

10 mm Encoder

EN10 Series



Features:

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

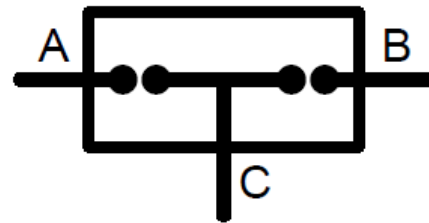


Description:

10 mm encoder is a small encoder which is a good fit for various small electronic applications such as frequency modulation, volume adjustment, and function switching.

Applications:

- Computer Mouse
- Earphones
- Radios
- Electronic toys



Electrical Characteristics

T_A = 25°C unless otherwise noted

| | |
|-------------------------|------------------------------|
| Output | 2 Bits Gray Code |
| Pulses (Per Revolution) | 6, 12 |
| Phase Difference | 0.08T ± 0.1T |
| Power Rating | 5 Vdc / 10 mA |
| Insulation Resistance | 10MΩ 1 Minute at 50 Vdc Max. |
| Dielectric Strength | 1 Minute at 50 Vac |
| Chattering | 3 ms maximum |
| Bounce | 2 ms maximum |

Encoder Characteristics

T_A = 25°C unless otherwise noted

| | |
|----------------------|---------------------|
| Rotation | 360° continuous |
| Rotational Torque | 15-50 gf.cm |
| Detents per Rotation | 12, 24 |
| Rotational Life | 100,000 Cycles Min. |

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

TT Electronics | BI Technologies
Circulo de la Amistad #102 PIMSA IV Mexicali B.C. Mexico C.P 21210
Ph: + 1 (714) 447-2345
www.ttelectronics.com

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EN10 Series

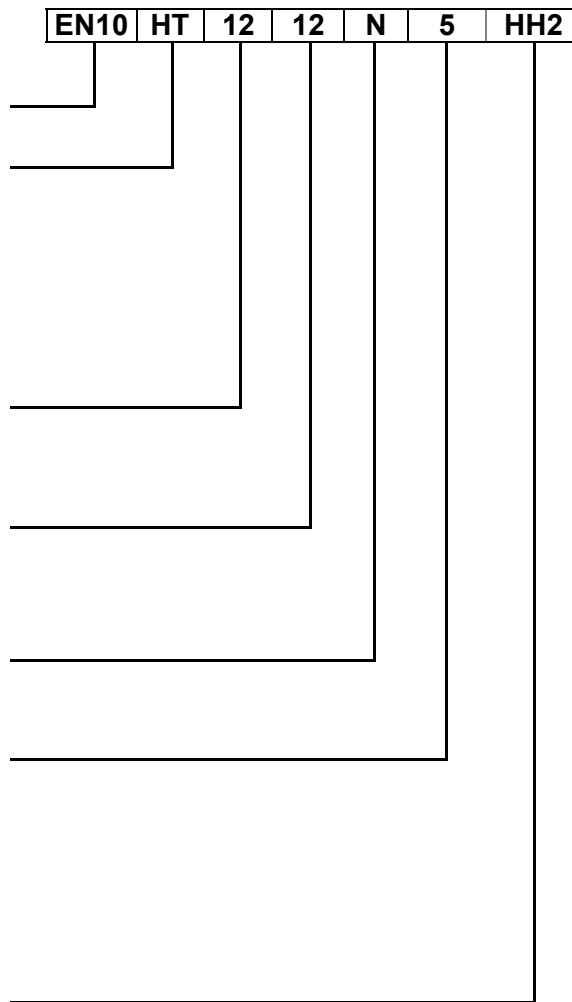


Environmental Characteristics

TA = 25°C unless otherwise noted

| | |
|-----------------------|--|
| Operating Temperature | -20°C to +80°C |
| IP Rating | IP 40 |
| Soldering Condition | Wave 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



Part Family

Style

- HS = Top Adjust, Surface Mount
- HT = Top Adjust, Double Tab Bracket
- VT = Side Adjust, Double Tab Bracket
- VTS = Side Adjust, Single Tab Bracket
- VTN = Side Adjust, No Bracket

Pulses/360°

- 06 = 6 pulses
- 12 = 12 pulses

Detent/Rotation

- 12 = 12/360° (6 or 12 pulses)
- 24 = 24/360° (12 pulses only)

Switch Option

- N = No Switch

Standoff Length

- 1 = 7 mm
- 2 = 9 mm
- 3 = 11 mm
- 4 = 13 mm
- 5 = 5.5 mm
- 6 = 6.4 mm (HT only)

Shaft Style

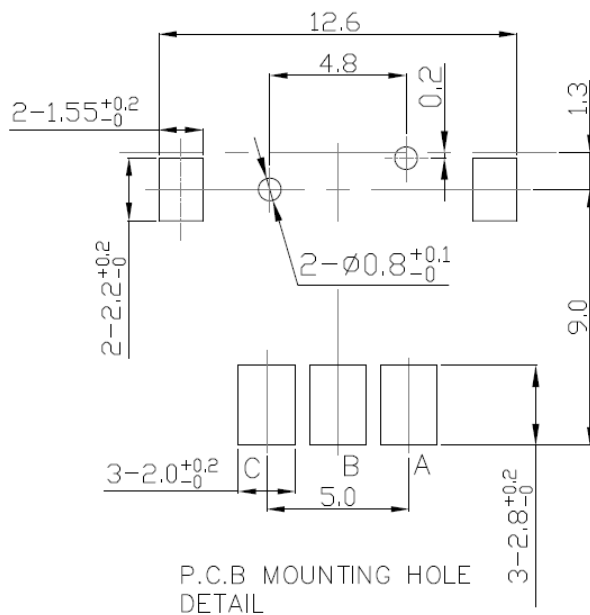
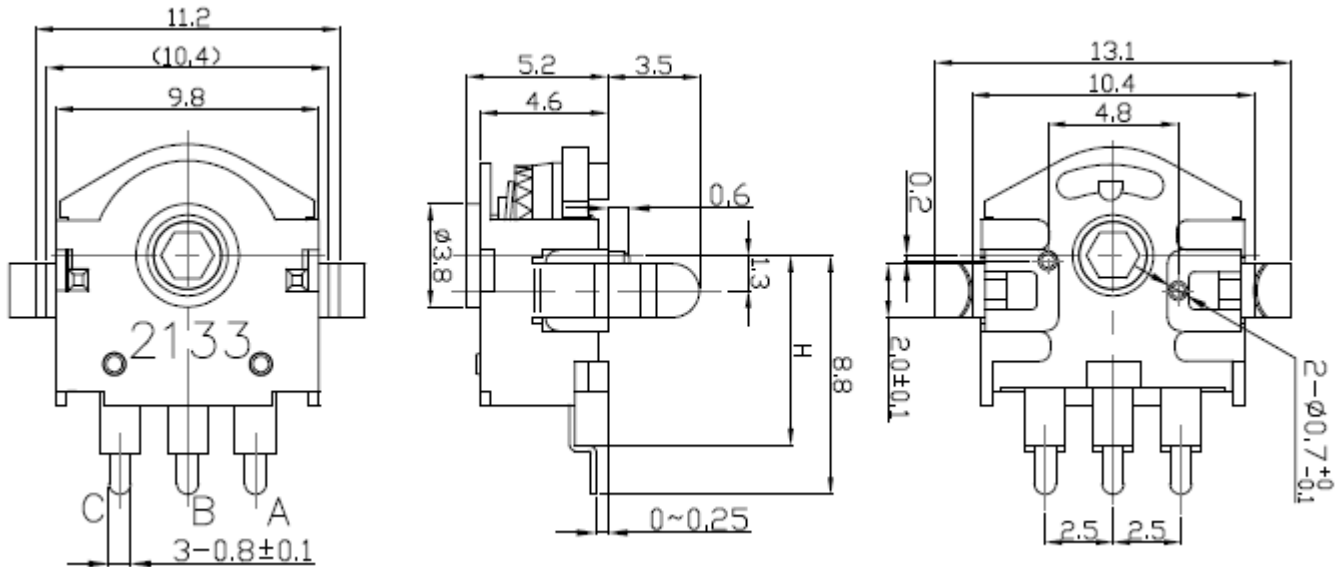
- HH2 = Hollow Hex Shaft 1.72mm
- HH3 = Hollow Hex Shaft 1.75mm

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Outline Drawings

EN10HS - Top Adjust, Surface Mount



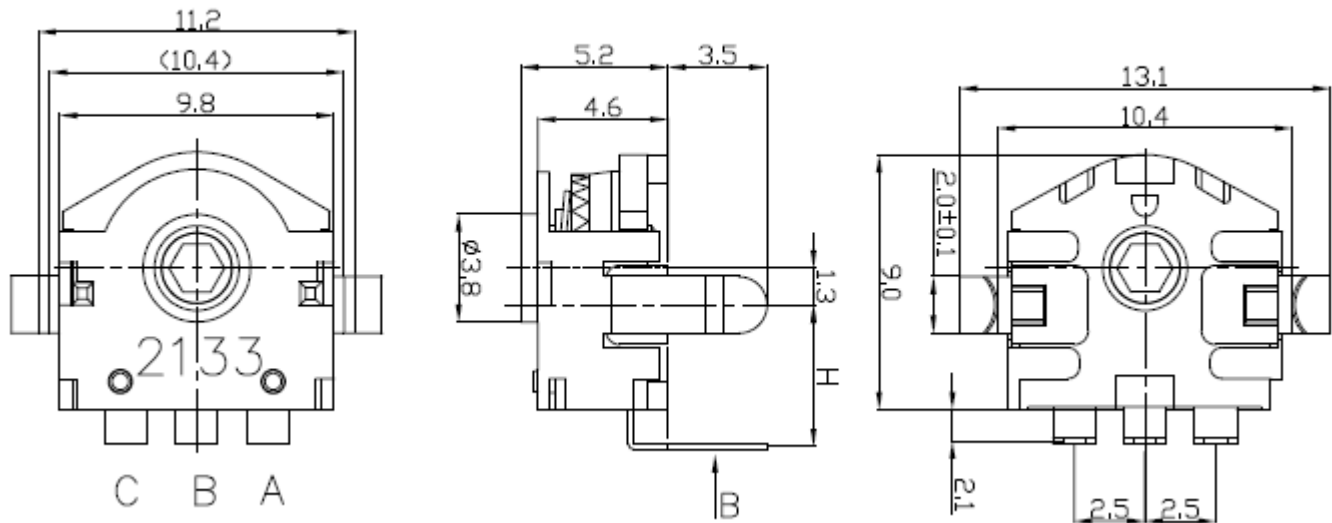
Standoff Height Code

| | |
|---|---|
| X | 1 |
| H | 7 |

Note: Though Surface Mounted in configuration, this part must be hand soldered as it is not rated for reflow soldering process.

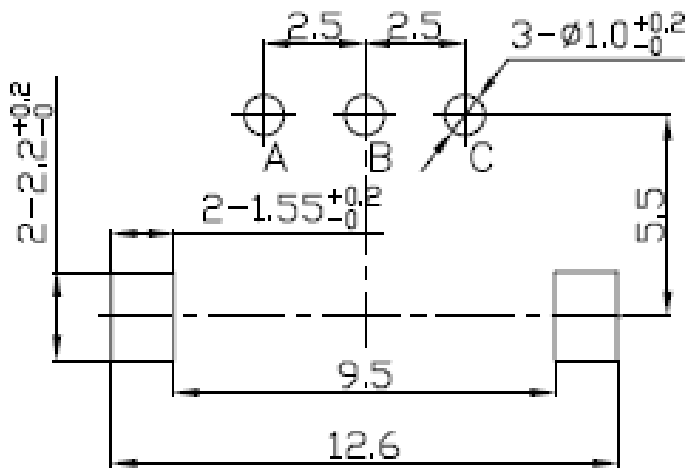
Outline Drawings

EN10HT - Top Adjust, Double Tab Bracket

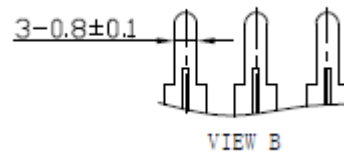


Standoff Height Code

| | | |
|---|-----|-----|
| X | 5 | 6 |
| H | 5.5 | 6.4 |

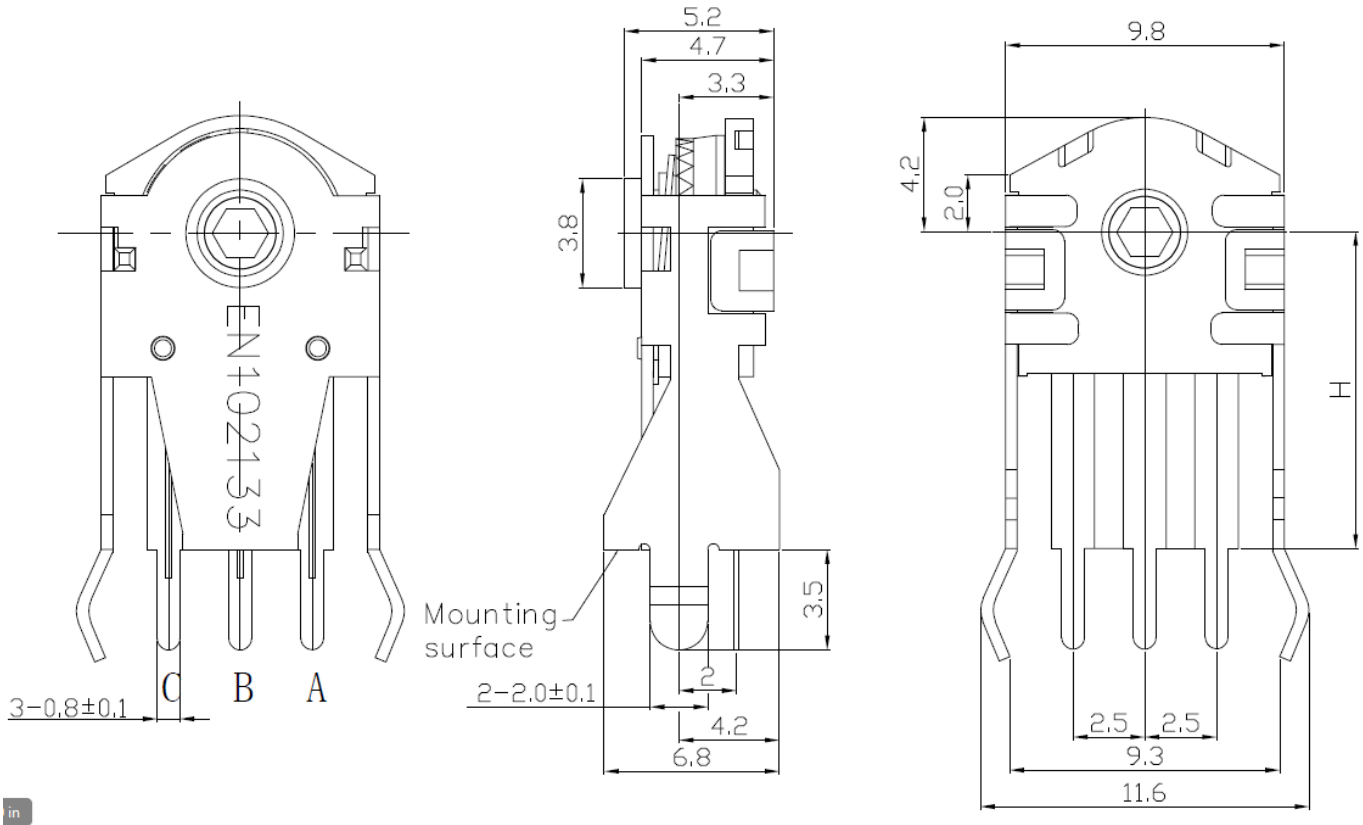


P.C.B MOUNTING HOLE
DETAIL

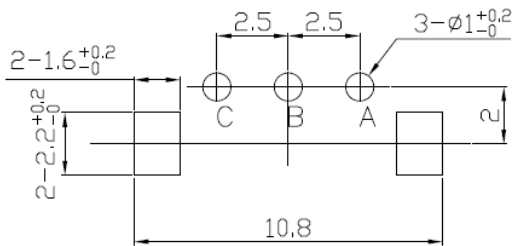


Outline Drawings

EN10VT - Side Adjust, Double Tab Bracket



in



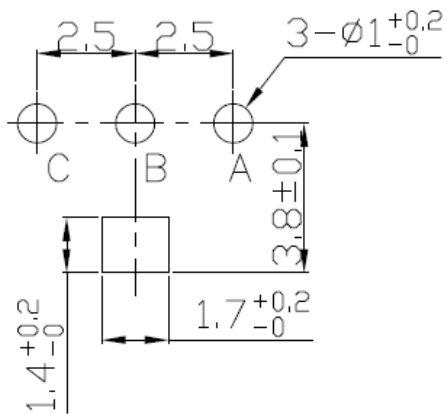
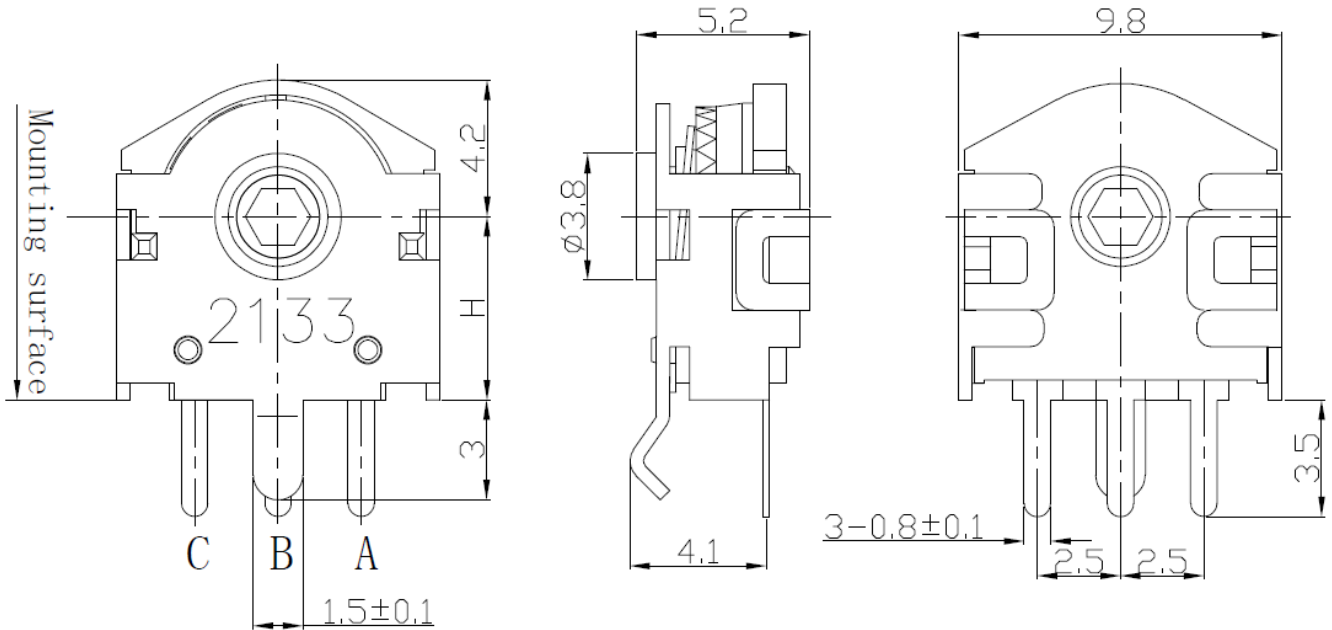
P.C.B MOUNTING HOLE
DETAIL

Standoff Height Code

| | | | | |
|---|---|---|----|----|
| X | 1 | 2 | 3 | 4 |
| H | 7 | 9 | 11 | 13 |

Outline Drawings

EN10VTS - Side Adjust, Single Tab Bracket



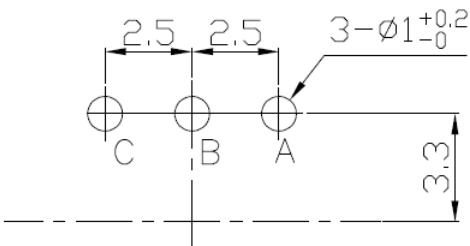
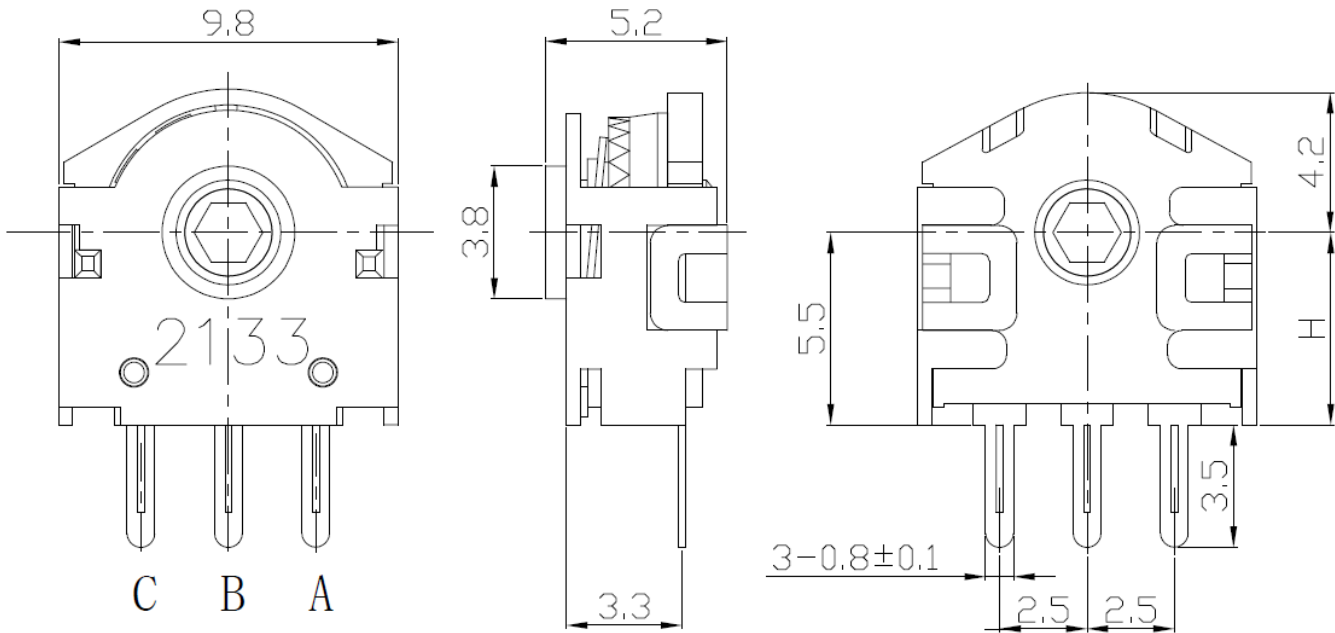
P.C.B MOUNTING HOLE DETAIL

Standoff Height Code

| | |
|---|-----|
| X | 5 |
| H | 5.5 |

Outline Drawings

EN10VTN - Side Adjust, No Bracket



P.C.B MOUNTING HOLE DETAIL

Standoff Height Code

| | | |
|---|-----|-----|
| X | 5 | 7 |
| H | 5.5 | 6.5 |

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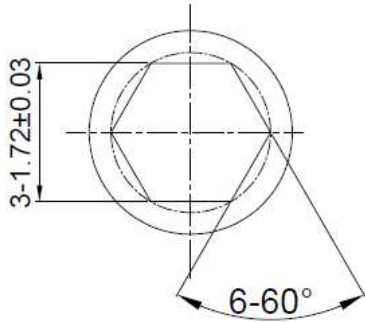
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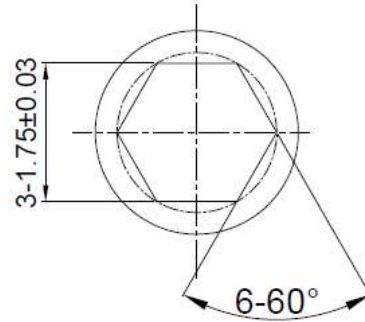


Shaft Detail

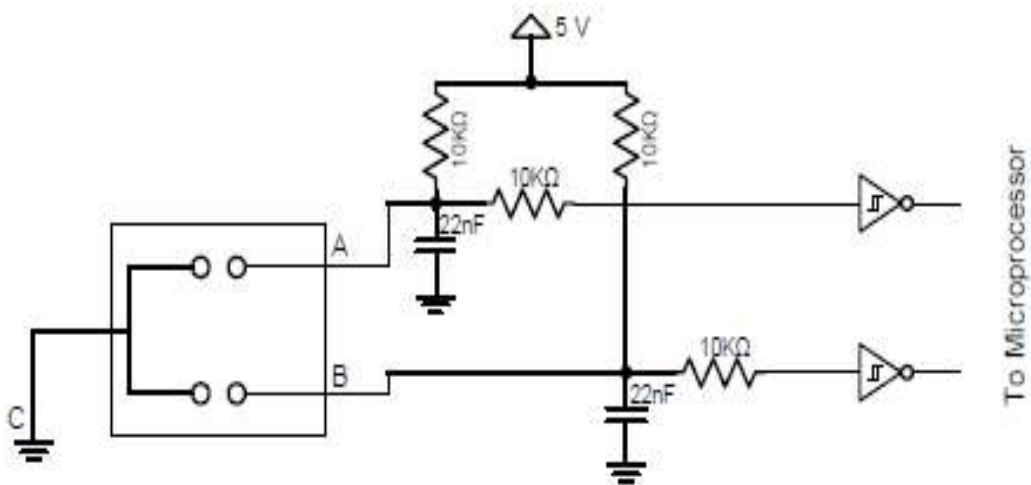
HH2



HH3



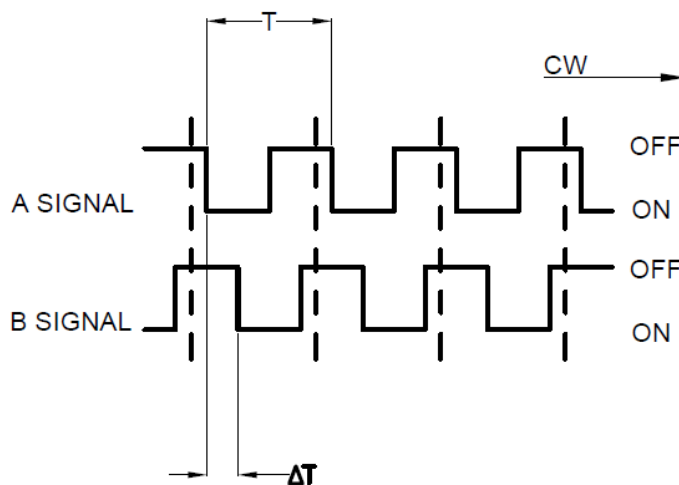
Recommended Filter Schematic



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Output Phase Shift



Packaging

| | |
|--------------------|---------------|
| Standard Packaging | Plastic Trays |
| Included Hardware | None |