S Series

High Voltage relays

- ***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***

The S series relay was developed for the high voltage ATE market, where printed circuit board space is at a premium. The S series high voltage relay offers a 3kV or 5*kV 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.

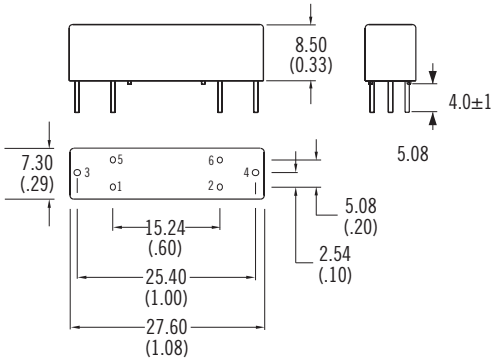
Contact Specification	Unit	Condition	3kV SPNO	5kV SPNO
Contact Material			Rhodium	Rhodium
Isolation across contacts	kV	DC or AC peak	3	5
Switching Power Max.	W		10	10
Switching Voltage Max.	V	DC or AC peak	20	20
Switching Current Max.	A	DC or AC peak	0.5	0.5
Carry Current Max	A	DC or AC peak	1.5	1.5
Capacitance across contacts	pF	coil to screen grounded	<0.1	<0.1
Lifetime operations		dry switching	10^9	10^9
		10W switching	10^6	10^6
Contact Resistance m		max (typical)	80 (30)	80 (30)
Insulation Resistance		min (typical)	10^{10} (10^{13})	10^{10} (10^{13})

Coil Specification at 20ºC			5V	12V	24V	5V	12V	24V
Must Operate Voltage	V	DC	3.7	9	20	3.7	9	20
Must Release Voltage	V	DC	0.5	1.25	4	0.5	1.25	4
Operate Time	ms	diode fitted	1.0	1.0	1.0	1.0	1.	10
Release Time	ms	diode fitted	0.5	0.5	0.5	0.5	0.5	0.5
Resistance			140	600	1000	140	600	1000

Relay Specification				
Isolation contact/coil	kV		5	5
Insulation resistance contact to all terminals		min (typical)	10^{10} (10^{13})	10^{10} (10^{13})
Envirnonmental				
Operating Temp range	ºC		-20 to +70	-20 to +70
Weight	gm		3.1	3.1

Mechanical Dimensions

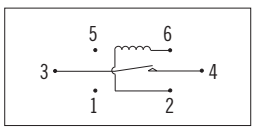
All dimensions are in Milliemetres (inches)



PIN SIZE

PINS 1, 2, 5 & 6 0.7 Square (0.025")
PINS 3 & 4 0.8 (0.031") dia.

Relay Circuit Diagram



(Viewed from Underside)

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

Part Numbering System

S A R 9 12 05

Reed Switch Size

Contact Form A=SPNO

Contact Material
R=Rhodium,

Moulding Ref. No.

Coil Voltage
05=5Vdc, 12=12Vdc, 24=24Vdc

Isolation between Contacts
3=3kV, 5=5kV

Cynergy3 Components Ltd.
7 Cobham Road
Ferndown Industrial Estate
Wimborne, Dorset BH21 7PE
Telephone +44 (0) 1202 897969

Email:sales@cynergy3.com

ISO9001 CERTIFIED

www.cynergy3.com