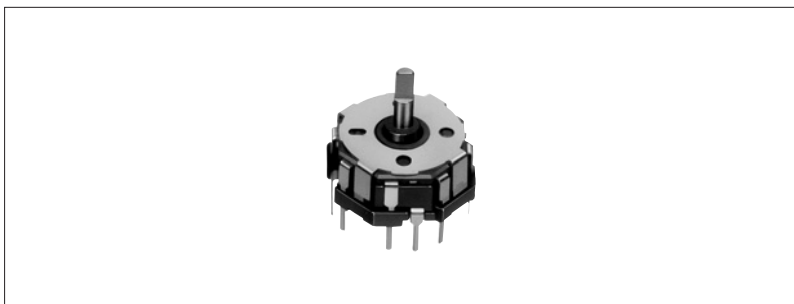


Encoder with 8-directional Switch + Center Push

RKJXT Series

A space-saving device which has eight directions/push/encoder by one axis.

- Power
- Push
- Slide
- Rotary
- Encoders
- Detector
- Dual-in-line Package Type
- Multi Control Devices
- TACT
- Custom-Products



Car Use

Features

- Eight-direction selection, push entry, and encoder (15 pulses and 30 clicks) can be operated by one shaft.
- The small size of 6.8mm (H) and 16.8mm (W) provides improved flexibility in set design.
- Excellent operationality is achieved as tactile feeling is attached to an eight-directional stick switch.

Applications

- For a volume or a mode change of car audio, car navigation, and for a cursor control
- For various input controls of general consumer products
- For remote controllers of the above products

- Variable Resistor Type
- Switch Type

Typical Specifications (Stick Switches)

| Items | | Specifications |
|-----------------------------------|-----------------|----------------|
| Rating (max.) (Resistive load) | | 10mA 5V DC |
| Contact resistance | Lever operation | 1 Ω max. |
| | Push operation | |
| Operating force | | 40±25mN·m |
| Operating angle (lever operation) | | 12° max. |
| Travel (Push operation) | | 0.3±0.2mm |
| Operating life | 8-direction | 50,000 cycles |
| | Center push | |

Typical Specifications (Encoders)

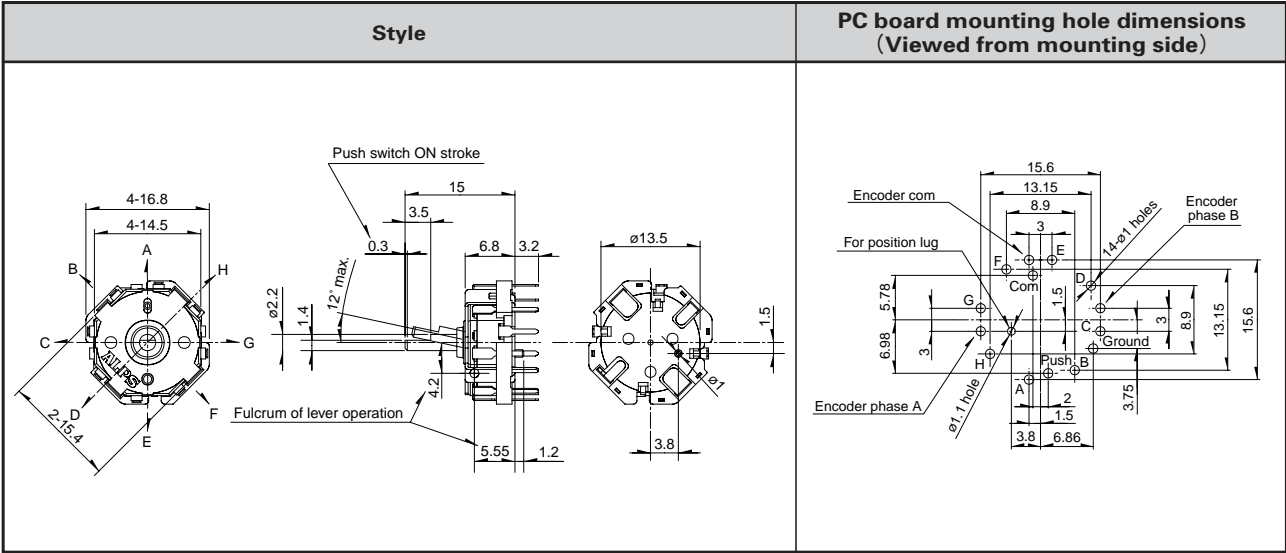
| Items | | Specifications |
|--------------------------------|--|----------------|
| Rating (max.) (Resistive load) | | 10mA 5V DC |
| Pulse number | | 15 |
| No. of detent | | 30 |
| Detent torque | | 15±8mN·m |
| Operating life | | 15,000 cycles |

Products Line

| Maximum resolution | | Products No. | Minimum packing unit (pcs.) |
|--------------------|----------------------|--------------|-----------------------------|
| Direction | Encoder | | |
| 8 | 15-pulses/30-detents | RKJXT1E12001 | 1,000 |

Dimensions

Unit:mm



Output relation chart between lever position and On position.

| Terminal | Operation procedure | | | | | | | | | | | | | | | | Enter push |
|----------|---------------------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------------|
| | A | A/B | B | B/C | C | C/D | D | D/E | E | E/F | F | F/G | G | G/H | H | H/A | |
| Com-A | ON | ON | | | | | | | | | | | | | | | ON |
| Com-B | | ON | ON | ON | | | | | | | | | | | | | |
| Com-C | | | | ON | ON | ON | | | | | | | | | | | |
| Com-D | | | | | | ON | ON | ON | | | | | | | | | |
| Com-E | | | | | | | | ON | ON | ON | | | | | | | |
| Com-F | | | | | | | | | | ON | ON | ON | | | | | |
| Com-G | | | | | | | | | | | | ON | ON | ON | | | |
| Com-H | | | | | | | | | | | | | | ON | ON | ON | |
| Com-Push | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON | ON |

Power

Push

Slide

Rotary

Encoders

Detector

Dual-in-line Package Type

Multi Control Devices

TACT

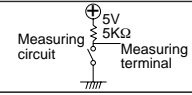
Custom-Products

Variable Resistor Type

Switch Type

Products Specifications

| Items | RKJXT | RKJXM | RKJXL | RKJXS | SLLB | SLLB5 | SLLQ |
|-----------------------------|---|---------------------|---|---------------------------------------|--|--|-----------------|
| Operating temperature range | -30°C to +70°C | | | -20°C to +70°C | -10°C to +60°C | | -40°C to +85°C |
| Power | Rating (max.) (Resistive load) 10mA 5V DC | | | | | | |
| Push | Output voltage | | | 1V max. at 1mA 5V DC (Resistive load) | | | |
| Slide | Directional resolution | | | 8-directional | | | |
| Rotary | Insulation resistance | | | 50MΩ min. 50V DC | 100MΩ min. 100V DC | | |
| Encoders | Voltage proof | | | 50V AC for 1min. | 100V AC for 1 min. | | |
| Detector | Direction application force | | Direction A, B, C, D 30±20mN·m | 10±7mN·m | 0.8±0.5N | | |
| Dual-in-line Package Type | | | Direction AB, BC, CD, DA 25±20mN·m | | | | |
| Multi Control Devices | Push application force | | 4.5±2N | 3±1.5N | 4.5±1N | 2.5±1.5N | |
| TACT | Encoders Detent torque | | 15±8mN·m | 12±8mN·m | | | |
| Custom-Products | Robustness of terminal | | | 3N for 1 min. | | | |
| | Robustness of actuator | Pushing direction | | 30N | 50N | 30N | |
| | | Operating direction | | 20N | 10N | | |
| | Solder heat resistance | Manual soldering | | 300°C max. 3s max. | 350±10°C 3 ¹ / ₂ s | 350±5°C 3s max. | |
| | | Dip soldering | | 260±5°C, 5±1s | | | |
| | | Reflow soldering | | Please see P.341 | | | |
| Variable Resistor Type | Vibration | | 8.3 to 200 to 8.3Hz, 4.4G fixed (for 15 minutes/1 cycle), 3 angles each 2 hours | | | 10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z for 2 hours respectively | |
| Switch Type | Endurance | Operating life | Directions | 50,000 cycles | 100,000 cycles | 500,000 cycles | |
| | | | Center detent | | | | |
| | | Encoder | 15,000 cycles | | | | |
| | Operating life without load | | | 100,000 cycles | | | |
| | Operating life with load (Load : As rating) | | | 100,000 cycles | | | |
| Environmental test | Cold | | -40±2°C for 500h | | -40±2°C for 96h | -20±2°C for 96h | -40±2°C for 96h |
| | Long-term heat resistance | | 85±2°C for 500h | | 85±2°C for 96h | | |
| | Moisture resistance | | 90 to 95%RH for 500h, 60±2°C | | 90 to 95%RH for 96h, 60±2°C | 90 to 95%RH for 96h, 40±2°C | |



Note

Shall be in accordance with individual specifications.