

Miniature Snap Switch

Single and Double Pole

D4 Series



Features

- Choice of standard or light operating force
- Long life coil spring mechanism
- RoHS compliant
- Cadmium free
- Various aux actuators
- Various terminal types
- Agency approved extended life versions available

Standard Parts¹

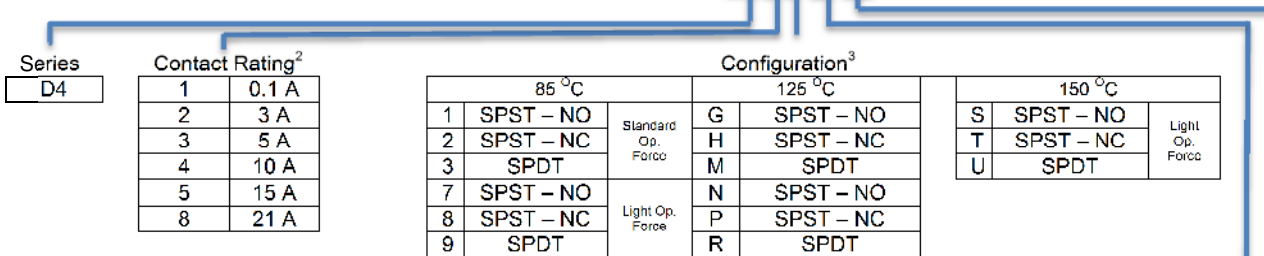
| | | | | | |
|--------------|--------------|--------------|--------------|--------------|--------------|
| D413-R1AA-G2 | D429-R1TD-G2 | D433-R1AA-G2 | D443-R1LD-G2 | D449-R1LL-G2 | D453-R1RA-G2 |
| D413-R1LA-G2 | D429-R1AA-G2 | D433-R1LD-G2 | D443-R1MD-G2 | D449-R1MD-G2 | D453-R1RD-G2 |
| D413-R1LD-G2 | D429-R1LD-G2 | D433-R1RA-G2 | D443-R1RA-G2 | D449-R1ML-G2 | D459-R1AA-G2 |
| D413-R1RA-G2 | D429-R1LL-G2 | D433-R1RD-G2 | D443-R1RD-G2 | D449-R1RA-G2 | D459-R1LD-G2 |
| D419-R1AA-G2 | D429-R1MD-G2 | D439-R1LL-G2 | D449-R1AA-G2 | D449-R1RD-G2 | D459-R1LL-G2 |
| D423-R1RA-G2 | D429-R1ML-G2 | D439-V1ML-G2 | D449-R1LD-G2 | D453-B8AA-G2 | D459-R1ML-G2 |
| D423-R1RD-G2 | | D443-R1AA-G2 | | D453-R1AA-G2 | |

¹The part number configuration matrix below provides details to the part numbers above.

For configurable part numbers that are not listed above, not listed in your region, or for custom part numbers, contact the factory or your distributor. For information on crossing discontinued U.S. only part numbers, see D4 cross-reference chart at www.cherryswitches.com.

Part Number Breakdown

D413-R1AA-G2 (most part numbers end in -G2; see D4 cross-reference chart for exceptions)



²UL AC current rating; see table on reverse for complete details

³D48 only available with light operating force

| | |
|----|---|
| A1 | Welding |
| B8 | Short solder |
| C1 | 2.8 x 0.8 (0.110 x 0.032) QC, bifurcated straight** |
| C3 | 2.8 x 0.8 (0.110 x 0.032) QC, bifurcated dog leg** |
| P4 | 1.2 x 0.5 (0.047 x 0.020) PCB, underside* |
| P5 | 1.2 x 0.5 (0.047 x 0.020) PCB, rear* |
| PA | 1.2 x 0.5 (0.047 x 0.020) PCB, housing side* |
| PB | 1.2 x 0.5 (0.047 x 0.020) PCB, cover side* |
| Q1 | 4.8 x 0.8 (0.187 x 0.032) QC, straight* |

| Terminal Type mm (inches) | |
|---------------------------|--|
| Q3 | 4.8 x 0.8 (0.187 x 0.032) QC, dog leg* |
| R1 | 4.8 x 0.5 (0.187 x 0.020) QC, straight** |
| R3 | 4.8 x 0.5 (0.187 x 0.020) QC, dog leg** |
| S1 | Solder with temp stop |
| V1 | 6.3 x 0.8 (0.250 x 0.032) QC, straight |
| V3 | 6.3 x 0.8 (0.250 x 0.032) QC, dog leg |
| W9 | Screw* |
| Y5 | 6.3 x 0.8 (0.250 x 0.032) QC, 5 mm grid |
| Z5 | 6.3 x 0.8 (0.250 x 0.032) QC, 7 mm grid |

*not available for D48

**not available for D45 or D48

Actuator Type mm (inches)

| Actuation length | |
|------------------|---------------------------------------|
| AA | Button N/A |
| JA | SS lever, standard ratio 21.2 (0.835) |
| JD | SS lever, standard ratio 35.6 (1.4) |
| JL | SS lever, standard ratio 69.9 (2.75) |
| KA | SS lever, high ratio 25.7 (1.01) |
| KL | SS lever, high ratio 74.4 (2.93) |
| LA | Lever, standard ratio 21.2 (0.835) |
| LD | Lever, standard ratio 35.6 (1.4) |
| LL | Lever, standard ratio 69.9 (2.75) |

| Actuation length | |
|------------------|--------------|
| MA | 25.7 (1.01) |
| ML | 74.4 (2.93) |
| RA | 20.6 (0.811) |
| RD | 34.1 (1.34) |
| SA | 20.6 (0.811) |
| TA | 25.1 (0.988) |
| TD | 38.6 (1.52) |
| UA | 25.1 (0.988) |

For actuator details, see D4 actuator reference sheet at www.cherryswitches.com

Electrical Specifications – Contact Ratings

| Contact | EN61058 | UL1054 |
|---------|---|---|
| 1 | 0.1 (0.5) A, 250 VAC; 0.5 A, 30 VDC; 1 (1) A, 250 VAC | 0.1 A, 125/250 VAC; 0.5 A, 30 VDC; 1 A, 125 VAC |
| 2 | 3 (1) A, 250 VAC | 3 A, 125/250 VAC; 1/10 HP, 250 VAC |
| 3 | 6 (2) A, 250 VAC | 5 A, 125/250 VAC; ¼ HP, 250 VAC |
| 4 | 10 (3) A, 250 VAC | 10 A, 125/250 VAC; 6 A, 30 VDC; ½ HP, 125/250 VAC |
| 5 | 16 (4) A, 250 VAC | 15 A, 125/250 VAC; ½ HP, 125-250 VAC |
| 8 | 21 (8) A, 250 VAC | 21 A, 250 VAC; 1 HP, 125 VAC; 2 HP, 250 VAC |

UL file number E314201

Environmental and Mechanical Specifications

| | | |
|---|--|---------------------------|
| Operating Temperature | -40 °C to 85, 125 or 150 °C (-40 °F to 185, 257 or 302 °F) | |
| Flammability Rating | UL 94V-0 | |
| Operating life – electrical life at rated load, 85 °C | | |
| | <u>Contact</u> | <u>EN61058</u> |
| | 1 | 50,000 |
| | 2 | 50,000 |
| | 3 | 50,000 |
| | 4 | 50,000 |
| | 5 | 50,000 |
| | 7 | 10,000 |
| | | <u>UL1054⁴</u> |
| | | 6,000 |
| | | 6,000 |
| | | 6,000 |
| | | 6,000 |
| | | 6,000 |
| | | 6,000 |

⁴Extended life available

Material Specifications

| | |
|--------------------|---|
| Case | Thermoplastic Polyester PET |
| Cover | Thermoplastic Polyester PET |
| Actuating Button | Thermoplastic Acetyl (POM) 85 °C, Thermoplastic Polyester (PET) 125 or 150 °C |
| Contacts | Gold Cross Point (D41), Silver (D42), Silver Alloy (D43-D48) |
| Terminals | Brass |
| Auxiliary Actuator | Stainless Steel or Cold-Rolled Steel (Nickel Plated) |
| Moving Blade | Silver Plated Brass |

Environmental Specifications

| | |
|---------------------|--|
| Ambient Temperature | -40 °C to 85 °C/120 °C (-40 °F to 185 °F/248 °F) |
| Operating Force | 70 – 280 cN (model dependent, without actuator) |
| Total Travel | 1.6 mm |
| Ingress Protection | IP50 |

Dimensions mm (inches) and terminal configurations

