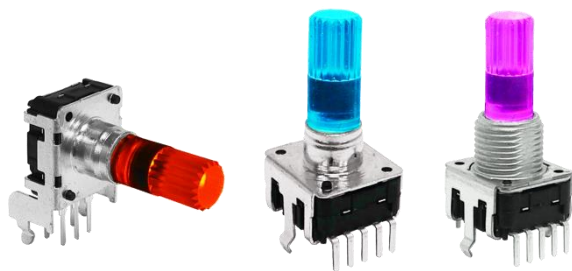


### ◆FEATURE

- High-precision rotary type encoder.
- Compact design, long life and high reliability.
- High brightness for working in darkness.

### ◆APPLICATIONS

- All kinds of level control, tuning and timer setting in audio-visual equipment, ordinary household electric appliances, radio equipment, communications equipment, etc.



### ◆COMMON SPECIFICATIONS

Pulse	Number of detent	Phase difference (msec)	Chattering (msec)	Sliding noise (msec)	Insulation resistance	Dielectric strength	Detent torque (gf · cm)	Rotational life (cycle)
12	0	4	3	2	250V DC 100MΩ MIN	300V AC 1 min	30~200 (0 DETENT: 50gf · cm以下)	30,000
	12							
	24							
24	0	3.5	3	2				
	24							

### ◆SWITCH SPECIFICATIONS

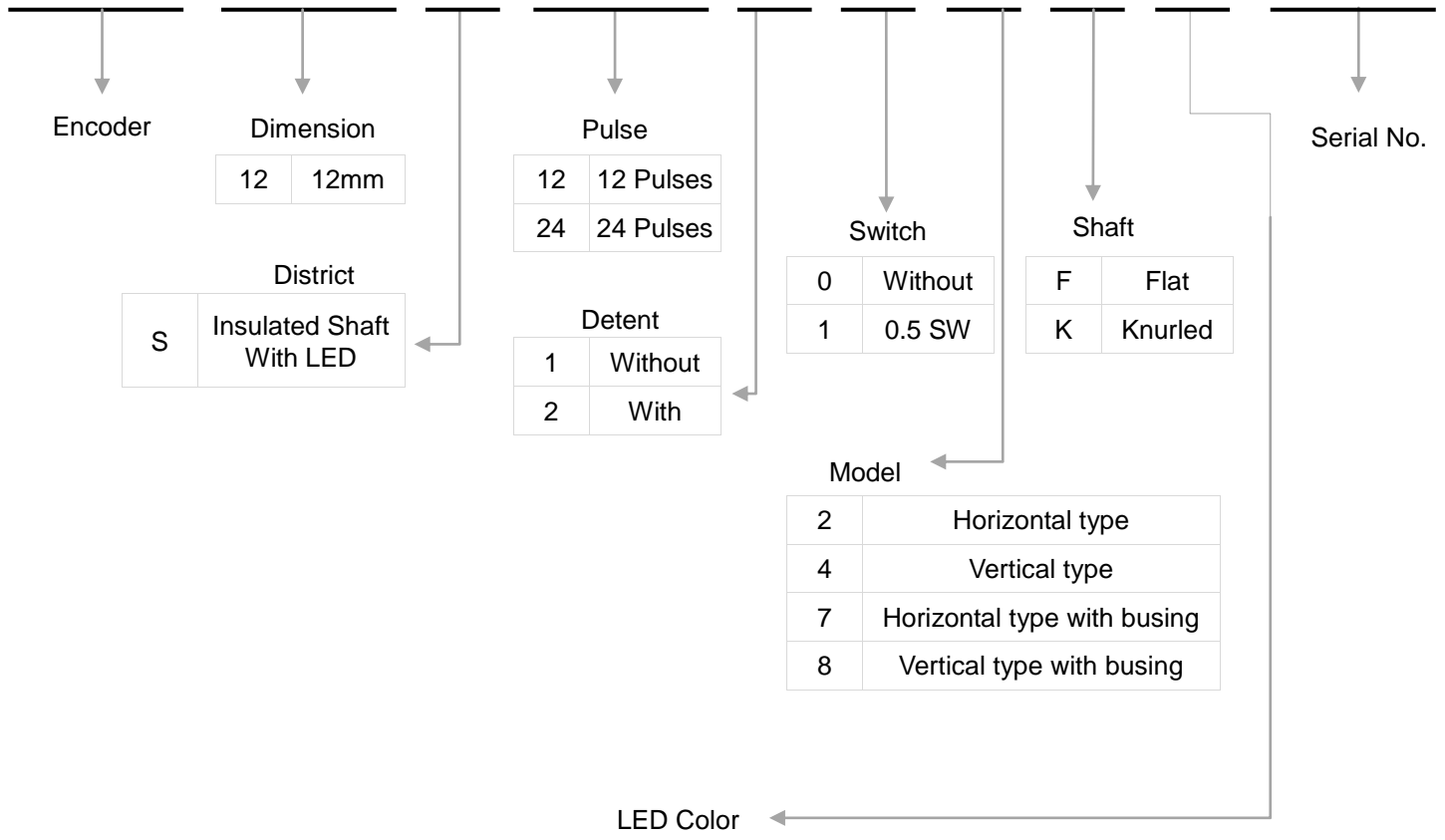
Rating	Contact resistance	Insulation resistance	Dielectric strength	Contact arrangement	Travel of switch (mm)	Operating force (gf)	Operating life (cycle)
DC 5V 10 mA	100 mΩ	250V DC 100MΩ MIN	300V AC 1 min	PUSH ON	0.5 +0/-0.3	450±200	20,000

### ◆LED SPECIFICATIONS

Emitted color		
Single color LED	Two colors LED	Three colors LED
Red	Blue / Orange	Red / Green / Blue
Lawngreen	Green / Red	
Blue	Blue / Green	
Orange	Green / Orange	
White	Blue / Red	
Green	White / Red	
Darkorange	White / Green	

### ◆ PRODUCT NUMBERING SYSTEM

D	C	1	2	S	2	4	2	1	4	K	A	0	1
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Single Color		Two Colors		Three Colors	
0	Red	A	Blue / Orange	M	Red / Green / Blue
1	Lawn green	B	Green / Red		
2	Blue	C	Blue / Green		
3	Orange	E	Green / Orange		
4	White	F	Blue / Red		
5	Green	I	White/ Red		
6	Dark orange	J	White/ Green		

### ◆ STANDARD DIMENSION OF SHAFT AND BUSHING


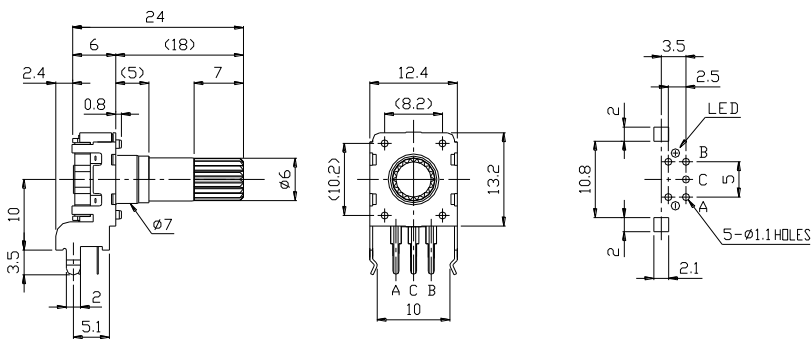

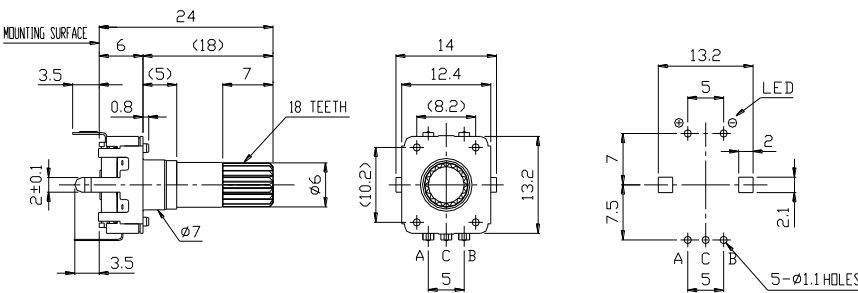
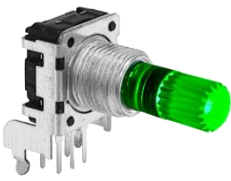
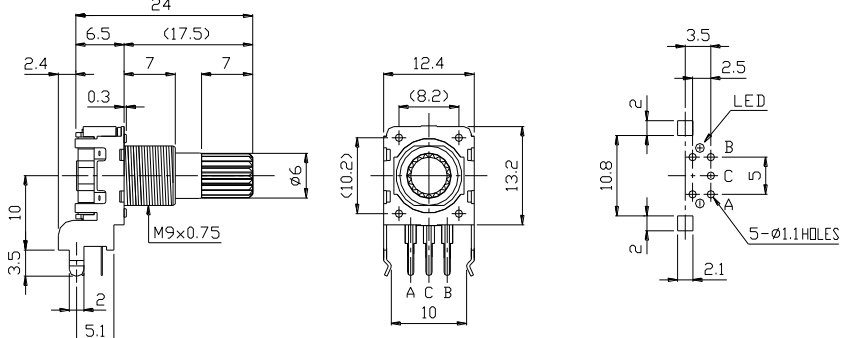

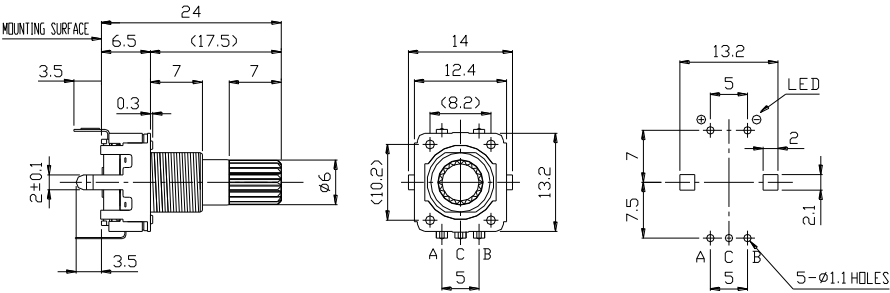
#### Knurled Type

With single colors LED	With single colors of LED & 0.5mm Switch Stroke With two colors of LED & 0.5mm Switch Stroke With three colors of LED & 0.5mm Switch Stroke	With Bushing (With single colors LED)			With Bushing (With single colors of LED & 0.5mm Switch Stroke) (With two colors of LED & 0.5mm Switch Stroke) (With two colors of LED & 0.5mm Switch Stroke)		
LM	LM	LM	LB	L1	LM	LB	L1
20	21.3	20	5	13.5	21.3	5	13.5
24	25.3	24	7	17.5	25.3	7	17.5

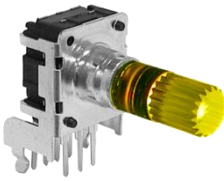
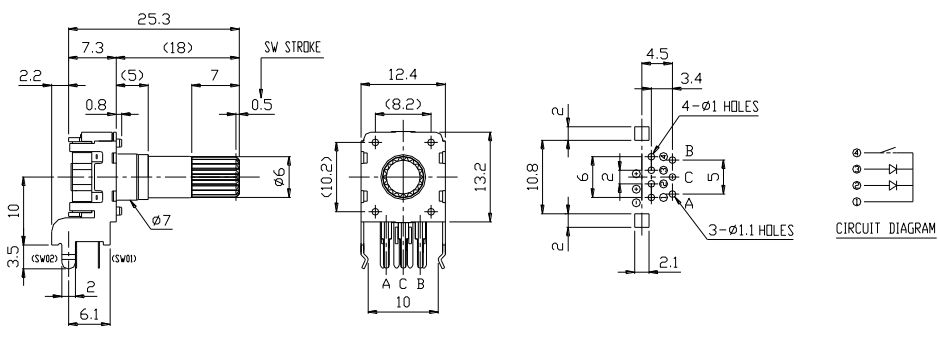

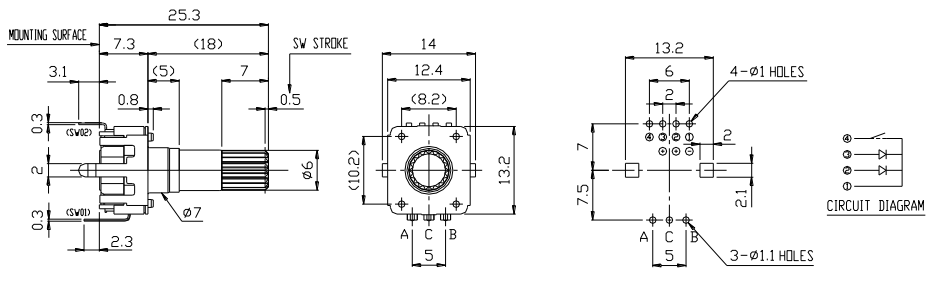
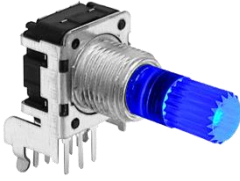
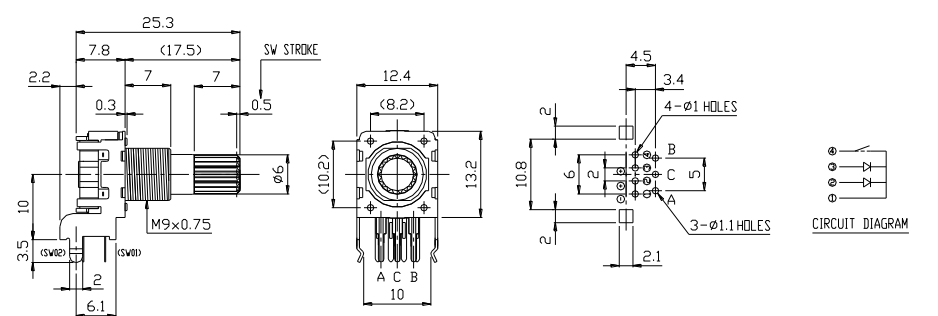

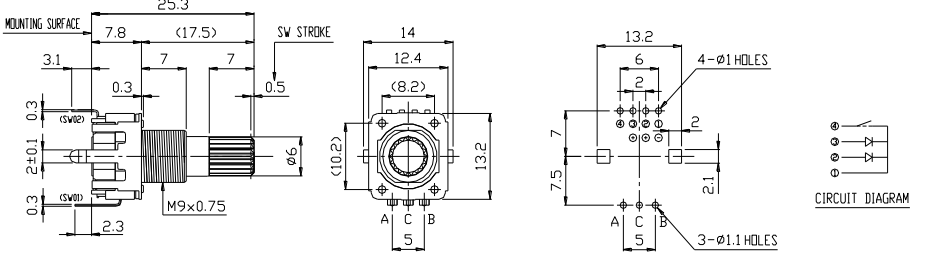
#### Flat Type

With single colors LED	With single colors of LED & 0.5mm Switch Stroke With two colors of LED & 0.5mm Switch Stroke With three colors of LED & 0.5mm Switch Stroke	With Bushing (With single colors LED)				With Bushing (With single colors of LED & 0.5mm Switch Stroke) (With two colors of LED & 0.5mm Switch Stroke) (With two colors of LED & 0.5mm Switch Stroke)					
LM	L1	LM	L1	LM	LB	L1	L2	LM	LB	L1	L2
17.5	5	18.8	5	17.5	5	11	5	18.8	5	11	5
20	7	21.3	7	20	5	13.5	7	21.3	5	13.5	7
25	12	26.3	12	25	5	18.5	12	26.3	5	18.5	12
30	12	31.3	12	30	7	23.5	12	31.3	7	23.5	12


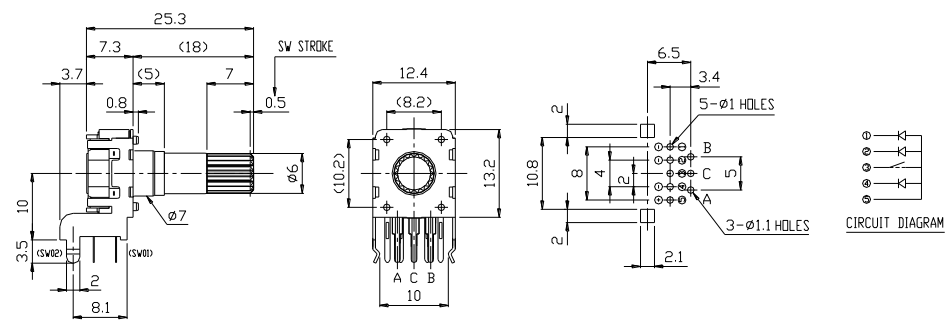

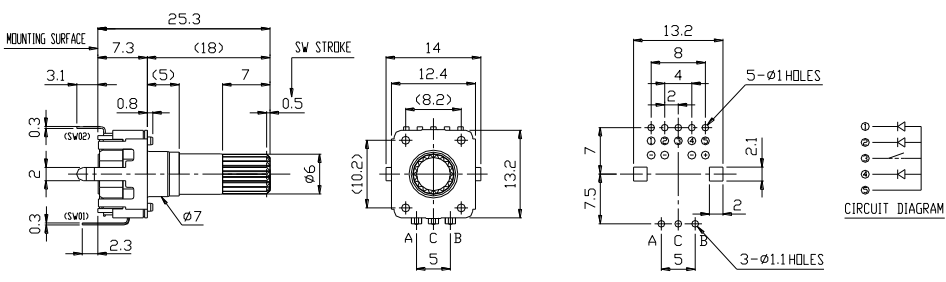
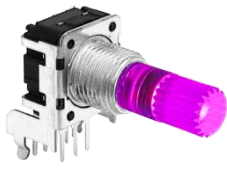
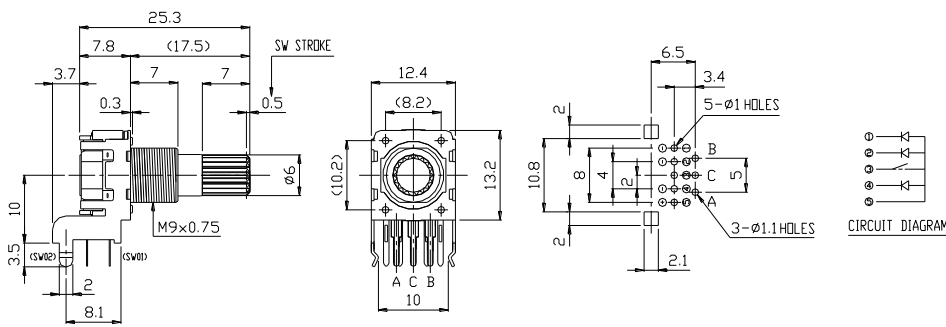
DIMENSION Unit : mm

Model	Dimensions
<p><b>DC12S24202</b> with single LED horizontal type</p> 	 <p>Side view dimensions: 24 (total length), 6 (mounting offset), 18 (encoder length), 2.4 (mounting offset), 0.8 (mounting offset), 7 (encoder length), 10 (total height), 3.5 (mounting offset), 2 (mounting offset), 5.1 (mounting offset), <math>\phi 7</math> (shaft diameter), <math>\phi 6</math> (output diameter).</p> <p>Front view dimensions: 12.4 (width), 8.2 (width), 13.2 (height), 10.2 (width), 10 (width), A C B (output positions).</p> <p>LED layout view dimensions: 3.5 (LED offset), 2.5 (LED offset), 10.8 (total width), 2 (mounting offset), 2 (mounting offset), 2.1 (mounting offset), 5-<math>\phi 1.1</math> HOLES (LED holes), LED (LED position), B (output position), C (output position), A (output position), 5 (output offset).</p>
<p><b>DC12S24204</b> with single LED vertical type</p> 	 <p>Side view dimensions: 24 (total length), 6 (mounting offset), 18 (encoder length), 3.5 (mounting offset), 0.8 (mounting offset), 7 (encoder length), 18 TEETH (teeth count), <math>\phi 6</math> (output diameter), 2<math>\pm 0.1</math> (mounting offset), 3.5 (mounting offset), MOUNTING SURFACE (mounting surface).</p> <p>Front view dimensions: 14 (width), 12.4 (width), 8.2 (width), 13.2 (height), 10.2 (width), 5 (width), A C B (output positions).</p> <p>LED layout view dimensions: 13.2 (total width), 5 (LED offset), 7.5 (total width), 7 (total width), 2.1 (mounting offset), 5-<math>\phi 1.1</math> HOLES (LED holes), LED (LED position), B (output position), C (output position), A (output position), 5 (output offset).</p>
<p><b>DC12S24207</b> with single LED &amp; with bushing horizontal type</p> 	 <p>Side view dimensions: 24 (total length), 6.5 (mounting offset), 17.5 (encoder length), 2.4 (mounting offset), 0.3 (mounting offset), 7 (encoder length), 7 (encoder length), 10 (total height), 3.5 (mounting offset), 2 (mounting offset), 5.1 (mounting offset), <math>\phi 6</math> (output diameter), M9<math>\times 0.75</math> (bushing).</p> <p>Front view dimensions: 12.4 (width), 8.2 (width), 13.2 (height), 10.2 (width), 10 (width), A C B (output positions).</p> <p>LED layout view dimensions: 3.5 (LED offset), 2.5 (LED offset), 10.8 (total width), 2 (mounting offset), 2 (mounting offset), 2.1 (mounting offset), 5-<math>\phi 1.1</math> HOLES (LED holes), LED (LED position), B (output position), C (output position), A (output position), 5 (output offset).</p>
<p><b>DC12S24208</b> with single LED &amp; with bushing vertical type</p> 	 <p>Side view dimensions: 24 (total length), 6.5 (mounting offset), 17.5 (encoder length), 3.5 (mounting offset), 0.3 (mounting offset), 7 (encoder length), 7 (encoder length), 2<math>\pm 0.1</math> (mounting offset), 3.5 (mounting offset), MOUNTING SURFACE (mounting surface), <math>\phi 6</math> (output diameter).</p> <p>Front view dimensions: 14 (width), 12.4 (width), 8.2 (width), 13.2 (height), 10.2 (width), 5 (width), A C B (output positions).</p> <p>LED layout view dimensions: 13.2 (total width), 5 (LED offset), 7.5 (total width), 7 (total width), 2.1 (mounting offset), 5-<math>\phi 1.1</math> HOLES (LED holes), LED (LED position), B (output position), C (output position), A (output position), 5 (output offset).</p>

**DIMENSION**Unit : mm

Model	Dimensions
<p><b>DC12S24212</b> With two colors of LED &amp; push on switch –0.5sw horizontal type</p> 	
<p><b>DC12S24214</b> With two colors of LED &amp; push on switch –0.5sw vertical type</p> 	
<p><b>DC12S24217</b> With two colors of LED &amp; push on switch –0.5sw &amp; with bushinghorizontal type</p> 	
<p><b>DC12S24218</b> With two colors of LED &amp; push on switch –0.5sw &amp; with bushingvertical type</p> 	

DIMENSION Unit : mm

Model	Dimensions
<p><b>DC12S24212KM</b> With three colors of LED &amp; push on switch –0.5sw horizontal type</p> 	
<p><b>DC12S24214KM</b> With three colors of LED &amp; push on switch –0.5sw vertical type</p> 	
<p><b>DC12S24217KM</b> With three colors of LED &amp; push on switch –0.5sw &amp; with bushing horizontal type</p> 	
<p><b>DC12S24218KM</b> With three colors of LED &amp; push on switch –0.5sw &amp; with bushing vertical type</p> 