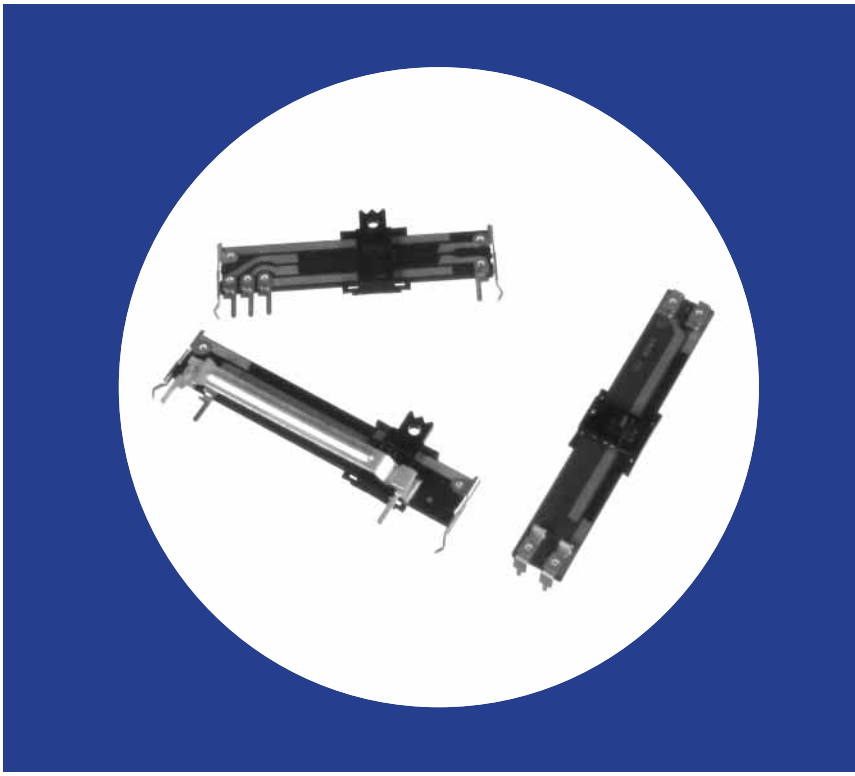
Series 448 Technical Data

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 ±20%
Available ±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)

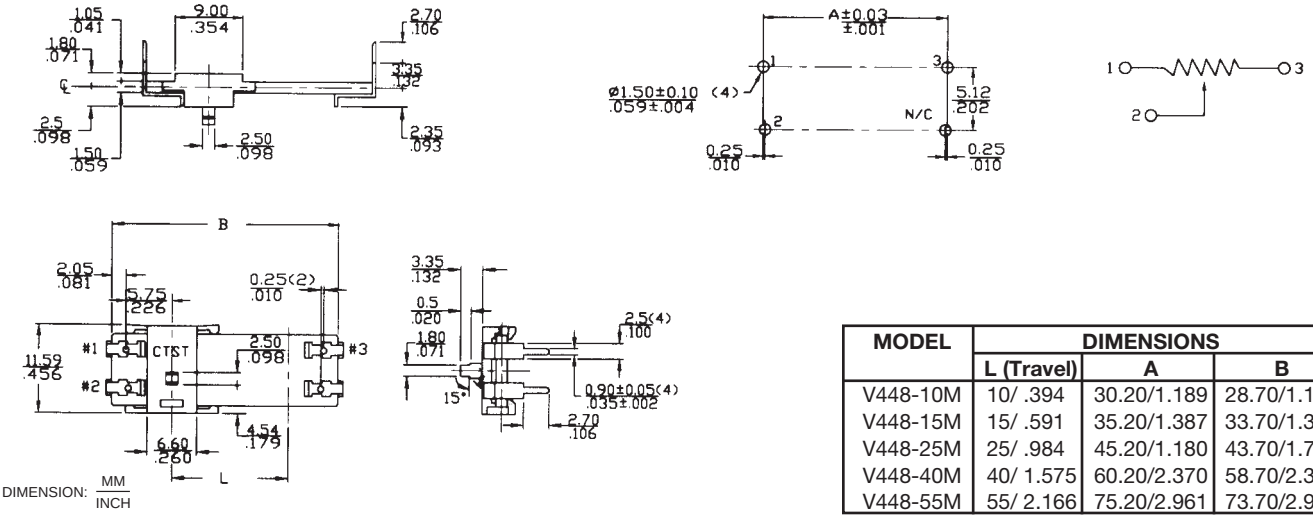
Operating Force
Either direction 20-150 gf
Switch OFF force: 100-500 gf
Stop Strength: 3K gf maximum, measured at base of slider

Detent Force (detent optional)
Leaving detent: 20-200 gf over operating force

Operating Life
10,000 cycles

Technical Data Sheet 1448C

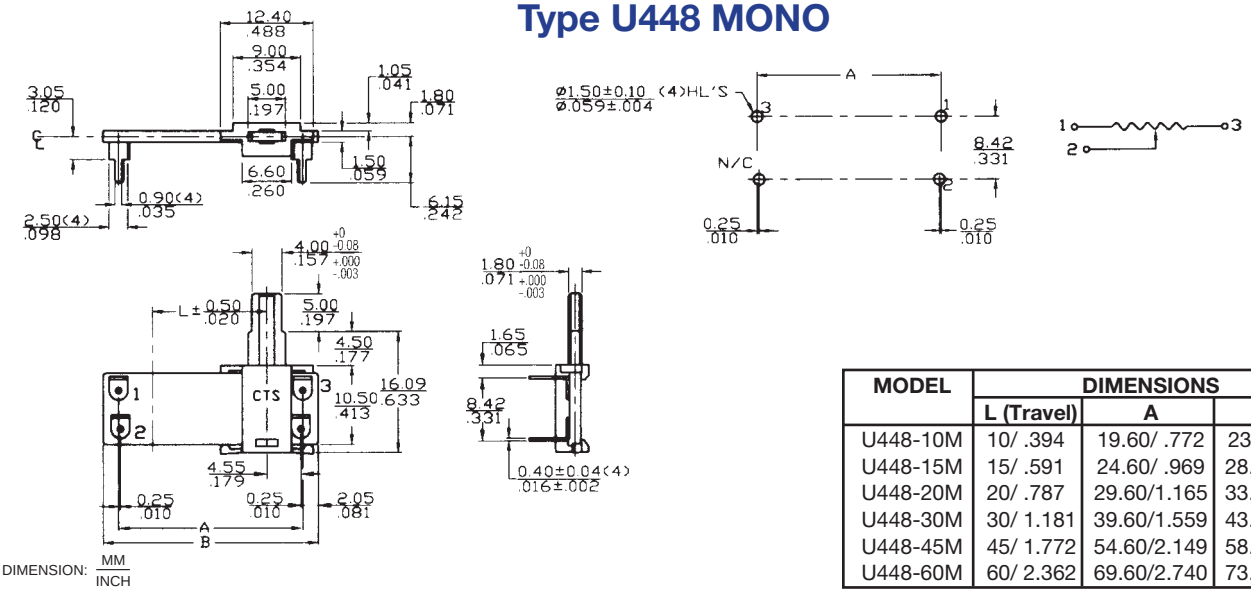
Type V448 MONO



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

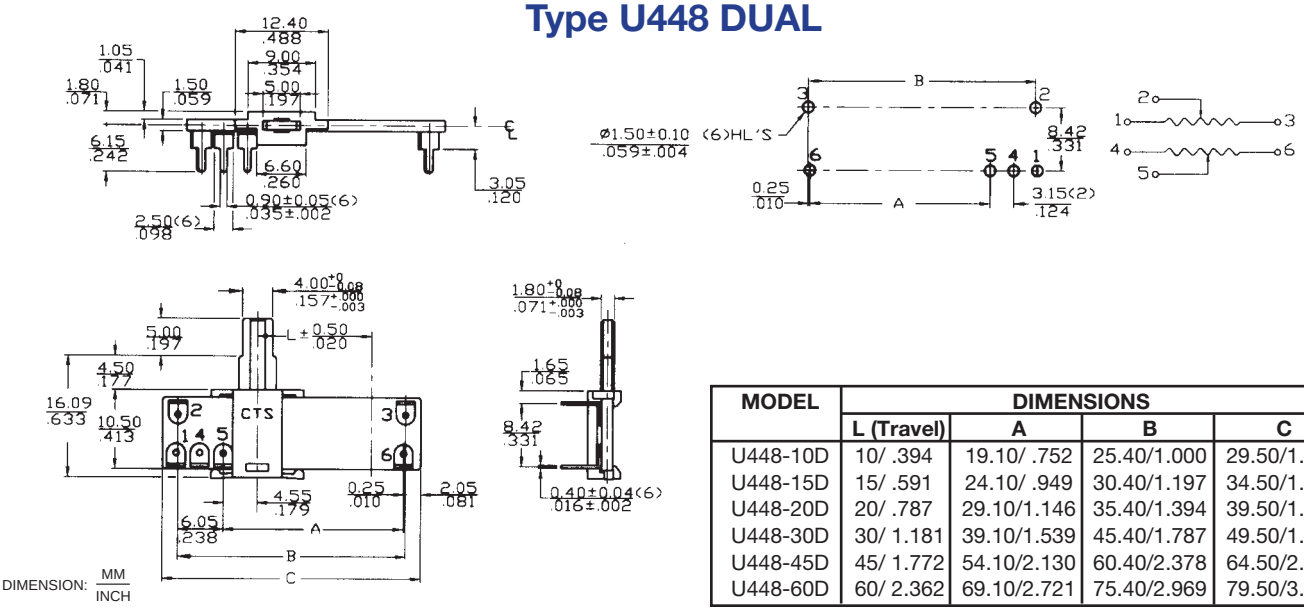
Type U448 MONO



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

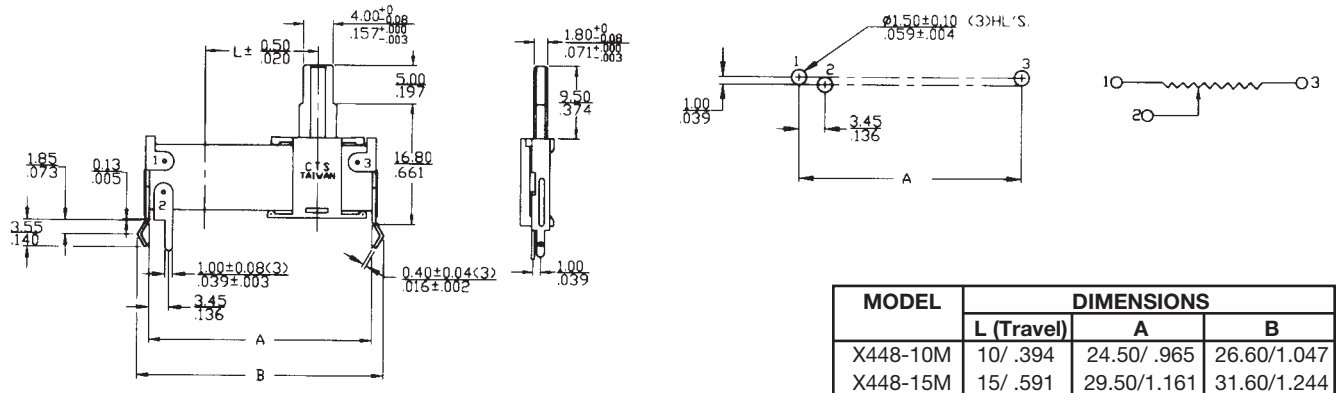
Type U448 DUAL



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

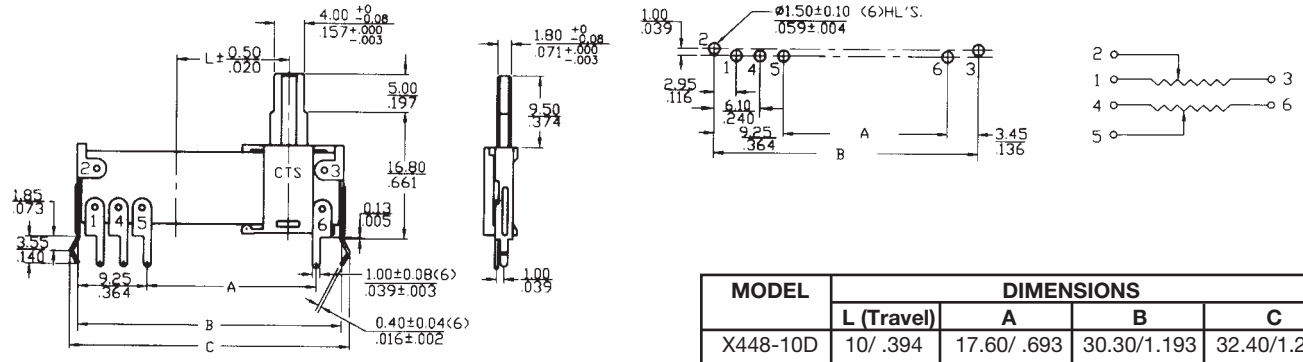
Type X448 MONO



DIMENSION: MM / INCH

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

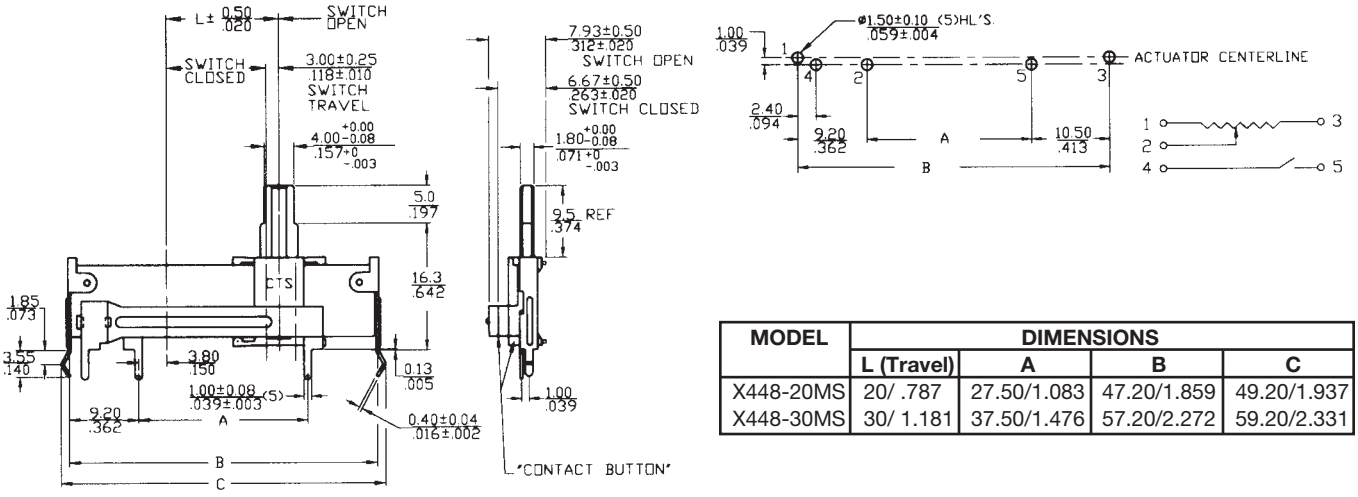
Type X448 DUAL



DIMENSION: MM / INCH

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

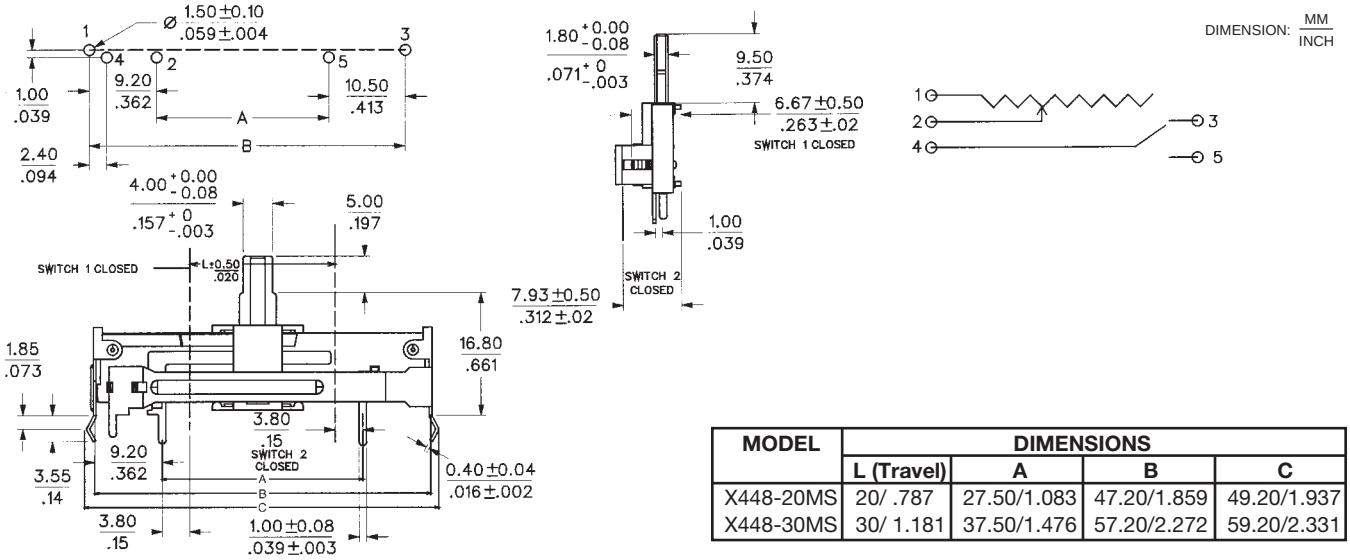
Type X448 MONO W/SPST SWITCH



DIMENSION: MM / INCH

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

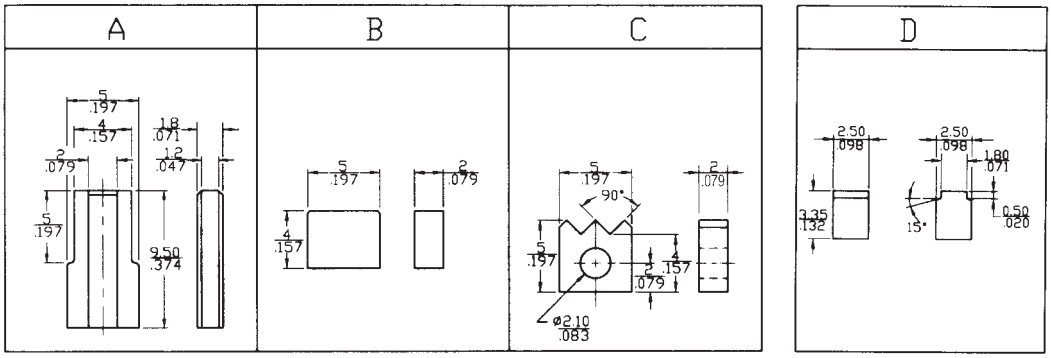
Type X448 MONO W/SPDT SWITCH



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

Actuator Styles

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



Ordering Information

448 U E 2 102 B D N

MOUNTING STYLE
- **U** Actuator—parallel to PC Board
- **X** Actuator—perpendicular to PC Board
- **V** Actuator—low profile perpendicular to PCB

TRAVEL

U & X Types		V-Type	
A	10mm	**A**	10mm
B	15mm	**B**	15mm
C	20mm	**C**	25mm
D	30mm	**D**	40mm
E	45mm	**E**	55mm
F	60mm		

For dual elements: Consult factory

ACTUATOR STYLE

U & X Types	V-Type
2: Style A: 9.5mm	**1:** Style D: 3.35mm
3: Style B: 4.0mm	
4: Style C: 5.0mm	

RESISTANCE CODE (EXAMPLES)

Code	Resistance
501	500 ohms
102	1K
252	2.5K
502	5K
103	10K
253	25K
503	50K
104	100K

RESISTANCE TOLERANCE
- **A** ±10%
- **B** ±20%
- **C** ±30%

TAPER
- **D** Linear
- **A** CW 10% audio
- **B** CCW 10% audio

SPECIALS
- **N** No specials
- **C** Center detent
- **M** Multiple detent
- **S** SPST Power Switch (20 & 30mm X type only)
- **D** SPDT Power Switch (20 & 30mm X type only)

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