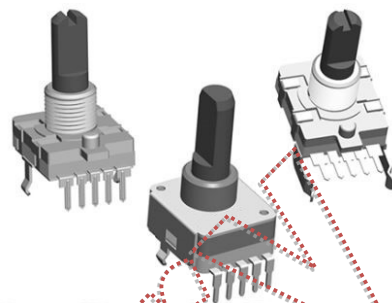


# 16 mm Absolute Encoder

## EN16AB Series



### Features:

- Absolute type
- Plastic Shaft
- Vertical and Horizontal mount versions
- IP51 rated



### Description:

16 mm encoder is an absolute type encoder, therefore output is maintained in power loss. It is a good fit for various electronic applications such as frequency modulation, volume adjustment, and function switching.

### Applications:

- Home Appliances
- Audio Equipment
- Temperature Control

## Electrical Characteristics

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

Output	Absolute
Positions (Per Revolution)	12, 16
Power Rating	12 Vdc / 4 mA
Insulation Resistance	10M $\Omega$ 1 Minute at 50 Vdc Max.
Dielectric Strength	1 Minute at 50 Vac
Contact Resistance	100 m $\Omega$ maximum

## Encoder Characteristics

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

Rotation	360° continuous
Rotational Torque	30-200 gf.cm
Detents per Rotation	12, 16
Rotational Life	30,000 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.

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Ph: + 1 (714) 447-2345  
www.ttelectronics.com

# 16 mm Absolute Encoder

## EN16AB Series



### Environmental Characteristics

TA = 25°C unless otherwise noted

Operating Temperature	-10°C to +70°C
IP Rating	IP 51
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

EN16AB	HB	1	1	B		F	23
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#### Part Family

#### Style

HB = Top Adjust, Plain Bushing

HM = Top Adjust, Threaded Bushing

VM = Side Adjust, Threaded Bushing

#### Positions

1 = 12 positions (HB style only)

2 = 16 positions (HM & VM style only)

#### Detents

1 = 12 (for 12 positions only)

2 = 16 (for 16 positions only)

#### Bushing Length

A = 5 mm (plain bushing only)

B = 7 mm (threaded bushing only)

#### Start Position (see Output Signal Format)

None = 12 pos.

0 = 16 pos. option 0

1 = 16 pos. option 1

2 = 16 pos. option 2

#### Shaft Type - F

#### Shaft Length (see Outline Drawings)

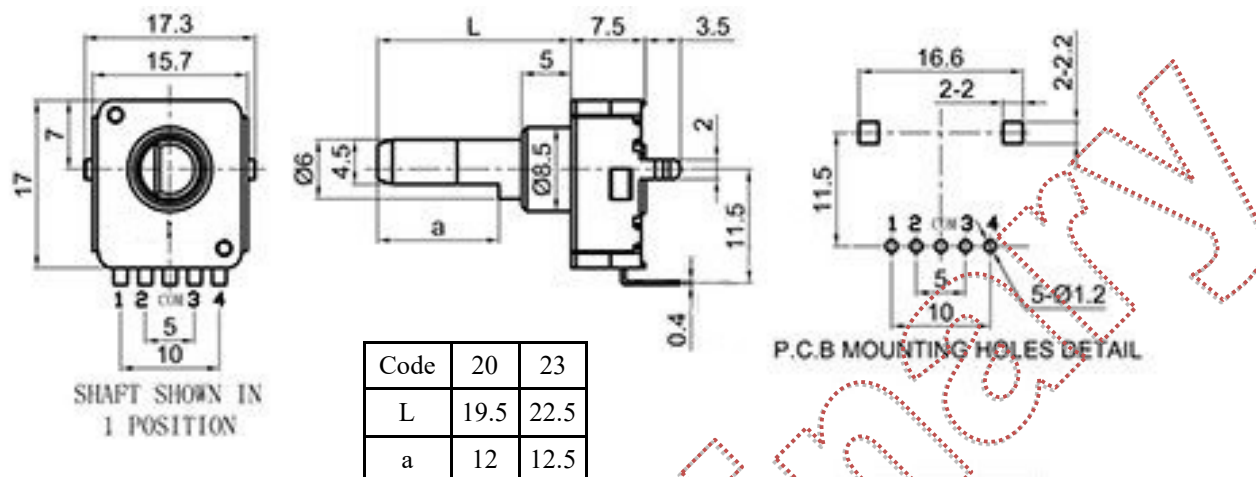
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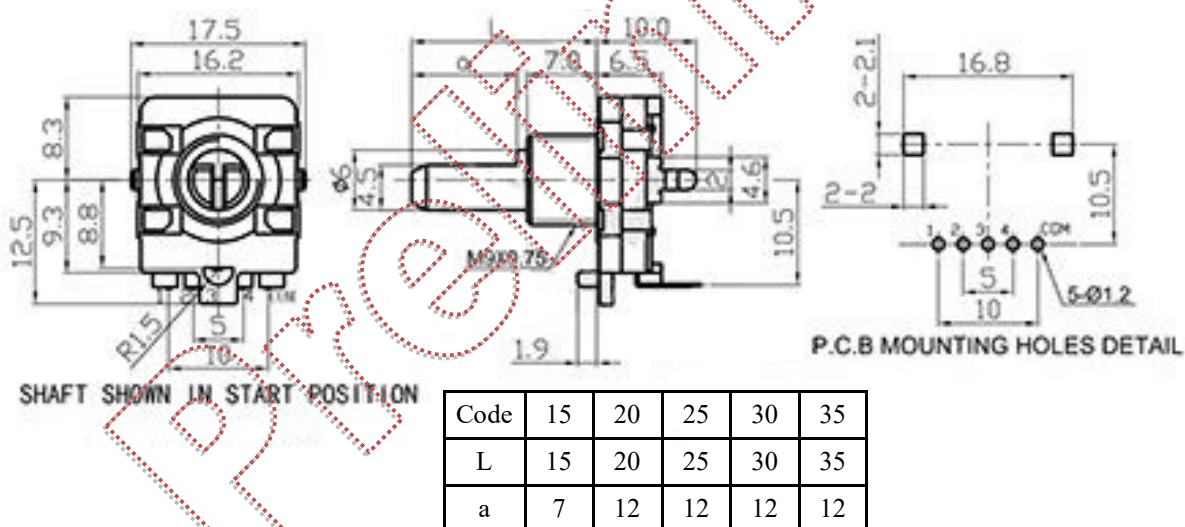
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## Outline Drawings

## EN16AB-HB - Top Adjust, Plain Bushing



## EN16AB-HM - Top Adjust, Threaded Bushing



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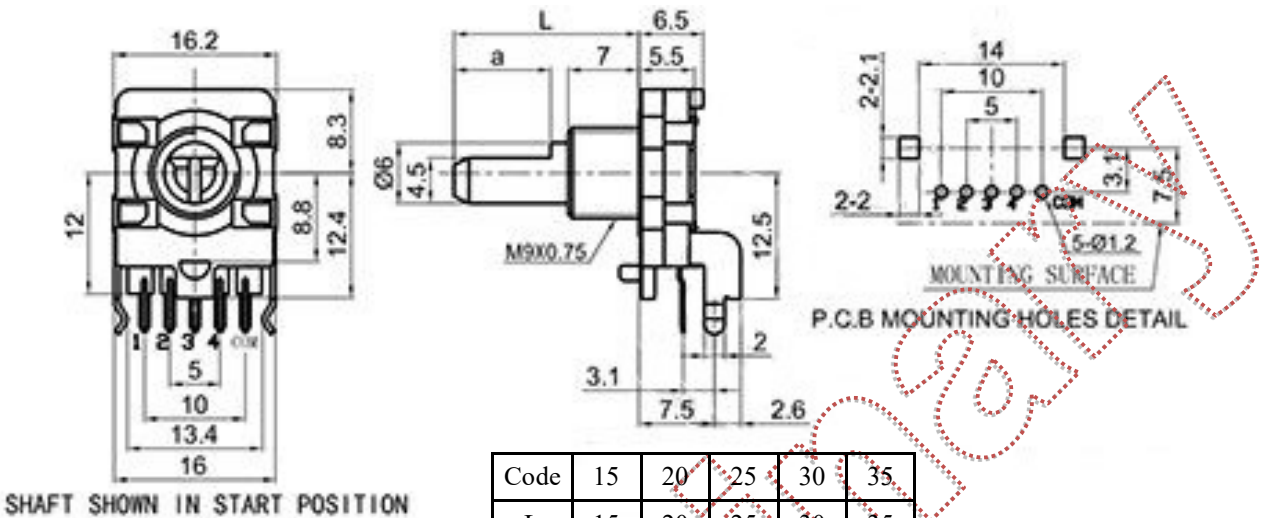
# 16 mm Absolute Encoder

## EN16AB Series



### Outline Drawings

EN16AB-VM - Side Adjust, Threaded Bushing



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# 16 mm Absolute Encoder

## EN16AB Series



### Output Signal Format

C.W → 1:ON 0:OFF	TERM \ POS	1	2	3	4	5	6	7	8	9	10	11	12				
	①	0	1	1	1	1	0	0	0	0	0	0	0				
	②	1	1	0	0	1	1	1	1	0	0	0	0				
	③	0	0	0	1	1	1	1	0	0	1	1	0				
C.W → X=0 1:ON 0:OFF	TERM \ POS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	①	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0
	②	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0
	③	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0
C.W → X=1 1:ON 0:OFF	TERM \ POS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	①	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	②	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0
	③	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0
C.W → X=2 1:ON 0:OFF	TERM \ POS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	①	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
	②	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
	③	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1

### Packaging

Standard Packaging Included Hardware	Plastic Trays Nut & Washer—Threaded Bushing Only
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