Product data sheet
Characteristics

RE22R1MLMR
multifunction relay, Harmony Timer Relays, 8A, 1 CO, 0.05s…300h, asymmetrical flashing, 24...240V AC DC

Main

Range of Product	Harmony Timer Relays
Product or Component Type	Multifunction relay
Discrete output type	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	5.31…8.85 lbf.in (0.6…1 N.m) IEC 60947-1
Housing material	Self-extinguishing
Repeat accuracy	+/- 0.5 % IEC 61812-1
Temperature Drift	+/- 0.05 %/°C
Voltage drift	+/- 0.2 %/V
Setting accuracy of time delay	+/- 10 % of full scale 25 °C IEC 61812-1
Control signal pulse width	100 Ms with load in parallel 30 ms
Insulation resistance	100 MOhm 500 V DC IEC 60664-1
Recovery time	120 ms on de-energisation
Immunity to microbreaks	10 ms
Power consumption in VA	3 VA 240 V AC
Power consumption in W	1.5 W 240 V DC

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
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Switching capacity in VA	2000 VA
Minimum switching current	10 mA 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 1.2…50 µs IEC 60664-1
Power on delay	100 ms
Creepage distance	4 kV/3 IEC 60664-1
Overvoltage category	III 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	Green LED backlight steady)dial pointer indication Yellow LED steady)output relay energised Yellow LED fast flashing)timing in progress and output relay de-energised Yellow LED slow flashing)timing in progress and output relay energised
Width	0.89 in (22.5 mm)
Net Weight	0.22 lb(US) (0.1 kg)

Environment

Dielectric strength	2.5 kV 1 mA/1 minute 50 Hz between relay output and power supply basic insulation IEC 61812-1
Standards	IEC 61812-1 UL 508
Directives	2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive
Product Certifications	EAC[RETURN]UL[RETURN]GL[RETURN]CSA[RETURN]RCM[RETURN]CCC[RETURN]CE
Ambient Air Temperature for Operation	-4…140 °F (-20…60 °C)
Ambient Air Temperature for Storage	-40…158 °F (-40…70 °C)
IP degree of protection	Housing IP40 IEC 60529 Front face IP50 IEC 60529 Terminals IP20 IEC 60529
Pollution degree	3 IEC 60664-1
Vibration resistance	20 m/s² 10…150 Hz)IEC 60068-2-6
Shock resistance	15 gn not operating 11 ms IEC 60068-2-27 5 gn in operation 11 ms IEC 60068-2-27
Relative humidity	95 % 77…131 °F (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

Ordering and shipping details

Category	22376-RELAYS-MEASUREMENT(RM4)
Discount Schedule	CP2
GTIN	3606480792441
Returnability	Yes
Country of origin	ID

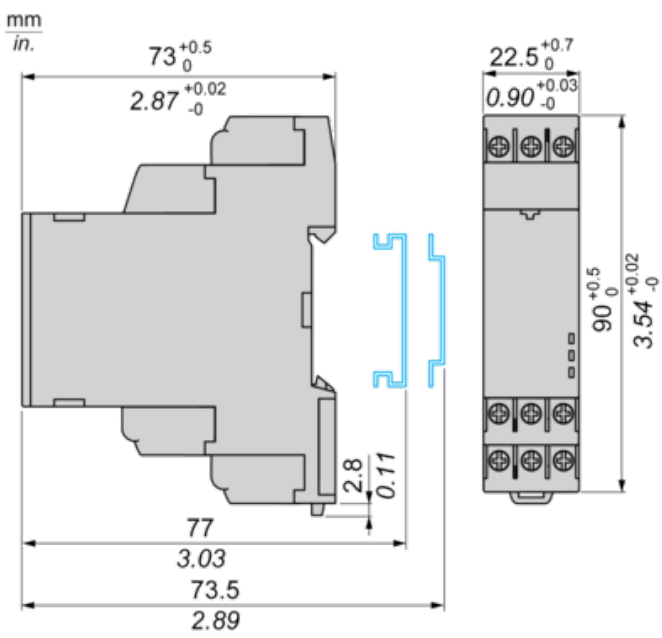
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.23 in (8.2 cm)
Package 1 Width	3.74 in (9.5 cm)
Package 1 Length	1.02 in (2.6 cm)
Package 1 Weight	3.77 oz (107.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	10.44 lb(US) (4.735 kg)
Unit Type of Package 3	PAL
Number of Units in Package 3	640
Package 3 Height	19.69 in (50.0 cm)
Package 3 Width	23.62 in (60.0 cm)
Package 3 Length	31.50 in (80.0 cm)
Package 3 Weight	189.99 lb(US) (86.18 kg)

Offer Sustainability

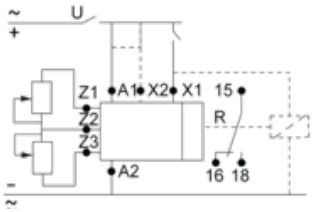
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information

Dimensions


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

RE22R1MLMR

Wiring Diagram

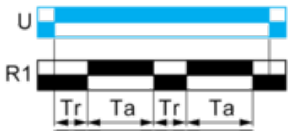


Function L: Asymmetrical Flashing Relay (Starting Pulse Off)

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

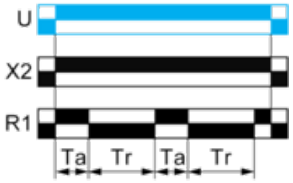


Function Li: Asymmetrical Flashing Relay (Starting Pulse On)

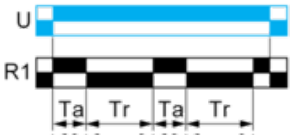
Description

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

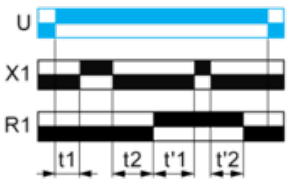


Function Lt: Asymmetrical Flashing Relay (Starting Pulse Off) & with Pause / Summation Control

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 +…

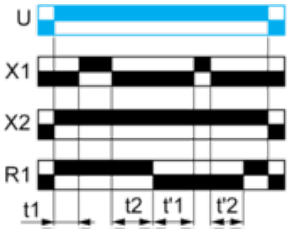
T = t'1 + t'2 +…

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