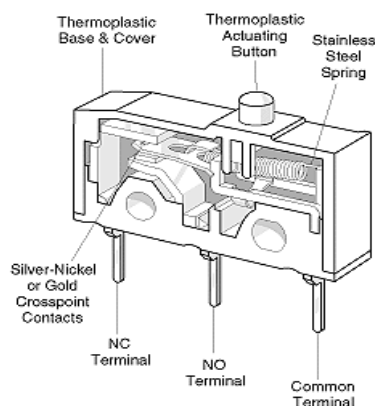


## Subminiature Snap Action Switch

# DB Series



### Features

- Precision switch with high repeat accuracy
- Models available for operating temperatures up to 120°C
- Rated for currents up to 10A @ 250VAC
- Range of snap-on auxiliary actuators, two mounting positions
- Wide variety of terminal options available
- International approvals standard
- Mechanical life up to  $15 \times 10^6$
- RoHS Compliant

| Electrical Ratings and Operating Life |                        |                  |                                   |                  |                      |
|---------------------------------------|------------------------|------------------|-----------------------------------|------------------|----------------------|
| Switch Series                         | According to EN61058-1 |                  | According to UL1054               |                  | Mechanical Life      |
|                                       | Nominal Load           | Operation cycles | Nominal Load                      | Operation cycles |                      |
| DB1                                   | 6A, 250V~              | 10,000           | 5A 125/250 VAC                    | 6,000            | 15 x 10 <sup>6</sup> |
|                                       | 0.1A 80 VDC            | 10,000           | 1A 48 VDC                         | 15,000           |                      |
| DB2                                   | 10(1.5)A, 250 V~       | 10,000           | 10.1A 125/250 VAC                 | 6,000            | 10 x 10 <sup>6</sup> |
|                                       | 0.1A 80 VDC            | 10,000           | ¼ HP 125 VAC                      |                  |                      |
| DB3                                   | 0.1A 250 V~            | 50,000           | 0.1A 125/250 VAC                  | 100,000          | 15 x 10 <sup>6</sup> |
|                                       | 0.1A 80 VDC            | 50,000           |                                   |                  |                      |
| DB5*                                  | 1A 250 V~              | 50,000           | 1A 125/250 VAC                    | 6000             | 15 x 10 <sup>6</sup> |
|                                       |                        |                  | 1A 48VDC                          | 15,000           |                      |
| DB6*                                  | 6A 250 VAC~            | 50,000           | 5A 125/250 VAC                    | 6,000            | 15 x 10 <sup>6</sup> |
| DB7*                                  | 10(1.5)A 250 V~        | 50,000           | 10.1A 125/250 VAC<br>¼ HP 125 VAC | 6,000            | 10 x 10 <sup>6</sup> |

\*Only 85°C Rated

| Technical Specifications |                                 | Material Specifications |                                              |
|--------------------------|---------------------------------|-------------------------|----------------------------------------------|
| Temperature Rating:      | -40°C to 85°C or -40°C to 120°C | Base:                   | PET (UL 94 V-0)                              |
| Degree of Protection:    | IP50                            | Cover:                  | PBT (UL 94 V-0)                              |
| Contact Gap              | < 3mm ( $\mu$ )                 | Actuator button:        | PBT (UL 94 V-0) 120°C<br>POM (UL 94 HB) 85°C |
| Proof Tracking Index     | PTI 175                         | Contacts:               | AuAgPt (Crosspoint),<br>AgNi,                |
| UL File Number:          | E314201                         | Terminals:              | CuZn (silver plated)                         |
|                          |                                 | Auxiliary actuator:     | Stainless steel or plastic                   |

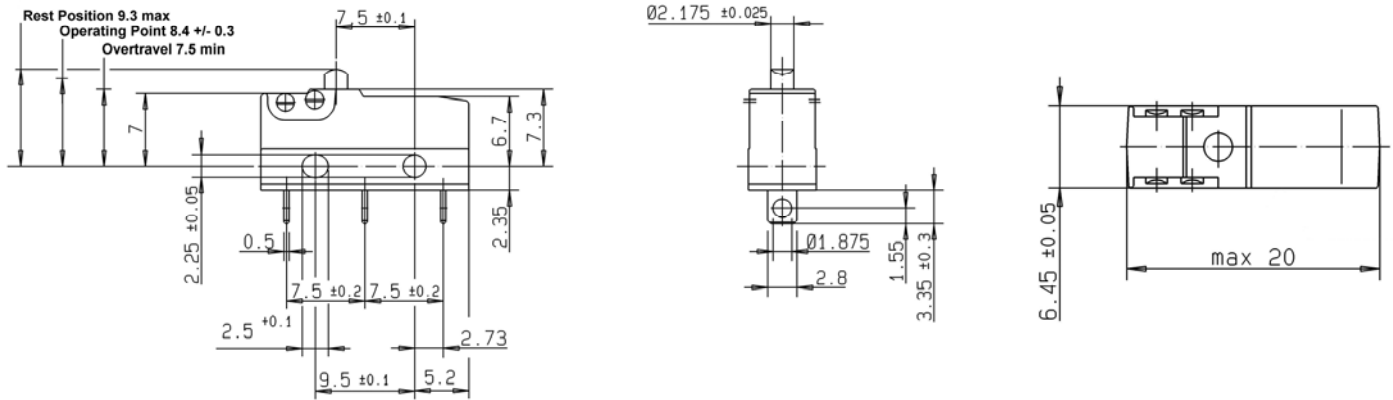
Specifications subject to change



## Subminiature Snap Action Switch

# DB Series

Dimensions - millimeter

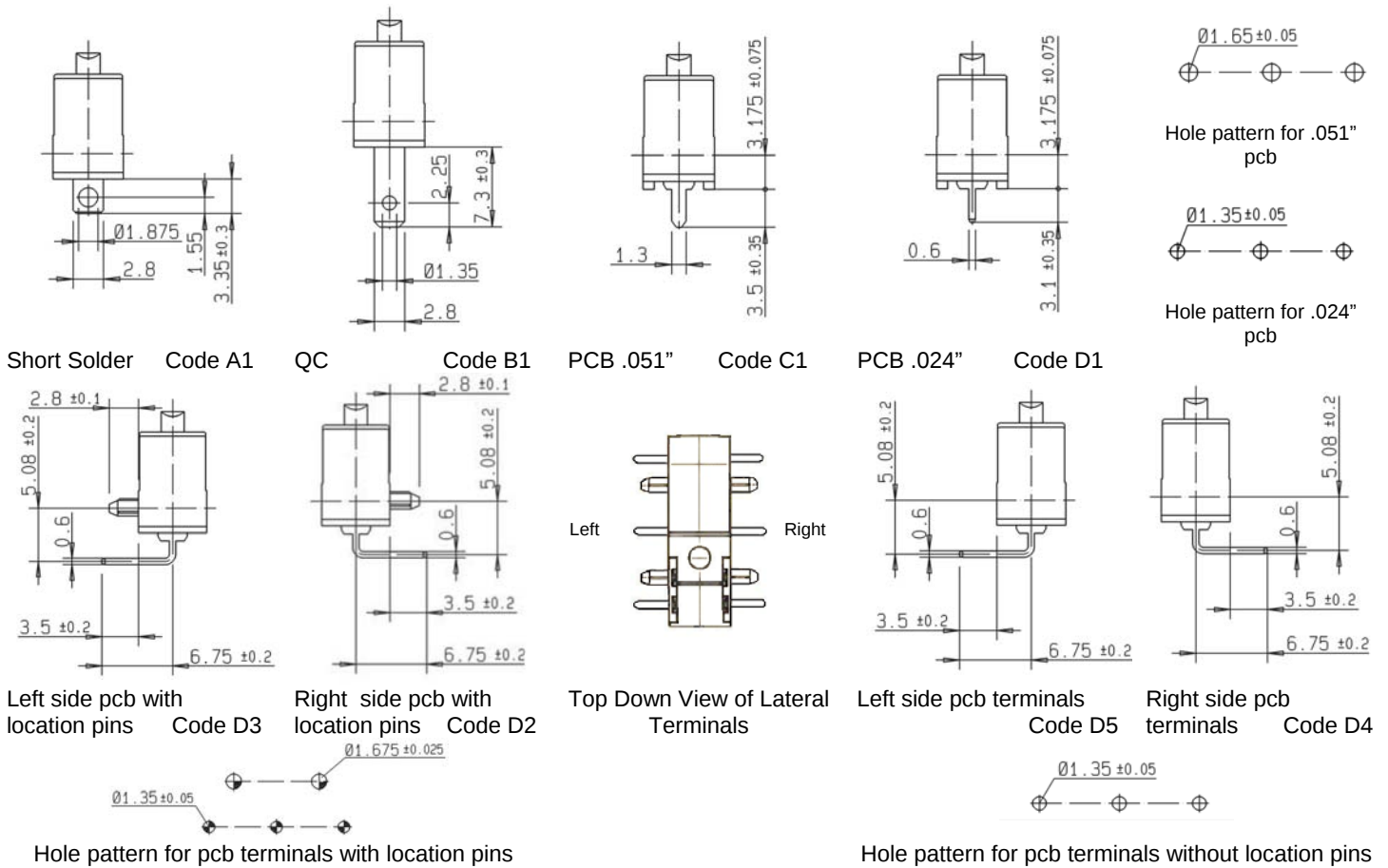


### Commonly Stocked Distributor Items / Preferred Part Numbers

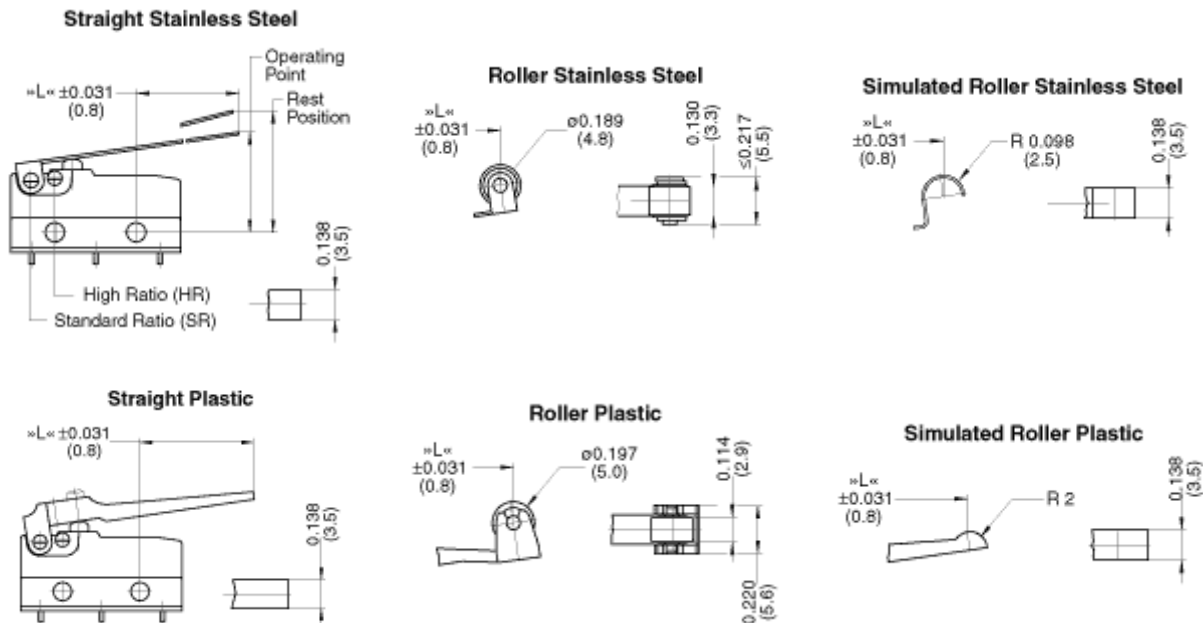
| Item Number | EN Rating        | UL Rating                      | Terminals       | Maximum Operating Force (cN) | Maximum Pretravel inches (mm) | Operating Point inches (mm) | Minimum Overtravel inches (mm) | Max. Movement Differential inches (mm) | Actuation Length inches (mm) |
|-------------|------------------|--------------------------------|-----------------|------------------------------|-------------------------------|-----------------------------|--------------------------------|----------------------------------------|------------------------------|
| DB1CA1AA    | 6A 250VAC        | 5A 125/250 VAC                 | Short Solder    | 150                          | .039 (1.0)                    | .319 / .343 (8.1 / 8.7)     | .024 (0.6)                     | .004 (0.1)                             | --                           |
| DB1CA1LB    | 6A 250VAC        | 5A 125/250 VAC                 | Short Solder    | 60                           | .157 (4.0)                    | .370 / .472 (9.4 / 12.0)    | .079 (2.0)                     | .02 (0.5)                              | 0.189 (4.8)                  |
| DB1CA1RB    | 6A 250VAC        | 5A 125/250 VAC                 | Short Solder    | 65                           | .157 (4.0)                    | .571 / .673 (14.5 / 17.1)   | .079 (2.0)                     | .02 (0.5)                              | 0.098 (2.5)                  |
| DB1CB1AA    | 6A 250VAC        | 5A 125/250 VAC                 | 2.8 x 0.5mm QC  | 150                          | .039 (1.0)                    | .319 / .343 (8.1 / 8.7)     | .024 (0.6)                     | .004 (0.1)                             | --                           |
| DB1CB1LB    | 6A 250VAC        | 5A 125/250 VAC                 | 2.8 x 0.5mm QC  | 60                           | .157 (4.0)                    | .370 / .472 (9.4 / 12.0)    | .079 (2.0)                     | .02 (0.5)                              | 0.189 (4.8)                  |
| DB1CB1RC    | 6A 250VAC        | 5A 125/250 VAC                 | 2.8 x 0.5mm QC  | 55                           | 0.177 (4.5)                   | .579 / .697 (14.7 / 17.7)   | .079 (2.0)                     | .024 (0.6)                             | 0.185 (4.7)                  |
| DB1CC1AA    | 6A 250VAC        | 5A 125/250 VAC                 | 1.3 x 0.5mm PCB | 150                          | .039 (1.0)                    | .319 / .343 (8.1 / 8.7)     | .024 (0.6)                     | .004 (0.1)                             | --                           |
| DB2CA1AA    | 10(1.5)A 250 VAC | 10.1A 125/250 VAC 1/4HP 125VAC | Short Solder    | 250                          | .039 (1.0)                    | .319 / .343 (8.1 / 8.7)     | .024 (0.6)                     | .004 (0.1)                             | --                           |
| DB2CA1LB    | 10(1.5)A 250 VAC | 10.1A 125/250 VAC 1/4HP 125VAC | Short Solder    | 100                          | .178 (4.5)                    | .358 / .484 (9.1 / 12.3)    | .059 (1.5)                     | .028 (0.7)                             | 0.189 (4.8)                  |
| DB2CA1RC    | 10(1.5)A 250 VAC | 10.1A 125/250 VAC 1/4HP 125VAC | Short Solder    | 95                           | 0.197 (5.0)                   | .567 / .710 (14.4 / 18.0)   | .059 (1.5)                     | .039 (1.0)                             | 0.185 (4.7)                  |
| DB2CB1AA    | 10(1.5)A 250 VAC | 10.1A 125/250 VAC 1/4HP 125VAC | 2.8 x 0.5mm QC  | 250                          | .039 (1.0)                    | .319 / .343 (8.1 / 8.7)     | .024 (0.6)                     | .004 (0.1)                             | --                           |
| DB2CB1RC    | 10(1.5)A 250 VAC | 10.1A 125/250 VAC 1/4HP 125VAC | 2.8 x 0.5mm QC  | 95                           | 0.197 (5.0)                   | .567 / .710 (14.4 / 18.0)   | .059 (1.5)                     | .039 (1.0)                             | 0.185 (4.7)                  |
| DB2CC1AA    | 10(1.5)A 250 VAC | 10.1A 125/250 VAC 1/4HP 125VAC | 1.3 x 0.5mm PCB | 250                          | .039 (1.0)                    | .319 / .343 (8.1 / 8.7)     | .024 (0.6)                     | .004 (0.1)                             | --                           |
| DB3CA1AA    | 0.1A 250VAC      | 0.1A 125/250 VAC               | Short Solder    | 150                          | .039 (1.0)                    | .319 / .343 (8.1 / 8.7)     | .024 (0.6)                     | .004 (0.1)                             | --                           |
| DB3CA1LB    | 0.1A 250VAC      | 0.1A 125/250 VAC               | Short Solder    | 60                           | .157 (4.0)                    | .370 / .472 (9.4 / 12.0)    | .079 (2.0)                     | .02 (0.5)                              | 0.189 (4.8)                  |
| DB3CB1AA    | 0.1A 250VAC      | 0.1A 125/250 VAC               | 2.8 x 0.5mm QC  | 150                          | .039 (1.0)                    | .319 / .343 (8.1 / 8.7)     | .024 (0.6)                     | .004 (0.1)                             | --                           |
| DB3CB1LB    | 0.1A 250VAC      | 0.1A 125/250 VAC               | 2.8 x 0.5mm QC  | 60                           | .157 (4.0)                    | .370 / .472 (9.4 / 12.0)    | .079 (2.0)                     | .02 (0.5)                              | 0.189 (4.8)                  |
| DB3CC1AA    | 0.1A 250VAC      | 0.1A 125/250 VAC               | 1.3 x 0.5mm PCB | 150                          | .039 (1.0)                    | .319 / .343 (8.1 / 8.7)     | .024 (0.6)                     | .004 (0.1)                             | --                           |

\*\* Additional part numbers available. Contact factory for minimums and availability

## Terminal Options



## Auxiliary Actuators



## Ordering Information

| DB<br>Series | 3 | C                            |
|--------------|---|------------------------------|
|              |   | Code                         |
|              |   | + 85°C Operating Temperature |
|              |   | E SPST NO                    |
|              |   | F SPST NC                    |
|              |   | G SPDT                       |
|              |   | +120°C Operating Temperature |
|              |   | A SPST NO                    |
|              |   | B SPST NC                    |
|              |   | C SPDT                       |

| Code | EN 61058 Rating             | UL1054 Rating                  |
|------|-----------------------------|--------------------------------|
| 1    | 6A 250VAC, 0.1A 80VDC       | 5A 125/250VAC, 1A 48VDC        |
| 2    | 10(1.5)A 250VAC, 0.1A 80VDC | 10.1A 125/250VAC, 1/4HP 125VAC |
| 3    | 0.1A 250VAC, 0.1A 80VDC     | 0.1A 125/250VAC                |
| 5*   | 1A 250VAC                   | 1A 125/250VAC, 1A 48VDC        |
| 6*   | 6A 250VAC                   | 5A 125/250VAC                  |
| 7*   | 10(1.5)A 250VAC             | 10.1A 125/250VAC, 1/4HP 125VAC |

\* Only 85°C rated

| B1 | Code | Terminal Type                                            |
|----|------|----------------------------------------------------------|
|    | A1   | Short Solder                                             |
|    | B1   | 0.110 x 0.020 (2.8 x 0.5) QC Straight                    |
|    | C1   | 0.051 x 0.020 (1.3 x 0.5) PCB Straight                   |
|    | D1   | 0.024 x 0.020 (0.6 x 0.5) PCB Straight                   |
|    | D2   | 0.024 x 0.020 (0.6 x 0.5) PCB RH Side with location pins |
|    | D3   | 0.024 x 0.020 (0.6 x 0.5) PCB LH Side with location pins |
|    | D4   | 0.024 x 0.020 (0.6 x 0.5) PCB RH Side                    |
|    | D5   | 0.024 x 0.020 (0.6 x 0.5) PCB LH Side                    |

| AA | Code | Actuator Type                       |
|----|------|-------------------------------------|
|    | AA   | Spherical Head button               |
|    | LB   | Short straight lever SR 0.189 (4.8) |
|    | RB   | Short roller lever SR 0.098 (2.5)   |
|    | RC   | Roller lever SR 0.185 (4.7)         |

\* For additional actuator options contact factory

\*\* Do not use plastic levers with 120C rated switches

## Auxiliary Actuator Options

| Actuator Code | Shape            | Material  | Actuator Part Number | Actuation Length (mm) | Actuator Code | Shape            | Material  | Actuator Part Number | Actuation Length (mm) |
|---------------|------------------|-----------|----------------------|-----------------------|---------------|------------------|-----------|----------------------|-----------------------|
| LB / -MB      | Straight         | Stainless | 06141232             | 4.8 / 7.0             | -RB / -TB     | Roller           | Stainless | 07140260             | 2.5 / 4.7             |
| LC / -MC      | Straight         | Stainless | 06141233             | 7.0 / 9.4             | -RC / -TC     | Roller           | Stainless | 07140261             | 4.7 / 7.1             |
| -LD / MD      | Straight         | Stainless | 06141234             | 42 / 43.5             | -RD / -TD     | Roller           | Stainless | 07140262             | 39.7 / 41.2           |
| -SB / -UB     | Simulated Roller | Stainless | 06141237             | 2.5 / 4.7             | -WB / GB      | Straight         | Plastic   | 06141247             | 7.0 / 9.4             |
| -SC / -UC     | Simulated Roller | Stainless | 06141238             | 4.7 / 7.1             | -WC / -GC     | Straight         | Plastic   | 06141253             | 14.0 / 16.2           |
| -SD / -UD     | Simulated Roller | Stainless | 06141239             | 39.7 / 41.2           | -ZB / -QB     | Roller           | Plastic   | 07140299             | 5.2 / 7.3             |
|               |                  |           |                      |                       | -VB / -HB     | Simulated Roller | Plastic   | 06141249             | 5.6 / 7.9             |

## Contact

Call, fax or visit our Website for more information.

**ZF Electronics Corporation**  
11200 88th Avenue  
Pleasant Prairie, WI 53158

Phone: 262.942.6500  
Web: [www.cherrycorp.com](http://www.cherrycorp.com)  
Email: [cep\\_sales@zf.com](mailto:cep_sales@zf.com)  
Fax: 262.942.6566

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