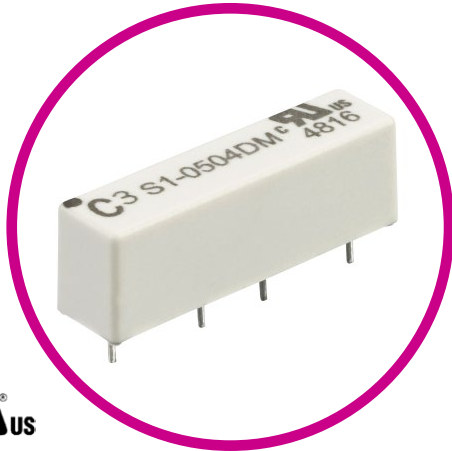




## | S1 RELAY SERIES

### 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](mailto: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 <sup>9</sup>
Contact Resistance	mΩ max	100
Insulation Resistance	Ω min (typical)	10 <sup>10</sup> (10 <sup>13</sup> )

Coil (at 20°C)	Condition	5V coil	12V coil	24V coil
<b>Must Operate Voltage</b>	V DC	4	10.8	16
<b>Must Release Voltage</b>	V DC	1	2	3
<b>Operate Time</b>	ms diode fitted	1	1	1
<b>Release Time</b>	ms diode fitted	0.5	0.5	0.5
<b>Resistance</b>	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

<b>Isolation Contact/Coil</b>	kV DC	5
<b>Insulation Resistance Contact to all Terminals</b>	Ω min (typical)	
<b>Environmental Conditions</b>		
<b>Operating Temperature Range</b>	°C	-40 to +85
<b>Storage Temperature Range</b>	°C	-40 to +100

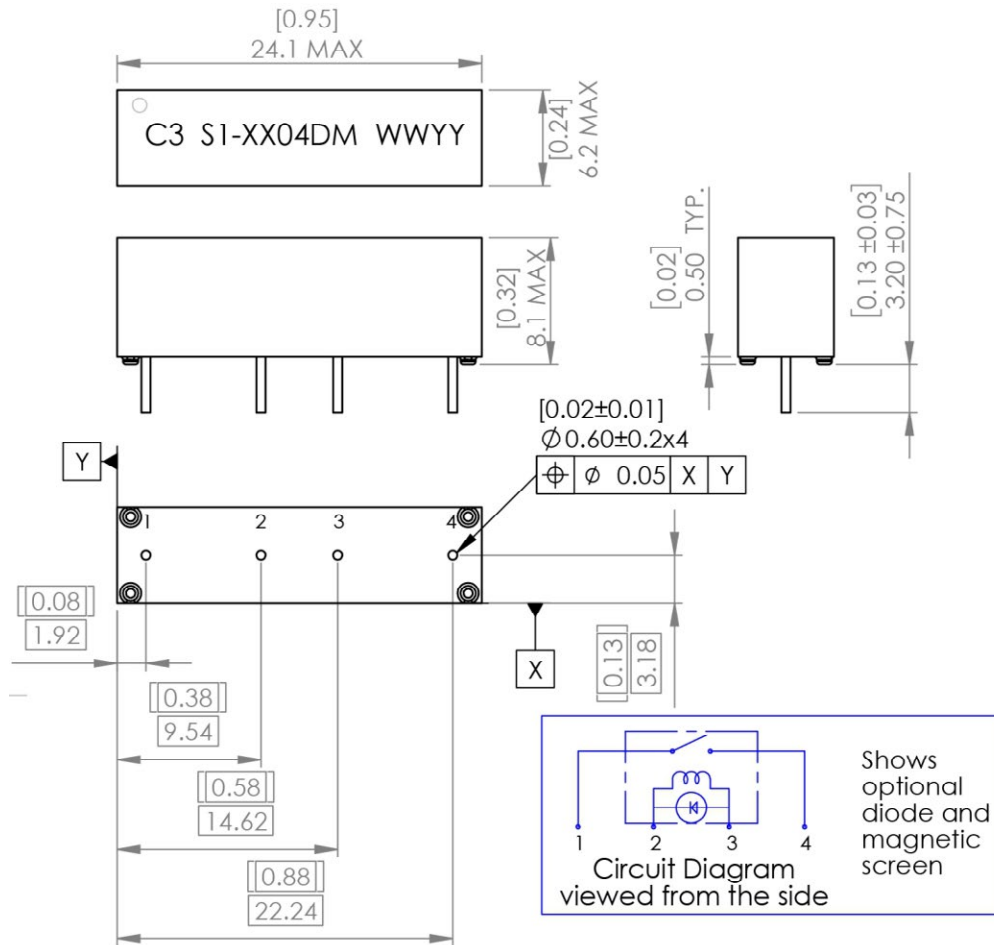
Shock - EN60068-2-27 11ms Half sine 50g. MIL-STD-202G Method 213B, Test condition A.

Vibration - EN60068-2-6 Sine vibration 20g peak 10Hz to 2000Hz. MIL-STD-202G Method 204D, Test condition D.



## DIMENSIONS

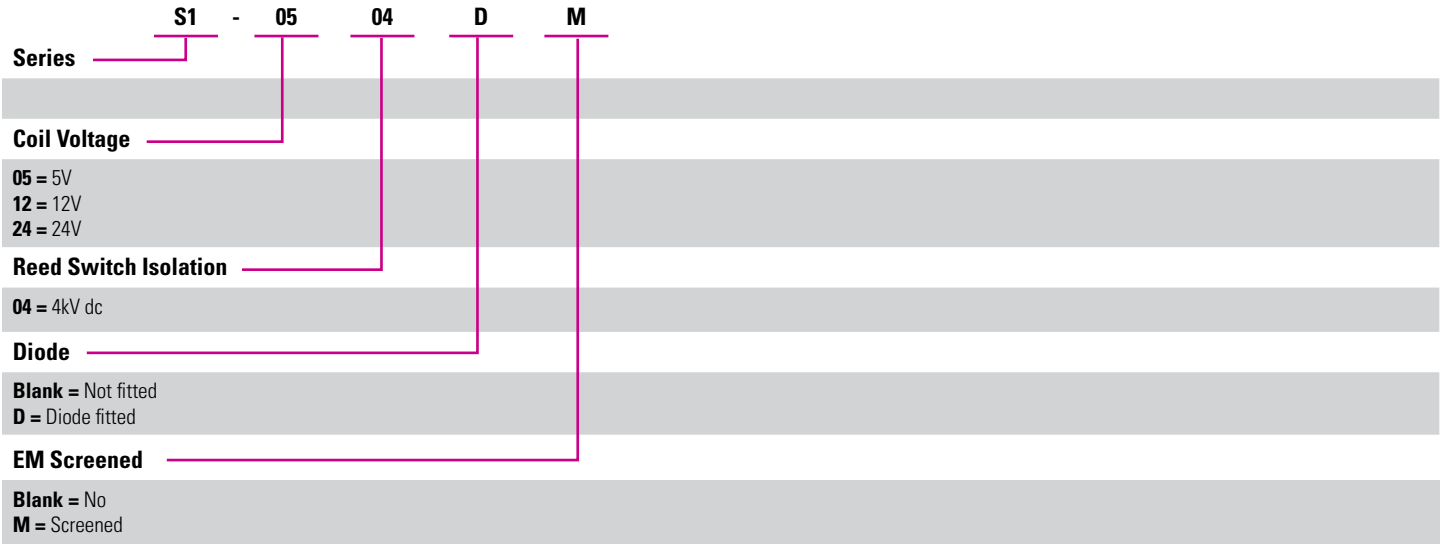
All dimensions are in millimeters.





# ORDERING OPTIONS

Example : S1-0504DM



Made in the UK

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