

### DESCRIPTION

The high performance MSS4 and MVS4 models provide bounce free operation and offer a more durable contact when switching capacitive or inductive loads. Both are capable of switching loads up to 50 watts.

#### FEATURES

- High reliability switching
- 3V operate option available
- Long operating life at low levels (>1 billion operations)
- High isolation between input and output (2500V)
- Optional internal diode & N.C. option

#### APPLICATIONS

- ATE
- Telecom
- Matrix requirements
- Instrumentation
- Data acquisition

### SPECIFICATIONS

Parameters	Conditions	MSS4			MVS4			Units
		Min	Typ	Max	Min	Typ	Max	
All parameters at 25°C otherwise stated								
<b>Contact Ratings</b>								
Switching Voltage	Max DC/PeakAC Resistive			500			1000 <sup>1</sup>	Volts
Switching Current	Max DC/PeakAC Resistive			2			2	Amps
Carry Current	Max DC/PeakAC Resistive			4			4	Amps
Contact Rating	Max DC/PeakAC Resistive			50			50 <sup>3</sup>	Watts
Life Expectancy	Signal Level 1.0V 10mA 50V, 1A 500V, 100mA		200			1000 2		x10 <sup>6</sup> Ops
Static Contact Resistance	Rated Loads		7			50 7		x10 <sup>6</sup> Ops
Contact Material	50mV, 10mA		Hg	100		Hg	100	x10 <sup>6</sup> Ops
Hg Content			16			40		mOhms
								grams
<b>Relay Specifications</b>								
Insulation Resistance	Between all isolated pins at 100V, 25°C, 40% RH	10 <sup>8</sup>	10 <sup>10</sup>		10 <sup>10</sup>	10 <sup>12</sup>		Ohms
Capacitance	Across Open Contacts			2		0.8		pF
	Upper Contact to Coil			4		2.2		pF
	Closed Contact to Coil					3.3		pF
Dielectric Strength	Between Contacts	2000			2000			VDC/Peak AC
	Contacts to Coil	1400			2500			VDC/Peak AC
Operate Time (no bounce)	At Nominal Coil Voltage			1.75			2.5	ms
	10Hz Square Wave							
Release Time	Zener-Diode Suppression			1.5			2.5	ms
<b>Environmental Ratings</b>								
Storage Temperature		-40		+105	-40		+105	°C
Operating Temperature		-38		+75	-38		+85	°C
Soldering Temperature	Applied to pins, 10sec. max			+260			+260	°C
Vibration Resistance (survival)	10Hz - 500Hz			10			10	Gs
Shock Resistance (survival)	11+/- 1ms, 1/2 Sine Wave			30			30	Gs
Weight			2.4					grams

<sup>1</sup>Current limited up to 5mA, typical 20 million operations; for further life information, consult factory.

<sup>2</sup> Vertical mounting required. Pin #1 is up.

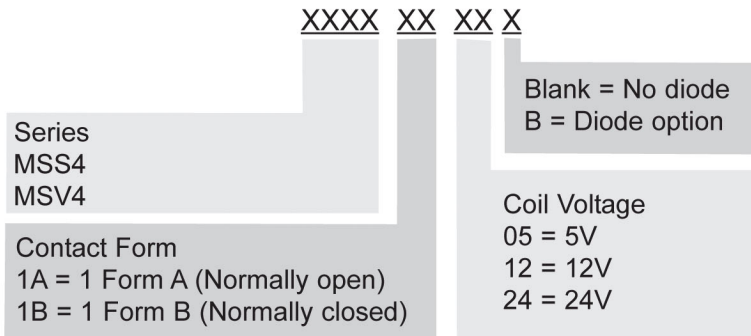
<sup>3</sup> Derate to 5 watts when switching voltages >500V.

### COIL SPECIFICATIONS

	Contact Form	Coil Voltage			Coil Resistance			Operate Voltage			Release Voltage			Nominal Input Power		
Units		Volts			Ohms			Volts			Volts			mW		
Conditions					+/- 10% (25°C)			Must operate by (25°C)			Must release by (25°C)					
Part #		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max
MSS41A05	1 Form A		5	10	126	140	154	0.5		3.75	0.5		3.75			179
MSS41A12	1 Form A		12	16	450	500	550	1		9	1		9			288
MSS41A24	1 Form A		24	30	1935	2150	2365	2		18	2		18			268
MVS41A05(B)	1 Form A		5	7	94.5	105	116	0.5		3.75	0.5		3.75			238
MVS41A12(B)	1 Form A		12	15	450	500	550	1		9	1		9			288
MVS41A24(B)	1 Form A		24	30	1935	2150	2365	2		18	2		18			268

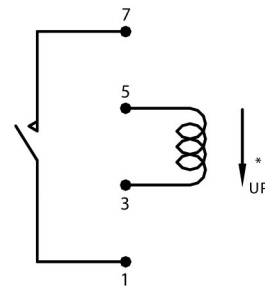
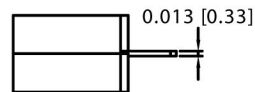
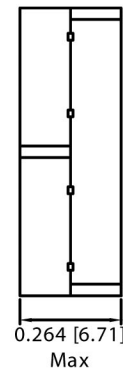
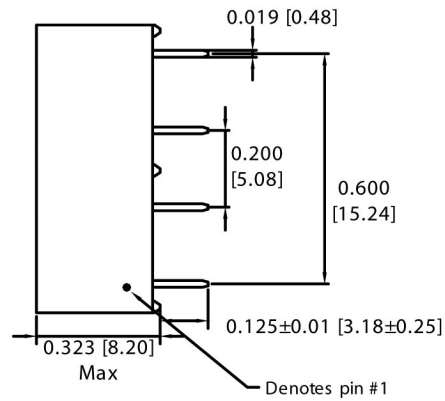
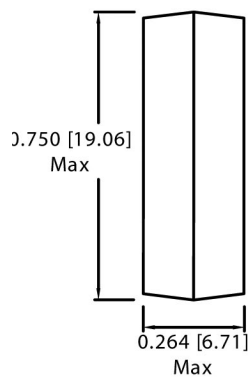
### ORDERING INFORMATION

A complete part number is represented by the digits below



### MECHANICAL DIMENSIONS

Dimensions in mm [inches]



WIRING DIAGRAM  
TOP VIEW

\*MVS4 only must be mounted vertically with pin #1 up.