

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 position is maintained after 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°C unless otherwise noted

| | |
|----------------------------|------------------------------|
| Output | Absolute |
| Positions (Per Revolution) | 12, 16 |
| Power Rating | 12 Vdc / 4 mA |
| Insulation Resistance | 10MΩ 1 Minute at 50 Vdc Max. |
| Dielectric Strength | 1 Minute at 50 Vac |
| Contact Resistance | 100 mΩ maximum |

Encoder Characteristics

T_A = 25°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.

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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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 |
|--------|----|---|---|---|--|---|----|

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

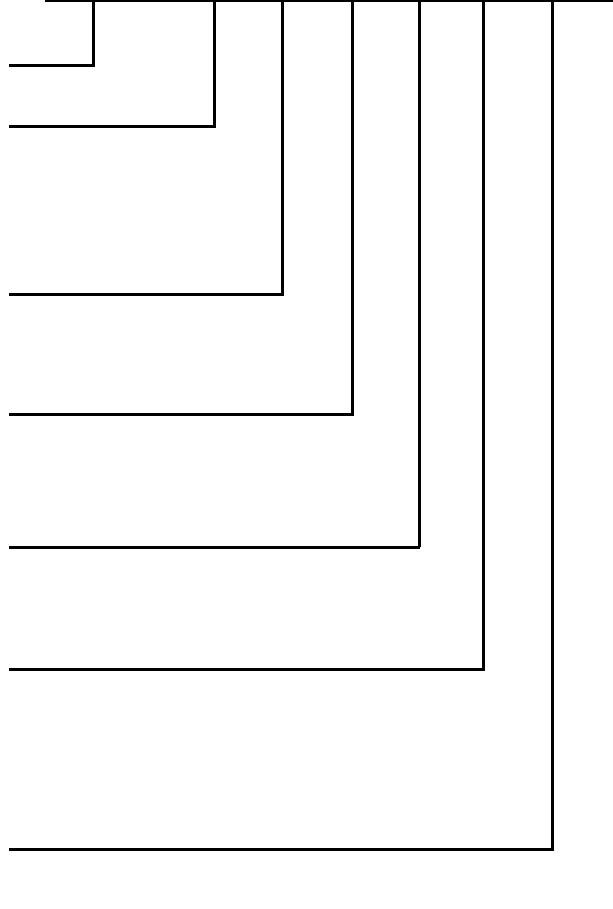
A = 5 mm (plain bushing only)
B = 7 mm (threaded bushing only)

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)



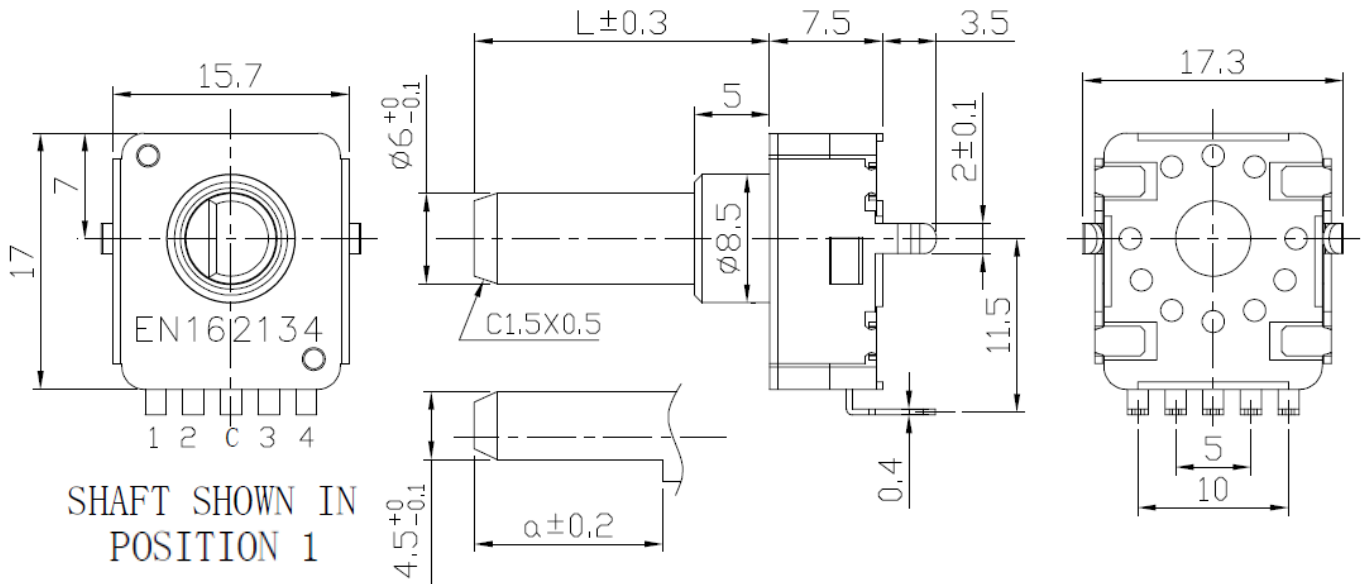
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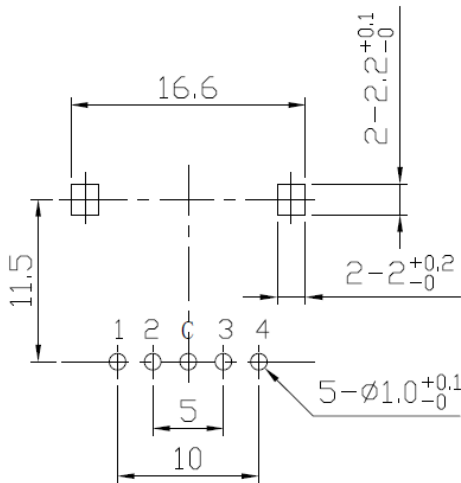
Outline Drawings

EN16AB-HB - Top Adjust, Plain Bushing

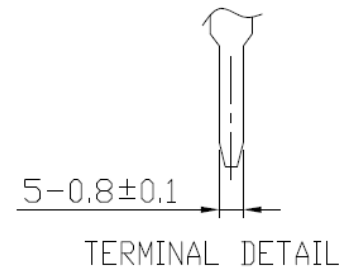


SHAFT SHOWN IN POSITION 1

| | | |
|------|------|------|
| Code | 20 | 23 |
| L | 19.5 | 22.5 |
| a | 12 | 12.5 |



P. C. B MOUNTING HOLES



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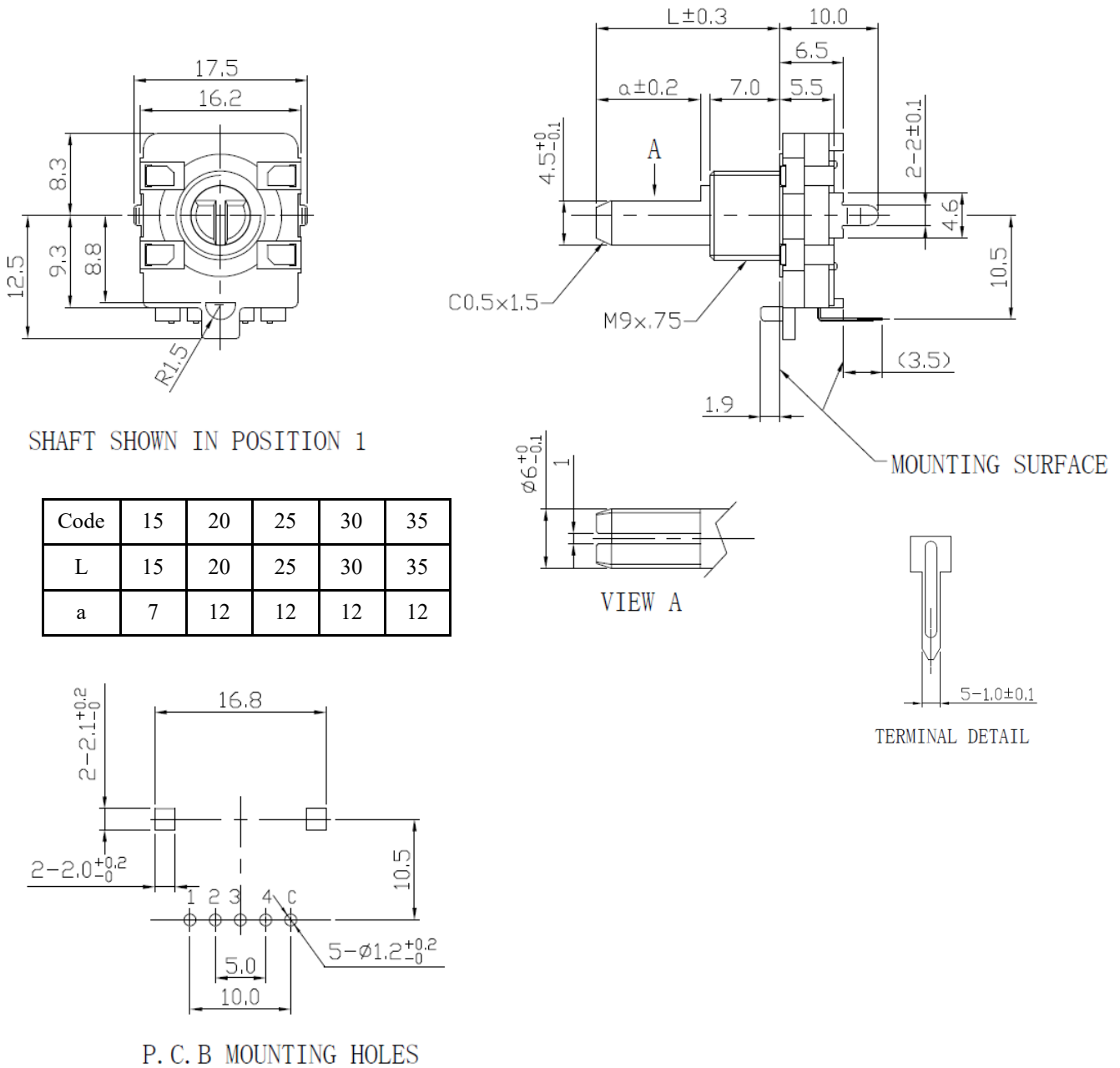
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Outline Drawings

EN16AB-HM - Top Adjust, Threaded Bushing



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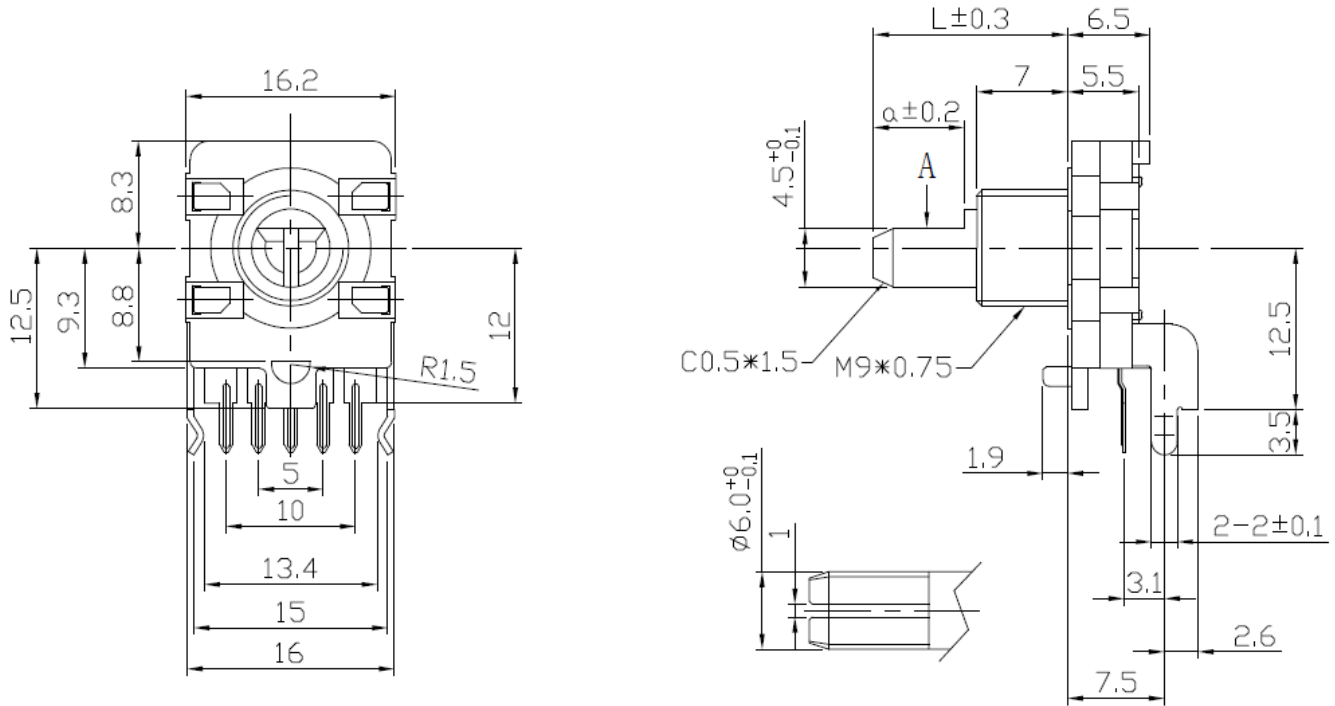
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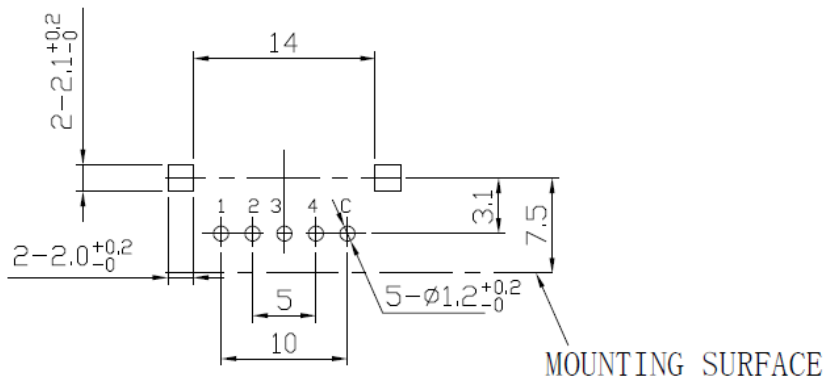
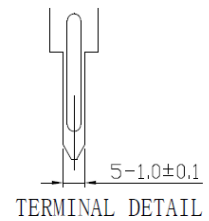
Outline Drawings

EN16AB-VM - Side Adjust, Threaded Bushing



SHAFT SHOWN IN POSITION 1

| Code | 15 | 20 | 25 | 30 | 35 |
|------|----|----|----|----|----|
| L | 15 | 20 | 25 | 30 | 35 |
| a | 7 | 12 | 12 | 12 | 12 |



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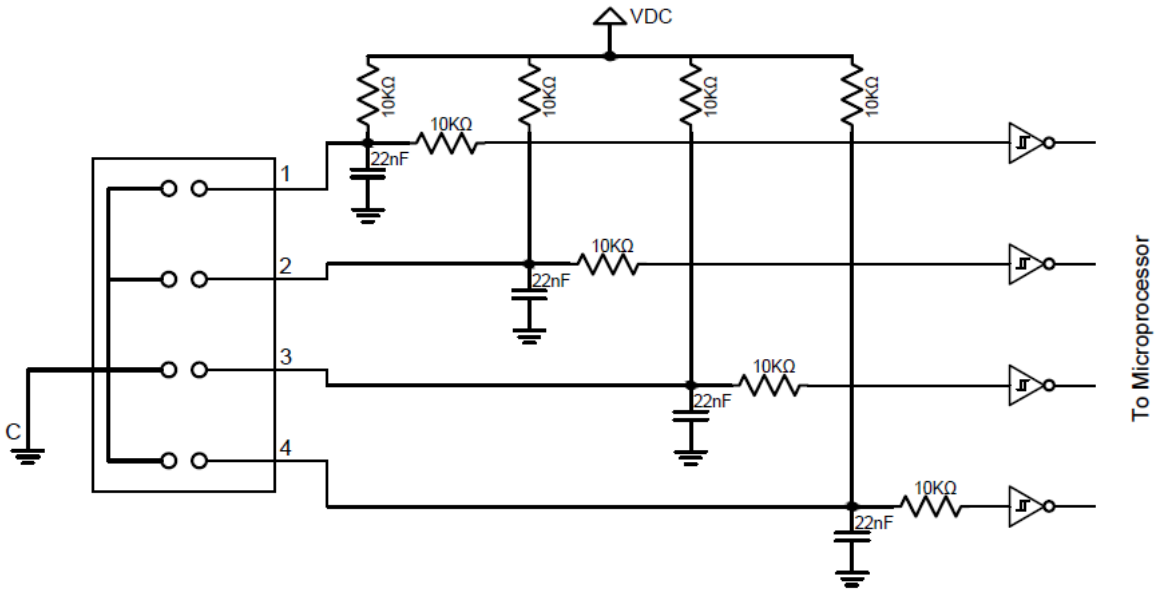
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Recommended Circuit Connection



Packaging

| | |
|---|--|
| Standard Packaging Included Hardware | Plastic Trays Nut & Washer—VM & HM Styles |
|---|--|

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