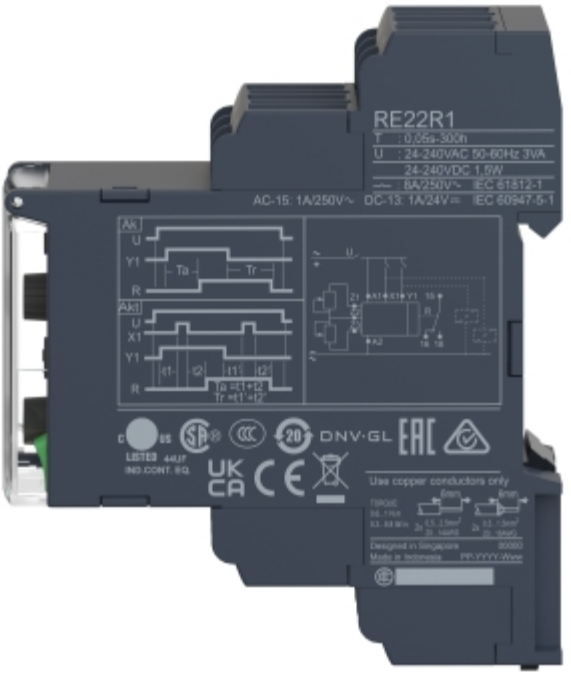


Image of product / Alternate images

Alternative


A1
15
Y1
Z1
Z2
X1
Ta
Tr
DIAGNOSTIC
Schneider
18
16
A2
NC
NC
Z3


RE22R1
T : 0.05s-300h
U : 24-240VAC 50-60Hz 3VA
24-240VDC 1.5W
8A/250V~ IEC 61512-1
AC-15: 1A/250V~ DC-13: 1A/24V⎓ IEC 60947-5-1
Ak
U
Y1
Ta
Tr
R
Ak1
U
X1
Y1
R
Use copper conductors only
DNV·GL
UK CA