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Jameco Part Number 286273

SNAP-IN INSULATED SHAFT SERIES METAL SHAFT SERIES/SPECIAL USE SERIES CODE EXPLANATION

RV 09 A 1 — 10 01 — 20 F P — B 5K — X X 9999
1 2 3 4 5 6 7 8 9 10 11 12 13 14

1. Product Line Ex :
RV—Rotary Potentiometer

2. Model

3. Structure Difference :

| Type | Difference |
|------|------------|
| T、R | With Tap |

4. Derivatives

5. Type of Terminal

| Code | Type of Terminal |
|------|---------------------------|
| 10 | Solder lug |
| 20 | PC board (horizontal) |
| 30 | PC board (vertical);front |
| 40 | PC board (vertical);back |

6. Type of Bushing

7. Shaft Length

8. Type of Shaft

9. Axis Angle of F-type Shaft

10. Pattern of Resistance Curve

11. Resistance Value

**12. Materials & Methods for
Manufacturing Shaft & Bushing**

13. Number of Click :

| Code | Specification |
|------|--------------------|
| O | None |
| C | Center Click |
| D | 11 Positions click |
| E | 21 Positions click |
| F | 41 Positions click |

14. Serial No .

訂單指定事項：

開立訂單時，用途請依下表記載予以指定製品之規格詳細記載並確認之。

項目：

1. 型號。
2. 公稱阻值及線性要求。
3. 軸型及長度。
4. 端子型式。
5. 段點的有無。
6. 中間抽頭的有無。
7. 音量用或其它。
8. 手焊錫或錫爐焊錫。

ORDERING INSTRUCTIONS

WHEN PLACING YOUR ORDER, PLEASE SPECIFY THE FOLLOWING ITEMS ACCORDING TO YOUR APPLICATION NEEDS. FOR MORE INFORMATION ABOUT OUR PRODUCTS, PLEASE REFER TO THE SPECIFICATIONS GIVEN ON THE FOLLOWING PAGES.

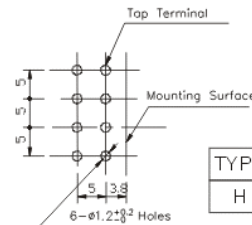
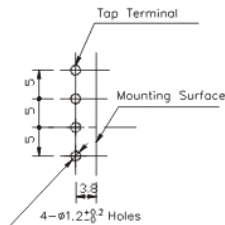
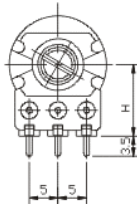
ITEMS :

- 1.MODEL.
- 2.NORMAL RESISTANCE VALUE AND TAPER.
- 3.SHAFT STYLE AND LENGTH.
- 4.TERMINAL STYLE.
- 5.WITH CLICK OR WITHOUT CLICK, CLICK POSITION.
- 6.WITH TAP OR WITHOUT TAP, TAP POSITION.
- 7.FOR VOLUME CONTROL OR OTHER USE.
- 8.MANUAL SOLDERING OR DIP SOLDERING.

16mm SIZE METAL SHAFT SERIES

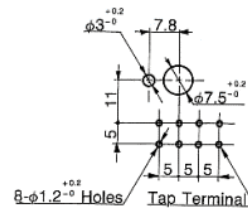
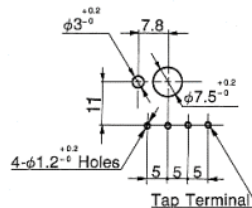
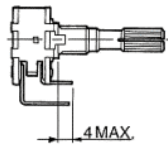
P.C.B. Mounting Hole Detail and Terminal Dimensions

20 TYPE TERMINAL
(PH TERMINAL)

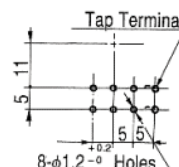
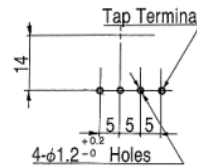
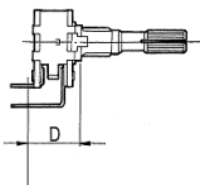


| TYPE | 20 | 22 | 23 |
|------|------|----|----|
| H | 12.5 | 18 | 22 |

30 TYPE TERMINAL
(PV TERMINAL)



40 TYPE TERMINAL
(UPV TERMINAL)



| TYPE | 40 | 41 | 42 |
|---------|-----|------|------|
| D | | | |
| RV16A | 8.5 | 10.7 | 21.1 |
| RV16A01 | - | 10.7 | - |

Specifications

Mechanical

Total rotation angle
Rotation torque
Shaft stop strength
Switch working angle/stroke
Switch working torque/force
Switch circuit

RV16B

300°±5°
20-200gf.cm
6Kgf.cm/Max.
4mm
800gf.cm/Max.
D.P.D.T. S.P.D.T.

Electrical

Rated wattage
Rated voltage
Insulation resistance
Dielectric
Switch contact resistance
Switch rating
Rotation life
Switch life

Linear taper B Other tapers
0.2W 0.1W
200V 150V
More than 100MΩ at DC500V
AC500V, 1 minute
Less than 20mΩ
30VDC, 0.3A
15,000 cycles
10,000 cycles

RV16002

300°±5°
20-200gf.cm
6Kgf.cm/Max.
50°±10°
150-450gf.cm
S.P.S.T.

Linear taper B Other tapers
0.2W 0.1W
200V 150V
More than 100MΩ at DC500V
AC500V, 1 minute
Less than 20mΩ
12VDC, 1A
15,000 cycles
10,000 cycles

RV16C

270°±5°
20-200gf.cm
4Kgf.cm/Max.
40°Max
200-600gf.cm
S.P.S.T.

Linear taper B Other tapers
0.2W 0.1W
200V 150V
More than 100MΩ at DC500V
AC1,000V, 1 minute
Less than 100mΩ
250VDC, 10A
100,000 cycles
10,000 cycles

RV16A

Mechanical

Total rotation angle
Rotation torque
Shaft stop strength
Click position
Click torque

300°±5°
20-200gf.cm
6Kgf.cm/Max.
Center or 21 positions or 41 positions
100-400gf.cm













Electrical













Rated wattage
Rated voltage
Insulation resistance
Dielectric
Tap position
Tracking error

Linear taper B Other tapers
0.125W 0.06W
200V 150V
More than 100MΩ at DC500V
AC500V, 1 minute
50% (150°)
Volume control: -40-0dB±3dB
tone, balance control: ≤2dB
at 50% point

AXIS ANGLE OF F-TYPE SHAFT

Standard Angle (for 300° rotation)

| AXIS Angle | Symbol |
|--|----------|
|  | F00, (O) |
|  105° | F01, (A) |
|  120° | F02, (B) |
|  135° | F03, (C) |
|  150° | F04, (D) |
|  165° | F05, (E) |
|  | F06, (F) |
|  15° | F07, (G) |
|  30° | F08, (H) |
|  45° | F09, (J) |
|  60° | F10, (K) |
|  75° | F11, (L) |

| AXIS Angle | Symbol |
|---|----------|
|  | F12, (M) |
|  105° | F13, (N) |
|  120° | F14, (P) |
|  135° | F15, (Q) |
|  150° | F16, (R) |
|  165° | F17, (S) |
|  | F18, (T) |
|  15° | F19, (V) |
|  30° | F20, (W) |
|  45° | F21, (X) |
|  60° | F22, (Y) |
|  75° | F23, (Z) |

Axis angle is shown in full C.C.W. Position

ROTARY POTENTIOMETERS

電氣的性能 Electrical characteristics

| 項目 Items | 嵌入式絕緣軸 Snap-In Insulated Shaft Potentiometers | | | | |
|-----------------------------|---|--|--|---|--|
| | 9mm size | | 11mm size | | 14mm size |
| | 單連 Single unit | 雙連 Dual unit | 單連 Single unit | 雙連 Dual unit For high-cut tone | 雙連 Dual unit |
| 殘留阻抗 Residual resistance | $R \leq 1K\Omega$ $1K\Omega < R \leq 50K\Omega$ $50K\Omega < R \leq 100K\Omega$ $100K\Omega < R \leq 500K\Omega$ $500K\Omega < R \leq 1M\Omega$ | 30Ω Max. 100Ω Max. 300Ω Max. 500Ω Max. $1K\Omega$ Max. | $R \leq 10K\Omega$ $10K\Omega < R < 50K\Omega$ $50K\Omega \leq R \leq 500K\Omega$ 0.1% Max. of total resistance | 20Ω Max. 30Ω Max. 100Ω 200Ω 500Ω $1K\Omega$ | $R \leq 1K\Omega$ 30Ω Max. $R \leq 30K\Omega$ $30K < R \leq 500K\Omega$ 0.1% Max. of total resistance |

電氣的性能 Electrical characteristics

| 項目 Items | 嵌入式絕緣軸 Snap-In Insulated Shaft Potentiometers | |
|-----------------------------|---|---|
| | 12型 12mm size | 16型 16mm size |
| 殘留阻抗 Residual resistance | $R \leq 30K\Omega$ $30K\Omega < R \leq 500K\Omega$ | 40Ω Max. 0.1% Max. to total resistance |

電氣的性能 Electrical characteristics 金屬軸共通規格

| 項目 Items | | 9型 9mm size | 12型 12mm size | 16型, 24型 16mm size, 24mm size | 40型 40mm size |
|-----------------------------|-------------------------|---|------------------|---|------------------|
| 殘留阻抗 Residual resistance | 300°迴轉 300° rotation | $R \leq 10K\Omega$ 20 Ω Max. $10K\Omega < R < 50K\Omega$ 30 Ω Max. $50K\Omega \leq R$ 全阻抗值 0.1% 以下 $50K\Omega \leq R$, 0.1% Max. of total resistance | 3 Ω Max. | $R \leq 10K\Omega$ 20 Ω Max. $10K\Omega < R \leq 50K\Omega$ 30 Ω Max. $50K\Omega < R$ 全阻抗值 公稱全阻抗值0.1%以下 0.1% or less of normal total resistance | 3 Ω Max. |
| | 120°迴轉 120° rotation | $R \leq 10K\Omega$ 30 Ω Max. $10K\Omega < R$ 全阻抗值 0.2% 以下 $10K\Omega < R$, 0.2% Max. of total resistance | 20 Ω Max. | | |

ROTARY POTENTIOMETERS

機械的性能 Mechanical characteristics

| | 絶縁軸 Insulated Shaft | | | 金屬軸 Metal Shaft | | | |
|--------------------------------|------------------------|---|-----------------------|--|------------------|-----------------------------------|-----------------------|
| | 9型 9mm size | | 9型金屬軸 9mm size | 12型金屬軸 12mm size | 16型 16mm size | | |
| 軸、押、拉力強度 Pull-push strength | 50N {5kg} Max. | 80N {8kg} Max. | | 100N Max. {10kg} Max. | | | |
| 軸搖動 Shaft wobble | 0.8XL/20mm P-P Max. | Without bushing 0.7 L/20mmp-p Max. 0.7L/30mmp-p以下 With bushing 0.7 L/30mmp-p Max. With 500mg-g-cm 用500mg-g-cm | 0.6L/20mm P-P Max. | The shaft wobble at the position of 5mm from the top when a load of A gf is applied to said position after mounting the bushing shall be B mm P-P Max. | | | |
| | | | | Shaft length (mm) | Thrust A(gf) | Single and outer shafts B(mm P-P) | Inner shaft B(mm P-P) |
| | | | | 15 | 1000 | 0.14 | — |
| | | | | 20 | 670 | 0.2 | — |
| | | | | 25 | 500 | 0.27 | 0.4 |
| | | | | 30 | 400 | 0.34 | 0.5 |

電氣的性能 Electrical characteristics

一般用阻值 Normal total resistance

| 迴轉型電位器 Rotary potentiometers | |
|------------------------------|---|
| RV09 | 5K, 10K, 20K, 50K, 100K, 200K |
| | 5K, 10K, 20K, 50K, 100K, 200K |
| RV12 | 5K, 10K, 20K, 50K, 100K, 200K, 500K |
| | 5K, 10K, 20K, 50K, 100K, 200K, 500K |
| RV16,17,24 | 1K, 5K, 10K, 50K, 100K, 200K, 500K, 1M |
| | 5K, 10K, 20K, 50K, 100K, 200K, 500K, 1M |

僅供使用參考

This page is for your reference only.

Resistance taper standards

| Taper | Effective rotation angle / Effective travel | | | |
|-------|--|-------|-----|-------|
| | 20% | 50% | 60% | 80% |
| A | | 10-25 | | |
| B | | 40-60 | | |
| C | | 10-25 | | |
| D | | 2-15 | | |
| E | | 19-33 | | |
| RD | | 2-15 | | |
| W | 1-7 | 40-60 | | 93-99 |

Across Terminal 1-2 A, B, D, K, W
Across Terminal 2-3 C, E, R, D