

9mm Rotary Encoder

Type DP09 Series

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9mm Rotary incremental encoder for use in electronic equipment. Can be supplied with or without switch with customisation to standard options

Key Features

- 9mm Rotary Encoder
- Incremental Type
- Push on Switch Option
- Various Shaft Lengths
- Pulse Options
- Detent Options

Characteristics - Electrical

| | |
|-------------------------------------|----------------------------------|
| Pulses: | 12 & 15 |
| Contact Rating: | 10mA 5VDC |
| Dielectric Strength: | 300VAC / 1mA, 1 minute |
| Insulation Resistance (min): | 100M ohms at 250VAC |
| Operating Speed (RPM): | 60 RPM |
| Switch Power Rating (where fitted): | 12VDC, 0.5A |
| Switch Contact Resistance: | 100m ohm |
| Electrical Travel: | Continuous |
| Rotational Noise: | t2 = 5.0ms max (see below) |
| Chattering: | t1 & t3 = 5.0 ms max (see below) |



Code Off area V = 3.5V or more. Code on area V=1.5V or less

Characteristics - Mechanical

| | |
|---------------------------------------|--------------------------|
| Total Mechanical Travel: | Continuous |
| Detents: | 0, 12, 24, 30 |
| Switch Operating Force: | 400 + 400/- 200 gf |
| Switch Travel: | 1.5mm |
| Shaft Type: | F – Flatted, K – Knurled |
| Shaft Length (from Mounting Surface): | 15, 20, 25, 30 |

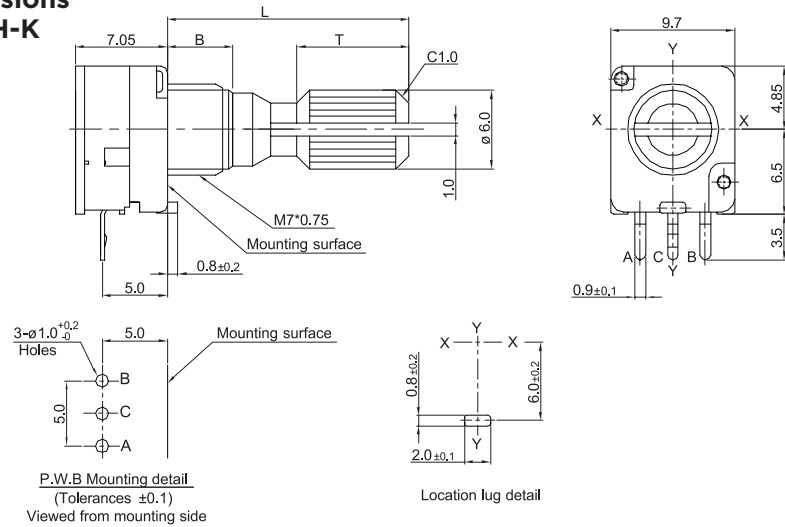
Characteristics - Environmental

| | |
|-----------------------|---------------------|
| Operating Temperature | -10 - +65 degrees C |
| Rotational Life | 30,000 Cycles |

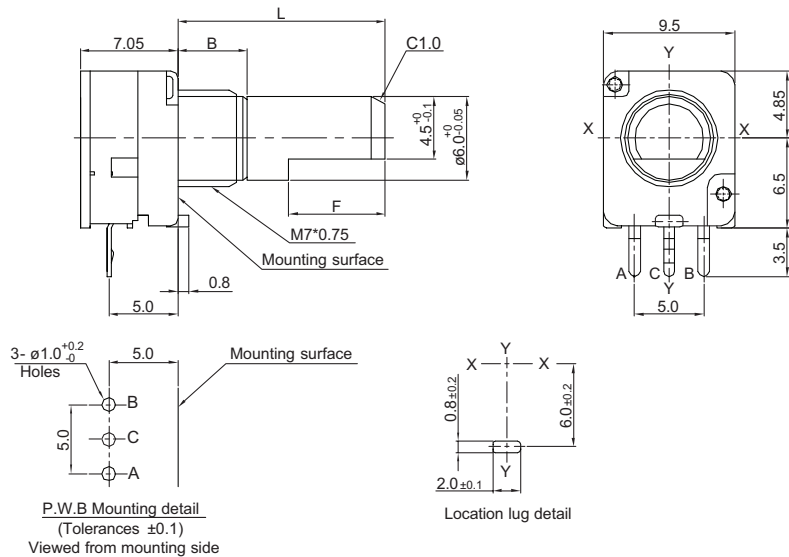
Output Signal Format

| Shaft Rotational Direction | Signal | Format |
|----------------------------|------------------|---|
| Clockwise | A (Terminal A-C) | OFF  ON  |
| | B (Terminal B-C) | OFF  ON  |
| Anticlockwise | A (Terminal A-C) | OFF  ON  |
| | B (Terminal B-C) | OFF  ON  |

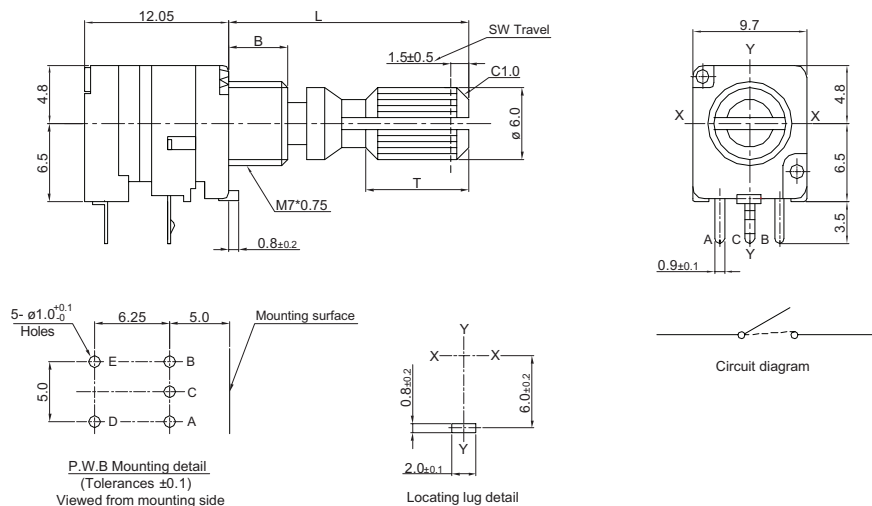
Dimensions DP09H-K



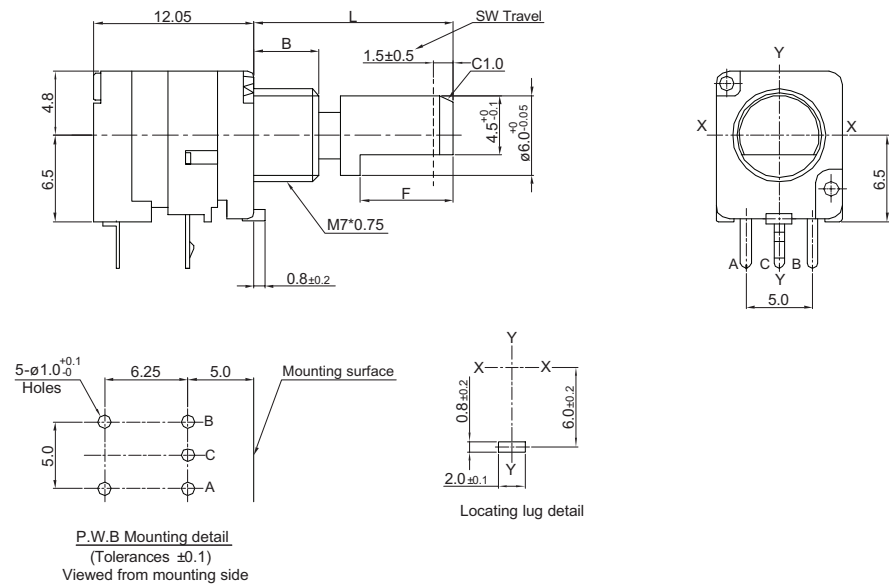
DP09H-F



DP09SH-K



Dimensions DP09SH-F



Shaft Dimensions

| Shaft | Dim. | | | | |
|-------|------|----|----|----|----|
| K | L | 15 | 20 | 25 | 30 |
| | T | 7 | 12 | 12 | 14 |
| F | L | 15 | 20 | 25 | 30 |
| | F | 7 | 12 | 12 | 12 |
| B | B | 5 | 7 | — | — |

How to Order

| DP09 | H | 24 | 12 | A | 20 | K |
|---|----------------|--|----------------------------------|---|--|----------------------------|
| Common Part | Orientation | Detent | Pulses | Bush Details | Shaft Length | Shaft Style |
| DP09 – No Switch DP09S – With Switch | H - Horizontal | N - None 12 – 12 clicks 24 – 24 clicks 30 – 30 clicks | 12 – 12 Pulses 15 – 15 Pulses | A – M7 x 5mm B – M7 x 7mm (standard) | 15 – 15mm FMF 20 – 20mm FMF 25 – 25mm FMF 30 – 30mm FMF | K - Knurled F - Flatted |

Mouser Electronics

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[DP09SHN15A30K](#)