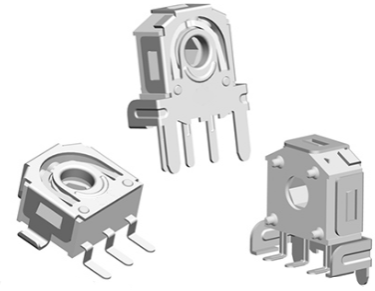


5 mm Encoder

EN05 Series



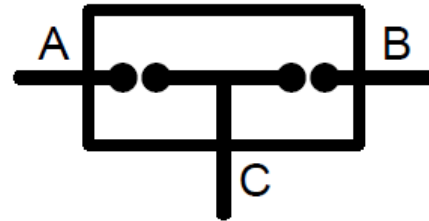
Features:

- Compact design
- 2 bits gray code
- Incremental/contacting type
- Plastic Hollow Shaft
- Vertical and Horizontal mount versions



Description:

5 mm encoder is the smallest available. It is a good fit for various small electronic applications such as frequency modulation, volume adjustment, and function switching.



Applications:

- Mice
- Earphones
- Radios
- Electronic toys
- E-cigarettes

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Output	2 Bits Gray Code
Pulses (Per Revolution)	12
Phase Difference	$0.15T \pm 0.1T$
Power Rating	5 Vdc / 10 mA
Insulation Resistance	50M Ω 1 Minute at 50 Vdc Max.
Dielectric Strength	1 Minute at 50 Vac
Chattering	5 ms maximum
Bounce	5 ms maximum

General Note

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5 mm Encoder

EN05 Series



Encoder Characteristics

T_A = 25°C unless otherwise noted

Rotation	360° continuous
Rotational Torque	10-80 gf.cm
Detents per Rotation	12
Detent Torque	42 ±38 gf.cm
Rotational Life	100,000 Cycles Min.

Environmental Characteristics

T_A = 25°C unless otherwise noted

Operating Temperature	-40°C to +85°C
IP Rating	IP 40
Soldering Condition	Wave/Reflow Soldering 260°C maximum for 1-3 seconds Hand Soldering 350°C maximum for 3 seconds
RoHS	Please refer to TT Electronics website
REACH	Please refer to TT Electronics website

Ordering

EN05 HS 12 12 N HH

Part Family

Style

HS = Top Adjust, Surface Mount
VS = Side Adjust, Surface Mount
VT = Side Adjust, Thru Hole

Pulses/360°

12 = 12 pulses

Detent/Rotation

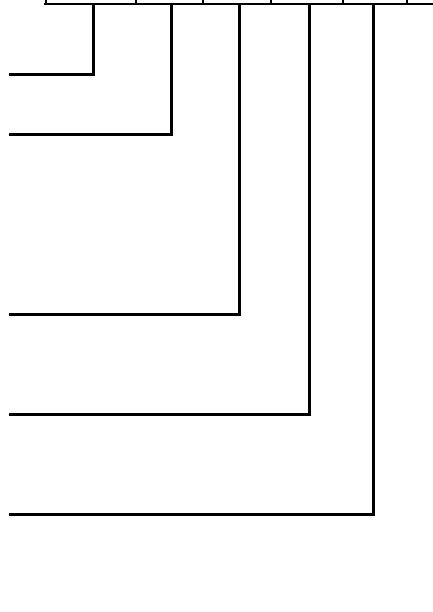
12 = 12/360°

Switch Option

N = No Switch

Shaft Style

HH = Hollow Hex Shaft



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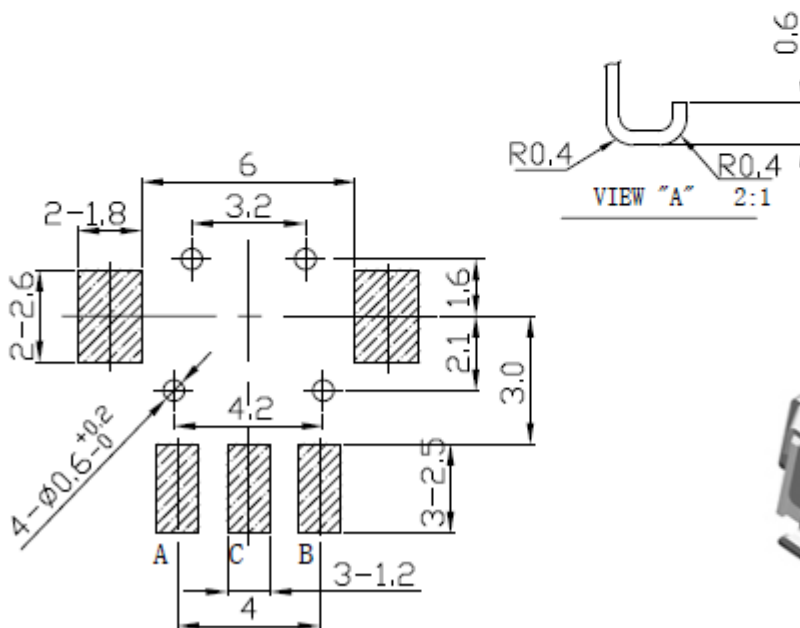
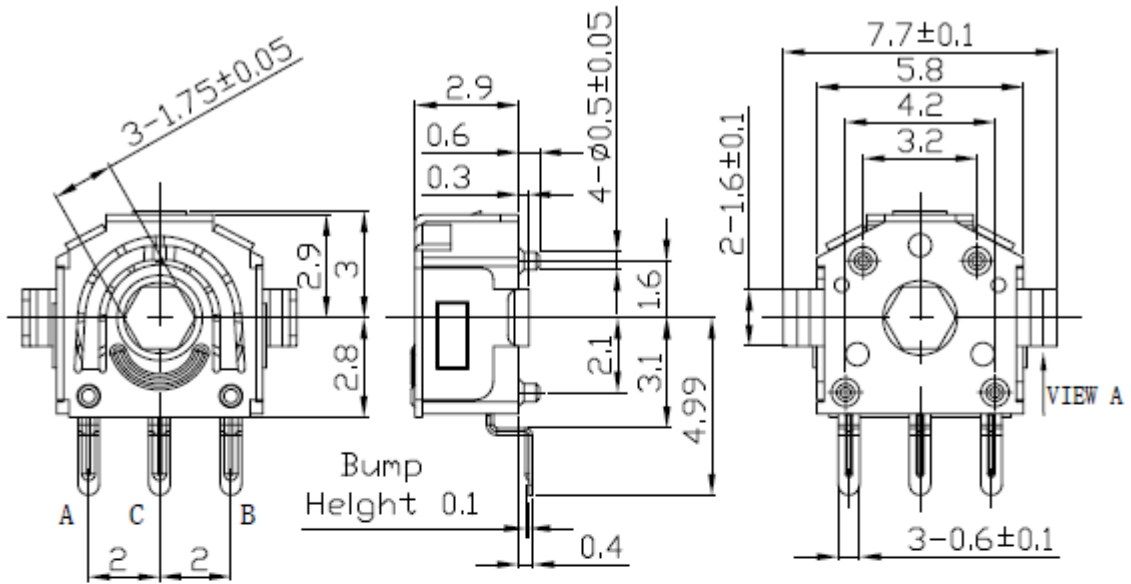
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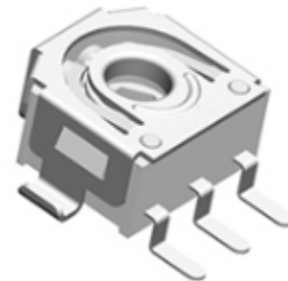
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Outline Drawings

EN05HS1212NHH - Top Adjust, Surface Mount

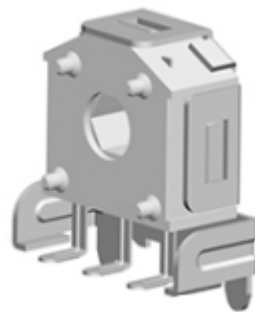
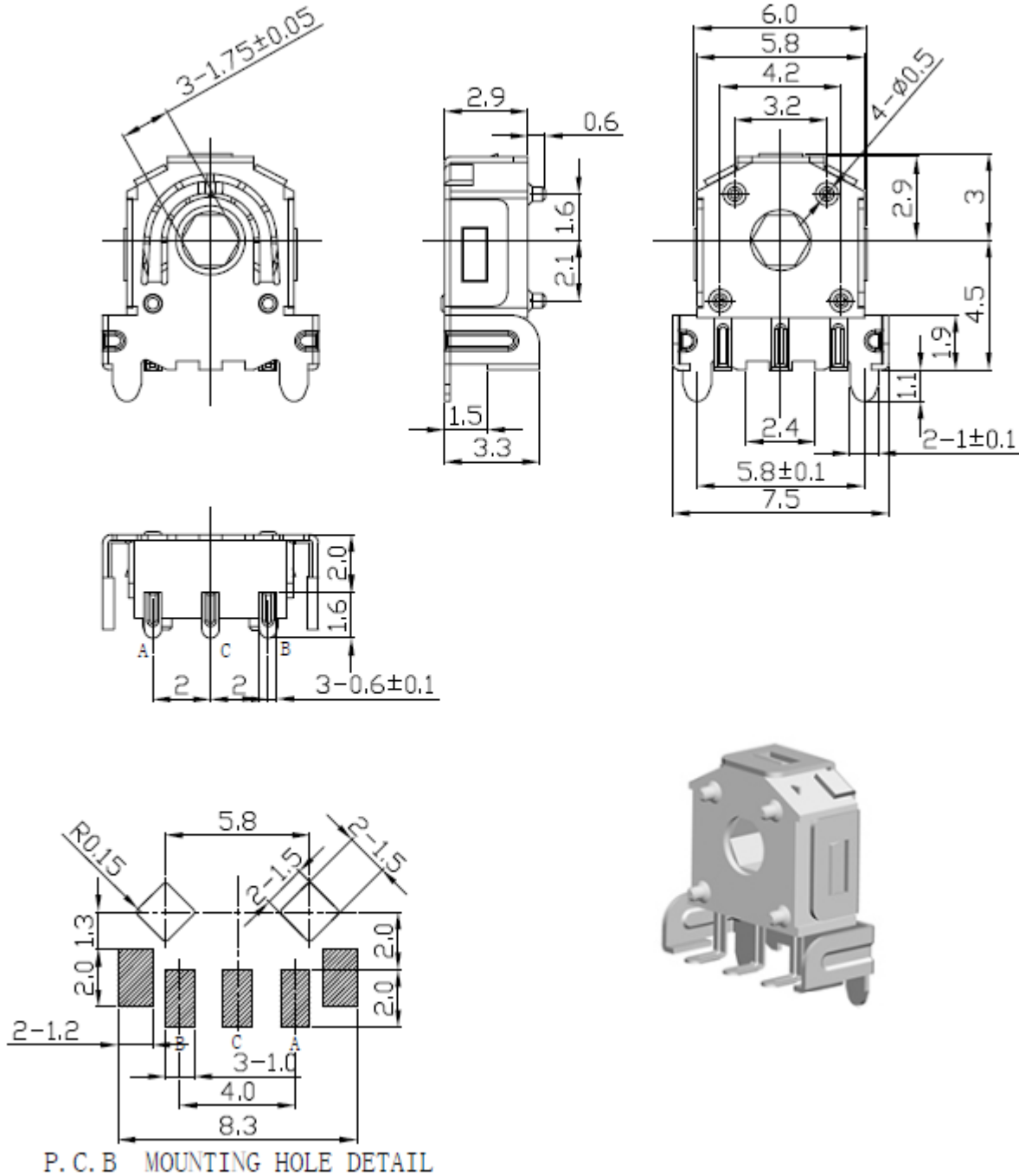


P. C. B Mounting Holes Detail



Outline Drawings

EN05VS1212NHH - Side Adjust, Surface Mount



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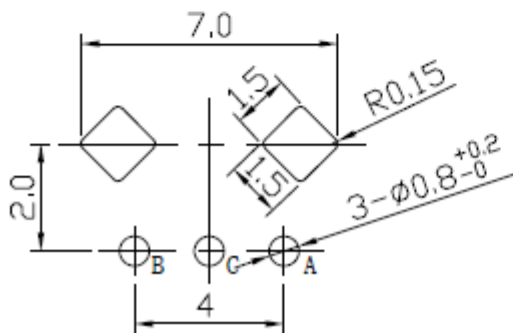
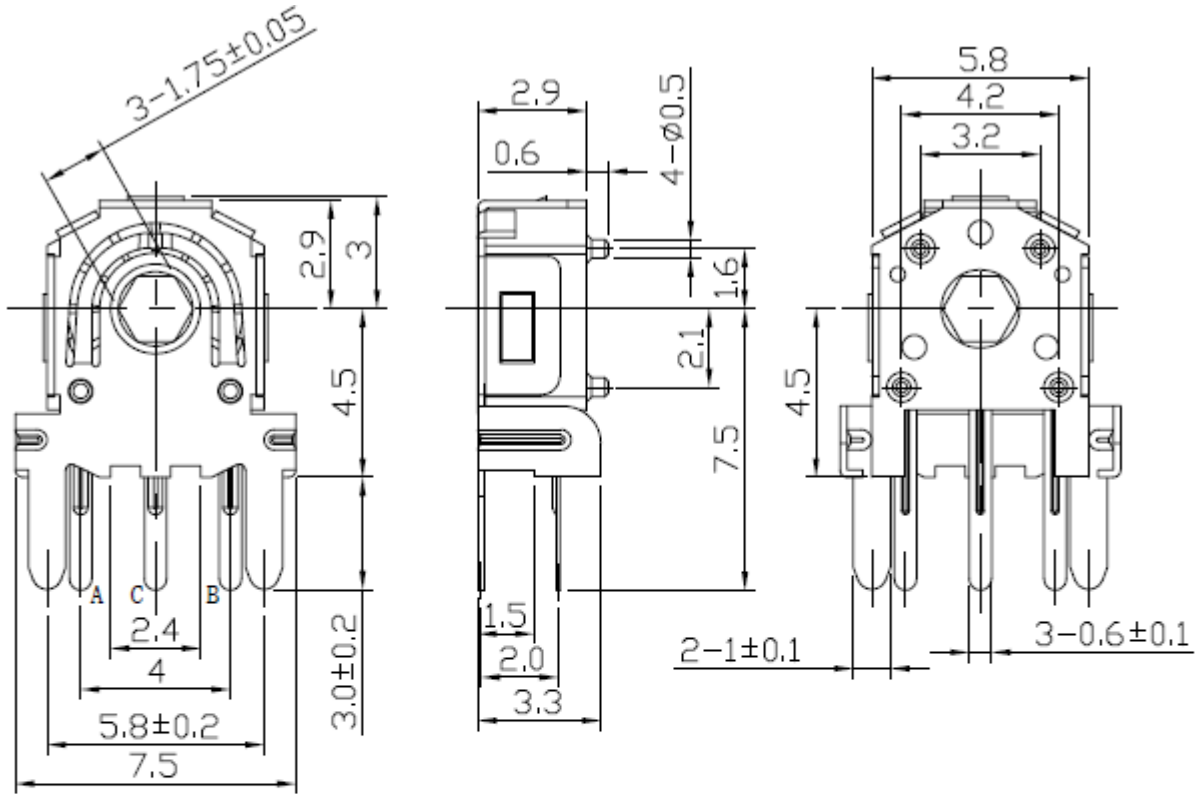
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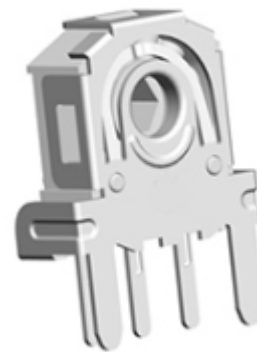
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Outline Drawings

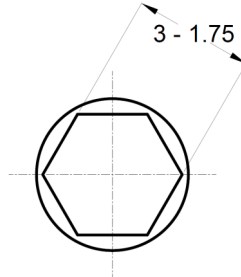
EN05VT1212NHH - Side Adjust, Thru Hole



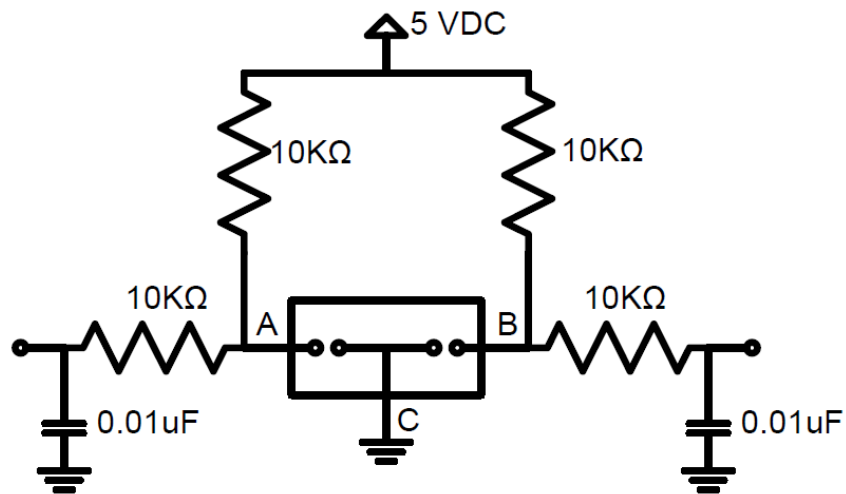
P.C.B Mounting Holes Detail



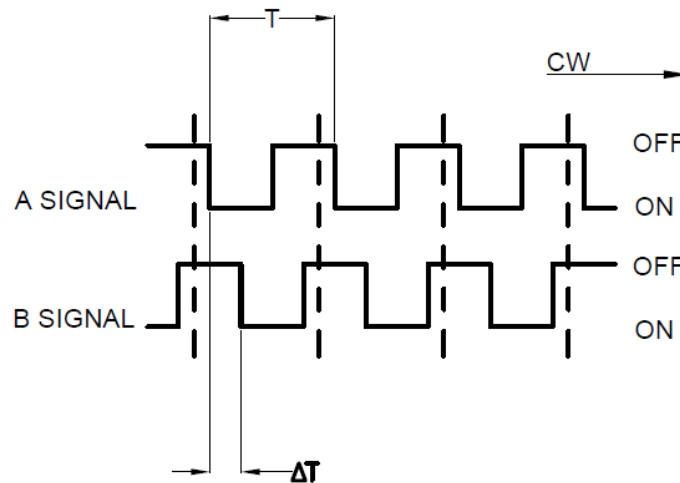
Shaft Detail



Recommended Filter Schematic



Output Phase Shift



5 mm Encoder

EN05 Series



Packaging

Standard Packaging	Style VT - Plastic Trays Style HS & VS - Tape & Reel - 1400 reel - 16mm embossed tape, - 12 mm pitch, 330 mm reel
Included Hardware	None

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