Slim Industrial Relay Type RSLM Electromechanical





- Slim size (width 5mm)
- High breakdown voltage 4kV (between coil and contacts)
- Surge voltage up to 6kV (between coil and contacts)
- Conforms to VDE 0700, 0631 reinforced insulation
- High sensitivity: Approx. 170mW
- RoHS compliant
- Dimensions: 28.0 x 5.0 x 15.0mm
- Changeover contact (SPDT) or Normally Open (SPST) contact configuration option

Product Description

The RSLM is a very slim electromechanical relay that can switch resistive loads with a maximum switching current of 6A. It is available with 1 changeover contact (SPDT) or 1 normally open (SPST) contact.

The RSLM is suitable for use with PLCs, valves actuation or solenoids. The DIN rail socket (ZRLS) facilitate the

installation of the RSLM relays on DIN rail, while the ZRLP enable easy installation on PCB.

Approvals

RSLM







Type Selection

Ordering Key	RSL M 001 024
Model	
Type (Electro-mechanical) Contact configuration	
Nominal coil voltage	

Contact Configuration	Contact Rating	Contact Code
1 change over contact (SPDT - 1)	6A, 250VAC/30VDC	001
1 normally open contact (SPST - 1)	6A, 250VAC/30VDC	100

Selection Guide

Part Number	Max. switching current	Nominal Voltage	Contact Configuration
RSLM100012		12VDC	SPST
RSLM001012		12000	SPDT
RSLM100024		24VDC	SPST
RSLM001024	6A	24VDC	SPDT
RSLM100048		48VDC	SPST
RSLM001048		46VDC	SPDT
RSLM100060		60VDC	SPST
RSLM001060		60VDC	SPDT

Coil Characteristics DC @ +23°C

Nominal Voltage (VDC)	Pick-up Voltage VDC max	Drop-out Voltage VDC min.	Max Voltage VDC¹)	Coil Resistance Ω
12	9.0	0.60	18	848 x (1±10%)
24	18.0	1.20	36	3390 x (1±15%)
48	36.0	2.40	72	10600 x (1±15%)
60	45.0	3.00	90	16600 x (1±15%)

Notes:

- 1) Max voltage refers to the max voltage which the relay coil could endure for a short period of time.
- 2) For products with a rated voltage of \geq 48V, measures should be taken to prevent the coil overvoltage in order to protect the coil and the application (eg. connect diodes in parallel).
- 3) Do not install RSLM001 types on either of the smallest sides or facing downward.



Contact Characteristics

Contact arrangement	1 Form A (SPST - Normally	Electrical endurance	
	Open)	001 (SPST type)	6 x 10 ⁴ OPS (6A 250VAC/
	1 Form C (SPDT - Changeover)		30VDC Resistive load,
Contact resistance	100mΩ max. (@ 1A 6VDC)		AgNi, @ 85°C, 1s on 9s off
	Gold plated: 30mΩ max.	100 (SPDT type)	3 x 10 ⁴ OPS (NO, 6A 250VAC /
	(@ 1A 6VDC)		30VDC, Resistive load; AgNi,
Contact material	AgNi		@ 85°C, 1s on 9s off) 1 x 10 ⁴
Contact rating (Resistive Load)	6A 250VAC / 30VDC		OPS (NC, 6A 250VAC/30VDC,
Max. switching voltage	400VAC / 125VDC		Resistive load, AgNi, @ 85°C,
Max. switching current	6A		1s on 9s off)
Max. switching power	1500VA / 180W	Coil power	
Mechanical endurance	1 x 10 ⁷ OPS	24VDC	170mW Approx.
		48VDC, 60VDC	210mW Approx.

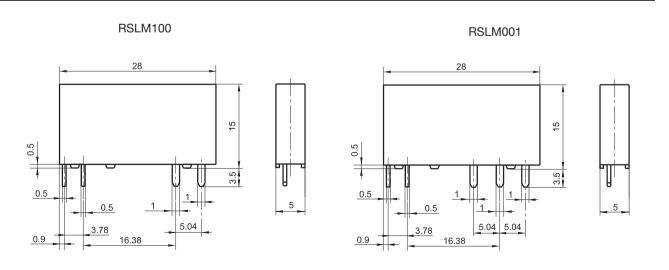
General Data

Insulation resistance	1000MΩ (@500VDC)	Vibration resistance	10Hz to 55Hz 1mm DA
Dielectric strength		Humidity	5% to 85% RH
Between coil & contacts	4000VAC 1 min	Ambient temperature	-40°C to 85°C
Between open contacts	1000VAC 1 min	Terminal connections	PCB
Operate time	8ms max. (at nominal voltage)	Unit weight	Approx. 5g
Release time	4ms max. (at nominal voltage)	Construction	Plastic sealed, flux proofed
Shock resistance			
Functional	49m/s ²		
Destructive	980m/s ²		

Notes:

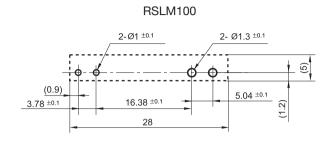
- 1) The data shown above is standard
- 2) Please find coil temperature curve in the characteristic curves below
- 3) UL insulation system: Class A

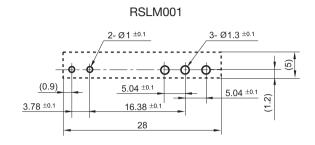
Dimensions



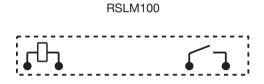


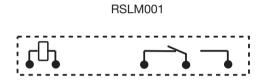
Dimensions





Wiring Diagram





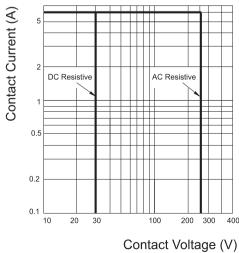
Notes:

Where no tolerance is shown in the dimensional diagram please consider the following tolerances:

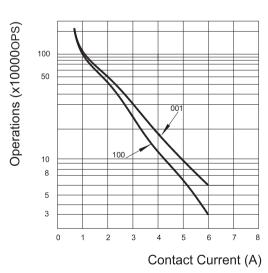
Outline dimension <= 1mm, tolerance should be +/-0.2mm; Outline dimension >1mm and <=5mm, tolerance should be +/-0.4mm, Outline dimension >5mm, tolerance should be +/-0.4mm

Characteristic Curves

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



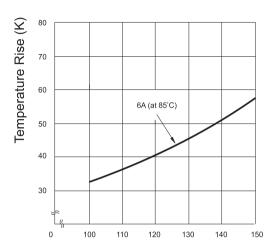
Test conditions:

NO, AgNi, Resistive load, 250VAC, Flux proofed, Room temp., 1s on 9s off.



Life Curves

COIL TEMPERATURE RISE



Percentage Of Nominal Coil Voltage

Test conditions:

6A 85℃

(Typical curve of 24VDC standard type)

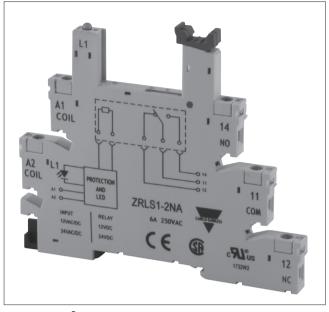
Socket Selection

Relay part number	Socket part number	Socket description
RSLM100012		
RSLM001012	ZRLS12GA /	DIN Rail socket for slim relays 12/24VAC-DC spring
RSLM100024	ZRLS12NA	DIN Rail socket for slim relays 12/24VAC-DC screw
RSLM001024		
RSLM100048		
RSLM001048	ZRLS13GA /	DIN Rail socket for slim relays 48/60VAC / DC spring
RSLM100060	ZRLS13NA	DIN Rail socket for slim relays 48/60VAC / DC screw
RSLM001060		
RSLM100060 RSLM001060	ZRLS14GA ZRLS14NA ZRLS15GA ZRLS15NA	DIN Rail socket for slim relays 110/125VAC / DC spring DIN Rail socket for slim relays 110/125VAC / DC screw DIN Rail socket for slim relays 220/240VAC / DC spring DIN Rail socket for slim relays 220/240VAC / DC screw

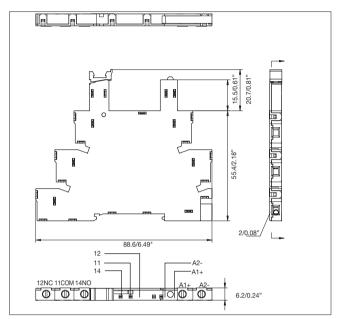


Sockets for RSLM Relays

ZRLS1 NA



mm/inches DIMENSIONS



General Data

Rated voltage	250VAC
Rated current	6A
Insulation voltage	>3kV
Protection degree	IP 20 B
Socket material	PA66+GF (V0)
Socket colour	RAL 7035 / Pantone 1C
Contacts material	CuSN 6.5-0.1
Contacts surface	Tin-plated
Terminal type	Screw cage
Operating temperature	-40° to +70°C (-40 to 158°F)
Max wire section	
Flex / Compact wire	2 x 2.5mm (14AWG)
Cable End	2 x 1.5mm (16AWG)

Input data and Ordering code

ZRLS1-2NA	
Input	6 to 24VAC/VDC
Coil rate*	6 to 24VDC
ZRLS1-3NA	
Input	48 to 60VAC/VDC
Coil rate*	48 to 60VDC
ZRLS1-4NA	
Input	110 to 125VAC/VDC
Coil rate*	60VDC
ZRLS1-5NA	
Input	220 to 240VAC/VDC
Coil rate*	60VDC

^{*} The coil rate value is the socket output voltage. The relay to be fitted should have the same coil voltage.

Output Data

Max voltage	300VAC max
Max current	6A

Approvals







Box content: 20 sockets
Box size: 130 x 85 x 95 mm
5.1 x 3.3 x 3.7 inches

Weight: 600g Weight: 21.16oz

Optional Accessories (to be ordered separately if required)

Labels ZRLS-LAB Separator ZRLS-DIV Bridging bar ZRLS-BB



6.2/0.24"

Sockets for RSLM Relays

ZRLS1-2GA ZRLS1-2GA mm/inches

General Data

Rated voltage	250VAC
Rated current	6A
Insulation voltage	>3kV
Protection degree	IP 20 B
Socket material	PA66+GF (V0)
Socket colour	RAL 7035 / Pantone 1C
Contacts material	CuSN 6.5-0.1
Contacts surface	Tin-plated
Terminal type	Spring laoded terminal
Operating temperature	-40° to +70°C (-40 to 158°F)
Max wire section	
Flex / Compact wire	2 x 2.5mm ² (14AWG)
Cable End	2 x 1.5mm ² (16AWG)
* The coeff water colors to the coeff.	

Input data and Ordering code

ZRLS1-2GA Input	6 to 24VAC/VDC
Coil rate*	6 to 24VDC
ZRLS1-3GA	
Input	48 to 60VAC/VDC
Coil rate*	48 to 60VAC/VDC
ZRLS1-4GA	
Input	110 to 125VAC/VDC
Coil rate*	60VDC
ZRLS1-5GA	
Input	220 to 240VAC/VDC
Coil rate*	60VDC

^{*} The coil rate value is the socket output voltage. The relay to be fitted should have the same coil voltage.

Output Data

Max voltage	300VAC max
Max current	6A

Approvals







Box content: 20 sockets
Box size: 130 x 85 x 95 mm

5.1 x 3.3 x 3.7 inches

Weight: 600g Weight: 21.16oz

Optional Accessories (to be ordered separately if required)

Labels ZRLS-LAB Separator ZRLS-DIV Bridging bar ZRLS-BB

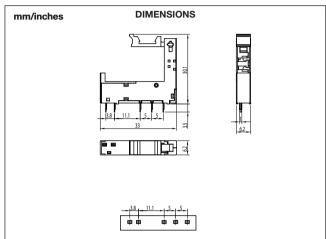


ZRLP

Sockets for RSLM Relays

ZRLP





General data

Rated voltage	250VAC
Rated current	6A
Insulation voltage	>3kV
Protection degree	IP 20 B
Socket material	PA66+GF (V0)
Socket colour	RAL 7035 / Pantone 1C
Contacts material	CuSn 6.5-0.1
Contacts surface	tin-plated
Operating temp.	-40° to +70°C (-40° to 158°F)

 $^{^{\}star}$ The coil rate value is the socket output voltage. The relay to be fitted should have the same coil voltage.

Output data

Max voltage	300VAC
Max current	6A

Approvals

Ordering Key





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