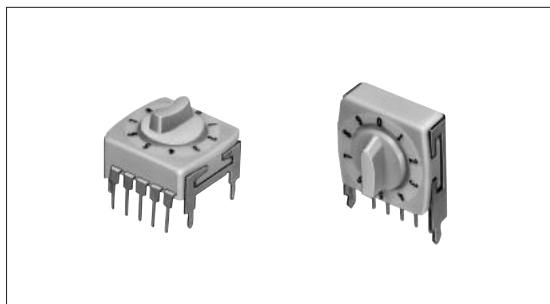


Encoder With Knob Type

SRRQ Series



Highly reliable gold-contact type for program coding.



Features

- Compact encoder for program coding in various digital circuits.

Applications

- For configuring program codes of peripheral antenna devices and home appliances

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

Multi Control
Devices

TACT Switch™

Custom-
Products

Incremental
Type

Absolute
Type

Typical Specifications

| Items | | Specifications |
|---|--------------|-------------------------------------|
| Rating (max.) / (min.) (Resistive load) | | 0.1A 6V DC / 50 μ A 3V DC |
| Contact resistance (Initial performance / After lifetime) | | 1 Ω max. / 1.5 Ω max. |
| Operating life | Without load | 10,000 cycles |
| | With load | 10,000 cycles (0.1A 6V DC) |

Products Line

| Length of operating section (mm) | Torque (mN·m) | Operating direction | Output code | Positions | Step angle | Minimum packing unit (pcs.) | Products No. | Drawing No. |
|----------------------------------|---------------|---------------------|-------------------|-----------|------------|-----------------------------|--------------|-------------|
| 4 | 5 to 25 | Vertical | Binary (Positive) | 10 | 36° | 100 | SRRQVA0200 | 1 |
| | | | | 16 | 22° 30' | | SRRQVG0100 | |
| | | Horizontal | | 10 | 36° | | SRRQHA0300 | 2 |
| | | | | 16 | 22° 30' | | SRRQHG0200 | |

Note

Additional switches not included in the above list are also available. Contact us for details.

For other specifications, see P.231

Dimensions

Unit:mm

| No. | Style | PC board mounting hole dimensions (Viewed from the direction A) |
|-----|--------------------------------------|--|
| 1 | Vertical type with knob | |
| 2 | Horizontal type with knob | |

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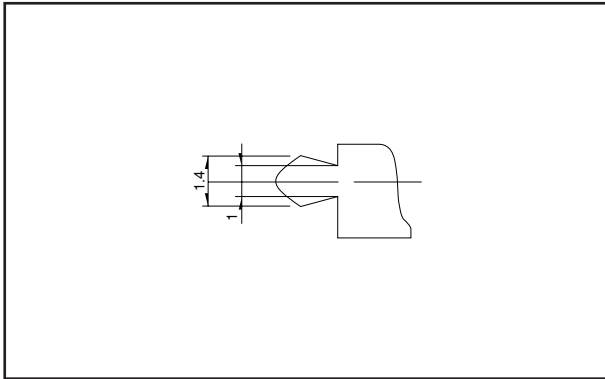
Custom-
Products

Incremental
Type

**Absolute
Type**

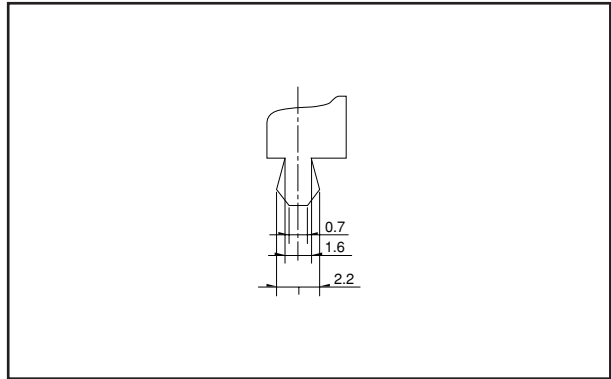
Detail of (a)

Unit:mm

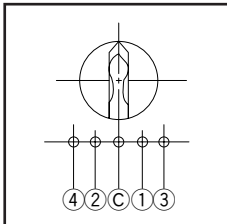


Detail of (b)

Unit:mm



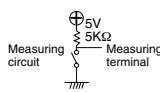
Standard Codes (Viewed from The Direction A)



| Code | Terminal | Number of positions | | | | | | | | | | 16 | | | | | |
|-------------------|----------|---------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Binary (Positive) | 1 | | ● | | ● | | ● | ● | | ● | | ● | | ● | | ● | ● |
| | 2 | | | ● | ● | | ● | ● | | | ● | ● | | | ● | ● | ● |
| | 3 | | | | | ● | ● | ● | | | | | ● | ● | ● | ● | ● |
| | 4 | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● |

The ● marks shows the ON position.

Products Specifications

| Items | | Series | | SRRQ | SRGH | SRGA | SRGPHJ |
|--------------------------------|--|----------------------|--|--|------|---|--|
| | | | | | | | |
| Operating temperature range | | -10°C to +60°C | | | | | |
| Rating (max.) (Resistive load) | | 0.1A 6V DC | | 0.1A 12V DC | | 10mA 5V DC | |
| Electrical performance | Initial contact resistance | | 1 Ω max. | | | | |
| | Output voltage | Shuttle part | | | | | 4V min. at 1mA 5V DC (resistive load)  |
| | | Jog part | | | | | |
| | Insulation resistance | | 100M Ω min. 100V DC | | | | |
| | Voltage proof | | 100V AC for 1 min. | | | | |
| Mechanical performance | Rotational torque | | Shall be in accordance with individual specifications. | | | | |
| | Robustness of terminal | | 5N for 1 min. | | | | |
| | Robustness of actuator | Rotational direction | | | | | 0.6 N · m |
| | | Push direction | 5N | 100N | | | |
| | Vibration | | 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 | | | | |
| | Resistance to soldering heat | Manual soldering | 300±10°C, 3 ⁺¹ ₀ s | 350±10°C, 3 ⁺¹ ₀ s | | 300±10°C, 3 ⁺¹ ₀ s | |
| | | Dip soldering | 260±5°C, 10±1s | | | | 260±5°C, 5±1s |
| Reflow soldering | | | | 150°C 2min max. 220°C 30s max. | | | |
| Durability | Operating life without load | | 10,000 cycles | | | Shuttle part:50,000 cycles Jog part:100,000 cycles | |
| | Operating life with load Load : As rating | | 10,000 cycles | | | Shuttle part:50,000 cycles Jog part:100,000 cycles | |
| Environmental performance | Cold | | -20±2°C for 96h | | | | |
| | Dry heat | | 85±2°C for 96h | | | | |
| | Damp heat | | 40±2°C, 90 to 95%RH for 96h | | | | |

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Shall be in accordance with individual specifications.