

## 12mm Insulated Shaft Rotary Encoder

### Application

- ✓ Audio, Home appliance, Precision apparatus, Automotive, Communication, Industrial control, etc.



### Feature

- ✓ Incremental Output Signal Encoder

### ■Specification

|                        |   |
|------------------------|---|
| Rotation Angle         | 360° endless  |
| Rating                 | 5V DC 0.5mA   |
| Operating Temperature  | -10 °C~70 °C  |
| Rotational Torque      | 30 ~ 150 gf.cm  |
| Rotational Life        | 15,000 cycles (rotate 360° ccw and rotate 360° cw as 1 cycle) |
| Switch Circuit         | S.P.S.T. (Push on)  |
| Switch Stroke          | 0.5 mm  |
| Switch Rating          | 5V DC 1mA   |
| Switch Operating Force | 200 ~ 460 gf.cm   |
| Switch Operating Life  | 20,000 cycles   |

### ■How to order

RE130F – 40 – 20F – 12P

Model

Resolution

| Code | Model | Pulses | Detents |
|------|-------|--------|---------|
| 12P  | RE130 | 12     | 12      |
| 24P  | RE120 | 24     | 24      |

Shaft

#### Terminal Type

| Code | Terminal type | Push Switch    |
|------|---------------|----------------|
| 40   | Vertical      | Without switch |
| 41   | Vertical      | With switch    |


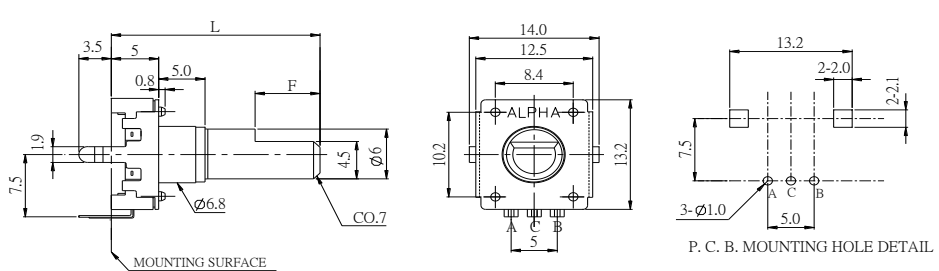

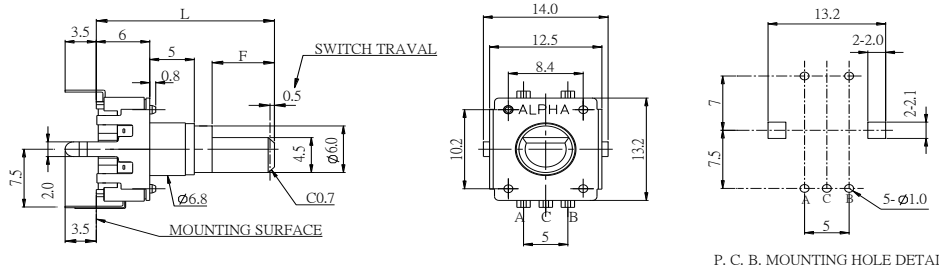

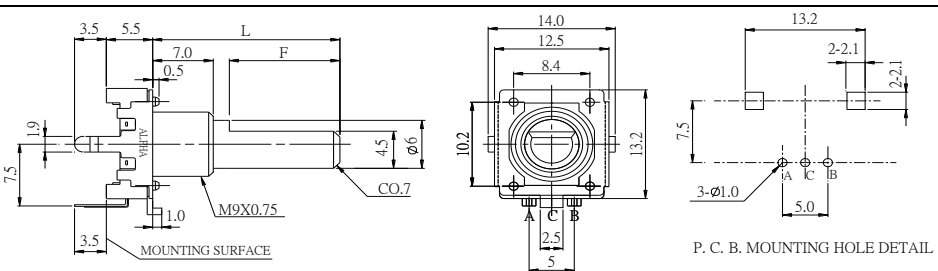
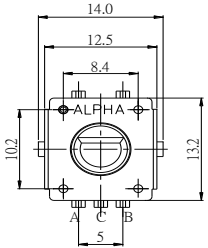
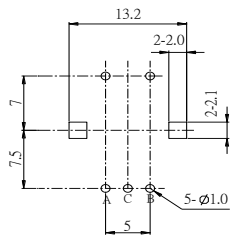

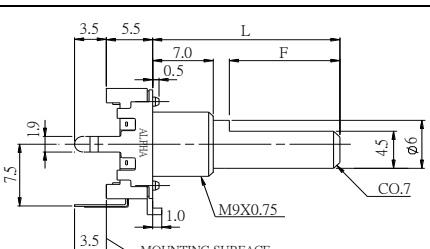
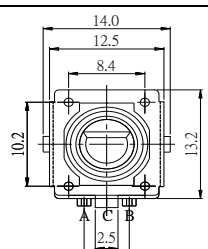
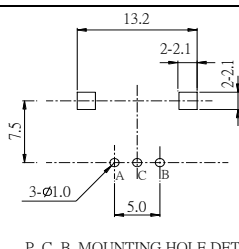
| Code | Bushing Type (D) |     | Bushing Thread |
|------|------------------|-----|----------------|
| None | ∅6.8mm           | 5mm | Without thread |
| E3   | ∅9mm             | 7mm | With thread    |

E3 Just for Terminal code '40'

## 12mm Insulated Shaft Rotary Encoder

### Model Description

| Model       | Terminal Type | Push Switch    | Bushing Type (D) |     | Bushing Thread |
|-------------|---------------|----------------|------------------|-----|----------------|
| RE130F-40   | Vertical      | Without switch | Ø6.8mm           | 5mm | Without thread |
| RE120F-40   | Vertical      | Without switch | Ø6.8mm           | 5mm | Without thread |
| RE130F-41   | Vertical      | With switch    | Ø6.8mm           | 5mm | Without thread |
| RE12CF-41   | Vertical      | With switch    | Ø6.8mm           | 5mm | Without thread |
| RE130F-40E3 | Vertical      | Without switch | Ø9mm             | 7mm | With thread    |
| RE120F-40E3 | Vertical      | Without switch | Ø9mm             | 7mm | With thread    |

| Order Code  | Outline Drawing   |    |      |    |      |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
|---|---|----|------|----|------|----|----|---|----|----|----|----|----|----|------|----|------|----|----|---|---|---|---|----|----|
| RE130F-40-(L)F-12P<br>RE120F-40-(L)F-24P<br>      |    <p>P. C. B. MOUNTING HOLE DETAIL</p> <table border="1"> <caption>RE130F</caption> <tr> <td>L</td> <td>20</td> <td>25</td> </tr> <tr> <td>F</td> <td>7</td> <td>12</td> </tr> </table> <table border="1"> <caption>RE120F</caption> <tr> <td>L</td> <td>20</td> <td>25</td> <td>30</td> </tr> <tr> <td>F</td> <td>7</td> <td>12</td> <td>12</td> </tr> </table>  | L  | 20   | 25 | F    | 7  | 12 | L | 20 | 25 | 30 | F  | 7  | 12 | 12   |    |      |    |    |   |   |   |   |    |    |
| L   | 20  | 25 |      |    |      |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| F   | 7   | 12 |      |    |      |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| L   | 20  | 25 | 30   |    |      |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| F   | 7   | 12 | 12   |    |      |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| RE130F-41-(L)F-12P<br>RE12CF-41-(L)F-24P<br>     |    <p>P. C. B. MOUNTING HOLE DETAIL</p> <table border="1"> <caption>RE130F</caption> <tr> <td>L</td> <td>17.5</td> <td>20</td> <td>22.5</td> <td>25</td> <td>30</td> </tr> <tr> <td>F</td> <td>5</td> <td>7</td> <td>7</td> <td>12</td> <td>12</td> </tr> </table> <table border="1"> <caption>RE12CF</caption> <tr> <td>L</td> <td>17.5</td> <td>20</td> <td>22.5</td> <td>25</td> <td>30</td> </tr> <tr> <td>F</td> <td>5</td> <td>7</td> <td>7</td> <td>12</td> <td>12</td> </tr> </table> | L  | 17.5 | 20 | 22.5 | 25 | 30 | F | 5  | 7  | 7  | 12 | 12 | L  | 17.5 | 20 | 22.5 | 25 | 30 | F | 5 | 7 | 7 | 12 | 12 |
| L   | 17.5  | 20 | 22.5 | 25 | 30   |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| F   | 5   | 7  | 7    | 12 | 12   |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| L   | 17.5  | 20 | 22.5 | 25 | 30   |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| F   | 5   | 7  | 7    | 12 | 12   |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| RE130F-40E3-(L)F-12P<br>RE120F-40E3-(L)F-24P<br> |    <p>P. C. B. MOUNTING HOLE DETAIL</p> <table border="1"> <caption>RE130F</caption> <tr> <td>L</td> <td>15</td> <td>20</td> </tr> <tr> <td>F</td> <td>7</td> <td>12</td> </tr> </table> <table border="1"> <caption>RE120F</caption> <tr> <td>L</td> <td>15</td> <td>20</td> <td>25</td> </tr> <tr> <td>F</td> <td>7</td> <td>12</td> <td>12</td> </tr> </table>   | L  | 15   | 20 | F    | 7  | 12 | L | 15 | 20 | 25 | F  | 7  | 12 | 12   |    |      |    |    |   |   |   |   |    |    |
| L   | 15  | 20 |      |    |      |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| F   | 7   | 12 |      |    |      |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| L   | 15  | 20 | 25   |    |      |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |
| F   | 7   | 12 | 12   |    |      |    |    |   |    |    |    |    |    |    |      |    |      |    |    |   |   |   |   |    |    |

[Back to top](#)