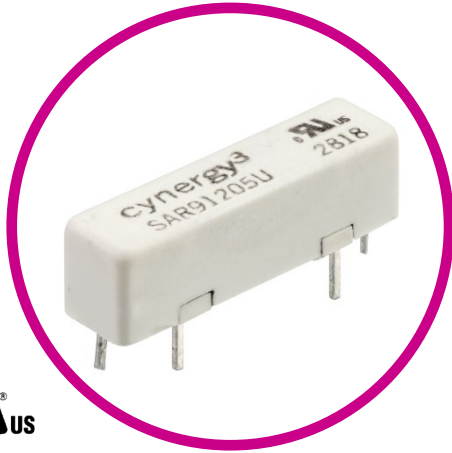


## | S(UL) SERIES

### UL APPROVED\* HIGH VOLTAGE RELAYS



The S(UL) series relay was developed for the high voltage ATE market, where printed circuit board space is at a premium.

Recently approved by UL, the S(UL) series high voltage relay offers a 3kV or 5kV\*\* isolation performance in a 30mm package. Low contact resistance, through the use of Rhodium contact reed switches, makes the S series suitable for many high voltage applications at DC and low frequency, where performance and reliability are paramount.

#### Features

- Compact footprint
- Designed specifically for High Voltage ATE
- Rhodium contacts for Low Contact Resistance
- 3kV or 5kV\*\* Isolation between contacts and 5kV isolation between contacts and coil
- Excellent lifetime characteristics

## SPECIFICATIONS

Contact	Unit Condition		3kV SPNO			5kV SPNO		
<b>Contact Material</b>			Rhodium			Rhodium		
<b>Isolation across contacts</b>	kV	DC or AC peak	3			5*		
<b>Switching Power Max.</b>	W		10			10		
<b>Switching Voltage Max.</b>	V	DC or AC peak	20			20		
<b>Switching Current Max.</b>	A	DC or AC peak	0.5			0.5		
<b>Carry Current Max</b>	A	DC or AC peak	1.5			1.5		
<b>Capacitance across contacts</b>	pF	coil to screen grounded	<0.1			<0.1		
<b>Lifetime Operations</b>	dry switching		10 <sup>9</sup>			10 <sup>9</sup>		
	10W switching		10 <sup>6</sup>			10 <sup>6</sup>		
<b>Contact Resistance</b>	mΩ max (typical)		80 (30)			80 (30)		
<b>Insulation Resistance</b>	Ω min (typical)		10 <sup>10</sup> (10 <sup>13</sup> )			10 <sup>10</sup> (10 <sup>13</sup> )		
<b>**DC only, Pin 3 at high voltage</b>								
<b>Coil Specification at 20°C</b>			<b>5V</b>	<b>12V</b>	<b>24V</b>	<b>5V</b>	<b>12V</b>	<b>24V</b>
<b>Must Operate Voltage</b>	V	DC	3.7	9	20	3.7	9	20
<b>Must Release Voltage</b>	V	DC	0.5	1.25	4	0.5	1.25	4
<b>Operate Time</b>	ms	diode fitted	1.0	1.0	1.0	1.0	1.0	1.0
<b>Release Time</b>	ms	diode fitted	0.5	0.5	0.5	0.5	0.5	0.5
<b>Resistance</b>	Ω		140	600	1000	140	600	1000

Contact	Unit Condition	3kV SPNO	5kV SPNO
<b>Relay</b>			
Isolation contact/coil	kV	5	5
Insulation resistance contact to all terminals	$\Omega$ min (typical)	$10^{10}$ ( $10^{13}$ )	$10^{10}$ ( $10^{13}$ )
<b>Environmental Conditions</b>			
Operating Temp range	$^{\circ}\text{C}$	-20 to +70	-20 to +70
Weight	gm	3.1	3.1

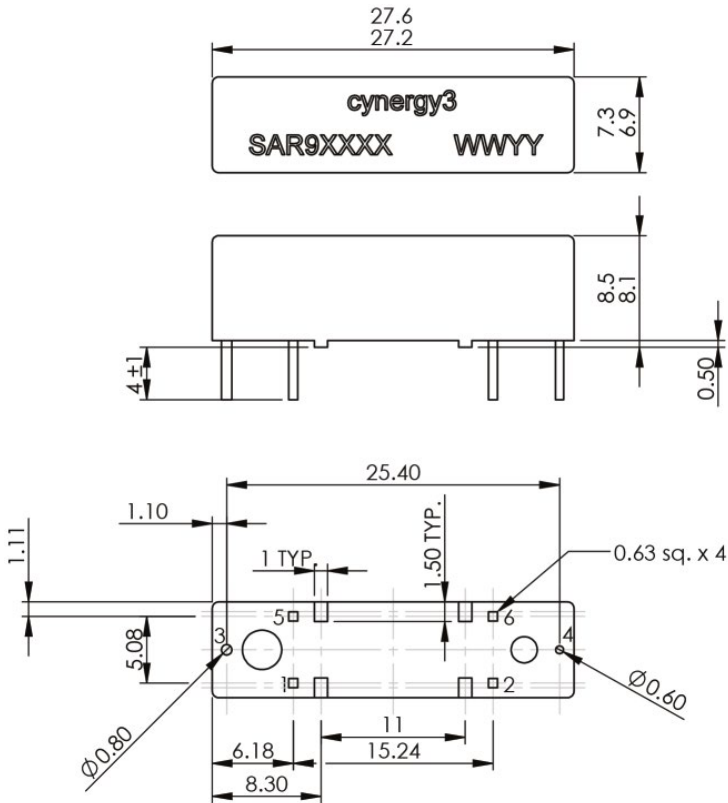
**\*Consult factory for UL ratings**

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@cynergy3.com](mailto:c3w_sales@cynergy3.com).

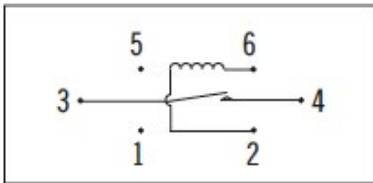


**DIMENSIONS**

All dimensions are in millimeters.



**Relay Circuit Diagram**



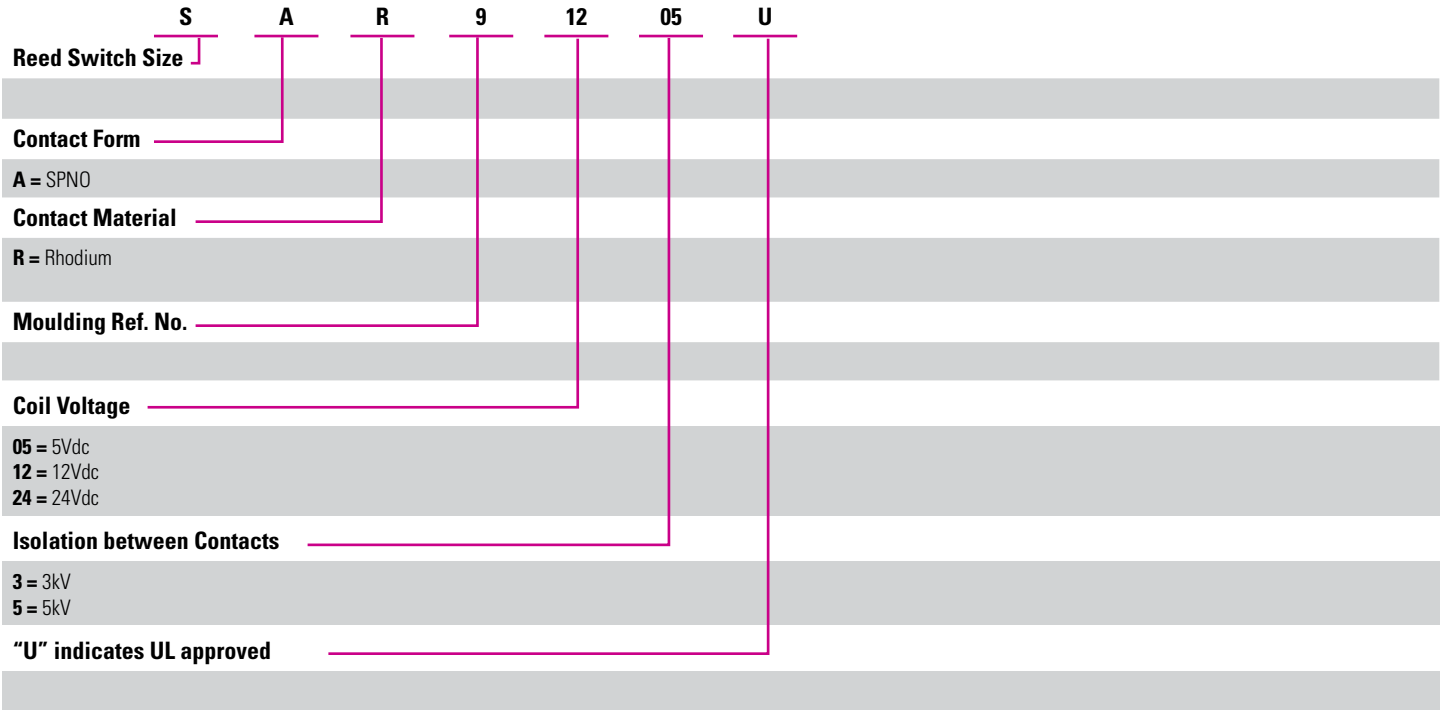
(Viewed from Underside)

Pin 1 is top left, when viewed from above, with respect to part marking



# ORDERING OPTIONS

Example : SAR91205U





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