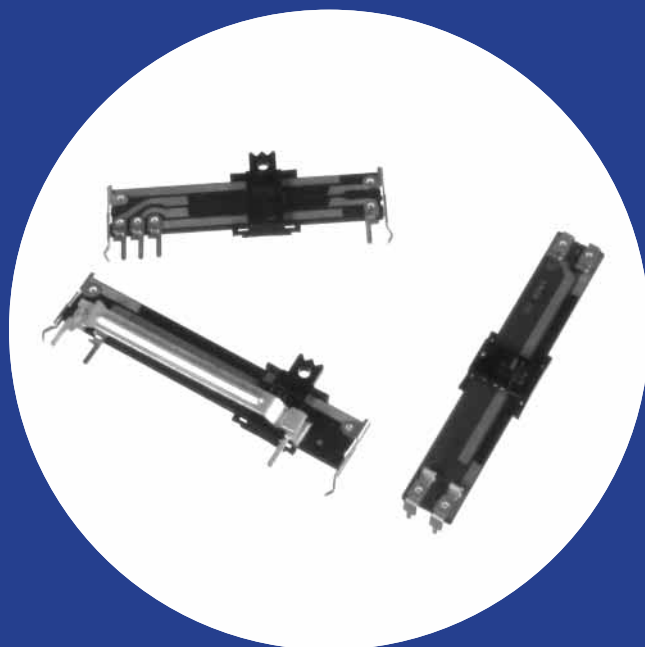


## Linear motion 0.2 watt composition slide control

### Features

- Innovative AC power switch, SPST or SPDT, available on mono element resistors
- 10-60mm slider travel
- 0.2 watt power rating (resistor)
- 1000 watt power rating (SPST switch)
- 600 watt power rating (SPDT switch)
- Detent at 50% travel available
- Multiple detents available
- Single or dual element designs
- Economical
- Wide resistance range
- Slim construction permits stacking many units in a small space



## Electrical and Mechanical Specifications

### Resistance Range

500 ohms through 1 megohm

### Resistance Tolerance

Standard  $\pm 20\%$   
Available  $\pm 10\%$

### Resistance Tapers

Standard: Linear  
Special: Available upon request

### Insulation Resistance

10 megohms at 250 VDC

### Voltage Rating

Across end terminals  
Linear curves—300 VDC  
(Not to exceed wattage ratings)

### Power Rating, watts

Size Taper	10mm	15mm 20mm	30mm	45mm	60mm
Linear	0.05w	0.1w	0.2w	0.25w	0.5w
Non-linear	0.025w	0.05w	0.1w	0.15w	0.25w

### Power Switch (optional)

SPST - 10,000 cycles carrying 1000 watts 120 VAC  
(Tungsten-filament)  
10,000 cycles switching 6A 120 VAC @ 0.75-0.80PF  
(Inductive load)  
SPDT - 10,000 cycles carrying 600 watts 120 VAC  
(Tungsten-filament)  
6,000 cycles switching 3A 120 VAC @ 0.75-0.80PF  
(Inductive load)

### Slide Travel

X and U Style: 10, 15, 20, 30, 45, and 60mm  
V Style: 10, 15, 25, 40, and 55mm

Switch: 20mm = 17mm electrical + 3mm switch  
30mm = 27mm electrical + 3mm switch

### Actuator Information

See Illustrations, page 4 (Actuator Styles)

### Operating Force

Either direction 20-150 gf  
Switch OFF force: 100-500 gf  
Stop Strength: 3K gf maximum, measured at  
base of slider

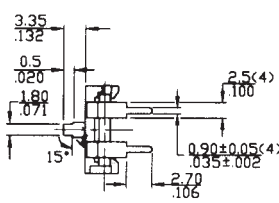
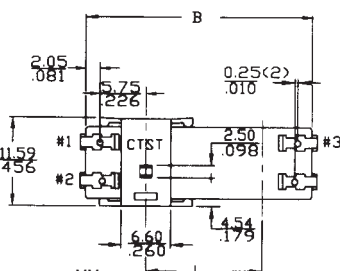
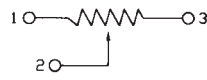
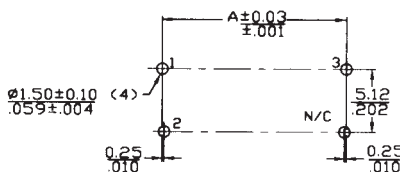
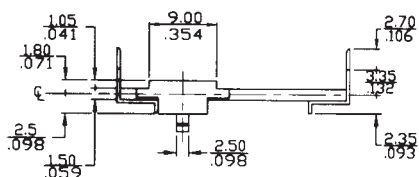
### Detent Force (detent optional)

Leaving detent: 20-200 gf over operating force

### Operating Life

10,000 cycles

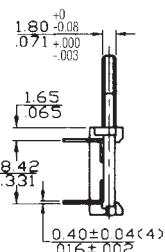
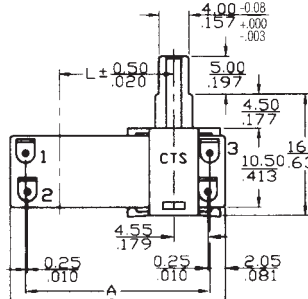
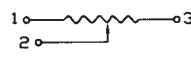
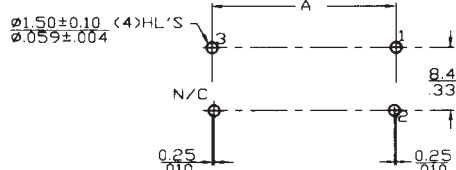
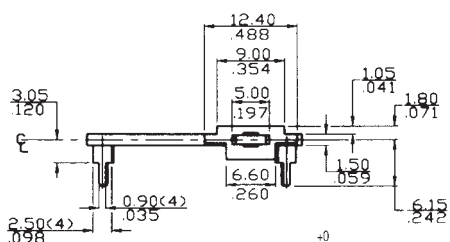
## Type V448 MONO



DIMENSION: MM  
INCH

MODEL	DIMENSIONS		
	L (Travel)	A	B
V448-10M	10/ .394	30.20/1.189	28.70/1.130
V448-15M	15/ .591	35.20/1.387	33.70/1.372
V448-25M	25/ .984	45.20/1.180	43.70/1.721
V448-40M	40/ 1.575	60.20/2.370	58.70/2.311
V448-55M	55/ 2.166	75.20/2.961	73.70/2.902

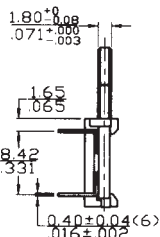
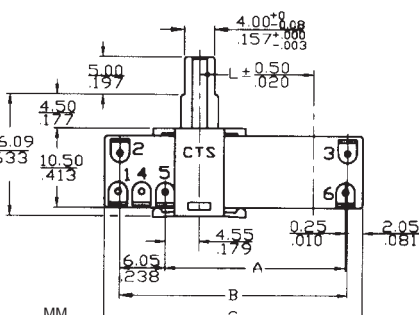
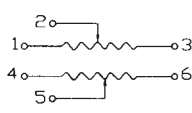
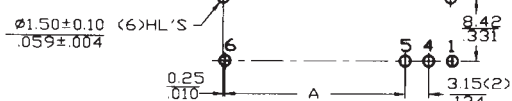
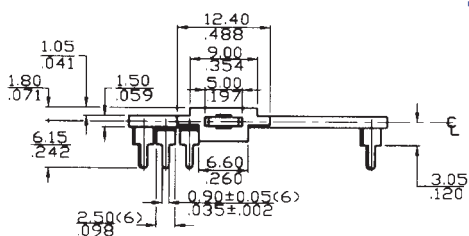
## Type U448 MONO



DIMENSION: MM  
INCH

MODEL	DIMENSIONS		
	L (Travel)	A	B
U448-10M	10/ .394	19.60/ .772	23.70/ .933
U448-15M	15/ .591	24.60/ .969	28.70/1.130
U448-20M	20/ .787	29.60/1.165	33.70/1.327
U448-30M	30/ 1.181	39.60/1.559	43.70/1.720
U448-45M	45/ 1.772	54.60/2.149	58.70/2.311
U448-60M	60/ 2.362	69.60/2.740	73.70/2.902

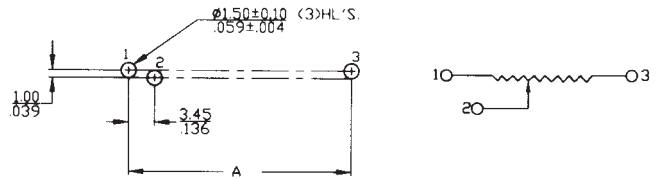
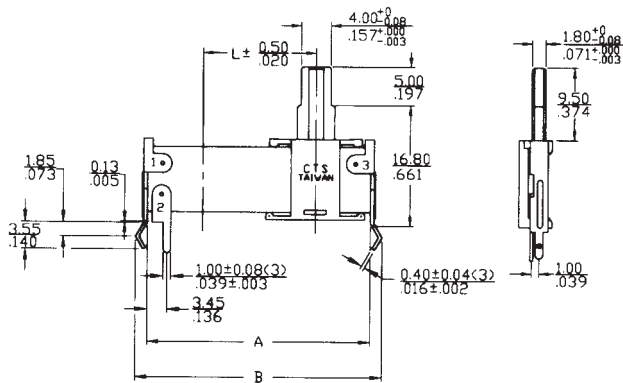
## Type U448 DUAL



DIMENSION: MM  
INCH

MODEL	DIMENSIONS			
	L (Travel)	A	B	C
U448-10D	10/ .394	19.10/ .752	25.40/1.000	29.50/1.161
U448-15D	15/ .591	24.10/ .949	30.40/1.197	34.50/1.359
U448-20D	20/ .787	29.10/1.146	35.40/1.394	39.50/1.555
U448-30D	30/ 1.181	39.10/1.539	45.40/1.787	49.50/1.949
U448-45D	45/ 1.772	54.10/2.130	60.40/2.378	64.50/2.539
U448-60D	60/ 2.362	69.10/2.721	75.40/2.969	79.50/3.131

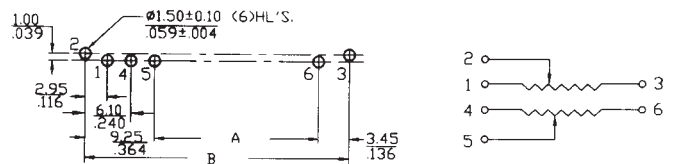
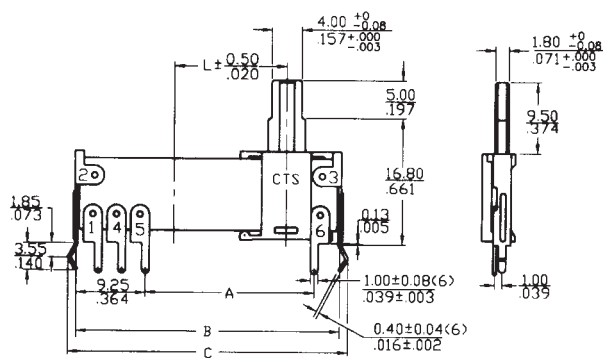
## Type X448 MONO



MODEL	DIMENSIONS		
	L (Travel)	A	B
X448-10M	10/ .394	24.50/ .965	26.60/1.047
X448-15M	15/ .591	29.50/1.161	31.60/1.244
X448-20M	20/ .787	34.50/1.359	36.60/1.441
X448-30M	30/ 1.181	44.50/1.752	46.60/1.835
X448-45M	45/ 1.772	59.50/2.343	61.60/2.425
X448-60M	60/ 2.362	74.50/2.934	76.60/3.016

DIMENSION: MM  
INCH

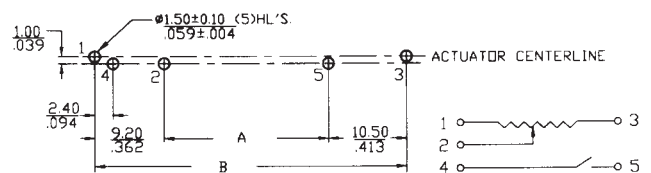
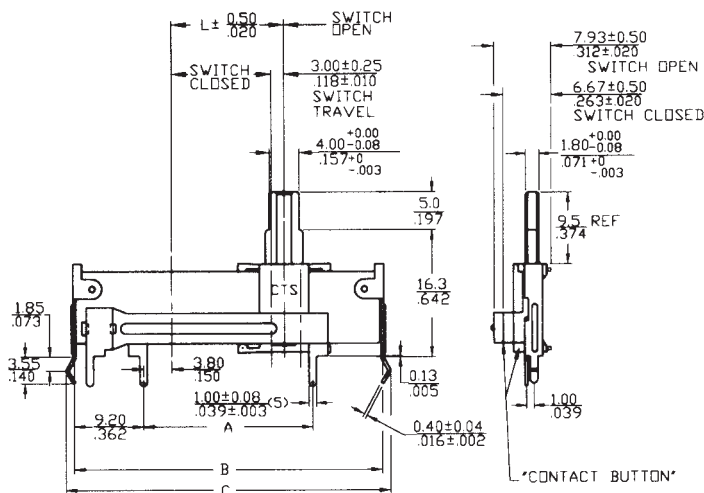
## Type X448 DUAL



MODEL	DIMENSIONS			
	L (Travel)	A	B	C
X448-10D	10/ .394	17.60/ .693	30.30/1.193	32.40/1.276
X448-15D	15/ .591	22.60/ .890	35.30/1.390	37.40/1.473
X448-20D	20/ .787	27.60/1.087	40.30/1.587	42.40/1.669
X448-30D	30/ 1.181	37.60/1.481	50.30/1.981	52.40/2.063
X448-45D	45/ 1.772	52.60/2.071	65.30/2.571	67.40/2.654
X448-60D	60/ 2.362	67.60/2.662	80.30/3.162	82.40/3.248

DIMENSION: MM  
INCH

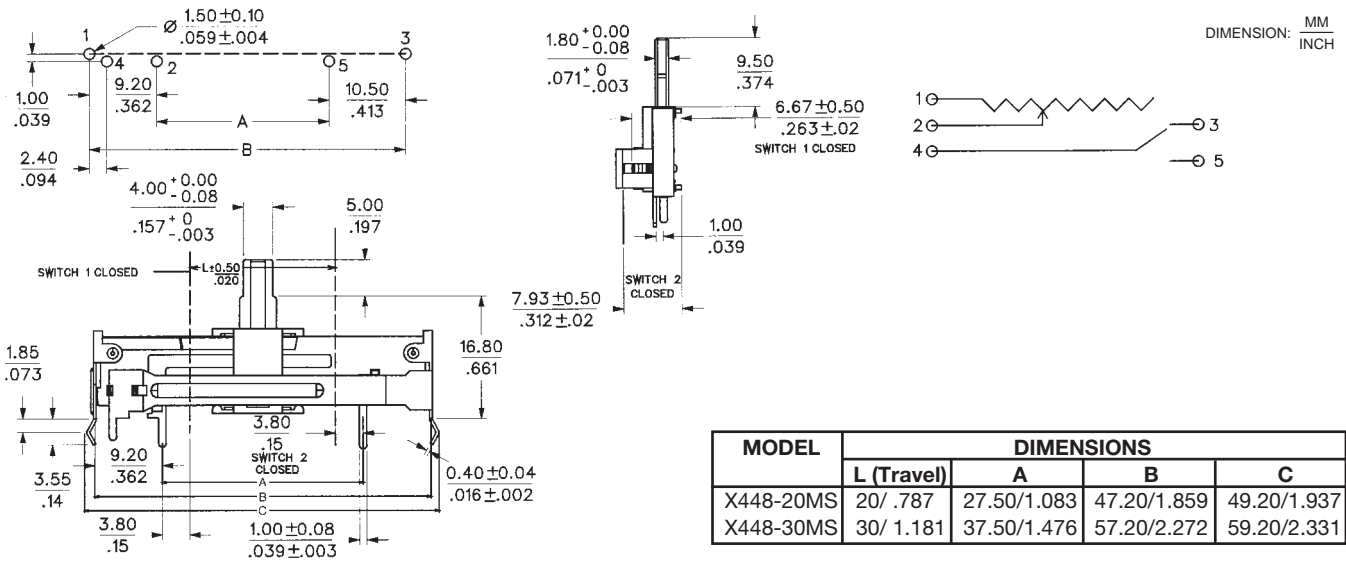
## Type X448 MONO W/SPST SWITCH



MODEL	DIMENSIONS			
	L (Travel)	A	B	C
X448-20MS	20/ .787	27.50/1.083	47.20/1.859	49.20/1.937
X448-30MS	30/ 1.181	37.50/1.476	57.20/2.272	59.20/2.331

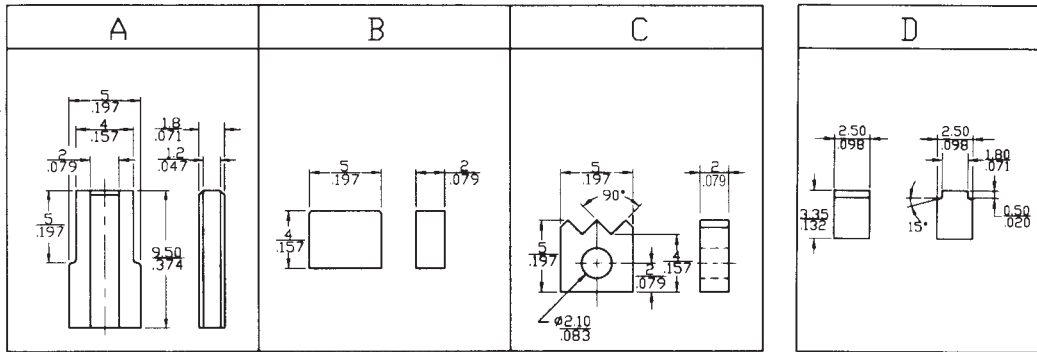
DIMENSION: MM  
INCH

## Type X448 MONO W/SPDT SWITCH



### Actuator Styles

Actuator Style "D"  
Available for "V" type only



### Ordering Information

<p style="font-size: 24pt; font-weight: bold;">448</p> <p style="font-size: 24pt; font-weight: bold; text-align: center;">U</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>MOUNTING STYLE</b></p> <p><b>U</b> Actuator—parallel to PC Board</p> <p><b>X</b> Actuator—perpendicular to PC Board</p> <p><b>V</b> Actuator—low profile perpendicular to PCB</p> </div>	<p style="font-size: 24pt; font-weight: bold;">E</p> <p style="font-size: 24pt; font-weight: bold; text-align: center;">2</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>TRAVEL</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>U &amp; X Types</b></td> <td style="width: 50%;"><b>V-Type</b></td> </tr> <tr> <td><b>A</b> 10mm</td> <td><b>A</b> 10mm</td> </tr> <tr> <td><b>B</b> 15mm</td> <td><b>B</b> 15mm</td> </tr> <tr> <td><b>C</b> 20mm</td> <td><b>C</b> 25mm</td> </tr> <tr> <td><b>D</b> 30mm</td> <td><b>D</b> 40mm</td> </tr> <tr> <td><b>E</b> 45mm</td> <td><b>E</b> 55mm</td> </tr> <tr> <td><b>F</b> 60mm</td> <td></td> </tr> </table> </div>	<b>U &amp; X Types</b>	<b>V-Type</b>	<b>A</b> 10mm	<b>A</b> 10mm	<b>B</b> 15mm	<b>B</b> 15mm	<b>C</b> 20mm	<b>C</b> 25mm	<b>D</b> 30mm	<b>D</b> 40mm	<b>E</b> 45mm	<b>E</b> 55mm	<b>F</b> 60mm		<p style="font-size: 24pt; font-weight: bold;">102</p> <p style="font-size: 24pt; font-weight: bold; text-align: center;">B</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>RESISTANCE CODE (EXAMPLES)</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <th>Code</th> <th>Resistance</th> </tr> <tr> <td>501</td> <td>500 ohms</td> </tr> <tr> <td>102</td> <td>1K</td> </tr> <tr> <td>252</td> <td>2.5K</td> </tr> <tr> <td>502</td> <td>5K</td> </tr> <tr> <td>103</td> <td>10K</td> </tr> <tr> <td>253</td> <td>25K</td> </tr> <tr> <td>503</td> <td>50K</td> </tr> <tr> <td>104</td> <td>100K</td> </tr> </table> </div>	Code	Resistance	501	500 ohms	102	1K	252	2.5K	502	5K	103	10K	253	25K	503	50K	104	100K	<p style="font-size: 24pt; font-weight: bold;">D</p> <p style="font-size: 24pt; font-weight: bold; text-align: center;">N</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>TAPER</b></p> <p><b>D</b> Linear</p> <p><b>A</b> CW 10% audio</p> <p><b>B</b> CCW 10% audio</p> </div>	<div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>SPECIALS</b></p> <p><b>N</b> No specials</p> <p><b>C</b> Center detent</p> <p><b>M</b> Multiple detent</p> <p><b>S</b> SPST Power Switch (20 &amp; 30mm X type only)</p> <p><b>D</b> SPDT Power Switch (20 &amp; 30mm X type only)</p> </div>
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For dual elements: Consult factory

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