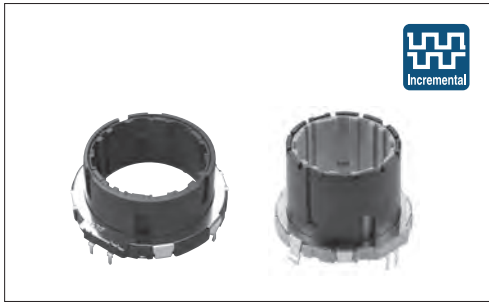




■ Typical Specifications



| Items | Specifications |
|-----------------------------|--|
| Output signal | Three phase of A, B and C |
| Rating | 10mA 5V DC |
| Operating life | 50,000 cycles |
| Operating temperature range | -40°C to +85°C (EC35AH) -40°C to +90°C (EC35CH) |

■ Product Line

| Mounting method | Actuator length (mm) | Detent torque (mN·m) | Number of detents | Number of pulse | Minimum order unit (pcs.) | | Products No. | Drawing No. | | | |
|-----------------|----------------------|----------------------|-------------------|-----------------|---------------------------|--------|---------------------|-------------|--|---------------------|---|
| | | | | | Japan | Export | | | | | |
| DIP | 15 | 12±5 | 30 | 10 | 800 | 800 | EC35AH240403 | 1 | | | |
| | | 18±7 | | | | | | | EC35AH220403 | | |
| | | 30±15 | | | | | | | | EC35AH260403 | |
| | 25 | 12±5 | | | 350 | 700 | EC35AH240502 | 2 | | | |
| | | 18±7 | | | | | | | EC35AH220502 | | |
| | | 30±15 | | | | | | | | EC35AH260502 | |
| | 15 | 18±7 | | | 800 | 800 | EC35AH120401 | 3 | | | |
| | Reflow | 14.9 | | | | | | | 22±11 (Initial) 18±7 (After reflow) | 18 | 6 |


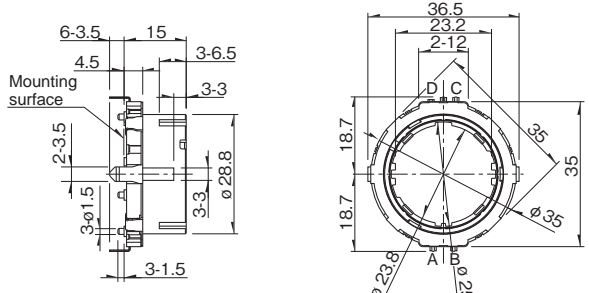
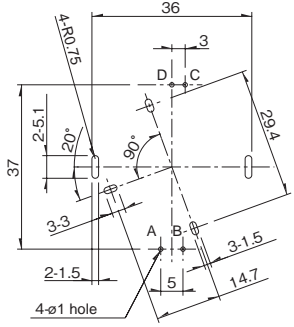

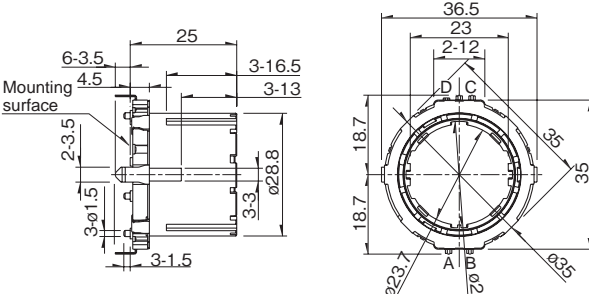
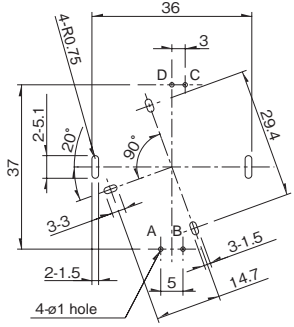

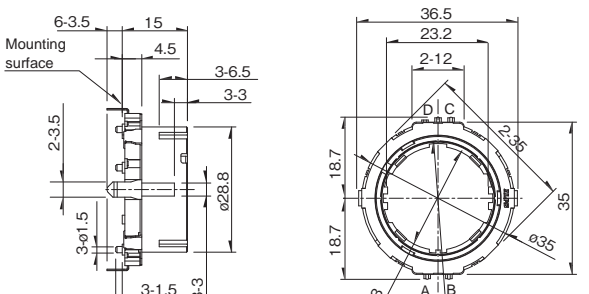
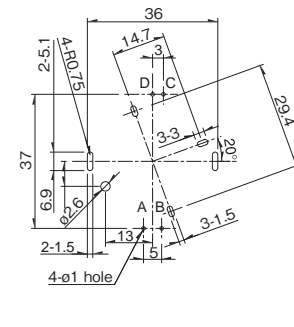

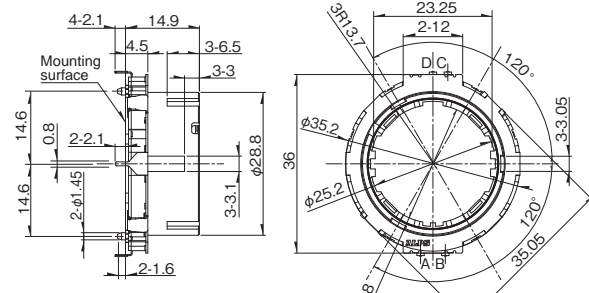

■ Packing Specifications

Tray

| Products No. | Number of packages (pcs.) | | Export package measurements (mm) |
|---|---------------------------|------------------------|----------------------------------|
| | 1 case /Japan | 1 case /export packing | |
| EC35AH240403, EC35AH220403, EC35AH120401, EC35AH260403 | 800 | 800 | 540×360×290 |
| EC35AH240502, EC35AH220502, EC35AH260502 | 350 | 700 | 540×360×380 |
| EC35CH120401 | 384 | 384 | 440×290×205 |

Dimensions

Unit:mm

| No. | Photo | Style | PC board mounting hole dimensions (Viewed from mounting side) |
|-----|---|--|---|
| 1 | <p>EC35AH Actuator length 15mm 10 pulse/30 detent</p>  |  |  |
| 2 | <p>EC35AH Actuator length 25mm 10 pulse/30 detent</p>  |  |  |
| 3 | <p>EC35AH Actuator length 15mm 6 pulse/18 detent</p>  |  |  |
| 4 | <p>EC35CH Reflow type Actuator length 14.9mm 6 pulse/18 detent</p>  |  |  |

Encoders

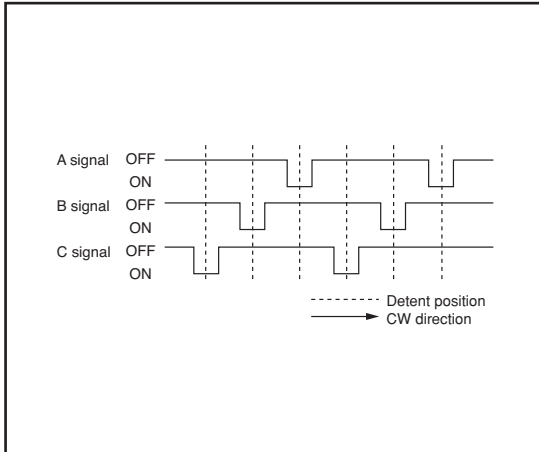
Metal Shaft

Insulated Shaft

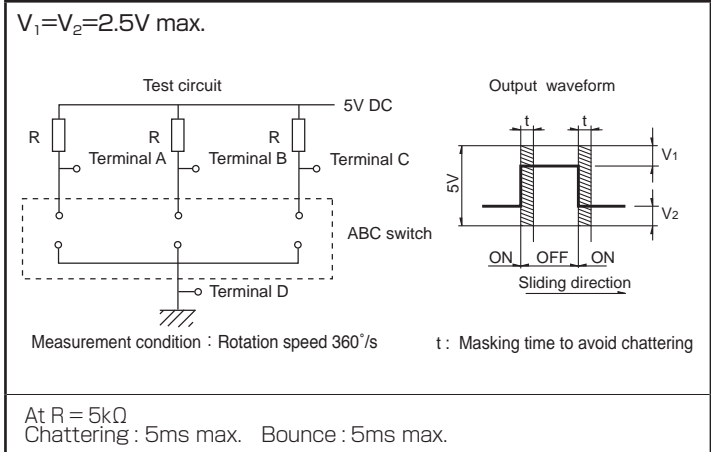
Through Shaft Type

Ring Type

Output Wave



Sliding Noise



Encoders

Metal Shaft











Insulated Shaft

Through Shaft Type

Ring Type

Encoders

List of Varieties

| Type | | Ring type | | | | |
|------------------------------------|--|---|---|---|---|---|
| | | 28mm size | | 35mm size | | |
| Series | | EC28A | EC28C | EC35A | EC35AH | EC35CH |
| Photo | |  |  |  |  |  |
| Output | | Incremental (Two phase A and B) | | | Incremental (Three phase A, B and C) | |
| Shaft types | | Ring type | | | | |
| Number of pulse / Number of detent | | 15/30 18/18 | 15/30 | 9/18 15/30 | 6×ABC/18 10×ABC/30 | 6×ABC/18 |
| Dimensions (mm) | W | 28 | | 35 | | 35.2 |
| | D | 29 | 29.5 | | | 36 |
| | H | 4 | | 4.5 | | |
| Operating temperature range | | -40°C to +85°C | -40°C to +90°C | -40°C to +85°C | | -40°C to +90°C |
| Operating life | | 50,000 cycles | | | | |
| Automotive use | | ● | ● | ● | ● | ● |
| Life cycle (availability) | |  |  |  |  |  |
| Electrical performance | Rating | 10mA 5V DC | | | | |
| | Max./min. operating current (Resistive load) | 10mA /1mA | | | | |
| | Insulation resistance | 100MΩ min. 250V DC | | | | |
| | Voltage proof | 300V AC for 1minute or 360V AC for 2s | 300V AC for 1minute or 360V AC for 1s | 300V AC for 1minute or 360V AC for 2s | | 300V AC for 1minute or 360V AC for 1s |
| Mechanical performance | Detent torque | 7±5mN·m 12±7mN·m 20±10mN·m | 22±11mN·m (Initial) 16±7mN·m (After reflow) | 18±7mN·m 22±8mN·m 30±15mN·m | 12±5mN·m 18±7mN·m 30±15mN·m | 22±11mN·m (Initial) 18±7mN·m (After reflow) |
| | Push-pull strength | 100N | | | | |
| Shaft configuration | | Ring type | | | | |
| Terminal type | | Insertion | | | | |
| Switch Specifications | Switch type | — | — | — | — | — |
| | Contact arrangement | — | — | — | — | — |
| | Travel (mm) | — | — | — | — | — |
| | Operating force (N) | — | — | — | — | — |
| | Switch ON position | — | — | — | — | — |
| | Rotational torque | — | — | — | — | — |
| | Rating | — | — | — | — | — |
| | Contact resistance | — | — | — | — | — |
| | Operating life | — | — | — | — | — |
| Page | | 266 | | 268 | 270 | |

| | |
|-------------------------------|-----|
| Encoders Soldering Conditions | 275 |
| Encoders Cautions | 276 |

Notes

● Indicates applicability to all products in the series.