

S8 FORM B SERIES

MINIATURE HIGH VOLTAGE RELAY, 4KV ISOLATION



The S8, S8 (UL), S8-HR Form B series are miniature high voltage 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

- Space saving package
- Up to 1000V switching voltage
- Isolation Voltage 7kV contact to coil
- 1.75A carry current
- Isolation Voltage across contacts 4kV

Applications

- Medical
- Automated test equipment
- Test and measurement

SPECIFICATIONS

Contact		Condition	5V coil	12V coil	24V coil
Switch Action			SPST (Form B)		
Material			Rhodium		
Isolation Across Contacts	kV	DC or AC peak	4	4	4
Switching Power Max.	VA	(W for V variants)	100		
Switching Voltage Max.	V		1000Vdc & ac peak for V variants		
Switching Current Max.	A	DC or AC peak	1.0		
Carry Current Max	A	DC	1.75		
Capacitance Across Contacts	pF	coil to screen grounded	0.5		
Lifetime Operations		dry switching	10 ⁹		
		100W switching	10 ⁷		
Contact Resistance	mΩ max		200		

Coil		Condition	5V coil	12V coil	24V coil
Must Operate Voltage	V	DC	3.7	9	17.8
Must Release Voltage	V	DC	0.5	1.2	2.4
Operate Time	ms	Including bounce	1.5	1.5	1.5
Release Time	ms	Including bounce	0.5	0.5	0.5
Resistance	Ω		120	630	2700
Relay					
Isolation Contact/Coil	kV		7		
Insulation resistance min. (typical)	Ω, Between all isolated pins at 1000V, 20°C ±5°C, 45% RH ±10%		S8,(U),(V), 10 ¹⁰ (10 ¹²) S8(-HR), 10 ¹² (10 ¹⁴)		
Environmental Conditions					
Operating Temp Range	°C		-40 to +70		
Storage Temp Range	°C		-40 to +125		

Note. The operate / release voltage and coil resistance will change at a rate of 0.4% per $^\circ\text{C}$. Values are stated at room temperature (20 $^\circ\text{C}$)

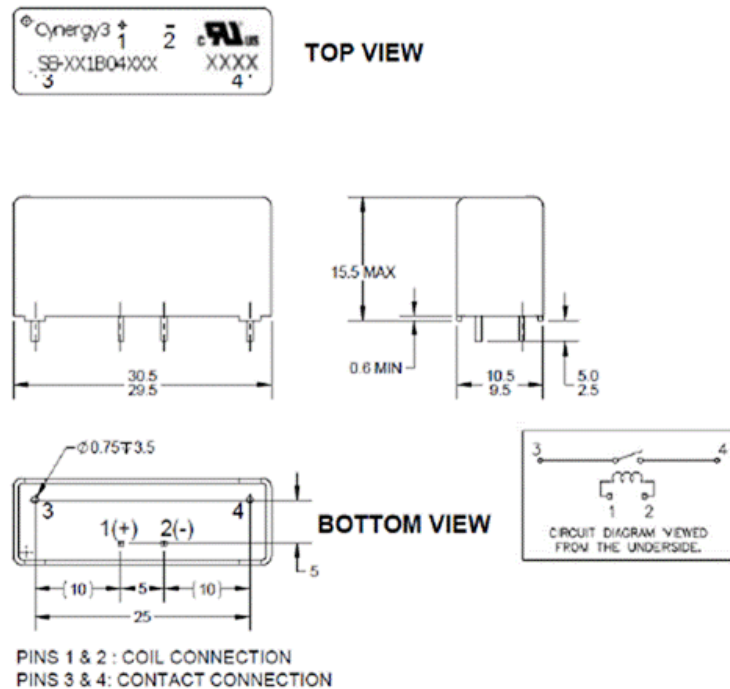
STANDARD PARTS

S8 FORM B Series	S8 FORM B-HR Series	S8 FORM B (UL) Series	Coil Voltage Vdc	Isolation Across Contacts kV	Max. Switching Voltage Vdc (Vac peak)
S8-051B04	S8-051B04-HR	S8-051B04U	5	4	1000 (850)
S8-121B04	S8-121B04-HR	S8-121B04U	12	4	1000 (850)
S8-241B04	S8-241B04-HR	S8-241B04U	24	4	1000 (850)

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

DIMENSIONS

All dimensions are in millimeters.
Tolerances acc. to ISO 2768 class m



*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 <https://www.sensata.com/contact-us>.

Please refer to this document for circuit design notes:

<https://www.cynergy3.com/blog/reed-relay-application-notes>

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Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA

CONTACT US

Sensata Technologies
 Jan Tinbergenstraat 80
 7559 SP Hengelo
 The Netherlands
 1-508-236-3800
 +44 (0)1202 897969
cynergy3.enquiries@sensata.com