

Product datasheet

Specifications



Asym. On and Off-delay Timing Relay - 0.05s...300h - 24...240V AC/DC - 1C/O

Local distributor code:
402995894 RE22R1AKMR

EAN Code: 3606480792410

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

Disclaimer: 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

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 = 180000 MTTFd = 194 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	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	22.5 mm
Product weight	0.1 kg
Control type	With test button
Number of functions	2

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	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	-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	8.64 cm
Package 1 Width	9.91 cm
Package 1 Length	2.79 cm
Package 1 Weight	0.1 kg
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	4.691 kg
Unit Type of Package 3	P06
Number of Units in Package 3	640
Package 3 Height	50 cm
Package 3 Width	80 cm
Package 3 Length	60 cm
Package 3 Weight	86.18 kg

Logistical informations

Country of origin	ID
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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

Use Longer



Lifetime extension

Repair	No
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Use Again

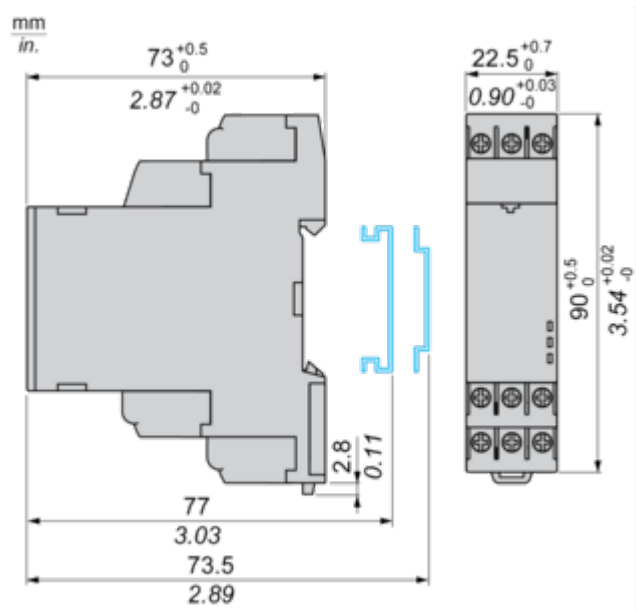


Repack and remanufacture

Recyclability potential, in %	15
End of life manual availability	End of Life Information
Take-back	No

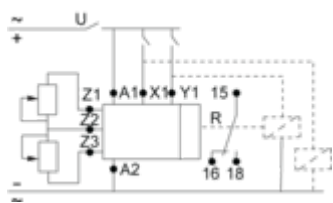
Dimensions Drawings

Dimensions



Connections and Schema

Wiring Diagram



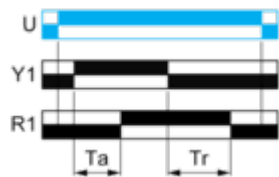
Technical Description

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 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

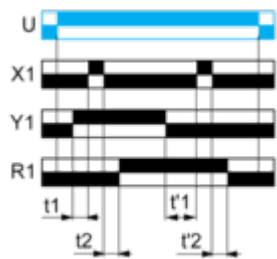


Function Akt: Asymmetrical On-Delay & Off-Delay with Control Signal & with Pause / Summation Control

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 + ...
Tr = t'1 + t'2 + ...

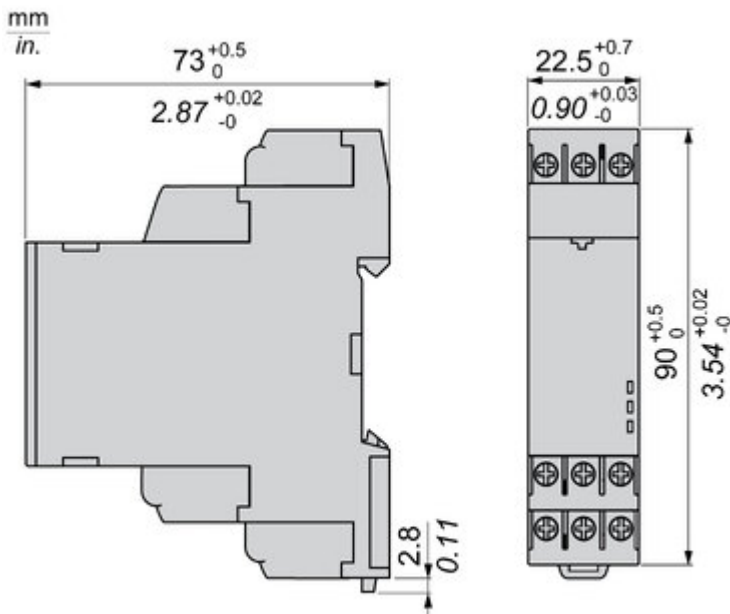
Legend

- 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
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



Compatible with a wide range of applications including machines, buildings, water segments, and HVAC.



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

