

### 9 mm Square Rotary Potentiometers with Insulated Shaft

Japan  
Malaysia

Type: **EVUE/EVUF**

#### ■ 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

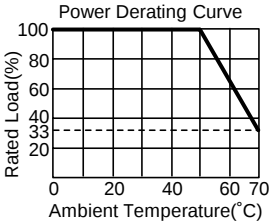
|              |          |          |                      |   |                          |   |   |   |                    |    |    |
|--------------|----------|----------|----------------------|---|--------------------------|---|---|---|--------------------|----|----|
| 1            | 2        | 3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

#### ■ Product Chart

| Construction | Style           | Height<br>(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 |

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.  
Should a safety concern arise regarding this product, please be sure to contact us immediately.

## ■ Specifications

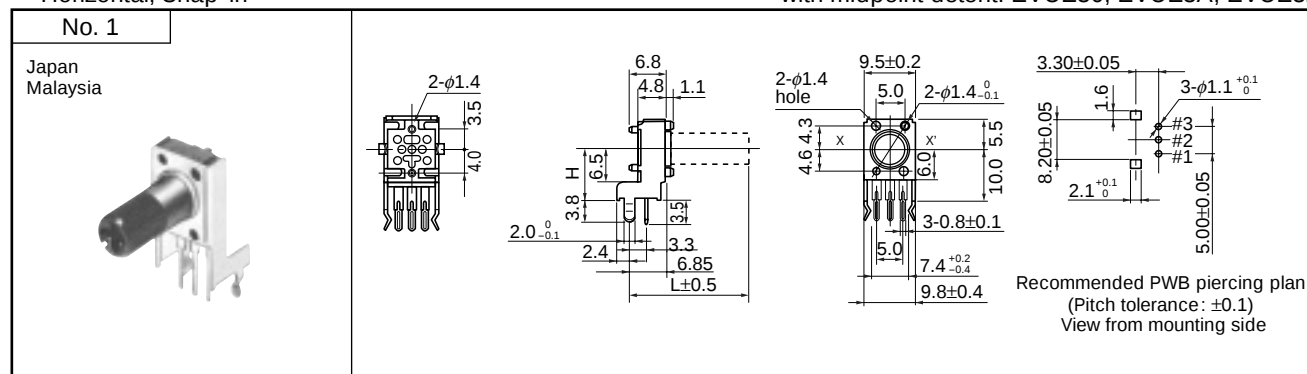
| Classification                | Item                                                                                                        | Type without bushing                                                                                                                                        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

■ Dimensions in mm (not to scale)

● Single Type without Bushing

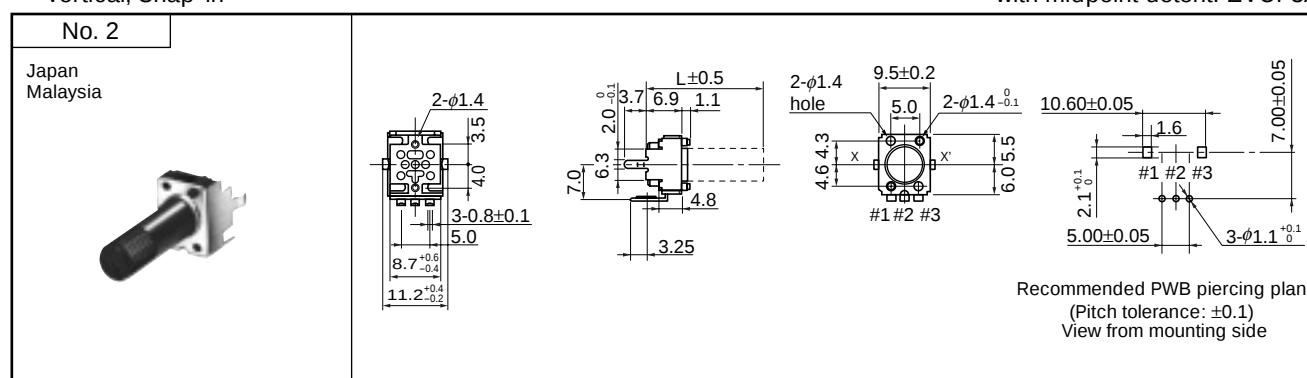
Horizontal, Snap-in ..... without midpoint detent: EVUE20, EVUE2A, EVUE21

..... with midpoint detent: EVUE30, EVUE3A, EVUE31



without midpoint detent: EVUF2A

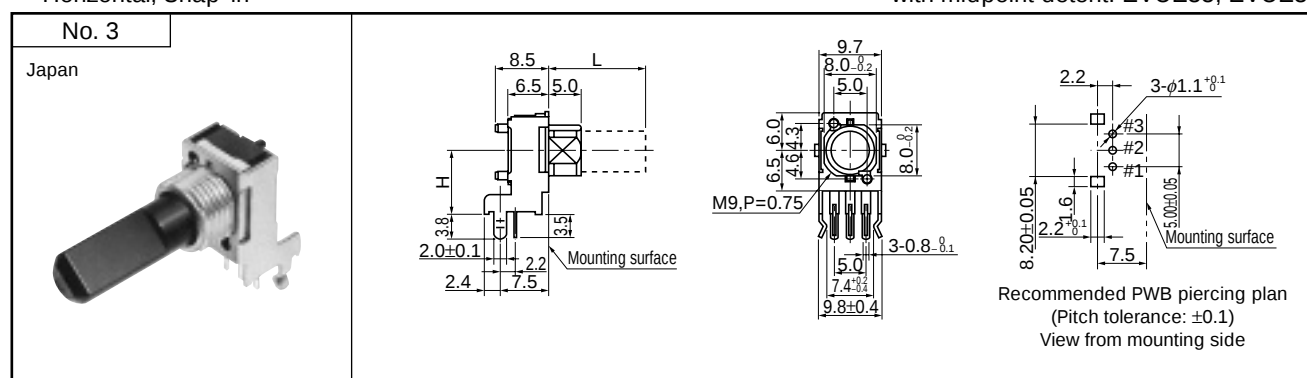
Vertical, Snap-in ..... with midpoint detent: EVUF3A



● Single Type with Bushing

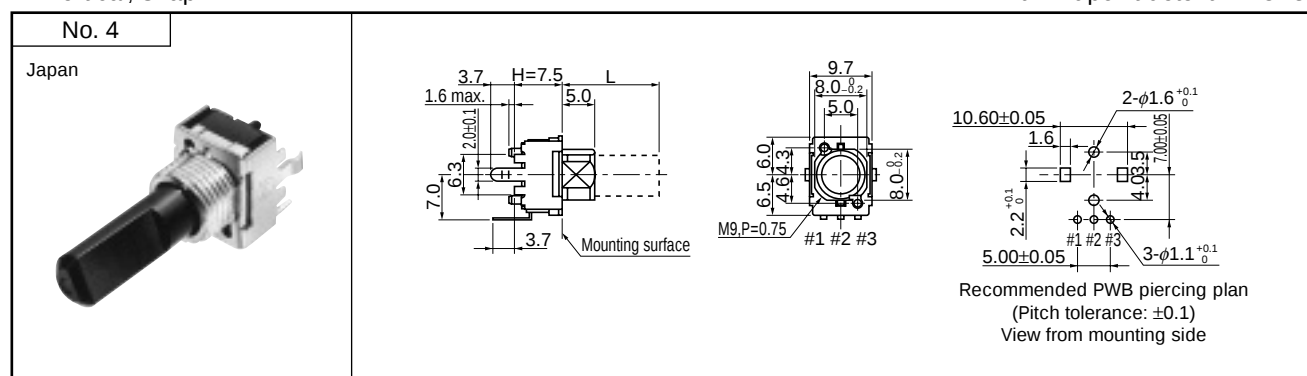
Horizontal, Snap-in ..... without midpoint detent: EVUE25, EVUE2J

..... with midpoint detent: EVUE35, EVUE3J



without midpoint detent: EVUF2J

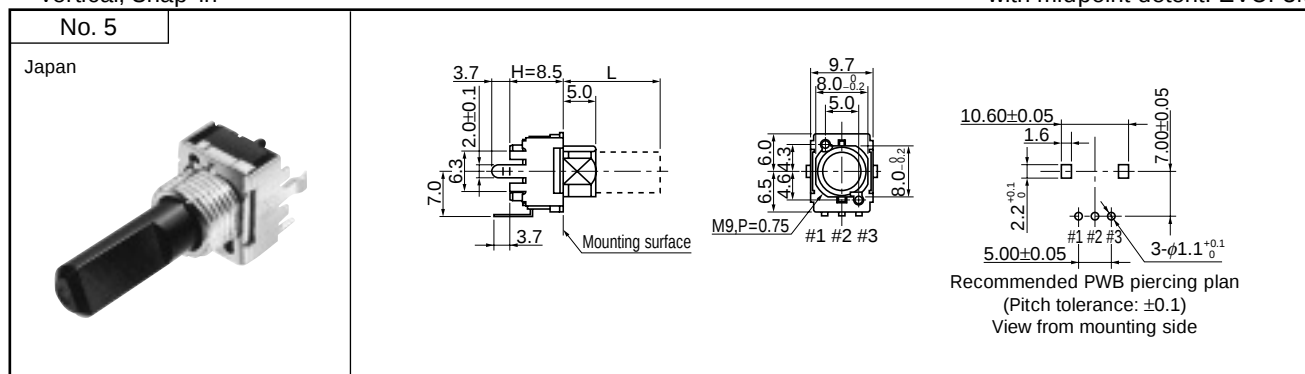
Vertical, Snap-in ..... with midpoint detent: EVUF3J



Vertical, Snap-in

without midpoint detent: EVUF2M

with midpoint detent: EVUF3M

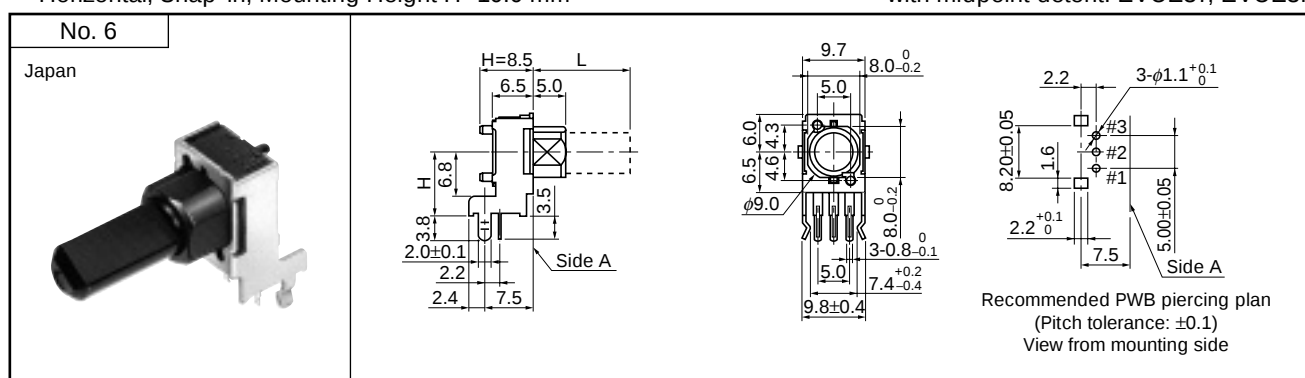


### ● Single Type with Sleeve

Horizontal, Snap-in, Mounting Height H=10.0 mm

without midpoint detent: EVUE27, EVUE2K

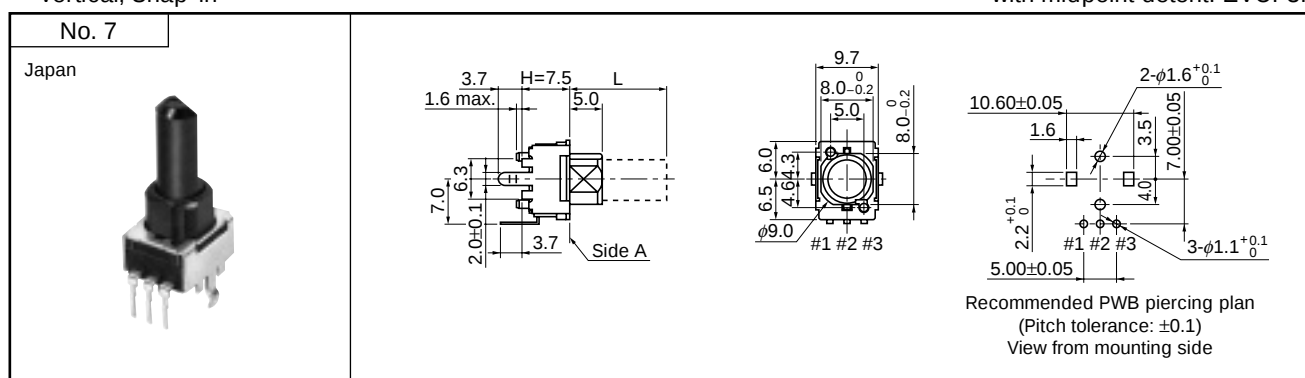
with midpoint detent: EVUE37, EVUE3K



Vertical, Snap-in

without midpoint detent: EVUF2K

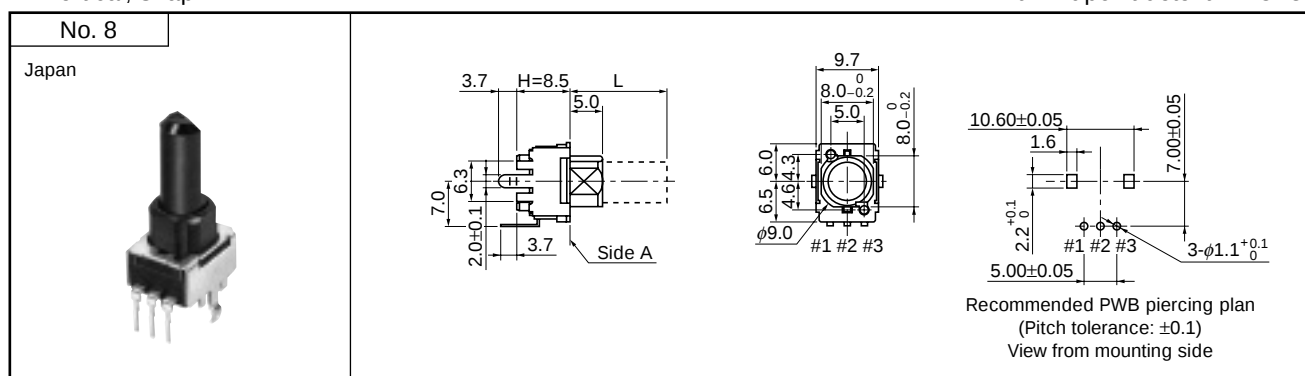
with midpoint detent: EVUF3K



Vertical, Snap-in

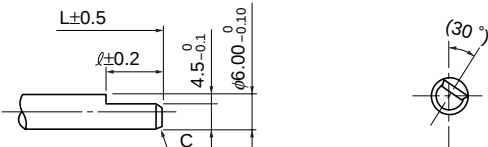
without midpoint detent: EVUF2L

with midpoint detent: EVUF3L

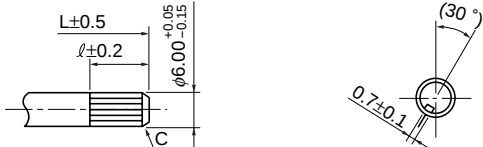


● Shaft Trims and Dimensions in mm for Type without Bushing (Drawings are at full CCW position.)

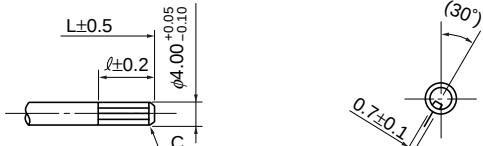
Type F (Flat)

| Product No.<br>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 |                                                                                    |

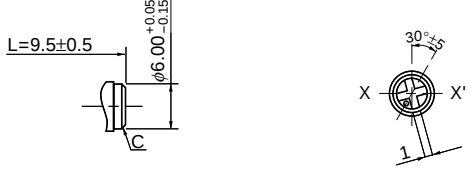
Type E (40 teeth serrations)

| Product No.<br>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  |                                                                                    |

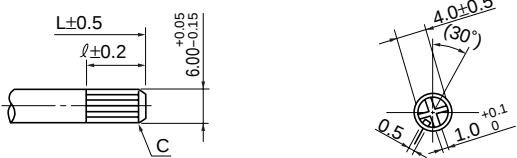
Type M (24 teeth serrations)

| Product No.<br>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)

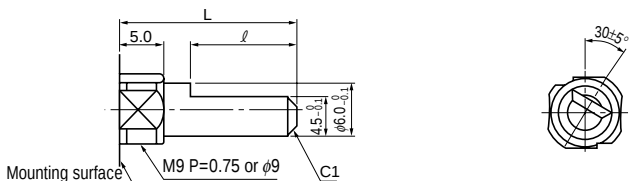
| Product No.<br>7-8-9 th | S01 |  |
|-------------------------|-----|--------------------------------------------------------------------------------------|
| L                       | 9.5 |                                                                                      |
| ℓ                       | —   |                                                                                      |

Type H (40 teeth serrations, with screw slot)

| Product No.<br>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.<br>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.