

## Presentation



The RE9 range of relays is designed for simple, repetitive applications with short and intensive cycles because their solid state output provides very high electrical durability.

Each relay has a single timing range.

Each relay has a wide voltage range from 24 to 240 V.

The range comprises 9 references with 3 model types:

- RE9-TA : function A,
- RE9-RA : function C,
- RE9-MS : multifunction A, H, L, Li.

These products have a transparent, hinged flap on their front face to avoid any accidental alteration of the settings. This flap can be directly sealed.

## Environment

<b>Conforming to standards</b>			IEC 61812-1, EN 61812-1
<b>Approvals</b>			CSA, GL pending, UL
<b>CE marking</b>			Zelio Time timing relays conform to European regulations relating to CE marking
<b>Ambient air temperature around the device</b>	Storage	°C	- 40...+ 85
	Operation	°C	- 20...+ 60
<b>Permissible relative humidity range</b>	Conforming to IEC 60721-3-3		15...85 % Environmental class 3K3
<b>Vibration resistance</b>	Conforming to IEC 6068-2-6, 10 to 55 Hz		a = 0.35 ms
<b>Shock resistance</b>	Conforming to IEC 6068-2-27		15 gn - 11 ms
<b>Degree of protection</b>	Casing		IP 50
	Terminals		IP 20
<b>Degree of pollution</b>	Conforming to IEC 60664-1		3
<b>Overvoltage category</b>	Conforming to IEC 60664-1		III
<b>Rated insulation voltage</b>	Conforming to IEC	V	250
	Conforming to CSA	V	300
<b>Test voltage for insulation tests</b>	Dielectric test	kV	2.5
	Shock wave	kV	4.8
<b>Voltage limits</b>	Power supply circuit		0.85...1.1 Uc
<b>Frequency limits</b>	Power supply circuit	Hz	50/60 ± 5 %
<b>Disconnection value</b>	Power supply circuit		> 0.1 Uc
<b>Mounting position without derating</b>	In relation to normal vertical mounting plane		Any position
<b>Connection Maximum c.s.a.</b>	Flexible cable without cable end	mm <sup>2</sup>	2 x 2.5
	Flexible cable with cable end	mm <sup>2</sup>	2 x 1.5
<b>Tightening torque</b>		N.m	0.6...1.1

## Immunity to electromagnetic interference (EMC) (Application class 2 conforming to EN 61812-1)

<b>Electrostatic discharge</b>	Conforming to IEC 61000-2-6		Level 3 (6 kV contact, 8 kV air)
<b>Electromagnetic fields</b>	Conforming to IEC 61000-4-3		Level 3 (10 V/m)
<b>Fast transients</b>	Conforming to IEC 61000-4-4		Level 3 (2 kV)
<b>Shock waves</b>	Conforming to IEC 61000-4-5		Level 3 (2 kV)
<b>Radiated and conducted emissions</b>	CISPR11		Group 1 class A
	CISPR22		Class A

Timing relay type			RE9-TA On-delay	RE9-RA Off-delay	RE9-MS Multifunction
<b>Supply characteristics</b>					
Supply voltage		V	$\approx 24 \dots 240$	$\sim 24 \dots 240$	$\approx 24 \dots 240$ . See page 28467/2
Voltage limits	Power supply circuit		0.85...1.1 Un		
Frequency		Hz	50...60 $\pm$ 5 %		
Control contact	Mechanical only		In series	Between Y2 and A2	In series
Max. length of connecting cable	From contact to RE9	m	–	20	–
Control input consumption	Input Y2	mA	–	5	–
<b>Timing characteristics</b>					
Setting accuracy			$< \pm 20$ %		
Repeat accuracy			$< 1$ %		
Minimum reset time	After the time delay period	ms	100		
Minimum switching time time		ms	–	40	–
Maximum immunity to microbreaks	During the time delay period	ms	100	2	70
	After the time delay period	ms	2	–	2
Temperature drift			$\leq 0.1$ % per degree centigrade		
<b>Switching characteristics (solid state type)</b>					
Maximum continuous current	At ambient temperature: 20 °C	A	0.7 (minimum 10 mA)		
Maximum overload current	VDE 0435 part. 303, 4.8.3/Class II	A	15 for 10 ms		
Maximum voltage drop	Closed state	V	A 0.7 A : 3		
Leakage current	Open state	mA	$\leq 6$	$\leq 1$	$\leq 6$
Maximum dissipated power		W	2.5	4	2.5
Derating	For temperature > 20 °C	mA	Without		
Electrical durability	In millions of operating cycles		> 100		