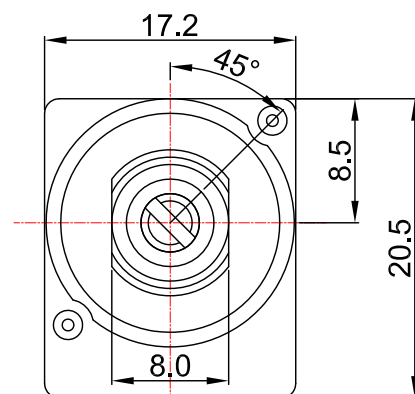
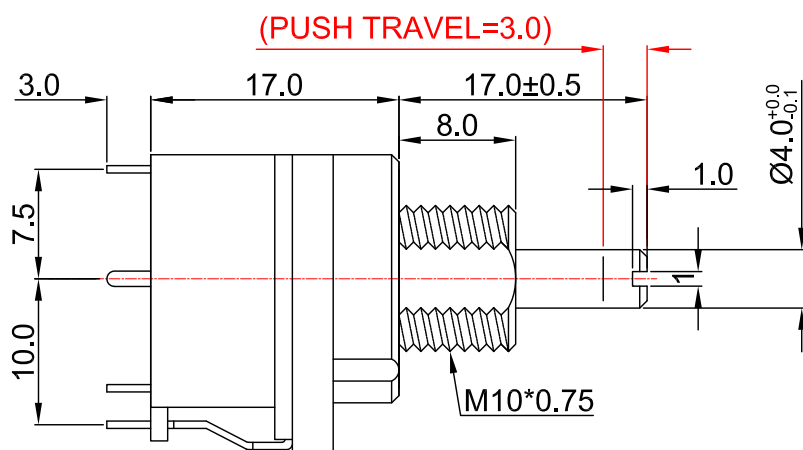
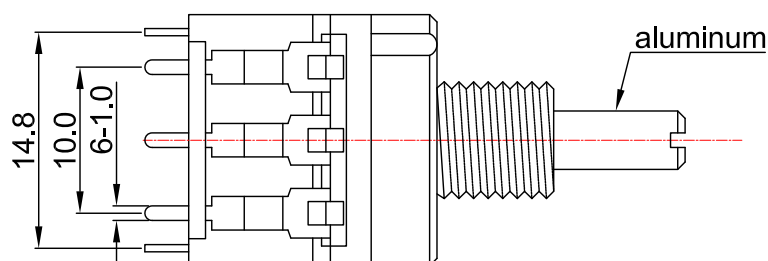


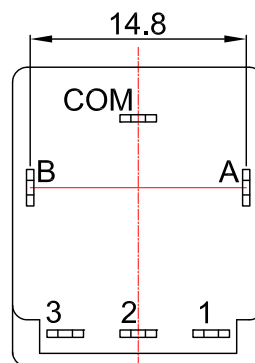
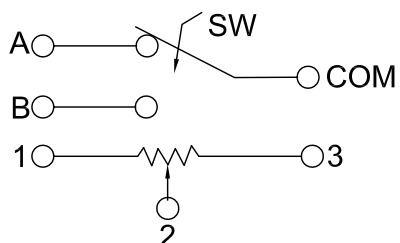
外形图
Mechanical Dimensions



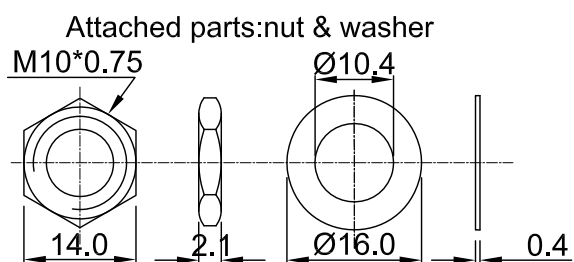
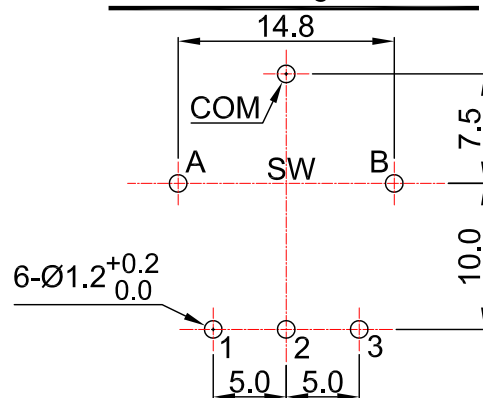
Shaft shown in full C.C.W. position



接线图
Circuit explanation



安装孔位置图
P.C.B. mounting hole detail



| 3 | | | | PRODUCT NAME | Switch Rotary Potentiometer | | |
|----|------|----------------------|---------------|--------------|-----------------------------|----------|--|
| 2 | | | | MODEL NAME | R16P3S-17SD1-AL-value | | |
| 1 | | | | APPROVED BY | CHECKED BY | DRAWN BY | |
| NO | DATE | DESCRIPTION | | | | | |
| | | DIMENSION | TOLERANCE | SCALE | | | |
| | | $\int \leq 10$ | ± 0.2 | UNIT | mm | | |
| | | $10 < \int \leq 30$ | ± 0.5 | VER. | A0 | | |
| | | $30 < \int \leq 100$ | ± 1.0 | DATE | 2014/3/6 | | |
| | | All Angles | $\pm 5^\circ$ | | | | |

R & D
2014/3/6
Eva

R & D
2014/3/6
Sophie

R & D
2014/3/6
Dick

16 mm Rotary Potentiometers with SW series Specifications

| 1.電氣性能 (Electrical Characteristics) | | | | | |
|-------------------------------------|-------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------|
| 1.1 | 全阻抗值 (Total Resistance) | | 1KΩ ~ 2MΩ | | |
| 1.2 | 全阻抗值允许偏差 (Total Resistance Tolerance) | | ±20% (More than 1 M Ω ±30%) | | |
| 1.3 | 電阻隨溫度變化特性 | | 20℃-75℃:△R/R≤±5%, | | |
| | (Resistance of temperature change character) | | -25℃-20℃:△R/R≤±4.5% | | |
| 1.4 | 阻值變化特性 (Resistance Taper) | | A, B | | |
| 1.5 | 零位阻值 (Residual Resistance) | | R≥250KΩ / 0.1 % max. of total Value 250KΩ>R>10KΩ / 20Ω max. 10KΩ≥R / 10Ω max. | | |
| 1.6 | 額定功率 (Rated Power) | | Linear Taper B: 0.5W Other Taper:0.2W | | |
| 1.7 | 最高使用電壓 (Max.Operating Voltage) | | 250VAC | | |
| 1.8 | 動雜音 (Rotational Noise) | | Less Than 100mV | | |
| 1.9 | 絕缘阻抗 (Insulation Resistance) | | More than 100MΩ at DC 500V | | |
| 1.10 | 耐電壓 (Withstand Voltage) | | For 1 minute at: DC 500V | | |
| 1.11 | 开关额定功率(Switch Rated Power) | | 250VAC , 10A | | |
| 2.機械性能(Mechanical Characteristics) | | | | | |
| 2.1 | 全回轉角度 (Rotation Angle) | | 270°±5° | | |
| 2.2 | 旋轉力矩 (Rotation Torque) | | 10~100gf.cm | | |
| 2.3 | 軸的拉、押強度 (Pull-Push Strength) | | 3.5 Kgf.cm | | |
| 2.4 | 轉動止檔強度 (Rotational Stop-End Torque) | | 5 kgf.cm Min | | |
| 2.5 | 开关行程(Switch Working Travel) | | 3.0±0.5mm | | |
| 2.6 | 开关力矩(Switch Working Torque) | | 50~150gf.cm | | |
| 2.7 | 旋轉定位數目 (Number of Detents(click)) | | 0 detents / 16 detents /30 detents | | |
| 2.8 | 焊錫耐熱性 (Resistance To Soldering Heat) | | 260±5℃and less than 3 seconds | | |
| 3.耐久性能 (Durability) | | | | | |
| 3.1 | 回轉壽命 (Rotation Life) | | 10,000 Cycles min. | | |
| 3.2 | 工作溫度 (Operating temperature) | | -10℃~+70℃ | | |
| 4.1 | 外形尺寸圖/曲線特性圖 (Shape size drawing/curve characteristic drawing) | | 见附页 Please refer the drawing | | |
| 批 准 | <div><div>R & D</div><div>2018/6/12</div><div>Eva</div></div> | 審 核 | <div><div>R & D</div><div>2018/6/12</div><div>Sophie</div></div> | 設 計 | <div><div>R & D</div><div>2018/6/12</div><div>Dick</div></div> |

Graph showing the relationship between Term "1" Rotation Travel (X-axis, 0 to 100) and Output Voltage (Y-axis, 0 to 100). The curves represent the output voltage for different potentiometer models (5B, 4B, 3B, 2B, 1B, 0B) across the rotation travel. The output voltage is measured across terminals 1, 2 and 1, 3.

[illegible]

The graph plots the output voltage across terminals 1,2 against the input voltage across terminals 1,3. The y-axis is labeled $\frac{\text{OUTPUT VOLT.ACROSS TERMINAL } 1,2}{\text{INPUT VOLT.ACROSS TERMINAL } 1,3} \times 100\%$ and ranges from 0 to 100. The x-axis is labeled "TERM "1" ROTATION TRAVEL TERM "3"" and ranges from 0 to 100. Six curves are shown for different load impedances: 30Ω, 25Ω(j), 20Ω, 15Ω(jS.9), 10Ω(jS.D), and 05Ω(jIS.S). All curves start at (0,0) and end at (100,100). The curves for resistive loads (30Ω, 25Ω(j), 20Ω) are concave down, while the curves for inductive loads (15Ω(jS.9), 10Ω(jS.D), 05Ω(jIS.S)) are concave up.

The graph plots the ratio of output voltage across terminals 1,2 to input voltage across terminals 1,3 (multiplied by 100%) against the rotation travel of Term '1' from Term '3'. The x-axis ranges from 0 to 100, and the y-axis ranges from 0 to 100. Four curves are shown, each representing a different tap setting:

- 15CM:** A curve that starts at (0, 100), decreases to a minimum of approximately 20% at 40% rotation travel, and then increases to (100, 100).
- 10MVA:** A curve that starts at (0, 0), increases to a peak of approximately 15% at 50% rotation travel, and then decreases to (100, 0).
- 15MVA:** A curve that starts at (0, 0), increases to a peak of approximately 20% at 50% rotation travel, and then decreases to (100, 0).
- 20MVA:** A curve that starts at (0, 0), increases to a peak of approximately 25% at 50% rotation travel, and then decreases to (100, 0).

All curves intersect at the point (90, 90).

The figure contains two graphs, labeled M and N, showing the relationship between output voltage and rotation travel.

Graph M: The y-axis is labeled "OUTPUT VOLT. ACROSS TERMINAL 1,2" and "INPUT VOLT. ACROSS TERMINAL 1,3", with a multiplier of $\times 100\%$. The x-axis is labeled "TERM '1' ROTATION TRAVEL TERM '3'". The curve starts at 0, rises to a peak of 100 at 50% travel, and then falls back to 0 at 100% travel. A point is marked on the rising curve at approximately 22% travel and 40% voltage.

Graph N: The y-axis is labeled "OUTPUT VOLT. ACROSS TERMINAL 1,2" and "INPUT VOLT. ACROSS TERMINAL 1,3", with a multiplier of $\times 100\%$. The x-axis is labeled "TERM '1' ROTATION TRAVEL TERM '3'". The curve starts at 0, rises to a peak of 100 at 50% travel, and then falls back to 0 at 100% travel. A point is marked on the falling curve at approximately 78% travel and 40% voltage.