S1 Relay Series

UL Approved Miniature High Voltage Relay*

Actual device may differ

- ***Single-in-line package***
- ***4kV Isolation Voltage across contacts***
- ***Isolation Voltage 5kV contact to coil***
- ***2.5A carry current***
- ***Up to 350V switching voltage***

Contact Specification		Conditions	
Switch action			SPST (Form A)
Material			Rhodium
Isolation across contacts		kV DC or AC peak	4
Switching Power Max.		VA	100
Switching Voltage Max.		V	350dc/300ac
Switching Current Max.		A DC or AC peak	1.0
Carry Current Max	A	DC	2.5
Capacitance across contacts	pF	coil to screen grounded	0.5 (typical)
Lifetime operations		dry switching	10^9
Contact Resistance	mΩ	max	100
Insulation Resistance	Ω	min (typical)	10^{10} (10^{13})

Coil Specification (@ 20°C)			5V coil	12V coil	24V coil
Must Operate Voltage	V	DC	4	10.8	16
Must Release Voltage	V	DC	1.25	1.25	1.25
Operate Time	ms	diode fitted	1	1	1 (TBC)
Release Time	ms	diode fitted	0.5	0.5	0.5 (TBC)
Resistance	Ω	(± 10%)	180	500	1000

Note. The operate / release voltage and coil resistance will change at a rate of 0.4% per degree C. Values are stated at room temperature (20 degrees C)

Relay Specification			
Isolation contact/coil	kV	DC	5
Insulation resistance contact to all terminals	Ω	min (typical)	TBC

Environmental		
Operating Temp range	°C	-40 to +85
Storage Temp range	°C	-40 to +100

Part Numbering System

S1 - 05 04 D M

- **Series**
- **Coil Voltage**
  - 05=5V
  - 12=12V
  - 24=24V
- **Reed Switch Isolation**
  - 04 = 4kV dc
- **Diode:**
  - Blank = Not fitted
  - D = Diode fitted
- **EM Screened**
  - Blank = No
  - M= Screened

The S1 series is a miniature high voltage single-in-line reed relay for applications where space saving is a prime consideration.

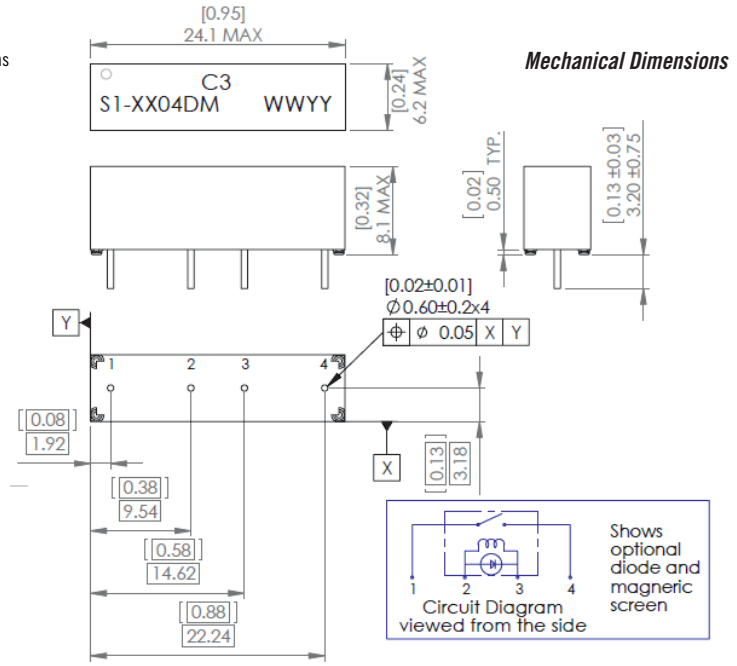
The coil pins are positioned near the centre of the relay while the contact pins are near the ends to give improved isolation between the high voltage contacts and the low voltage coil.

Please refer to this document for circuit design notes:- http://www.cynergy3.com/blog/application-notes-reed-relays-0

Custom versions can be designed for particular applications
Please contact Cynergy3 with your requirements.

*Consult factory for UL ratings

Mechanical Dimensions



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ISO9001 CERTIFIED

S1 Series 2018

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