

Miniature Snap Switch



Single Pole

D4 Series

Recommended Cross for 2014 Discontinued U.S.-only parts

Standard Parts – Global parts listed below are recommendations only and may not be exact crosses

US Version	Global	US Version	Global
D416-V3LD	D41U-V3LD-G2	D44B-V1TD-CF	D442-V1TD-CF
D41A-R1LD	Consult factory	D44C-R1AA	D443-R1AA-CF
D41C-R1AA	D413-R1AA-G2	D44C-R1ML	D443-R1ML-G2
D41C-R1LA	D413-R1LA-G2	D44C-R1RA	D443-R1RA-G2
D41C-R1LD	D413-R1LD-G2	D44C-R1RD	D443-R1RD-G2
D41C-R1RA	D413-R1RA-G2	D44E-V1TD	D44H-V1TD-CF
D41C-Q1RD	D413-Q1RD-G2	D44F-Y5UA-CF	D44M-Y5UA-CF
D41C-Q3RA	D413-Q3RA-G2	D44J-R1AA	D447-R1AA-G2
D41C-R1GA	Consult factory (GA actuator)	D44K-V1RD-CF	D448-V1RD-CF
D41C-R1MD	D413-R1MA-G2	D44L-R1AA	D449-R1AA-G2
D41C-R1RD	D413-R1RA-G2	D44L-R1LD	D449-R1LD-G2
D41C-V1LL	D413-V1LL-G2	D44L-R1LL	D449-R1LL-G2
D41J-R1LA	D417-R1LA-G2	D44L-R1MD	D449-R1MD-G2
D41J-V1AA	D417-V1AA-G2	D44L-R1ML	D449-R1ML-G2
D41L-PAJL	D419-PAJL-G2	D44L-R1RA	D449-R1RA-G2
D41L-R1AA	D419-R1AA-G2	D44L-R1RD	D449-R1RD-G2
D41L-R1RA	D419-R1RA-G2	D44L-S1AA	D449-S1AA-G2
D41L-R1XL	Consult factory (Aluminum actuator)	D44L-V1AA	D449-V1AA-G2
D42C-R1LA	D423-R1LA-G2 (0.835 actuator - shorter)	D44L-V1RA	D449-V1RA-G2
D42C-R3MA	D423-R3MA-G2	D44L-V3AA	D449-V3AA-G2
D42J-RLAA	D427-R1AA-G2	D44L-V3RA-CF	D449-V3RA-CF
D42J-R1JL	D427-R1JL-G2	D456-V1AA	D450-V1AA-G2
D42L-R1AA	D429-R1AA-G2	D45A-R1LD	D451-R1LD-G2
D42L-R1XD	Consult factory (Aluminum actuator)	D45A-V1AA	D451-V1AA-G2
D42L-R1XL	Consult factory (Aluminum actuator)	D45A-V1LD	D451-V1LD-G2
D42L-R1YL	Consult factory (Aluminum actuator)	D45B-R1AA	D452-R1AA-G2
D42L-V1AA	D429-V1AA-G2	D45C-R1AA	D453-R1AA-G2
D434-R1LD-CF	D43S-R1LD-CF	D45C-R1JL	D453-R1JL-G2
D43A-Q3AA	D431-Q3AA	D45C-R1LD	D453-R1LD-G2
D43B-Q3RA	D432-Q3RA-G2	D45C-R1LL	D453-R1LL-G2
D43C-R1AA	D433-R1AA-G2	D45C-R1RA	D453-R1RA-G2
D43C-R1AA-CF	D433-R1AA-CF	D45C-R1RD	D453-R1RD-G2
D43C-R1GA	Consult factory	D45C-S1LA	D453-S1LA-G2
D43C-R1LA	D433-R1LA-G2	D45C-V1AA	D453-V1AA-G2
D43C-R1LD	D433-R1LD-G2	D45C-V1LD	D453-V1LD-G2
D43C-R1MD	D433-R1MA-G2 (actuator ~ 0.5" shorter)	D45C-V1RA	D453-V1RA-G2
D43C-R1RA	D433-R1RA-G2	D45C-V1RD	D453-V1RD-G2
D43C-R1RD	D433-R1RD-G2	D45J-V1AA	D457-V1AA
D43C-R1TD	D433-R1TD-G2	D45K-R1AA	D458-R1AA-G2
D43C-W9AA-CF	D433-W9AA-CF	D45L-R1AA	D459-R1AA-G2
D43F-Q1AA-CF	D43M-Q1AA-CF	D45L-R1LA	D459-R1LA-G2
D43F-Q1AA-CF	D43M-Q1JL-CF	D45L-R1LD	D459-R1LD-G2
D43F-R1AA	D43M-R1AA-G2	D45L-R1LL	D459-R1LL-G2
D43L-R1LD	D439-R1LD-G2	D45L-R1MD	D459-R1MA-G2 (actuator ~ 0.5" shorter)
D43L-R1MD	D439-R1MA-G2 (actuator ~ 0.5" shorter)	D45L-R1ML	D459-R1ML-G2
D43L-R1ML	D439-R1ML-G2	D45L-R1RA	D459-R1RA-G2
D43L-R1RA	D439-R1RA-G2	D45L-R1RD	D459-R1RD-G2
D43L-V3AA	D439-V3AA-G2	D45L-R1TD	D459-R1TD-G2
D43Y-R1AA	D43U-R1AA-G2	D45L-V1LA	D459-V1LA-G2
D445-V1RD-CF	D44T-V1RD-CF	D48J-V1AA	D487-V1AA-G2
D446-R1AA-CF	D44U-R1AA-CF	D49A-V1JL	D491-V1JL-G2
D44A-R1RA	D441-R1RA-G2	D49L-R1RA	D499-R1RA-G2
D44A-R1RD	D441-R1RD-G2		

The part number configuration matrix on the reverse provides details to the part numbers above. For custom/special part numbers, please consult the factory or your distributor.

NOTE: The “-CF” suffix is only agency listed in the U.S.; “-G2” parts also have European certifications.

Detailed and current specification information on Global D4 switches is available at www.switches-sensors.zf.com

www.switches-sensors.zf.com ZF Electronics Systems Pleasant Prairie, LLC (“ZF”) acquired the rights to the CHERRY branded switches and sensors in 2008. Although ZF divested its interest in the CHERRY name in 2015, the switches and sensors remain unchanged and are now sold under the ZF brand.



Part Number Breakdown (most end in "-G2" – see NOTE above)

D413-R1AA

Series	Contact Rating ²	
D4	1	0.1 A
	2	3 A
	3	5 A
	4	10 A
	5	15 A
	8	21 A

Configuration ³		
85 °C		
1 SPST – NO	Standard Op. Force	G SPST – NO
2 SPST – NC		H SPST – NC
3 SPDT		M SPDT
7 SPST – NO	Light Op. Force	N SPST – NO
8 SPST – NC		P SPST – NC
9 SPDT		R SPDT
Discontinued U.S. only		
A SPST – NO	Standard Op. Force	D SPST – NO
B SPST – NC		E SPST – NC
C SPDT		F SPDT
J SPST – NO	Light Op. Force	
K SPST – NC		
L SPDT		

²UL AC current rating; see full D4 data sheet at <http://switches-sensors.zf.com/us/> for complete details

³D48 only available with light operating force

A1	Welding
B8	Short solder
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*
Q3	4.8 x 0.8 (0.187 x 0.032) QC, dog leg*
A1	Welding

*not available for D48

**not available for D45 or D48

Terminal Type mm (inches)	
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*
X5	1.5 x 0.8 (0.059 x 0.032) QC, 2.5 mm grid
Y5	6.3 x 0.8 (0.250 x 0.032) QC, 5 mm grid
R1	4.8 x 0.5 (0.187 x 0.020) QC, straight**

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)
KD	SS lever, high ratio	40.1 (1.58)
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	Lever, high ratio	25.7 (1.01)
MD	Lever, standard ratio	40.1 (1.58)
ML	Lever, high ratio	74.4 (2.93)
RA	Roller, standard ratio	20.6 (0.811)
RD	Roller, standard ratio	34.1 (1.34)
SA	Roller, simulated, rear mount	20.6 (0.811)
TA	Roller, high ratio	25.1 (0.988)
TD	Roller, high ratio	38.6 (1.52)
UA	Roller, simulated, front mount	25.1 (0.988)

For actuator details, see D4 actuator reference sheet at www.switches-sensors.zf.com

