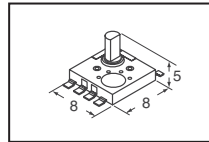


C&K TPA Series SMT Navigation Switches



Dim. in mm

Actuating the shaft in the up, down, right or left direction individually closes four momentary contacts which provide the scanning function.



Specifications:

- **Switching:** Voltage Maximum: 24V
- **Current Maximum:** Silver: 50mA; Gold: 10mA
- **Operating Temperature:** Silver: -40°C ~ 85°C; Gold: -40°C ~ 110°C
- **Life Expectancy:** 200,000 operations *Push to select = 400gF*

| Description | Digi-Key Part No. | Cut Tape Price Each | | | T & R Pricing† | C&K Part No. |
|--|-------------------|---------------------|-----|-----|----------------|--------------|
| | | 1 | 25 | 100 | | |
| Momentary, 2-Directional with Selection, 185gF, Silver, Gullwing | 401-1277-1-ND | .94 | .87 | .80 | — | TPA311GLFS |
| Momentary, 4-Directional with Selection, 185gF, Silver, Gullwing | 401-1130-1-ND | .97 | .90 | .83 | 539.71 | TPA511GLFS |
| Cap Switch Black Plastic for TPA | 401-1997-ND | .62 | .50 | .40 | — | BOUTON TPA |

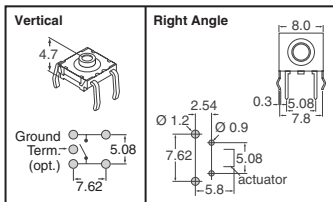
† For Tape and Reel part number, change 1-ND to 2-ND. ♦ Bulk

KSA Series Sealed Tact Switches



Dim. in mm

Miniature tact switch is designed for automatic or manual insertion.



Specifications:

- **Circuit:** SPST-NO
- **Switching:** Current Maximum: Silver: 50mA; Gold: 10mA
- **Voltage Maximum:** 50VDC
- **Contact Resistance:** 50mΩ
- **Total Travel:** .03 ~ 0.5mm
- **Life Expectancy:** 10⁵ operations
- **Operating Temperature:** Silver: -40°C ~ 90°C; Gold: -40°C ~ 125°C

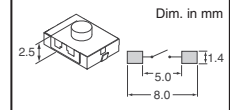
MARK II Versions are washable

| Description | Digi-Key Part No. | Price Each | | | C&K Part No. |
|--|-------------------|------------|-----|-----|--------------|
| | | 1 | 25 | 100 | |
| Vertical, 6.2mm sq., 130gF, Mark II Sealed, Long Life, Gold | 401-1812-ND | .31 | .29 | .25 | KSA0M332LFT |
| Vertical, 6.2mm sq., 300gF, Mark II Sealed, Gold | 401-1815-ND | .46 | .43 | .39 | KSA0M432LFT |
| Vertical, 7.4mm sq., 130gF, Mark I Sealed | 401-1807-ND | .37 | .35 | .32 | KSA0M211LFT |
| Vertical, 7.4mm sq., 130gF, Mark I Sealed, Long Life | 401-1809-ND | .37 | .35 | .32 | KSA0M311LFT |
| Vertical, 7.4mm sq., 130gF, Mark I Sealed | 401-1807-ND | .37 | .35 | .32 | KSA0M211LFT |
| Vertical, 7.4mm sq., 130gF, Mark I Sealed, Long Life | 401-1809-ND | .37 | .35 | .32 | KSA0M311LFT |
| Vertical, 7.4mm sq., 130gF, Mark I Sealed, Long Life, Gold | 401-1811-ND | .46 | .43 | .40 | KSA0M331LFT |
| Vertical, 7.4mm sq., 130gF, with Ground | 401-1823-ND | .43 | .40 | .37 | KSA1M211LFT |
| Vertical, 7.4mm sq., 130gF, Long Life, with Ground | 401-1824-ND | .43 | .40 | .37 | KSA1M311LFT |
| Vertical, 7.4mm sq., 130gF, Mark I Sealed, Gold, with Ground | 401-1825-ND | .60 | .56 | .52 | KSA1M331LFT |
| Vertical, 7.4mm sq., 300gF, Mark I Sealed | 401-1813-ND | .37 | .35 | .32 | KSA0M411LFT |
| Vertical, 7.4mm sq., 300gF, with Ground | 401-1826-ND | .43 | .40 | .37 | KSA1M411LFT |
| Vertical, 7.4mm sq., 500gF, Mark I Sealed | 401-1816-ND | .41 | .38 | .35 | KSA0M511LFT |
| Right Angle, 8.0mm sq., 130gF, Mark I Sealed | 401-1818-ND | .47 | .44 | .40 | KSA0V211LFT |
| Right Angle, 8.0mm sq., 130gF, Mark I Sealed, Long Life | 401-1819-ND | .47 | .44 | .40 | KSA0V311LFT |

KSR Series Low Profile Tact Switches



The KSR Series Switches are a miniature tact switch, single pole, normally open contact. The extremely small overall dimensions make the KSR fit perfectly in small applications where density of components is a major constraint. **Applications:** Cellular phones, recorders, computers, pointers, radios, medical instrumentation and car entry remotes. **Specifications:** • **Circuit:** SPST-NO • **Switching:** Voltage Minimum/Maximum: 20mV/32V • **Current:** Silver: 50mA; Gold: 50mA • **Operating Temperature:** Silver: -40°C ~ 85°C; Gold: -40°C ~ 125°C • **Contact Material:** Gold and Silver Plated



| Description | Digi-Key Part No. | Cut Tape Price Each | | | T & R Pricing† | C&K Part No. |
|------------------------------|-------------------|---------------------|-----|-----|----------------|--------------|
| | | 1 | 25 | 100 | | |
| 180gF, Gullwing, SMD, Silver | 401-1702-1-ND | .38 | .36 | .33 | 213.01/M | KSR211GLFS |
| 200gF, Gullwing, SMD, Silver | 401-1703-1-ND | .38 | .36 | .33 | 210.40/M | KSR221GLFS |
| 200gF, Gullwing, SMD, Gold | 401-1704-1-ND | .48 | .45 | .41 | 266.59/M | KSR223GLFG |
| 200gF, Gullwing, SMD, Gold | 401-1705-1-ND | .70 | .66 | .60 | 390.59/M | KSR223GNCLFG |
| 300gF, Gullwing, SMD, Silver | 401-1706-1-ND | .38 | .36 | .33 | 213.01/M | KSR231GLFS |
| 450gF, Gullwing, SMD, Silver | 401-1707-1-ND | .38 | .36 | .33 | 213.01/M | KSR251GLFS |
| 450gF, Gullwing, SMD, Gold | 401-1708-1-ND | .56 | .52 | .48 | 311.02/M | KSR253GLFG |
| 450gF, Gullwing, SMD, Silver | 401-1520-1-ND | .36 | .34 | .31 | — | KSR251G |

Long Life Version — RoHS Compliant

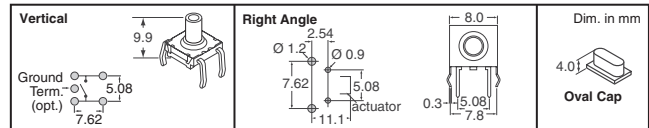
| | | | | | | |
|------------------------------|--------------|-----|-----|-----|----------|-------------|
| 180gF, Gullwing, SMD, Silver | CKN9186CT-ND | .39 | .36 | .33 | 215.63/M | KSR212G LFS |
| 180gF, Gullwing, SMD, Gold | CKN9187CT-ND | .53 | .50 | .46 | 295.49/M | KSR214G LFG |
| 200gF, Gullwing, SMD, Silver | CKN9188CT-ND | .36 | .34 | .31 | 199.66/M | KSR222G LFS |
| 200gF, Gullwing, SMD, Gold | CKN9189CT-ND | .49 | .46 | .42 | 272.98/M | KSR224G LFG |
| 300gF, Gullwing, SMD, Silver | CKN9190CT-ND | .38 | .36 | .33 | 210.54/M | KSR232G LFS |
| 300gF, Gullwing, SMD, Gold | CKN9191CT-ND | .52 | .48 | .44 | 287.50/M | KSR234G LFG |
| 450gF, Gullwing, SMD, Silver | CKN9192CT-ND | .40 | .37 | .34 | 219.28/M | KSR252G LFS |
| 450gF, Gullwing, SMD, Gold | CKN9193CT-ND | .54 | .51 | .46 | 300.57/M | KSR254G LFG |

♦ RoHS Compliant ♦ Normally Closed ‡ For Tape and Reel part number, change 1-ND to 2-ND. § For Tape and Reel part number, change CT-ND to TR-ND.

KSL Series Tact Switches (Washable)



MARK II Versions are improved seal versions for immersed cleaning. **Specifications:** • **Circuit:** SPST-NO • **Switching:** Voltage Maximum: 50VDC • **Current Maximum:** Silver: 50mA; Gold: 10mA • **Contact Resistance:** 50mΩ • **Contact Material:** Silver plated • **Operating Temperature:** Silver: -40°C ~ 90°C; Gold: -40°C ~ 125°C

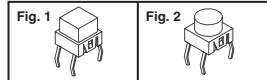


| Description | Digi-Key Part No. | Price Each | | | C&K Part No. |
|---|-------------------|------------|-----|-----|--------------|
| | | 1 | 25 | 100 | |
| Vertical, 130gF, Totally Sealed | 401-1828-ND | .44 | .41 | .38 | KSL0M211LFT |
| Vertical, 130gF, Mark II Sealed | 401-1829-ND | .44 | .41 | .37 | KSL0M212LFT |
| Vertical, 130gF, Mark II Sealed, Long Life | 401-1831-ND | .44 | .41 | .37 | KSL0M312LFT |
| Vertical, 300gF, Totally Sealed | 401-1833-ND | .44 | .41 | .38 | KSL0M411LFT |
| Vertical, 300gF, Mark II Sealed | 401-1834-ND | .44 | .41 | .37 | KSL0M412LFT |
| Vertical, 300gF, Flux Sealed, Gold | 401-1835-ND | .55 | .52 | .47 | KSL0M431LFT |
| Right Angle, 130gF, Totally Sealed, Long Life | 401-1839-ND | .57 | .53 | .49 | KSL0V311LFT |
| Right Angle, 300gF, Totally Sealed | 401-1841-ND | .57 | .53 | .49 | KSL0V411LFT |
| Vertical, 130gF, Totally Sealed, with Ground | 401-1843-ND | .51 | .47 | .43 | KSL1M211LFT |
| Oval Cap, 9.5mm x 5.6mm, Black | 401-1424-ND | .30 | .29 | .26 | BTNK0390 |

KSA Series Snap-On Switch Caps (Mark I Version Only)



Snap-on buttons for vertical KSA switches snap over and are held in place by the KSA body. All buttons must be mounted after the soldering and cleaning process. Buttons are able to be screen printed for custom legend appearances. (Switch is sold separately.)

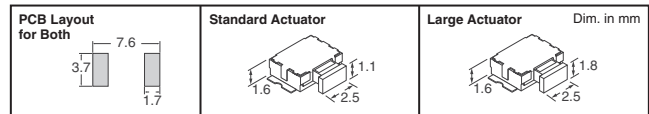


| Color | Digi-Key Part No. | Price Each | | | C&K Part No. |
|---------------------------------|-------------------|------------|-----|-----|--------------|
| | | 1 | 25 | 100 | |
| Fig. 1 — 10mm Square Cap | | | | | |
| Black | 401-1237-ND | .30 | .29 | .26 | BTNK0190 |
| Red | 401-1238-ND | .30 | .29 | .26 | BTNK0140 |
| Light Grey | 401-1239-ND | .30 | .29 | .26 | BTNK0120 |
| Dark Grey | 401-1240-ND | .30 | .29 | .26 | BTNK0110 |
| Yellow | 401-1241-ND | .45 | .42 | .38 | BTNK0130 |
| Blue | 401-1242-ND | .30 | .29 | .26 | BTNK0160 |
| Green | 401-1243-ND | .41 | .39 | .35 | BTNK0150 |
| Ivory | 401-1244-ND | .46 | .43 | .40 | BTNK0180 |
| Grey-Blue | 401-1245-ND | .30 | .29 | .26 | BTNK0170 |
| Fig. 2 — 8mm Round Cap | | | | | |
| Black | 401-1246-ND | .30 | .29 | .26 | BTNK0290 |
| Red | 401-1247-ND | .30 | .29 | .26 | BTNK0240 |
| Light Grey | 401-1248-ND | .30 | .29 | .26 | BTNK0220 |
| Dark Grey | 401-1249-ND | .30 | .29 | .26 | BTNK0210 |
| Yellow | 401-1250-ND | .30 | .29 | .26 | BTNK0230 |
| Blue | 401-1251-ND | .30 | .29 | .26 | BTNK0260 |
| Green | 401-1252-ND | .30 | .29 | .26 | BTNK0250 |
| Ivory | 401-1253-ND | .30 | .29 | .26 | BTNK0280 |
| Grey-Blue | 401-1254-ND | .30 | .29 | .26 | BTNK0270 |

KSS Series Miniature Side Actuated Tact Switches



Specifications: • **Circuit:** SPST-NO • **Switching:** Maximum Voltage: 50V • **Minimum/Maximum Current:** Silver: 1mA/50mA; Gold: 1mA/10mA • **Life Expectancy:** 10⁵ operations • **Operating Temperature:** Silver: -40°C ~ 85°C; Gold: -40°C ~ 125°C



| Description | Digi-Key Part No. | Cut Tape Price Each | | | Tape & Reel Pricing† | C&K Part No. |
|--|-------------------|---------------------|-----|-----|----------------------|--------------|
| | | 1 | 25 | 100 | | |
| Standard Actuator, 200gF, Gullwing | 401-1097-1-ND | .32 | .30 | .28 | 177.73/M | KSS221GLFS |
| Standard Actuator, 250gF, Gullwing | 401-1098-1-ND | .32 | .30 | .28 | 177.73/M | KSS231GLFS |
| Standard Actuator, 250gF, Gullwing, Gold | 401-1698-1-ND | .41 | .39 | .32 | 228.69/M | KSS233GLFG |
| Standard Actuator, 400gF, Gullwing | 401-1099-1-ND | .35 | .33 | .30 | 192.10/M | KSS241GLFS |
| Large Actuator, 200gF, Gullwing | 401-1100-1-ND | .37 | .35 | .32 | 205.17/M | KSS321GLFS |
| Large Actuator, 250gF, Gullwing | 401-1101-1-ND | .37 | .35 | .32 | 205.17/M | KSS331GLFS |
| Large Actuator, 400gF, Gullwing | 401-1102-1-ND | .38 | .36 | .33 | 214.32/M | KSS341GLFS |
| Standard Actuator, 200gF, Gullwing, Gold | 401-1522-1-ND | .41 | .39 | .35 | 228.69/M | KSS223GLFG |
| Standard Actuator, 400gF, Gullwing, Gold | 401-1523-1-ND | .44 | .41 | .38 | 243.07/M | KSS243GLFG |

† For Tape and Reel part number, change 1-ND to 2-ND.

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over £50! All prices are in British pound sterling and include duties.

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