

Product data sheet

Specifications



dual function relay, Harmony Timer Relays, 8A, 1CO, 0.05s to 300h, 24...240V AC DC

RE22R1AKMR

Product availability: Stock - Normally stocked in distribution facility

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 on-delay and off-delay
Time delay range	30...300 h 3...30 min 30...300 s 0.05...1 s 30...300 min 10...100 s 0.3...3 s 3...30 h 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 mm ² AWG 20...AWG 12) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm ² AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm ² AWG 24...AWG 14) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm ² AWG 24...AWG 16) flexible with cable end
Tightening torque	5.3...8.9 lbf.in (0.6...1 N.m) IEC 60947-1
Housing material	Polycarbonate
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
Time delay type	On-delay and off-delay - Ak- Asymmetrical on-delay and off -delay relay w/ control signal On-delay and off-delay - Akt-Asymmetrical on/off-delay relay w/ctrl signal & pause/summation ctrl signal

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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
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 conforming to IEC 60664-1
Safety reliability data	B10d = 180000 MTTFd = 194 years
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
Function available	Ak- Asymmetrical on-delay and off -delay relay w/ control signal-1 C/O Akt-Asymmetrical on/off-delay relay w/ctrl signal & pause/summation ctrl signal-1 C/O
Width	0.9 in (22.5 mm)
Net Weight	0.2 lb(US) (0.1 kg)
Control Type	With test button
Number of functions	2

Environment

Dielectric strength	2.5 kV 1 mA/1 minute 50 Hz between relay output and power supply basic insulation IEC 61812-1
Standards	UL 508 IEC 61812-1
Directives	2006/95/EC - low voltage directive 2004/108/EC - electromagnetic compatibility
Product Certifications	EAC CSA UL RCM CCC GL 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	IP40 housing: conforming to IEC 60529 IP50 front face: conforming to IEC 60529 IP20 terminals: conforming to IEC 60529
Pollution degree	3 IEC 60664-1
Vibration resistance	20 m/s² (f= 10...150 Hz) conforming to 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	US10CP222376
Discount Schedule	0CP2
GTIN	3606480792410
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	3.40 in (8.64 cm)
Package 1 Width	3.90 in (9.91 cm)
Package 1 Length	1.10 in (2.79 cm)
Package weight(Lbs)	0.2 lb(US) (0.1 kg)
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	5.9 in (15 cm)
Package 2 Width	11.8 in (30 cm)
Package 2 Length	15.7 in (40 cm)
Package 2 Weight	10.342 lb(US) (4.691 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	640

Package 3 Height	19.7 in (50 cm)
Package 3 Width	31.5 in (80 cm)
Package 3 Length	23.6 in (60 cm)
Package 3 Weight	189.99 lb(US) (86.18 kg)

Contractual warranty

Warranty (in months)	18
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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	53 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
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 Longer



Lifetime extension

Repair	No
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Use Again

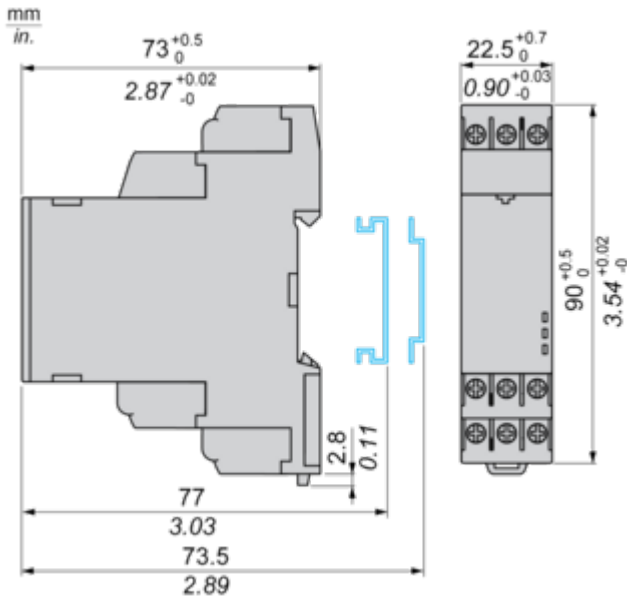


Repack and remanufacture

Circularity Profile	End of Life Information
Take-back	No

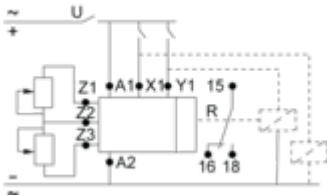
Dimensions Drawings

Dimensions



Connections and Schema

Wiring Diagram



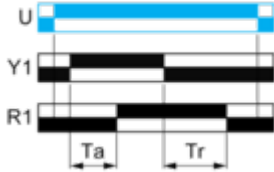
Technical Description

Function Ak: Asymmetrical On-Delay & Off-Delay with Control Signal

Description

After energisation of power supply and energization of Y1, timing starts for a period T_a . At the end of this timing period T_a , the output(s) R closes. Deenergization of Y1 causes a second timing period T_r to start. At the end of this timing period T_r , the output(s) R reverts to its initial state.

Function: 1 Output

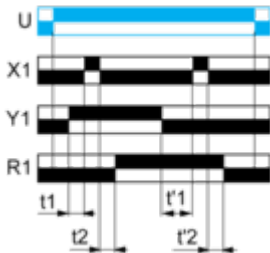


Function Akt: Asymmetrical On-Delay & Off-Delay with Control Signal & with Pause / Summation Control

Description

After energisation of power supply and energization of Y1, timing starts for a period Ta. At the end of this timing period Ta, the output(s) R closes. Deenergization of Y1 causes a second timing period Tr to start. At the end of this timing period Tr, the output(s) R reverts to its initial state.

Function: 1 Output



$Ta = t1 + t2 + \dots$

$Tr = t'1 + t'2 + \dots$

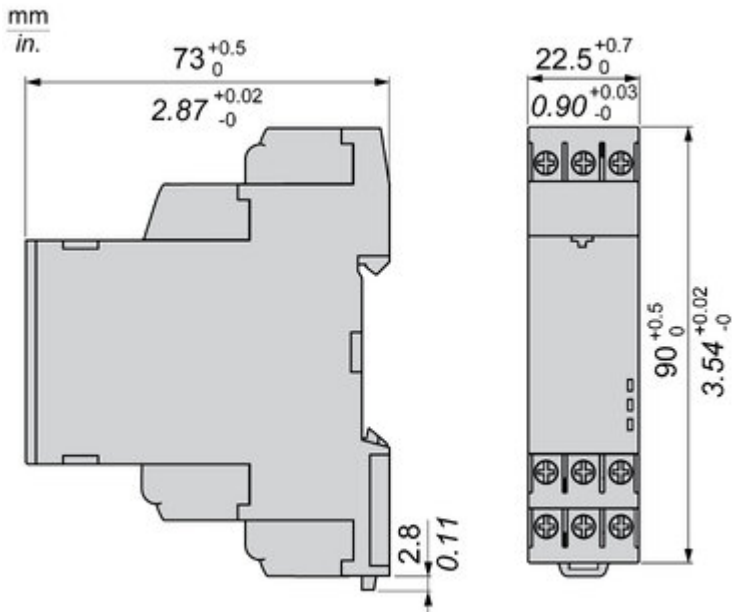
Legend

- 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
Y1 -	Retrigger / Restart control

Technical Illustration

Dimensions



Offer Marketing Illustration

Product benefits / Features

Technical Benefits

Harmony Timer Relay

Flexible choice of screw or spring connection terminals for wiring.

One product reference covering 28 timing functions, 2 outputs, and a wide range of supply voltage 24...240 V AC/DC.

Dust and unintended human intervention avoided thanks to the IP50 lead-sealable settings protection cover.



A Dial-Pointer LED indicator that enhances ease of operation in difficult environments such as dusty or low-light conditions

Different mounting style to meet your preference:
DIN rail mount with product width; 17.5 mm/0.69 in.
22.5 mm/0.88 in.
Plug in mounting with socket

Offer Marketing Illustration

Product benefits / Features



Features

Harmony Timer Relay

- 

"Diagnostic button" to check downstream circuit immediately, shorten the commission and troubleshooting time
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Compatible with a wide range of applications including machines, buildings, water segments, and HVAC.
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Wide range of time delay for adjustment: from 0.01 s to 999 hrs.
- 

Compliant with IEC 60255-1 standard, and a wide array of product certifications such as UL, CE, CSA, EAC.
- 

Unprecedented accuracy, predictive maintenance, and superior security.

Image of product / Alternate images

Alternative

