

MINIATURE K Series

Features

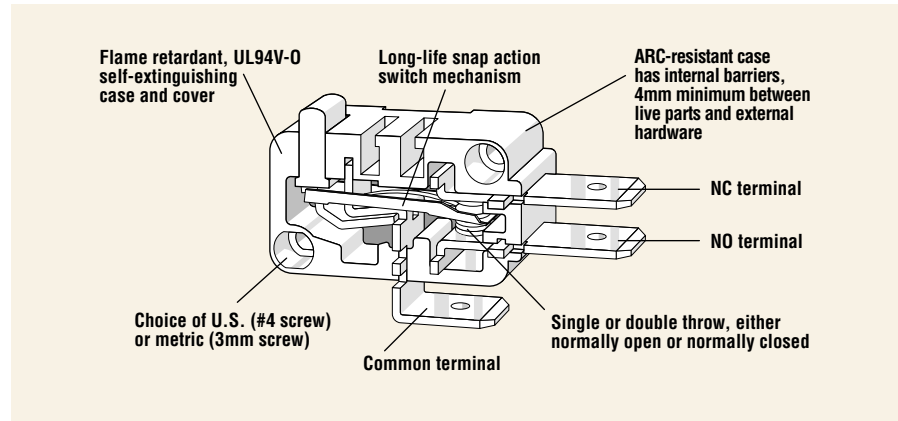
- Choice of current ratings up to 25 amps
- Choice of actuators
- Choice of terminals
- 3 contact arrangements
- Choice of operating force
- Long mechanical life
- Wiping contact action
- Snap over actuators
- Agency approved extended life versions

International Approved Versions

K Series switches, except 25A (KWS), are internationally approved. Switches with straight terminals may require insulated connectors for international approval.

Electrical Ratings

| Switch Series | EN61058 Rating | UL1054 Rating | Electrical Life at Rated Load | |
|----------------|-----------------|--|------------------------------------|-----------------------------------|
| | | | According to VDE (Min. Operations) | According to UL (Min. Operations) |
| KWA/KWB | 50mA, 28VDC | 50mA, 28VDC | 50,000 | 100,000 |
| KWC/KWD | 1(0.5)A, 250VAC | 1.0A, 125/250VAC | 50,000 | 100,000 |
| KWE/KWF | 3(1)A, 250VAC | 3A, 1/10HP, 125/250VAC | 50,000 | 100,000 |
| KWG/KWH | 6(2)A, 250VAC | 5A, 1/4HP, 125/250VAC | 50,000 | 100,000 |
| KWJ/KWK | 10(3)A, 250VAC | 10A, 1/2HP, 125/250VAC | 50,000 | 100,000 |
| KWL | N/A | 15.1A, 1/2HP, 125/250 VAC 5A, 125VAC Lamp Load (85°C only) 0.5A, 125VDC (85°C only) 0.25A, 250VDC (85°C only) | N/A | 100,000 |
| KWM | 16(4)A, 250VAC | 15.1A, 1/2HP, 125/250VAC 0.5A, 125VDC (85°C and 150°C only) 0.25A, 250VDC (85°C and 150°C only) 15.1A, 1/2HP, 125/250VAC (200°C only) | 50,000 | 100,000 |
| KWS | N/A | 25A, 125/250VAC (85°C only) 1HP, 125VAC (85°C only) 2HP, 250VAC (85°C only) | N/A | 100,000 |



Specifications

Electrical

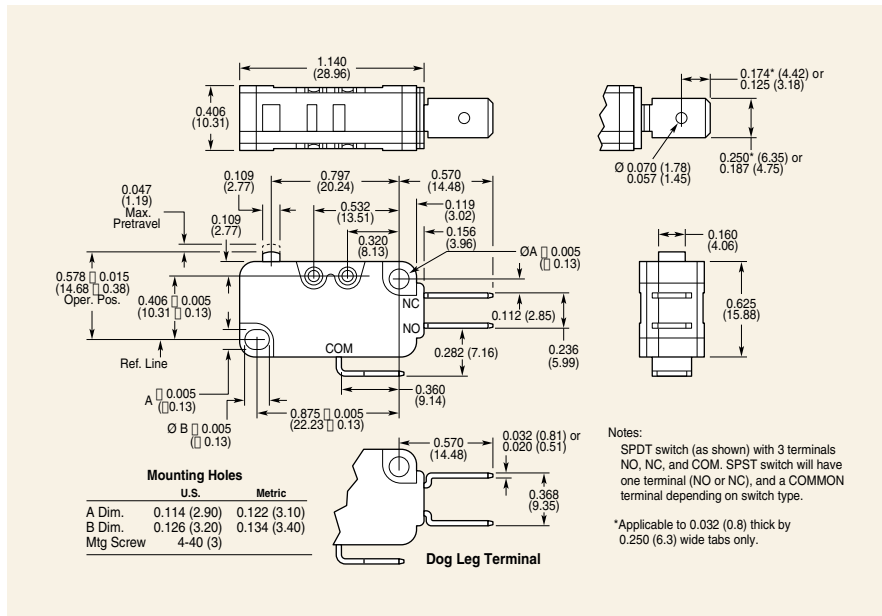
| | |
|----------------------|-------------------------------|
| Temperature Rating: | -40° to +85°C, 150°C or 200°C |
| Flammability Rating: | UL94V-0 |

Materials

| | |
|---------------------|--|
| Case/Cover: | Thermoplastic Polyester (85°C or 150°C) Liquid Crystal Polymer (200°C) |
| Button: | Thermoplastic Acetal (85°C) Thermoplastic Polyester (150°C) Liquid Crystal Polymer (200°C) |
| Auxiliary Actuator: | Cold-Rolled Steel (Nickel-Plated) |
| Terminals: | Brass Copper (25 amp only) |
| Moving Blade: | Beryllium Copper |
| Contacts: | Silver Alloy (except KWA and KWB – Gold-Plated) |



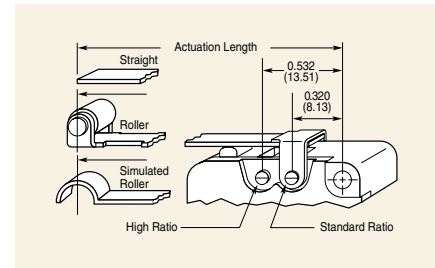
Dimensions inches (mm)



Actuators

Standard type snap over hinged lever and roller actuators are available in choice of two pivot positions. Lengths are dimensioned from centerline of switch upper mounting hole as shown here.

Auxiliary Actuator



Mounting

Recommended mounting screw size: #4-40 Round head. Recommended torque on screw: 3 inch lbs. max.

Actuator Specifications

| Actuator Type | Switch Type | Maximum Operating Force (gms.) | | | | | Maximum Pre-Travel inches (mm) | Operating Point* inches (mm) | Minimum Over-Travel inches (mm) | Max. Movement Differential inches (mm) | Actuation Length** inches (mm) |
|---------------|-------------|--------------------------------|-----|--------------------|---------------|-----|--------------------------------|------------------------------|---------------------------------|--|--------------------------------|
| | | KWA, KWC, KWE | KWG | KWD, KWJ, KWB, KWF | KWH, KWK, KWM | KWS | | | | | |
| A | | 25 | 50 | 75 | 150 | 225 | 0.056 (1.42) | 0.602/0.563 (15.29/14.30) | 0.050 (1.27) | 0.010 (0.25) | — |
| B | | 25 | 50 | 75 | 150 | 225 | 0.075 (1.90) | 0.631/0.585 (16.03/14.85) | 0.051 (1.29) | 0.012 (0.31) | 0.865 (21.97) |
| C | | 14 | 27 | 40 | 80 | 120 | 0.146 (3.71) | 0.659/0.569 (16.74/14.45) | 0.085 (2.16) | 0.030 (0.76) | 1.400 (35.56) |
| D | | 6 | 12 | 18 | 36 | 54 | 0.330 (8.38) | 0.725/0.527 (18.41/13.38) | 0.182 (4.62) | 0.051 (1.30) | 2.722 (69.14) |
| E | | 15 | 30 | 44 | 88 | 132 | 0.133 (3.38) | 0.653/0.572 (16.59/14.52) | 0.074 (1.88) | 0.021 (0.54) | 1.077 (27.36) |
| F | | 8 | 15 | 23 | 45 | 67 | 0.267 (6.78) | 0.702/0.541 (17.83/13.74) | 0.146 (3.71) | 0.041 (1.05) | 1.612 (40.94) |
| G | | 4 | 7 | 10 | 20 | 30 | 0.593 (15.06) | 0.820/0.467 (20.83/11.86) | 0.407 (10.33) | 0.091 (2.32) | 2.934 (74.52) |
| J | | 16 | 31 | 46 | 92 | 138 | 0.128 (3.25) | 0.776/0.698 (19.71/17.72) | 0.088 (2.23) | 0.020 (0.51) | 1.254 (31.85) |
| M | | 9 | 18 | 26 | 52 | 77 | 0.232 (5.88) | 0.813/0.675 (20.65/17.14) | 0.115 (2.92) | 0.036 (0.92) | 1.466 (37.24) |
| Q | | 15 | 29 | 43 | 85 | 127 | 0.140 (3.56) | 0.872/0.786 (22.15/19.96) | 0.096 (2.43) | 0.022 (0.56) | 1.340 (34.04) |
| T | | 8 | 16 | 24 | 47 | 71 | 0.253 (6.43) | 0.912/0.761 (23.16/19.32) | 0.173 (4.39) | 0.039 (1.00) | 1.552 (39.42) |

*Measured above reference line. Refer to dimensional drawing above. **Actuator tolerance ± 0.031 inches (0.79mm).

Ordering Information

| KW | | A | | D | | Q | | A C A | |
|---------------|-------|-------|-------|------|--------------------|------|--------------------------------------|---------------------|------------------|
| Series/Prefix | | Light | | Code | | Code | | Snap Over Actuators | |
| Code | Force | Code | Force | Code | Temperature Rating | Code | Terminal Type | Code | Actuation Length |
| A | 25 | B | 75 | A | 85°C UL/CUL | P4 | 0.062 x 0.032 (1.57 x 0.81) PCB* | A | Button |
| C | 25 | D | 75 | B | 150°C UL/CUL | Q | 0.187 x 0.020 (4.75 x 0.51) Straight | B | Straight SR |
| E | 25 | F | 75 | C | 200°C UL/CUL | R | 0.187 x 0.020 (4.75 x 0.51) Dog Leg | C | Straight SR |
| G | 50 | H | 150 | D | 85°C UL/CUL/VDE* | S | 0.187 x 0.032 (4.75 x 0.81) Straight | D | Straight SR |
| J | 75 | K | 150 | E | 150°C UL/CUL/VDE | T | 0.187 x 0.032 (4.75 x 0.81) Dog Leg | E | Straight HR |
| | | L | 150 | | | V | 0.250 x 0.032 (6.35 x 0.81) Straight | F | Straight HR |
| | | M | 150 | | | W | 0.250 x 0.032 (6.35 x 0.81) Dog Leg | G | Straight HR |
| | | S | 225 | | | | | J | SIM Roller SR |
| | | | | | | | | M | SIM Roller SR |
| | | | | | | | | Y† | Roller SR |
| | | | | | | | | Q | Roller SR |
| | | | | | | | | W† | Roller HR |
| | | | | | | | | T | Roller HR |

Notes:
 1. cULus rated for 100,000 cycles at 85°C, 150°C, 200°C. VDE rated for 150°C only.
 2. cULus rated for 100,000 cycles at 85°C, 150°C, 200°C. VDE rated for 85°C only.
 3. cULus rated for 100,000 cycles at 85°C only.
 4. Available in 10A and lower, cULus rated for 100,000 cycles at 85°C and 150°C.
 5. Available with 0.250 x 0.032* terminals only.

*PCB terminals are lateral to case only.

†Available as internal mounting only.