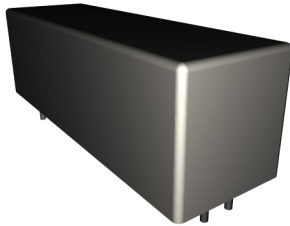


# 50W Series

# PCB Mount



## PRODUCT DESCRIPTIONS

The 50W Series consists of a mercury switch, and operates without switch bouncing. This series is suitable for applications requiring high carry current capacity. In addition, the dielectric strength between contacts is rated 1KV as a standard catalog item, and ideal for applications requiring a higher degree of dielectric strength. We also provide a wide range of support to high-load environment.

The configuration shown here is Form A.

## SPECIFICATIONS

<b>50W Series</b>		<b>50W-1A□□</b>			<b>50W-2A□□</b>			Wetted Mercury
Parameters	Units	1 Form A			2 Form A			Test Conditions
<b>Coil Specifications</b>								
Nominal Coil Voltage	VDC	5.0	12.0	24.0	5.0	12.0	24.0	±10% @ 20°C 15°C to 35°C 15°C to 35°C
Coil Resistance	Ω	100	400	1600	80	300	1200	
Operate Voltage	VDC Max	4.0	9.6	19.2	4.0	9.6	19.2	
Release Voltage	VDC Min	0.7	1.2	2.4	0.7	1.2	2.4	
<b>Contact Ratings</b>								
Switching Voltage	Volts	1000 (at 1mA)						Max DC/Peak AC resistance
Switching Current	Amps	1.0						Max DC/Peak AC resistance
Carry Current	Amps	2.0						Max DC/Peak AC resistance
Contact Rating	Watts	50						Max DC/Peak AC resistance
Life Expectancy	x10 <sup>6</sup> Cycle	1000						@ 1V 10mA
Contact Resistance	mΩ	100						Max initial @ operate voltage
Contact Resistance Stability	mΩ	2.0						Max initial @ operate voltage
<b>Relay Specifications</b>								
Insulation Resistance	Ω Min	10 <sup>10</sup>						Between all isolated pins @ 500V 20°C 40%RH
Dielectric Strength	VDC Min	1000						Between contacts
	VDC Min	1000*						Contacts to shield
	VDC Min	1000*						Contacts/Shield to coil
Operate Time (No Bounce)	msec Max	3.0						@ nominal coil voltage 50Hz square wave
Release Time	msec Max	3.0						Diode suppression
<b>Environmental Ratings</b>								
Measurement Reference Conditions		Storage temp: -20°C to +80°C						
Temp: 15°C to 35°C		Operate temp: -10°C to +60°C						
Humidity: 25% to 75%RH		Vibration: 20G's to 2000Hz						
Atmospheric Pressure: 860 to 1060hpa		Shock: 50G's						

### Ordering Code:

#### 50W-1A□<sub>1</sub>□<sub>2</sub>

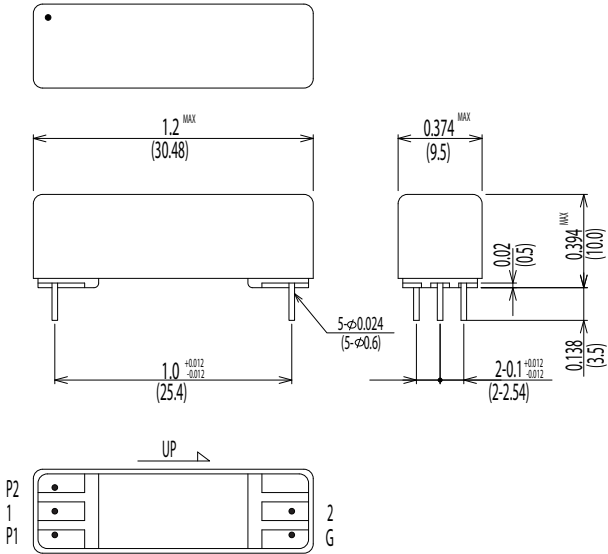
□<sub>1</sub>=1 (5.0VDC), 2 (12.0VDC), 3 (24.0VDC)  
□<sub>2</sub>=1 (Electrostatic) \*, N (No shield)

#### 50W-2A□<sub>1</sub>□<sub>2</sub>

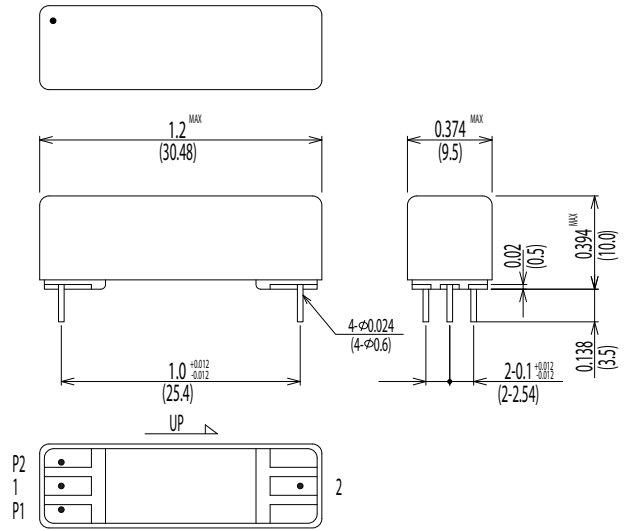
□<sub>1</sub>=1 (5.0VDC), 2 (12.0VDC), 3 (24.0VDC)  
□<sub>2</sub>=1 (Electrostatic) \*, N (No shield)

**Dimensions All Dimensions are inches (mm)**

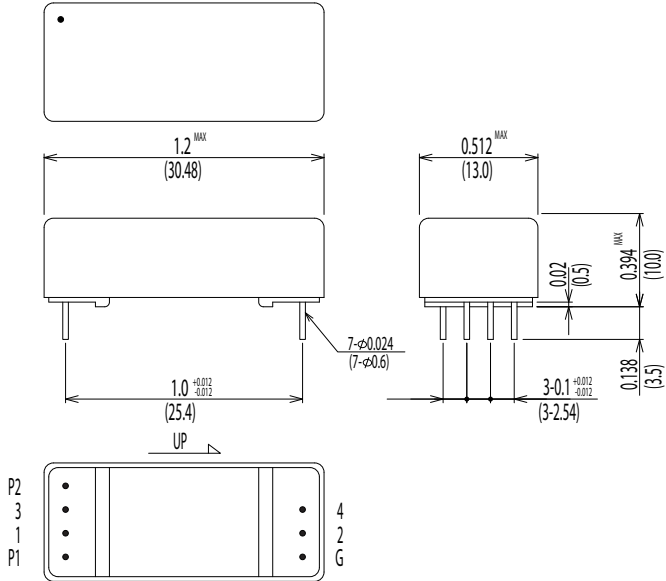
**50W-1A□1**



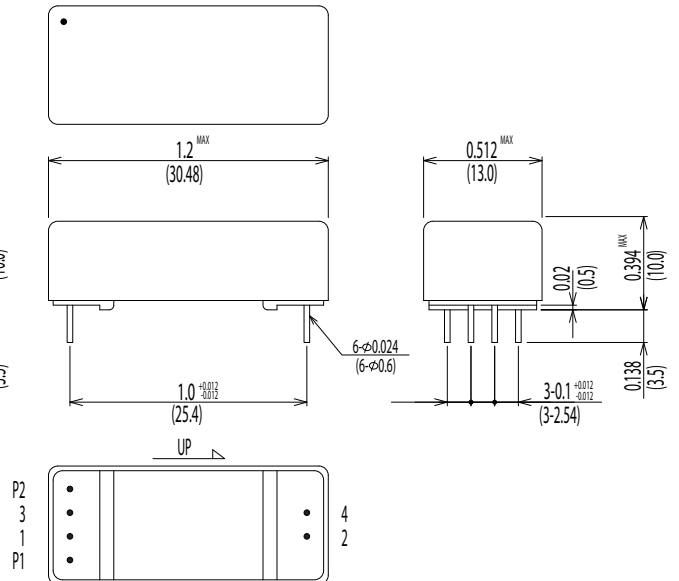
**50W-1A□N**



**50W-2A□1**

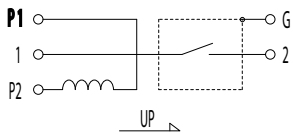


**50W-2A□N**

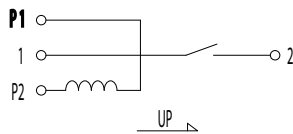


**Schematic <Top View>**

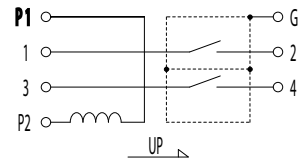
**50W-1A□1**



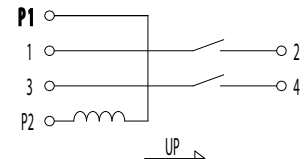
**50W-1A□N**



**50W-2A□1**



**50W-2A□N**



Note: Hg wet contacts must be mounted within 30° of vertical plane.