

# Product datasheet

Specifications



## Industrial timing relay, Harmony Time, delay 4 functions, 3...300 s, 240 V AC DC, solid state

RE9MS21MW

⚠ Discontinued on: 31 Mar 2022

⚠ End-of-service on: 11 May 2022

⚠ Discontinued

EAN Code: 3389110328936

### Main

Range Of Product	Zelio Time
Product Or Component Type	Industrial timing relay
Discrete Output Type	Solid state
Component Name	RE9
Time Delay Type	H A Di D
Time Delay Range	3...300 s 0.1...10 s

### Complementary

Width Pitch Dimension	22.5 mm
[Us] Rated Supply Voltage	24...240 V AC 50/60 Hz 24...240 V AC/DC 50/60 Hz
Voltage Range	0.85...1.1 Us
Connections - Terminals	Screw terminals, 2 x 1.5 mm <sup>2</sup> flexible with cable end Screw terminals, 2 x 2.5 mm <sup>2</sup> flexible without cable end
Tightening Torque	0.6...1.1 N.m
Setting Accuracy Of Time Delay	< +/- 20 %
Repeat Accuracy	< 1 %
Reset Time	100 ms after time delay period
Temperature Drift	< 0.1 %/°C
Maximum [Ie] Rated Operational Current	0.7 A at 20 °C
Minimum Output Current	10 mA at 20 °C
Overload Current	<= 15 A during 10 ms conforming to VDE 0435 (part 303), 4.8.3/class II
Maximum Voltage Drop	<3 V at closed state0.7 A
Maximum Leakage Current	6 mA open contact contact(s)
Maximum Power Dissipation In W	2.5 W
Electrical Durability	100000000 cycles
Marking	CE
Overvoltage Category	III conforming to IEC 60664-1

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

[Ui] Rated Insulation Voltage	250 V conforming to IEC 300 V conforming to CSA
Supply Disconnection Value	> 0.1 Uc
Operating Position	Any position without derating
Surge Withstand	2 kV conforming to IEC 61000-4-5 level 3
Cad Overall Width	22.5 mm
Cad Overall Height	78 mm
Cad Overall Depth	80 mm
Net Weight	0.11 kg

## Environment

Immunity To Microbreaks	2 ms after time delay period 70 ms during time delay period
Derating Factor	None >20 °C
Standards	EN/IEC 61812-1
Product Certifications	UL GL CSA
Ambient Air Temperature For Storage	-40...85 °C
Ambient Air Temperature For Operation	-20...60 °C
Relative Humidity	15...85 % 3K3 conforming to IEC 60721-3-3
Vibration Resistance	0.35 mm (f= 10...55 Hz) conforming to IEC 60068-2-6
Shock Resistance	15 gn for 11 ms conforming to IEC 60068-2-27
Ip Degree Of Protection	IP20 (terminals) IP50 (housing)
Pollution Degree	3 conforming to IEC 60664-1
Dielectric Strength	2.5 kV
Non-Dissipating Shock Wave	4.8 kV
Resistance To Electrostatic Discharge	6 kV (in contact) conforming to IEC 61000-4-2 level 3 8 kV (in air) conforming to IEC 61000-4-2 level 3
Resistance To Electromagnetic Fields	10 V/m conforming to IEC 61000-4-3 level 3
Resistance To Fast Transients	2 kV conforming to IEC 61000-4-4 level 3
Disturbance Radiated/Conducted	CISPR 22 - class A CISPR 11 group 1 - class A

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	2.7 cm
Package 1 Width	8.2 cm
Package 1 Length	8.5 cm
Package 1 Weight	89 g

## Contractual warranty

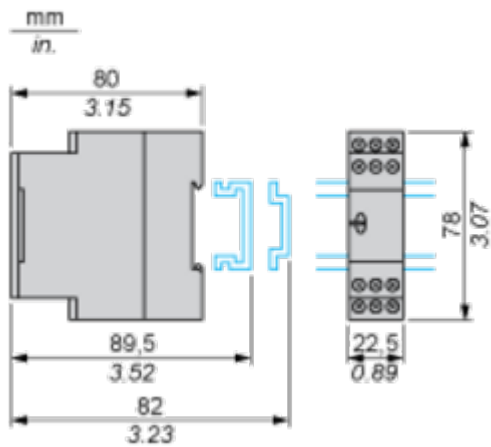
Warranty

18 months

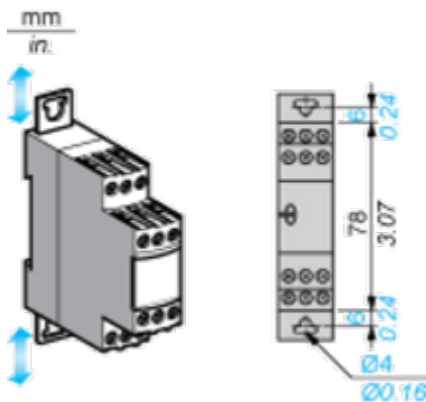
Dimensions Drawings

Width 22.5 mm

Rail Mounting



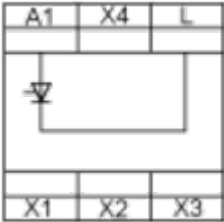
Screw Fixing



Connections and Schema

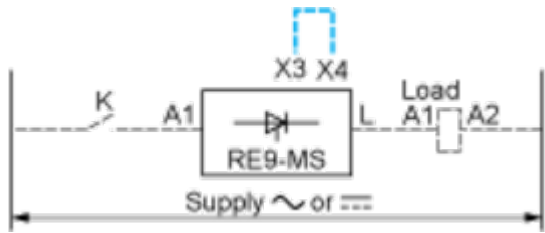
Internal Wiring Diagram

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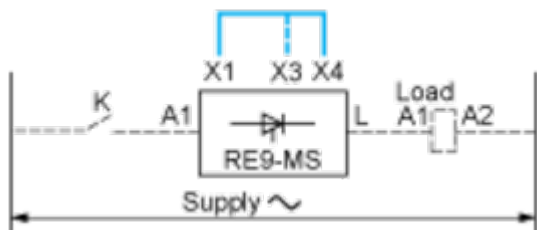


Recommended Application Wiring Diagram

Delay on Energisation: Function A



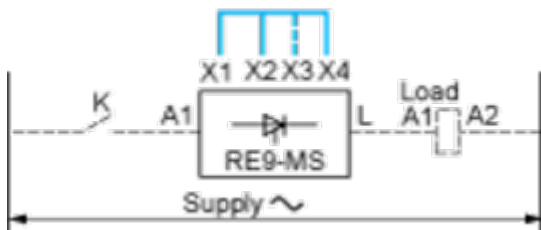
Timing on Energisation: Function H



Link to be made between terminals X1 and X4.  
Selection of the timing range

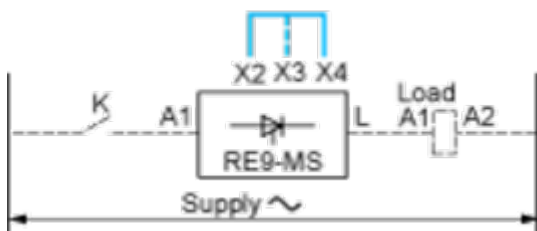
- X3-X4 not linked: range 3 s...300 s (factory configuration)
- X3-X4 linked: range 0.1 s...10 s

Symmetrical Flasher: Function D



Link to be made between terminal X2 and X4 on one side and between X1 and X2 on the other side.

Symmetrical Flasher: Function DI



Link to be made between terminals X2 and X4.

**NOTE:** For supply voltages greater than 30 V, the rated voltage of the load is equal to the supply voltage. For a supply voltage of 24 V, the voltage drop within the relay must be taken into account (about 3 V); a coil with a nominal voltage of 21 V must therefore be selected for the load.



Technical Description

Function A : Power on Delay Relay

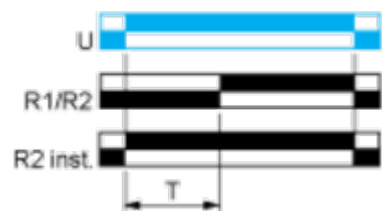
Description

The timing period T begins on energisation. After timing, the output(s) R close(s). The second output can be either timed or instantaneous.

Function: 1 Output



Function: 2 Outputs



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

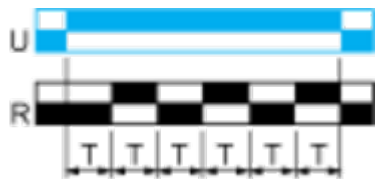


Function D : Symmetrical Flasher Relay (Starting Pulse Off)

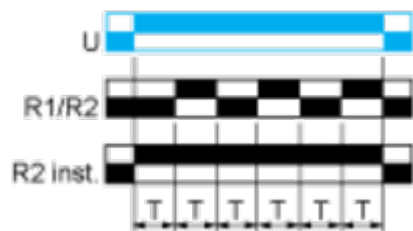
Description

Repetitive cycle with two timing periods T of equal duration, with output(s) R changing state at the end of each timing period T.  
The second output can be either timed or instantaneous.

Function: 1 Output



Function: 2 Outputs



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

Function Di : Symmetrical Flasher Relay (Starting Pulse On)

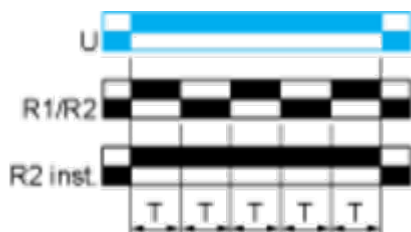
Description

Repetitive cycle with two timing periods T of equal duration, with output(s) R changing state at the end of each timing period T.  
The second output can be either timed or instantaneous.

Function: 1 Output



Function: 2 Outputs



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

Function H : Interval Relay

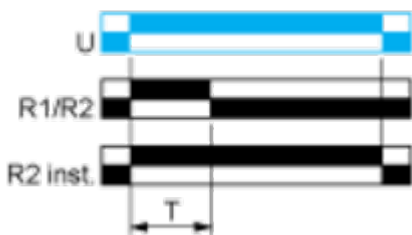
Description

On energisation of the relay, timing period T starts and the output(s) R close(s). At the end of the timing period T, the output(s) R revert(s) to its/their initial state. The second output can be either timed or instantaneous.

Function: 1 Output







Function: 2 Outputs



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

Legend

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-  Relay de-energised
-  Relay energised
-  Output open
-  Output closed

C	Control contact
G	Gate
R	Relay or solid state output
R1/R2	2 timed outputs
R2 inst.	The second output is instantaneous if the right position is selected
T	Timing period
Ta -	Adjustable On-delay
Tr -	Adjustable Off-delay
U	Supply