

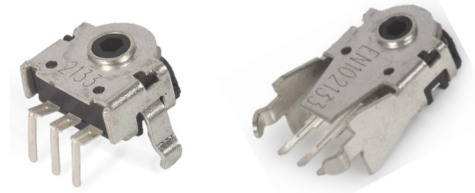
10 mm Encoder

EN10 Series



Features:

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

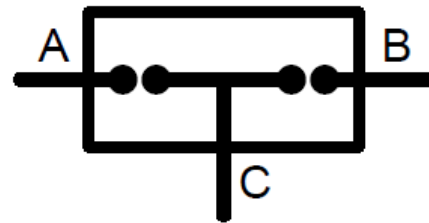


Description:

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



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
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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

EN10	HT	12	12	N	5	HH2
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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

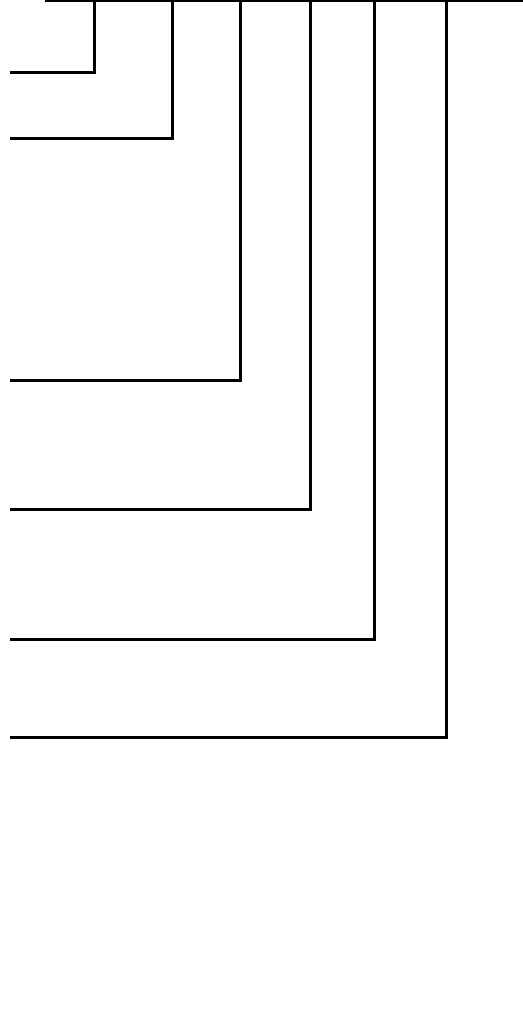
- N = No Switch

Standoff Length

- 1 = 7 mm
- 2 = 9 mm
- 3 = 11 mm
- 4 = 13 mm
- 5 = 5.5 mm
- 6 = 6.4 mm (HT only)
- 7 = 6.5 mm

Shaft Style

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



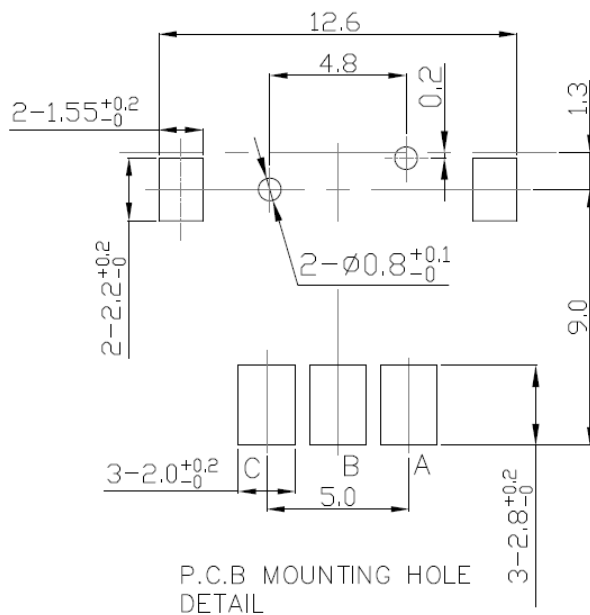
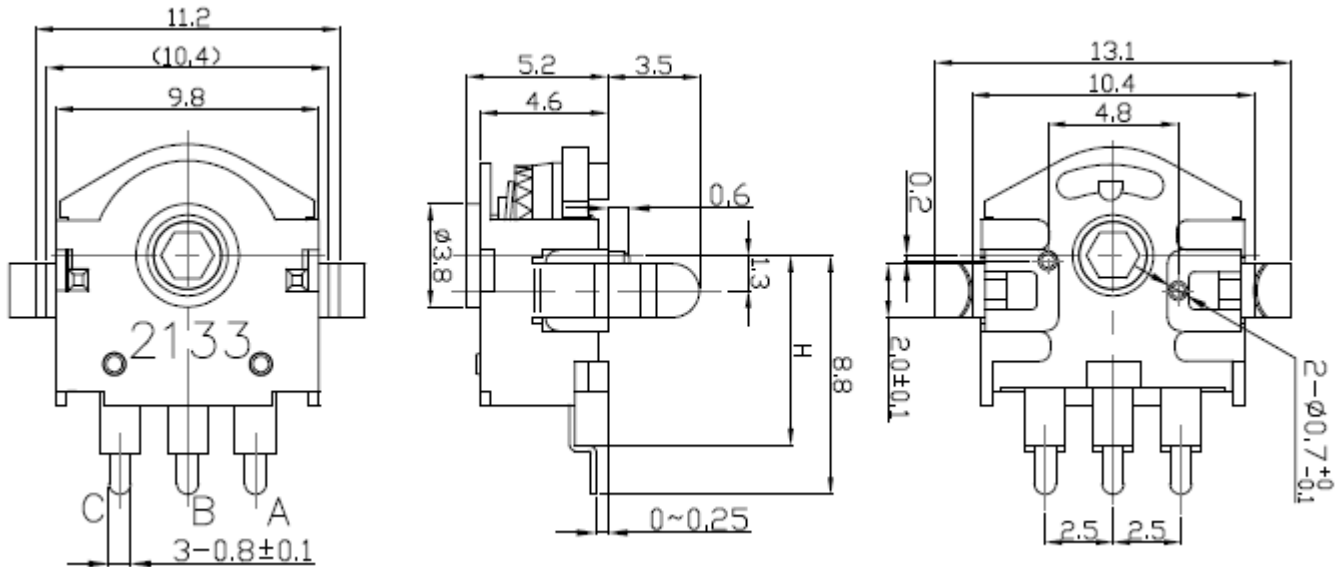
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Outline Drawings

EN10HS - Top Adjust, Surface Mount



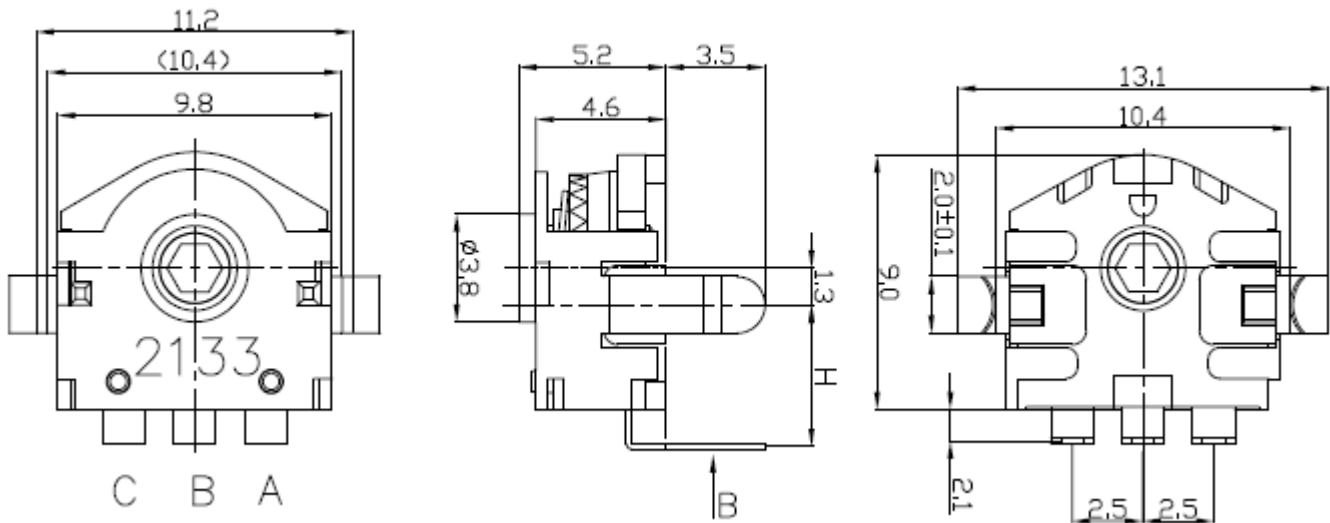
Standoff Height Code

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.

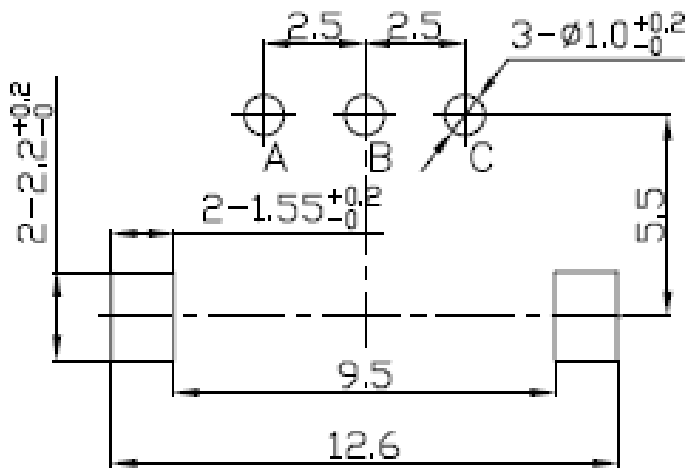
Outline Drawings

EN10HT - Top Adjust, Double Tab Bracket

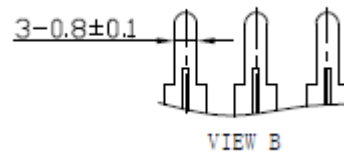


Standoff Height Code

X	5	6
H	5.5	6.4

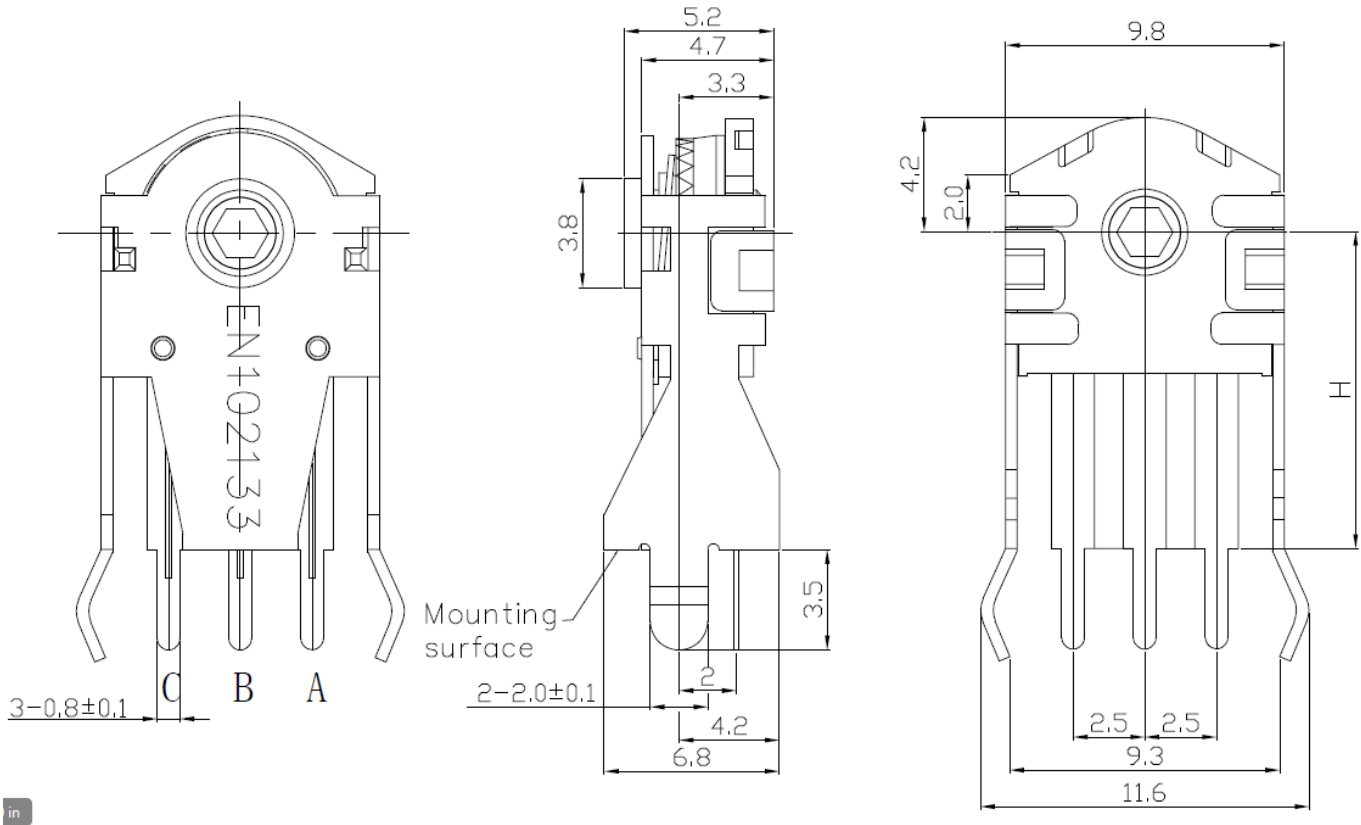


P.C.B MOUNTING HOLE
DETAIL

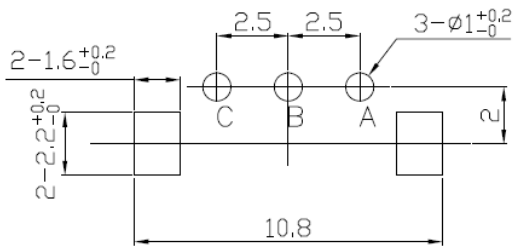


Outline Drawings

EN10VT - Side Adjust, Double Tab Bracket



in



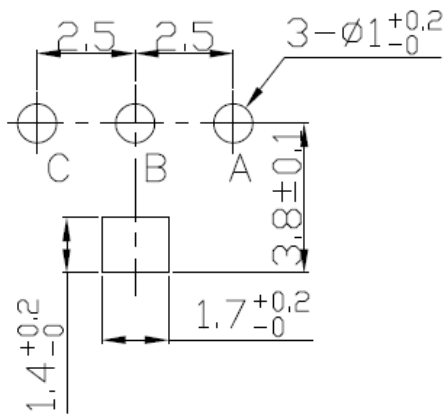
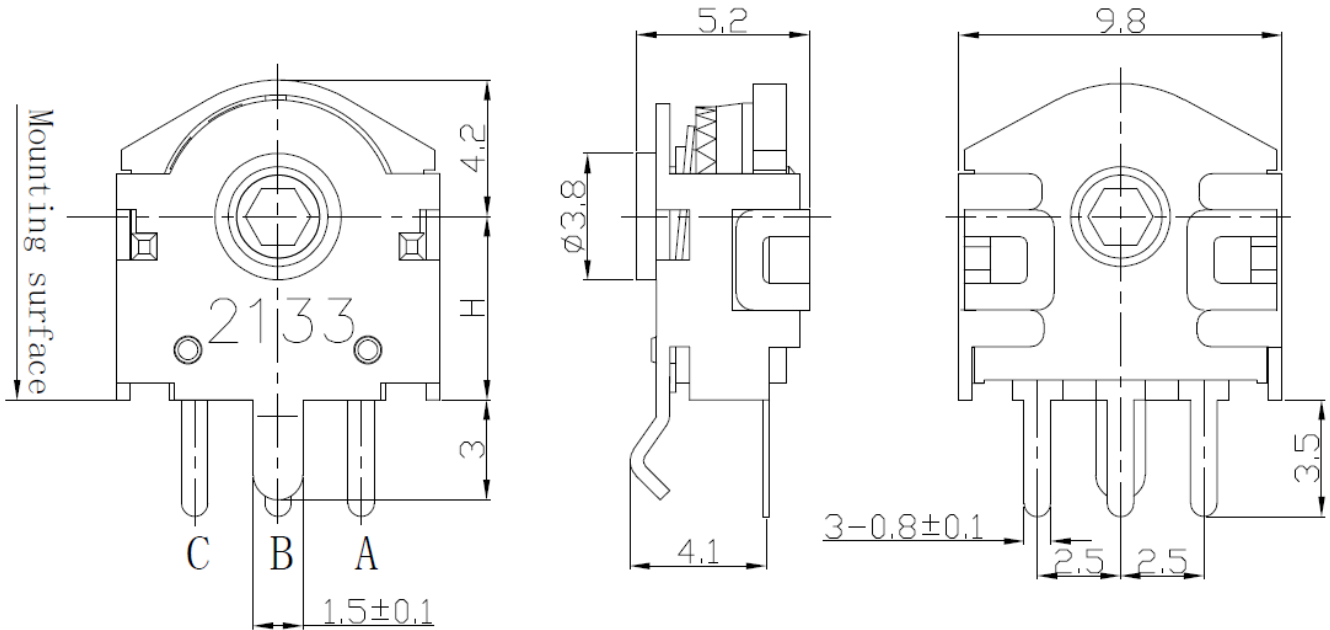
P.C.B MOUNTING HOLE
DETAIL

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

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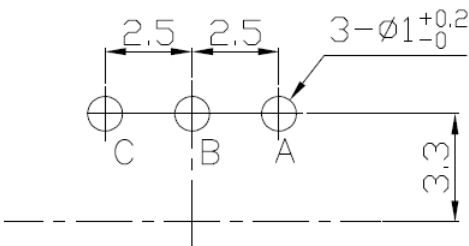
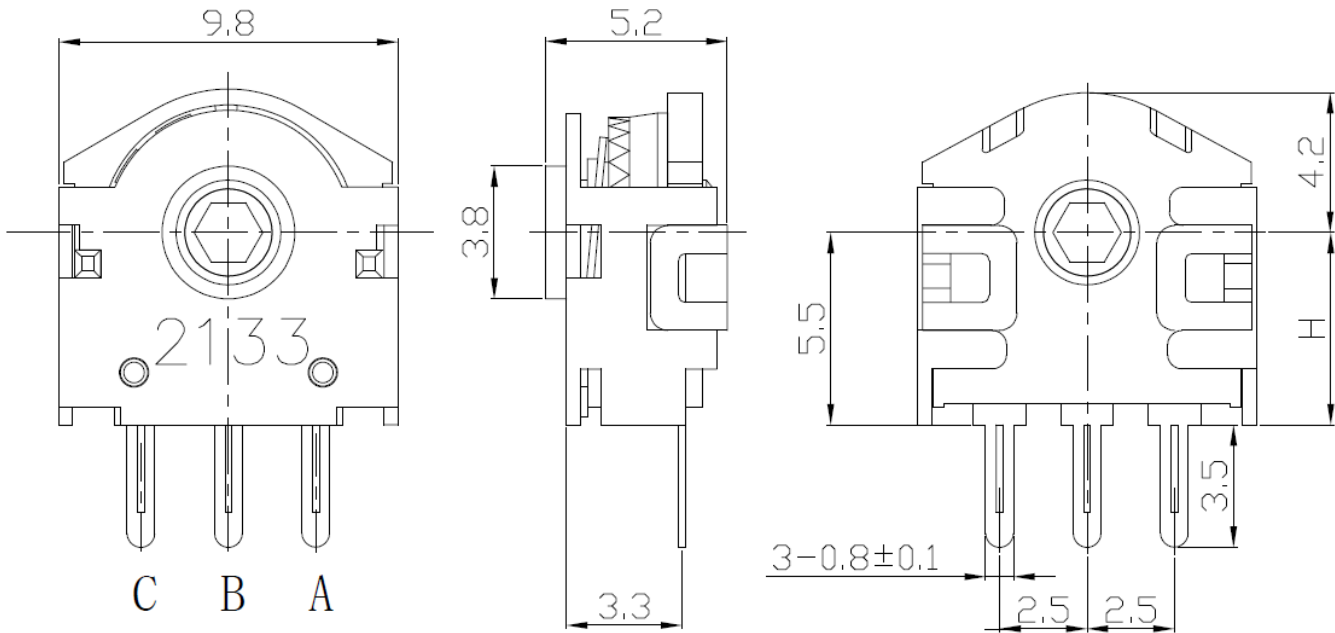
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Outline Drawings

EN10VTN - Side Adjust, No Bracket



P.C.B MOUNTING HOLE DETAIL

Standoff Height Code

X	5	7
H	5.5	6.5

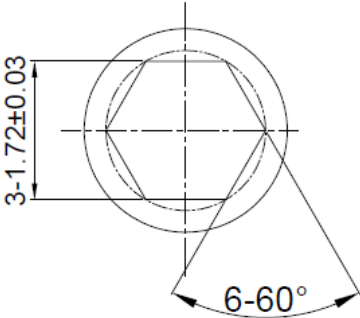
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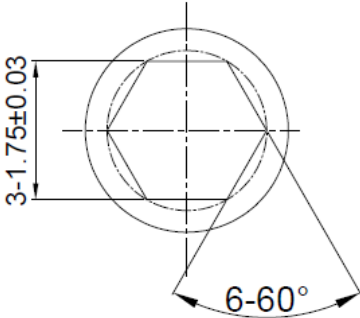


Shaft Detail

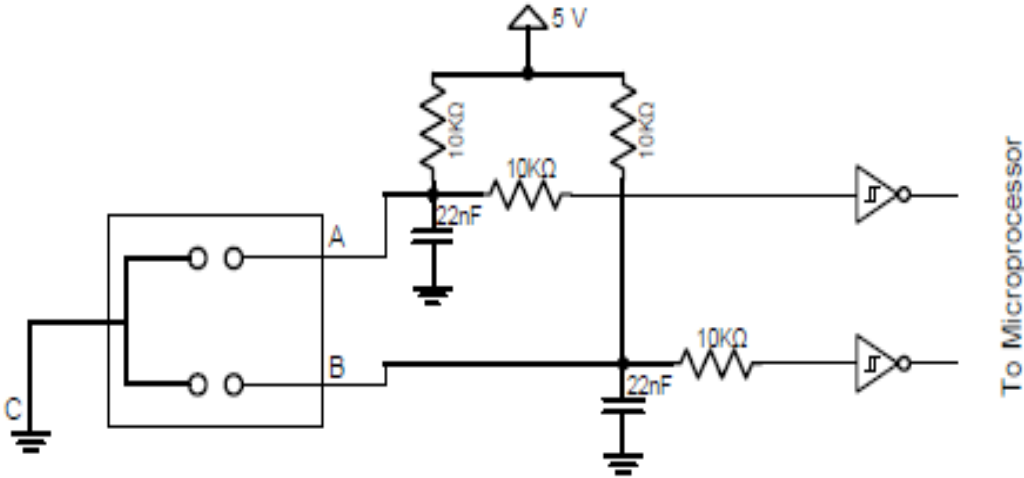
HH2



HH3



Recommended Filter Schematic



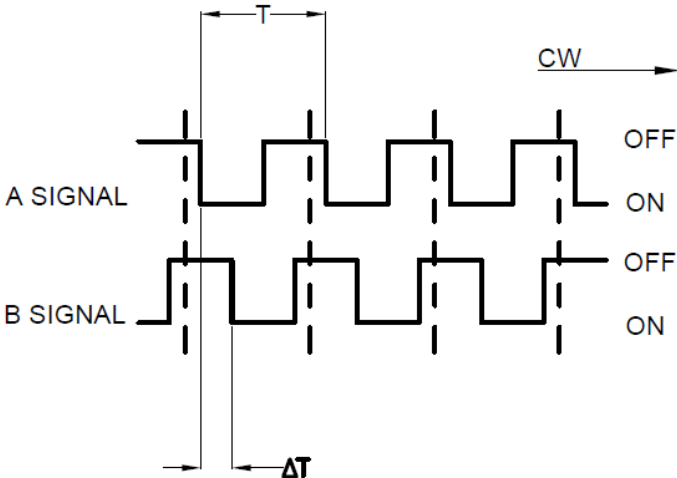
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Output Phase Shift



Packaging

Standard Packaging Included Hardware	Plastic Trays None
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