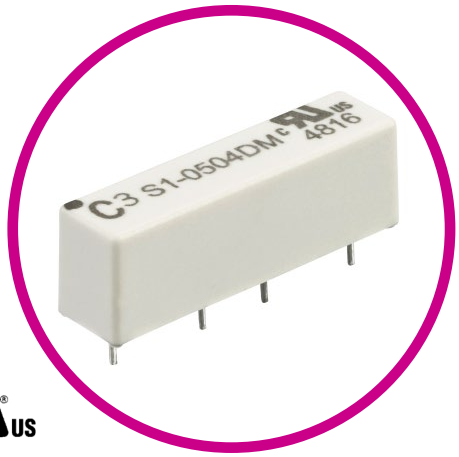
Sensata Technologies | cynergy3

| S1 RELAY SERIES

UL APPROVED* MINIATURE HIGH VOLTAGE RELAY



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 center 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.

Features

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

Please refer to this document for circuit design notes:
https://www.cynergy3.com/blog/reed-relay-application-notes

Custom versions can be made for particular applications.
Please contact Sensata with your requirements.

***Consult factory for UL ratings**
These products have been UL approved for use as per pollution degree 2 classification. If you require further information as to how this may affect product usage, please contact c3w_sales@sensata.com.

SPECIFICATIONS

Contact	Condition	
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
Lifetime Operations	dry switching	10^9
Contact Resistance	mΩ max	100
Insulation Resistance	Ω min (typical)	10^{10} (10^{13})

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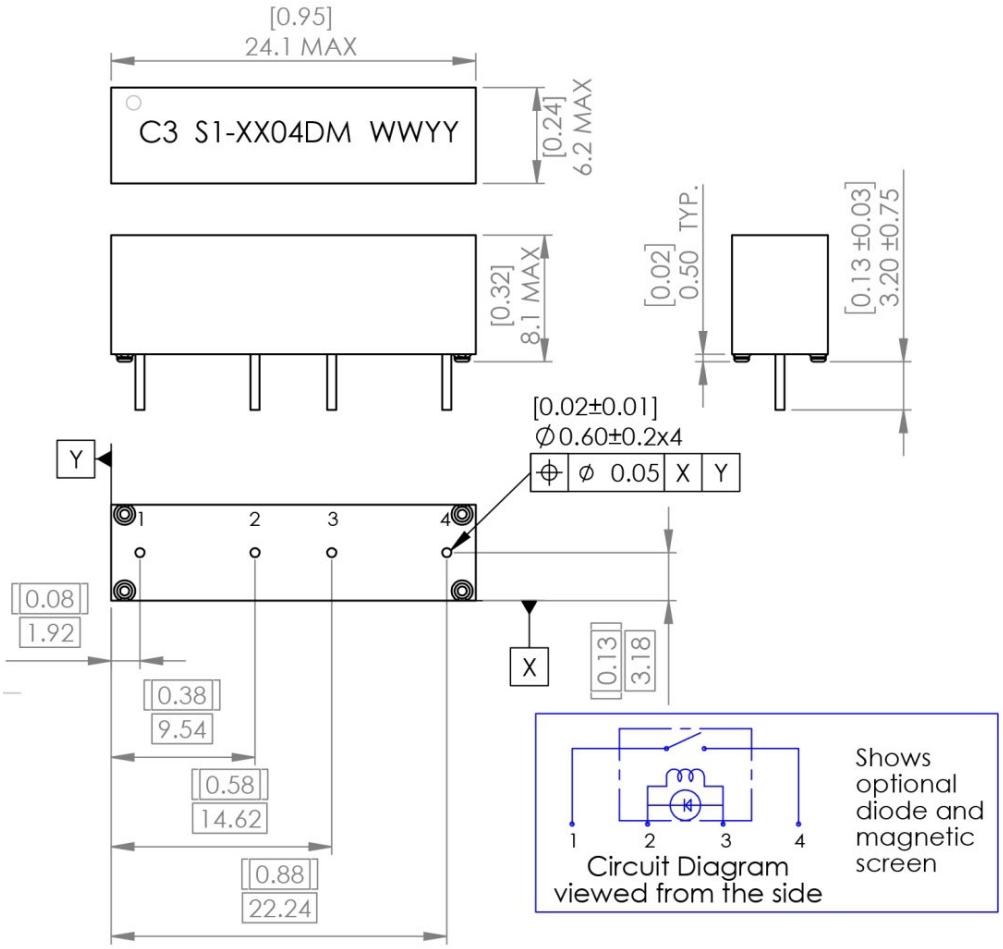
Coil (at 20°C)	Condition	5V coil	12V coil	24V coil
Must Operate Voltage	V DC	4	10.8	16
Must Release Voltage	V DC	1	2	3
Operate Time	ms diode fitted	1	1	1
Release Time	ms diode fitted	0.5	0.5	0.5
Resistance	Ω (± 10%)	180	500	1000
Note. The operate / release voltage and coil resistance will change at a rate of 0.4% per degree C. Values are stated at room temperature (20 degrees C)				
Relay				
Isolation Contact/Coil	kV DC		5	
Insulation Resistance Contact to all Terminals	Ω min (typical)			
Environmental Conditions				
Operating Temperature Range	°C		-40 to +85	
Storage Temperature Range	°C		-40 to +100	
Shock - EN60068-2-27 11ms Half sine 50g. MIL-STD-202G Method 213B, Test condition A.				
Vibration - EN60068-2-6 Sine vibration 20g peak 10Hz to 2000Hz. MIL-STD-202G Method 204D, Test condition D.				

DIMENSIONS

All dimensions are in millimeters.



ORDERING OPTIONS

Example : S1-0504DM

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