

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。

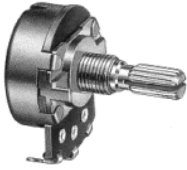
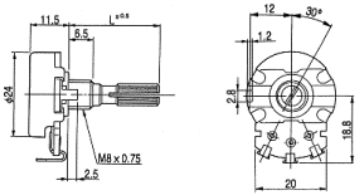
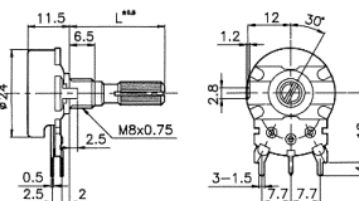
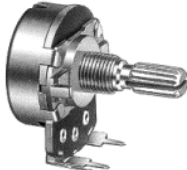
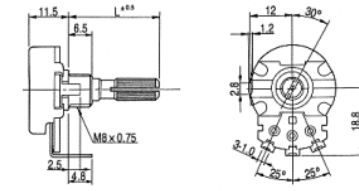
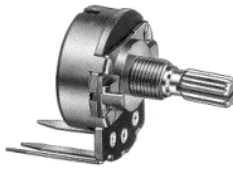
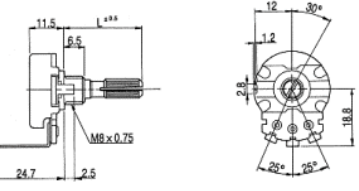
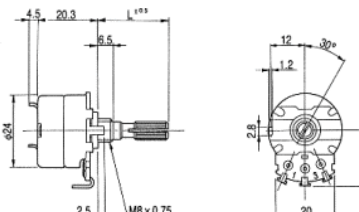
ORDERING INSTRUCTIONS

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.

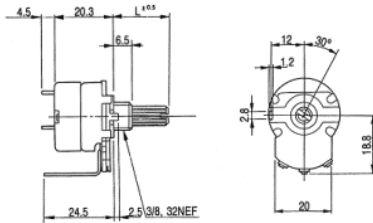
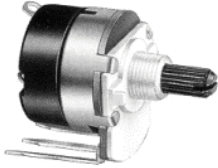
24mm SIZE METAL SHAFT SERIES

Model	Outline Drawing	Features / Individual Specifications
RV24A-10 	 SHAFT SHOWN IN FULL C.C.W. POSITION	 300° rotation, single unit 
RV24A-22 	 SHAFT SHOWN IN FULL C.C.W. POSITION	 300° rotation, single unit 
RV24A-30 	 SHAFT SHOWN IN FULL C.C.W. POSITION	 300° rotation, single unit 
RV24A-40 	 SHAFT SHOWN IN FULL C.C.W. POSITION	 300° rotation, single unit 
RV24A01-10 RV24A02-10 	 SHAFT SHOWN IN FULL C.C.W. POSITION	 300° rotation, single unit with Rotary SW. S.P.S.T. 125VAC, 1A S.P.D.T. 125VAC, 1A 

24mm SIZE WITH SWITCH INSULATED SHAFT SERIES

Model Outline Drawing Features / Individual Specifications

RV24A03-40 (Plastic Shaft)

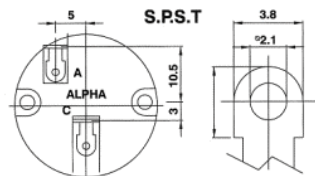


BUSHING: $\phi 1/8$ "-32NEF ONLY

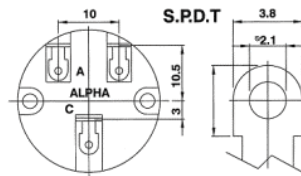
300° rotation, single unit
with Rotary SW.
S.P.S.T. 125VAC, 1A



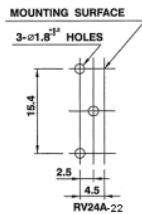
P.C.B. Mounting Hole Layout



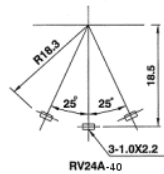
WIRING TERMINAL ONLY
22 Type Terminal (PH2 Terminal)



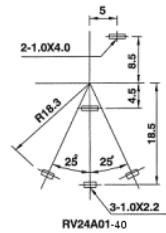
WIRING TERMINAL ONLY
40 Type Terminal (UPV Terminal)



RV24A-22

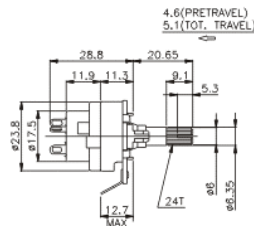
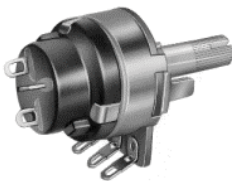


RV24A-40



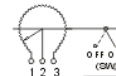
RV24A01-40

RV240SD-10 (Plastic Shaft)



SHAFT SHOWN IN
FULL C.C.W. POSITION

300° rotation
single unit
with Rotary SW
S.P.S.T. 125VAC 6A
S.P.D.T. 125VAC 6A



MODEL	TYPE
RV240S	S.P.S.T
RV240SD	S.P.D.T

Specifications

Mechanical

Total rotation angle : $300^\circ \pm 5^\circ$
Rotation torque : 20-200gf.cm
Shaft stop strength : 6Kgf.cm/Max.
Switch working angle : $50^\circ \pm 10^\circ$
Switch working torque : 150-450gf.cm
Switch circuit : S.P.S.T., S.P.D.T.

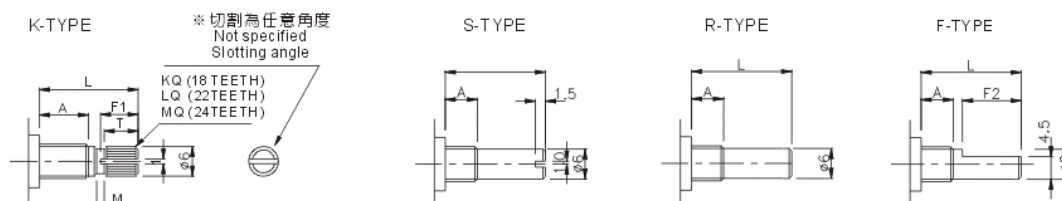
Electrical

Rated wattage : Linear taper B : 0.5W
Other tapers : 0.25W
Rated voltage : 500V
Insulation resistance : More than 100M Ω at DC500V
Dielectric : AC500V, 1minute
Tap position : 50% (150°)
Switch contact resistance : Less than 30m Ω
Switch rating : AC125V, 1A

12mm,16mm, 17mm, 24mm METAL SHAFT SERIES

Standard Shaft, Bushing, Nut and Washer Dimensions

METAL SHAFT



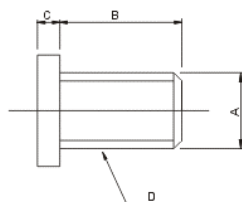
A : 5 m/m

Shaft-Type	L	10	15	20	25	30	35	40
K	F1	3.5	6.5	11	14	14	14	14
	T	3.2	6	10	12	12	12	12
	M	0.5	1	2	4	4	4	4
F	F2	4	7	12	14	14	14	14
R, S	L	10	15	20	25	30	35	40

A : 6.5 m/m

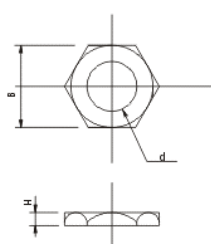
Shaft-Type	L	10	15	20	25	30	35	40
K	F1	2.4	6.5	11	14	14	14	14
	T	2.2	6	10	12	12	12	12
	M	0.5	1	2	4	4	4	4
F	F2	2.5	7	12	14	14	14	14
R, S	L	10	15	20	25	30	35	40

BUSHING

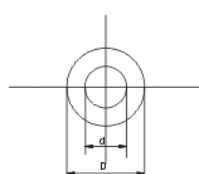


Series	RV24A	RV170	RV160	RV060	RV123	RV120	RV122
A	φ8	φ7	φ7	φ9	φ7	φ7	φ9
B	6.5	5	6.5	7	5	7	8
C	2	1	1.4	0.7	0.5	3.3	—
D	M8x0.75	M7x0.75	M7x0.75	M9x0.75	M7x0.75	M7x0.75	M9x0.75

NUT, WASHER



d	B	H
M6x0.75	8	1.8
M7x0.75	10	1.8
M8x0.75	11	1.8
M9x0.75	12	2
M10x0.75	14	2.2
3/8" 32NEF	12.6	2.3



Series	d	D	t
M6	φ6.1	φ10	0.4
M7	φ7.1	φ12	0.4
M8	φ8.1	φ14	0.4
M9	φ9.1	φ14	0.4
M10	φ10.2	φ14.8	0.5
3/8" 32NEF	φ9.7	φ16	0.4

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. $30K < R \leq 500K\Omega$ 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