

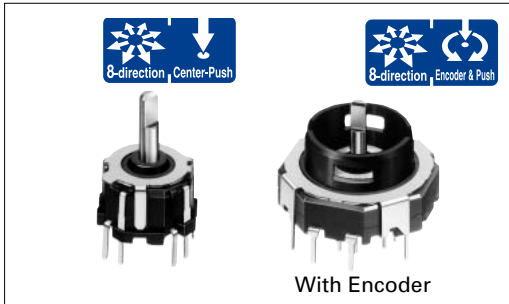
8-directional Stick Switch (with Center-push Function)

RKJXM Series



Single and dual shaft structured device contributes to simple operation and space saving.

Multi Control Devices



Typical Specifications(Inner-shaft Stick Switch)

| Items | | Specifications |
|--------------------------------------|-----------------|--|
| Rating(max. χ Resistive load) | | 10mA 5V DC |
| Contact resistance | Lever operation | 1 max. |
| | Push operation | |
| Operating force | | A·B·C·D direction : $30 \pm 20\text{mN}\cdot\text{m}$ AB·BC·CD·DA direction : $25 \pm 20\text{mN}\cdot\text{m}$ |
| Operating angle (Lever operation) | | A·B·C·D direction : 10° max. AB·BC·CD·DA direction : 12° max. |
| Travel(Push operation) | | $0.3 \pm 0.2\text{mm}$ |
| Operating life | 8-direction | total with 8-direction 100,000cycles |
| | Center-push | 100,000cycles |

Typical Specifications(Outer-shaft Stick Encoder)

| Items | | Specifications |
|--------------------------------------|--|----------------------------------|
| Rating(max. χ Resistive load) | | 10mA 5V DC |
| Detent torque | | $12 \pm 8\text{mN}\cdot\text{m}$ |
| Operating life | | 15,000cycles |













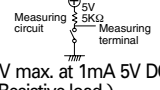
Variable Resistor Type

Switch Type

Product Line

| Shaft | Maximum resolution | | Minimum order unit (pcs.) | Product No. | Drawing No. |
|-------|--------------------|----------------------|-----------------------------|--------------|-------------|
| | Direction | Encoder | | | |
| 1 | 8 | _____ | 1,000 | RKJXM1015001 | 1 |
| 2 | | 15-pulses/15-detents | | RKJXM2E13001 | 2 |

List of Varieties

| Series | | Switch type | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|--|---|---|--|-------|-------------|-------|--------------|-------------|
| | | RKJXT1F | RKJXM | RKJXL | RKJXS | SKRV | SKRH | | | | | | |
| Items | | SKRHAA, SKRHAB | | SKRHAC, SKRHAD | | | | | | | | | |
| Photo | |  |  |  |  |  |  | | | | | | |
| Function | |  |  |  |  |  |  | | | | | | |
| Dimensions (typical value) (mm) | W | 17 | | 13 | | 11.7 | | 6.45 | | 7.35/7.45 | | | |
| | D | 20.5 | | 6.4 | | 12.3 | | 6.4 | | 7.5 | | | |
| | H | 10.5 | | 6.4 | | 2.3 | | 4 | | 5 | | | |
| Outlined specifications | Number of operating shafts | Single-shaft | | Single-shaft/Dual-shaft | | Single-shaft | | | | | | | |
| | Shaft material | Metal | | | | Resin | | | | | | | |
| | Directional resolution | 4-direction | | 8-direction | | | | 4-direction | | | | | |
| | Directional operating feeling (tactile feeling) | With | | | Without | | With | | | | | | |
| | Lever return mechanism | With | | | | | | | | | | | |
| | Center-push switch | With | | | | | | | | | | | |
| | Encoder | With | | Without/With | | Without | | | | | | | |
| Operating temperature range | | -40 to +85 | | -30 to +80 | | -30 to +70 | | -20 to +70 | | -30 to +85 | | | |
| Rating (max. χ Resistive load) | | 10mA 5V DC | | | | | | 50mA 12V DC | | | | | |
| Electrical performance | Output voltage | _____ | | | | | |  1V max. at 1mA 5V DC (Resistive load) | | _____ | | | |
| | Directional resolution | 4-direction | | 8-direction | | | | 4-direction | | | | | |
| | Insulation resistance | 100M min. 250V DC | | | | 50M min. 50V DC | | 100M min. 100V DC | | | | | |
| | Voltage proof | 300V AC for 1min. or 360V AC for 2s | | | | 50V AC for 1min. | | 100V AC for 1min. | | | | | |
| | Directional operating force | 40 ± 25mN·m | | Direction A, B, C, D 30 ± 20mN·m Direction AB, BC, CD, DA 25 ± 20mN·m | | 10 ± 7mN·m | | 0.8 ± 0.5N | | 1.2 ± 0.6N | | 1.23 ± 0.69N | 1.2 ± 0.69N |
| Mechanical performance | Push operating force | 5 ± 2N | | 3 ± 1.5N | | 4.5 ± 1N | | 2.5 ± 1.5N | | 2.4 ± 0.69N | | 2.35 ± 0.69N | |
| | Encoder detent torque | 15 ± 8mN·m | | 12 ± 8mN·m | | _____ | | | | | | | |
| | Terminal strength | 5N for 1min. | | _____ | | | | | | | | | |
| | Actuator strength | Pushing direction | 100N | | | | 30N | | _____ | | | | |
| | | Operating direction | 0.4N·m | | 0.3N·m | | 0.15N·m | | 20N | | _____ | | |
| Endurance | Vibration | 8.3 ± 1 to 200 ± 4 to 8.3 ± 1Hz, 4.4G fixed (for 15 min./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 | | | | | |
| | Operating life without load | _____ | | | | | | | | | | | |
| | Operating life with load (at rated load) | _____ | | | | | | | | | | | |
| Environmental performance | Cold | -40 ± 2 for 500h | | | | -40 ± 2 for 96h | | -30 ± 2 for 96h | | | | | |
| | Dry heat | 85 ± 2 for 500h | | | | 85 ± 2 for 96h | | 80 ± 2 for 96h | | | | | |
| | Damp heat | 60 ± 2, 90 to 95%RH for 500h | | | | 60 ± 2, 90 to 95%RH for 96h | | | | | | | |
| Soldering | Manual soldering | 350 ± 5 3s max. | | | | 350 ± 10 3 ¹ s | | 350 max. 3s max. | | | | | |
| | Dip soldering | 260 ± 5, 5 ± 1s | | 260 max. 6s max. | | _____ | | | | | | | |
| | Reflow soldering | Please see P.492 | | | | | | | | | | | |
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