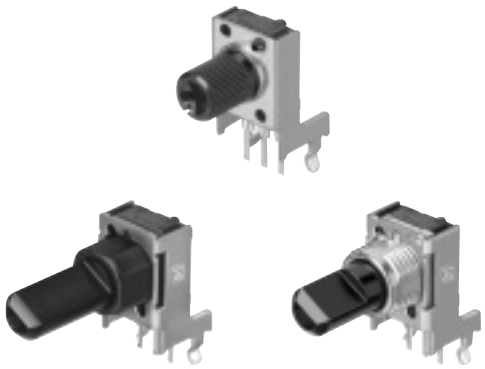
9 mm Square Rotary Potentiometers with Insulated Shaft

Type: **EVUE/EVUF**

Japan
Malaysia



■ Features

- Multi-gang block can be provided upon request
- DC voltage available
- Rigid rectangular shape suited for automatic insertion

■ Recommended Applications

- Audio Equipment
- Video Equipment
- Electronic Musical Instruments
- Audio Mixers

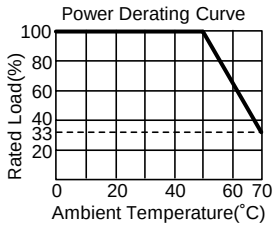
■ Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	V	U	E/F								
Product Code			Specifications			Shaft Trims & Dimensions			Taper & Resistance		

■ Product Chart

Construction	Style	Height (H=mm)	Detent	Type
Horizontal	Without bushing	6.5	Without detent	EVUE20
			Midpoint	EVUE30
		10.0	Without detent	EVUE2A
			Midpoint	EVUE3A
		12.5	Without detent	EVUE21
			Midpoint	EVUE31
	With bushing	6.5	Without detent	EVUE25
			Midpoint	EVUE35
		10.0	Without detent	EVUE2J
			Midpoint	EVUE3J
	With sleeve	6.5	Without detent	EVUE27
			Midpoint	EVUE37
		10.0	Without detent	EVUE2K
			Midpoint	EVUE3K
Vertical	Without bushing	—	Without detent	EVUF2A
			Midpoint	EVUF3A
	With bushing	7.5	Without detent	EVUF2J
			Midpoint	EVUF3J
		8.5	Without detent	EVUF2M
			Midpoint	EVUF3M
	With sleeve	7.5	Without detent	EVUF2K
			Midpoint	EVUF3K
		8.5	Without detent	EVUF2L
			Midpoint	EVUF3L

■ Specifications

<table>
<tr><th>Classification</th><th>Item</th><th>Type without bushing</th><th>Type with bushing</th><th>Type with sleeve</th></tr>
<tr><td rowspan="6">Mechanical Specifications</td><td>Rotation Angle</td><td colspan="3">300 °</td></tr>
<tr><td>Rotation Torque</td><td>1 mN·m to 8 mN·m (after rotation started)</td><td>1 mN·m to 20 mN·m (after rotation started)</td><td>1 mN·m to 20 mN·m (after rotation started)</td></tr>
<tr><td>Shaft Stopper Strength</td><td colspan="3">300 mN·m</td></tr>
<tr><td>Shaft wobble</td><td>● Shaft bend and shaft wobble shall be $0.8 \times \frac{L}{20}$ (mm) max. (for one side)
(When moment of 25 mN·m is applied.)
● L=Distance between mounting surface and measuring point</td><td>● Shaft bend and shaft wobble shall be $0.5 \times \frac{L}{30}$ (mm) max. (for one side)
(When moment of 50 mN·m is applied.)
● L=Distance between mounting surface and measuring point</td><td>● Shaft bend and shaft wobble shall be $0.7 \times \frac{L}{30}$ (mm) max. (for one side)
(When moment of 50 mN·m is applied.)
● L=Distance between mounting surface and measuring point</td></tr>
<tr><td>Shaft Pull/Push Strength</td><td>Push strength 100 N min. | Pull strength 100 N min.</td><td>Push strength 100 N min. | Pull strength 100 N min.</td><td>Push strength 100 N min. | Pull strength 100 N min.</td></tr>
<tr><td>Nut Tightening Torque</td><td>—</td><td>1 N·m max.</td><td>—</td></tr>
<tr><td rowspan="7">Electrical Specifications</td><td>Nominal Total Resistance</td><td colspan="3">1 kΩ to 1 MΩ, 300 kΩ to 2 MΩ for taper B (Tolerance ±20 %)</td></tr>
<tr><td>Taper</td><td colspan="3">A, B, C, D, G</td></tr>
<tr><td>Power Rating</td><td colspan="3">0.05 W (0 °C to 50 °C)
For potentiometers operating in ambient temperatures above 50 °C, Rating should be derated in accordance with the figure on the right.
  </td></tr>
<tr><td>Residual Resistance</td><td colspan="3">
<table>
<tr><td rowspan="3">Standard</td><td>R < 50 kΩ</td><td>50 Ω max.</td></tr>
<tr><td>50 kΩ < R < 1 MΩ</td><td>100 Ω max.</td></tr>
<tr><td>1 MΩ < R < 2 MΩ</td><td>200 Ω max.</td></tr>
</table>
<table>
<tr><td rowspan="2">Semi-standard</td><td>A, B, D, G
T1 & T2</td><td>B, C, G
T2 & T3</td><td>A, D
T2 & T3</td><td>C
T1 & T2</td></tr>
<tr><td colspan="2">R < 2 kΩ</td><td colspan="2">2 Ω max.</td><td>20 Ω max.</td></tr>
<tr><td colspan="2">2 kΩ < R < 50 kΩ</td><td colspan="2">2 Ω max.</td><td>25 Ω max.</td></tr>
<tr><td colspan="2">50 kΩ < R < 250 kΩ</td><td colspan="2">25 Ω max.</td><td>50 Ω max.</td></tr>
<tr><td colspan="2">R >250 kΩ</td><td colspan="2">100 Ω max.</td><td>100 Ω max.</td></tr>
</table>
</td></tr>
<tr><td>Insulation Resistance</td><td colspan="3">50 MΩ min. at 250 Vdc</td></tr>
<tr><td>Dielectric Withstand Voltage</td><td colspan="3">250 Vac for 1 minute</td></tr>
<tr><td>Noise Level</td><td colspan="3">100 mV max.
Apply 20 V (When Voltage Rating < 20 V, use the rated voltage.)
Rotate shaft at 30 r/min.</td></tr>
<tr><td>Endurance</td><td>Operating Life</td><td colspan="3">10000 cycles min.</td></tr>
<tr><td colspan="2">Minimum Quantity/Packing Unit</td><td colspan="3">EVUE/EVUF : 200 pcs. Polyethylene Bag (Bulk)</td></tr>
<tr><td colspan="2">Quantity/Carton</td><td colspan="3">EVUE/EVUF : 2000 pcs.</td></tr>
</table>

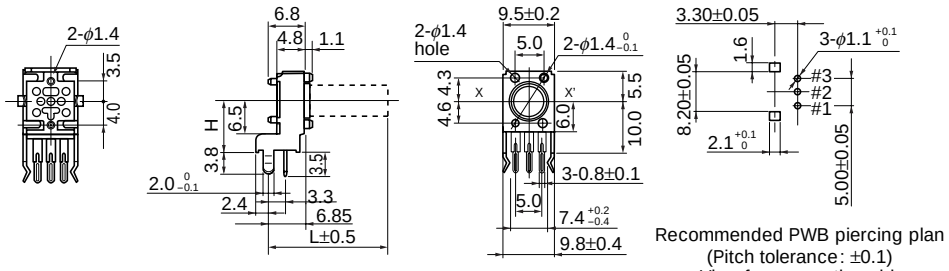
■ Dimensions in mm (not to scale)

● Single Type without Bushing — without midpoint detent: EVUE20, EVUE2A, EVUE21

Horizontal, Snap-in ····· with midpoint detent: EVUE30, EVUE3A, EVUE31

No. 1

Japan
Malaysia



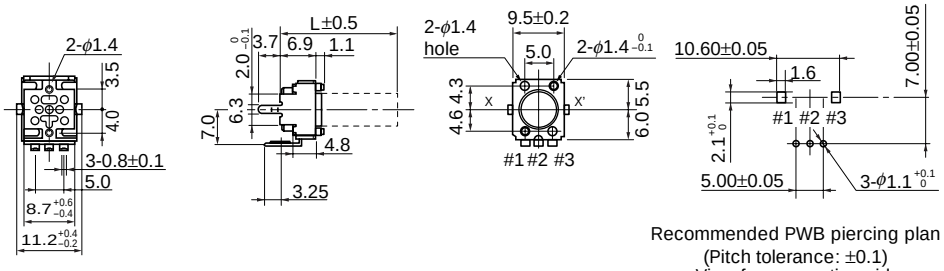
Recommended PWB piercing plan
(Pitch tolerance: ±0.1)
View from mounting side

without midpoint detent: EVUF2A

Vertical, Snap-in ····· with midpoint detent: EVUF3A

No. 2

Japan
Malaysia



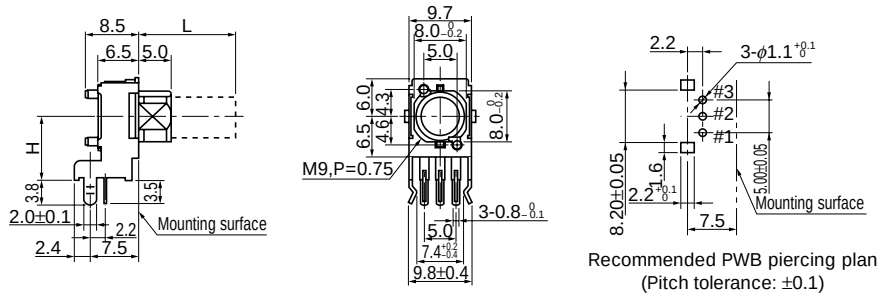
Recommended PWB piercing plan
(Pitch tolerance: ±0.1)
View from mounting side

● Single Type with Bushing — without midpoint detent: EVUE25, EVUE2J

Horizontal, Snap-in ····· with midpoint detent: EVUE35, EVUE3J

No. 3

Japan



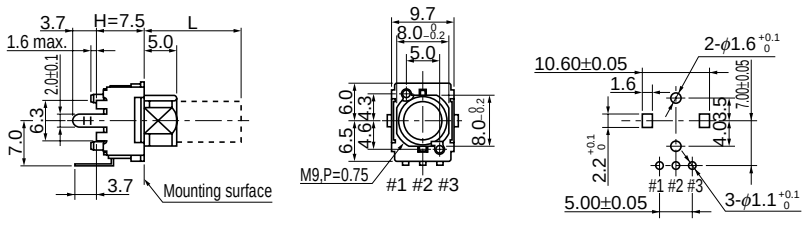
Recommended PWB piercing plan
(Pitch tolerance: ±0.1)
View from mounting side

without midpoint detent: EVUF2J

Vertical, Snap-in ····· with midpoint detent: EVUF3J

No. 4

Japan

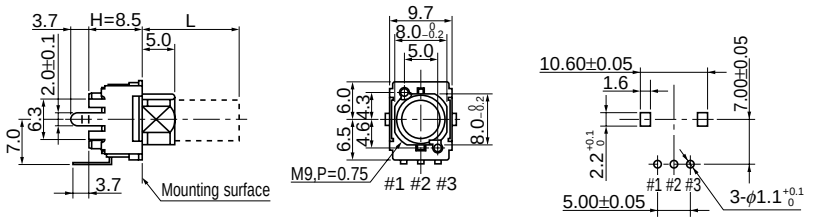


Recommended PWB piercing plan
(Pitch tolerance: ±0.1)
View from mounting side

without midpoint detent: EVUF2M
Vertical, Snap-in ····· with midpoint detent: EVUF3M

No. 5

Japan

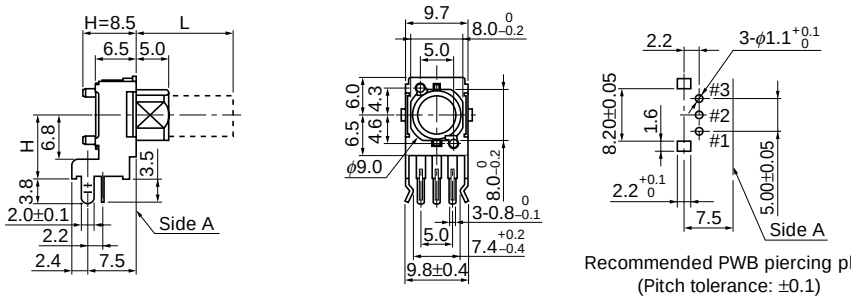


Recommended PWB piercing plan
(Pitch tolerance: ±0.1)
View from mounting side

● Single Type with Sleeve
Horizontal, Snap-in, Mounting Height H=10.0 mm ····· without midpoint detent: EVUE27, EVUE2K
with midpoint detent: EVUE37, EVUE3K

No. 6

Japan

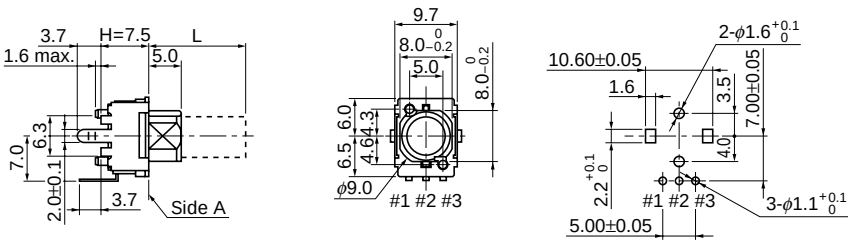


Recommended PWB piercing plan
(Pitch tolerance: ±0.1)
View from mounting side

without midpoint detent: EVUF2K
Vertical, Snap-in ····· with midpoint detent: EVUF3K

No. 7

Japan

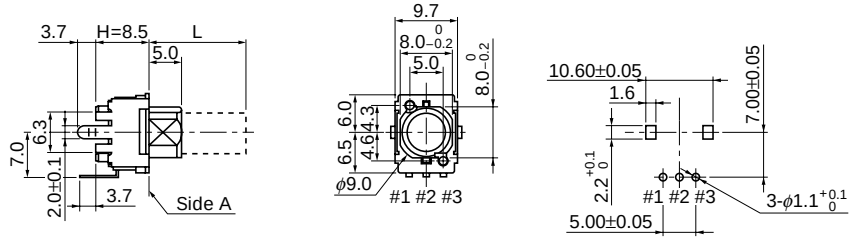


Recommended PWB piercing plan
(Pitch tolerance: ±0.1)
View from mounting side

without midpoint detent: EVUF2L
Vertical, Snap-in ····· with midpoint detent: EVUF3L

No. 8

Japan

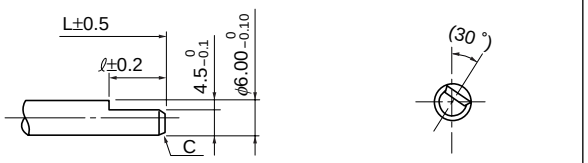


Recommended PWB piercing plan
(Pitch tolerance: ±0.1)
View from mounting side

● Shaft Trims and Dimensions in mm for Type without Bushing (Drawings are at full CCW position.)

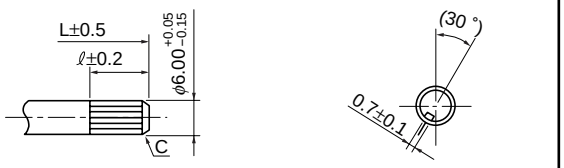
Type F (Flat)

Product No. 7·8·9 th	F15	F20	F25	F30
L	15.0	20.0	25.0	30.0
ℓ	6.0	7.0	12.0	12.0



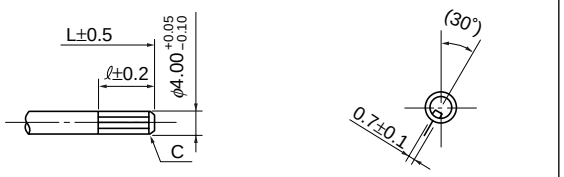
Type E (40 teeth serrations)

Product No. 7·8·9 th	E15	E17	E20	E25	E30	E35
L	15.0	(17.0)	20.0	25.0	30.0	35.0
ℓ	6.0	7.0	7.0	7.0	7.0	7.0



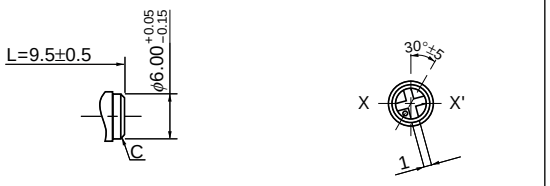
Type M (24 teeth serrations)

Product No. 7·8·9 th	M20	M25	M30	M35
L	20.0	25.0	30.0	35.0
ℓ	7.0	7.0	7.0	7.0



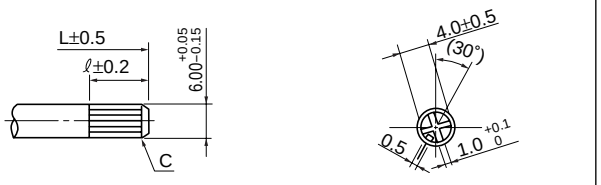
Type S (with screw slot)

Product No. 7·8·9 th	S01
L	9.5
ℓ	–



Type H (40 teeth serrations, with screw slot)

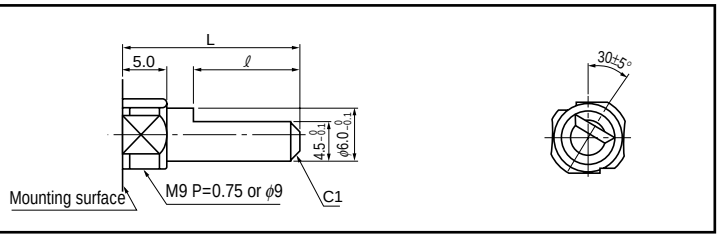
Product No. 7·8·9 th	H15	H20	H25
L	15.0	20.0	25.0
ℓ	6.0	7.0	7.0



● Shaft Trims and Dimensions in mm for Types with Bushing or Sleeve (Drawings are at full CCW position.)

Type F (Flat)

Product No. 7·8·9 th	FK1	FK3	FK4	FK5	FL3	FK6
L	12.5	15.0	17.5	20.0	21.5	22.5
ℓ	7.0	7.0	12.0	12.0	12.0	12.0



Note: When you have special requirements other than the above, consult our salesmen.