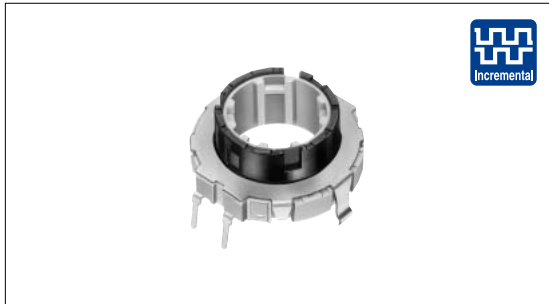


Hollow Shaft Type Devices 21mm Size Encoder Type

EC21A Series



Hollow-center shaft encoder with 4mm height contribute to space saving and multifunctioning.



Typical Specifications

| Items | | Specifications |
|----------------|--------------|----------------|
| Rating | | 10mA 5V DC |
| Operating life | Without load | 50,000cycles |
| | With load | 50,000cycles |

Hollow Shaft
Type Devices

Product Line

| Actuator length (mm) | Detent torque (mN·m) | Number of detent | Number of pulse | Operating direction | Push-on switch | Minimum order unit (pcs.) | Product No. | No. |
|----------------------|----------------------|------------------|-----------------|---------------------|----------------|---------------------------|--------------|-----|
| 9 | 7 ± 5 | 30 | 15 | Vertical | Without | 600 | EC21A1540401 | 1 |
| | 16 ± 7 | | | | | | EC21A1520401 | |
| | | 18 | 9 | | | | EC21A0920401 | |

Dimensions








Unit:mm

| No. | Photo | Style | PC board mounting hole dimensions (Do not wire the shaded area) |
|-----|-------|-------|---|
| 1 | | | |
| 2 | | | |

Encoder
Type

Potentiometer
Type

List of Varieties

| Type | Encoder | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|--|
| | 21mm size | 28mm size | 35mm size | | 40mm size | 45mm size | 60mm size | |
| Series | EC21A | EC28A | EC35AH | EC35B | EC40A | EC45A | EC60A | |
| Photo |  |  |  |  |  |  |  | |
| Output | Incremental | | ABC | Incremental/ Self-return switch | Incremental | Absolute | Incremental | |
| Outline specifications | Shaft types | | | | | | | |
| | Operating direction | | | | | | | |
| | Number of pulse/ Number of detent | | | | | | | |
| | Push switch (Travel mm) | | | | | | | |
| | Optional functions | | | | | | | |
| | Changeover angle | | | | | | | |
| Dimensions (mm) | W | | | | | | | |
| | D | | | | | | | |
| | H | | | | | | | |
| Soldering | Manual soldering | | | | | | | |
| | Dip soldering | | | | | | | |
| | Reflow soldering | | | | | | | |
| Operating temperature range | | | | | | | | |
| Electrical performance | Output voltage | | | | | | | |
| | Insulation resistance | | | | | | | |
| | Voltage proof | | | | | | | |
| Mechanical performance | Rotational torque | | | | | | | |
| | Terminal strength | | | | | | | |
| | Actuator strength | Rotational direction | | | | | | |
| | | Push direction | | | | | | |
| | Vibration | | | | | | | |
| Environmental performance | Cold | | | | | | | |
| | Dry heat | | | | | | | |
| | Damp heat | | | | | | | |
| Page | | | | | | | | |

Self-return Switch Specifications

| Items | EC35B |
|------------------------------|--|
| Circuit · number of contacts | Single pole and double throw (Self-return) |
| Travel (mm) | 2.8 ± 0.5 |
| Push operating force (N) | 3.8 ± 1.5 |
| Switch ON position | 15 ± 5 ° |
| Rotational torque | 40 ± 25mN·m |
| Rating | 10mA 5V DC |
| Contact resistance | 200m max. |
| Operating life | 15,000cycles |

Hollow Shaft Type Device Cautions465, 466, 467

Note

※ The operating temperature range for automotive applications can be raised upon request. Please contact us for requirements of this kind.