

DG sub-sub-miniature switch



Technical specifications

|                                           |                                                                                     |               |
|-------------------------------------------|-------------------------------------------------------------------------------------|---------------|
| Contact configuration                     | S.P.D.T.                                                                            |               |
| Contact gap                               | < 3 mm                                                                              |               |
| Switching voltage max.                    | 125 VAC                                                                             |               |
| Switched current                          | 3 AAC                                                                               |               |
| Operating force max.                      | 75 cN or 140 cN<br>without auxiliary actuator                                       |               |
| Total travel                              | 0,7 mm without auxiliary actuator                                                   |               |
| Mechanical life                           | > 1 x 10 <sup>6</sup> operation                                                     |               |
| Electrical life (max. load)               | see table                                                                           |               |
| Ambient temperature                       | – 25 °C to + 85 °C                                                                  |               |
| Materials                                 |                                                                                     |               |
| Base                                      | PPS (UL 94V-0)                                                                      |               |
| Cover                                     | PBT (UL 94V-0)                                                                      |               |
| Actuator                                  | PBT (UL 94V-0)                                                                      |               |
| Auxiliary actuator                        | Stainless steel                                                                     |               |
| Terminals                                 | CuZn striped silver-plated                                                          |               |
| Contacts                                  | DG 1/4                                                                              | AgNi          |
|                                           | DG2                                                                                 | AgNi, gal. Au |
| Approvals                                 |  |               |
| Degree of protection<br>(switch interior) | IP40                                                                                |               |

For detailed information and the layout of the details described above, please do not hesitate to ask for our technical specifications and drawing.

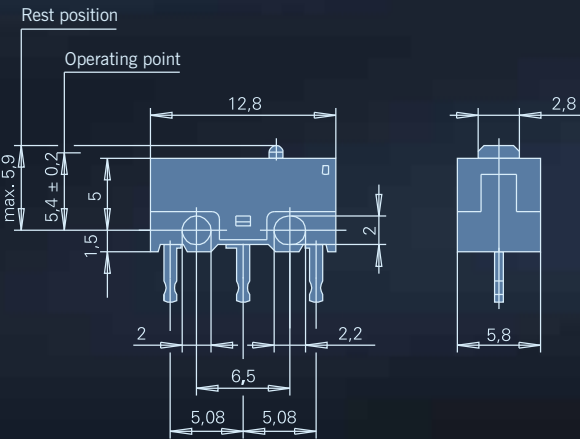
Features

- Very small size (only 12.8x5.8x6.5 mm)
- Depending on the model, the breaking capacity ranges from small switching currents and voltages to low-voltage applications up to 3 A 125VAC
- Optionally available with or without auxiliary actuator
- Use on circuit boards with connections to the left or right and standing
- High mechanical operating life, depending on the model > 1.000.000 actuations

Electrical rating and operating life

| Electrical rating according to UL and CSA | Operating life          |                     |              |
|-------------------------------------------|-------------------------|---------------------|--------------|
|                                           | Nominal load UL and CSA | mechanical          | Housing mark |
| 3 A, 125VAC<br>2 A, 30VDC                 | 6.000                   | 1 x 10 <sup>6</sup> | DG 1         |
| 0,05 A, 30VDC                             | 6.000                   | 1 x 10 <sup>6</sup> | DG 2         |
| 1 A, 125VAC<br>1 A, 30VDC                 | 6.000                   | 1 x 10 <sup>6</sup> | DG 4         |

Dimensions in mm



## Auxiliary actuator options

| Auxiliary actuator          | Type     | Max. operating force (cN) | Max. pretravel (mm) | Min. overtravel (mm) | Differential travel max. (mm) | Max. rest position (mm) | Operating point (mm) |
|-----------------------------|----------|---------------------------|---------------------|----------------------|-------------------------------|-------------------------|----------------------|
| Without auxiliary actuator  | DG 1,2 B | 140                       | 0,5                 | 0,2                  | 0,1                           | 5,9                     | 5,4 ± 0,2            |
|                             | DG 2,4 C | 75                        | 0,5                 | 0,2                  | 0,1                           | 5,9                     | 5,4 ± 0,2            |
| Auxiliary actuator straight | DG 1,2 B | 45                        | 1,8                 | 0,55                 | 0,5                           | 9,4                     | 6,8 +0,8/-0,4        |
|                             | DG 2,4 C | 30                        | 1,8                 | 0,55                 | 0,5                           | 9,4                     | 6,8 +0,8/-0,4        |
| Auxiliary actuator roller   | DG 1,2 B | 60                        | 1,5                 | 0,55                 | 0,5                           | 13,9                    | 12,4 ± 0,5           |
|                             | DG 2,4 C | 35                        | 1,5                 | 0,55                 | 0,5                           | 13,9                    | 12,4 ± 0,5           |

## Preferred parts

| Order code | Electrical rating     | Terminals             | Auxiliary actuator          | Operating force (cN) | Operating point (mm) | Max. pretravel (mm) | Min. overtravel (mm) | Differential travel max. (mm) |
|------------|-----------------------|-----------------------|-----------------------------|----------------------|----------------------|---------------------|----------------------|-------------------------------|
| DG13-B1LA  | 3A, 125VAC; 2A, 30VDC | PCB terminal straight | Auxiliary actuator straight | 45                   | 6,8 +0,8/-0,4        | 1,8                 | 0,55                 | 0,5                           |
| DG13-B1RA  | 3A, 125VAC; 2A, 30VDC | PCB terminal straight | Auxiliary actuator roller   | 60                   | 12,4 ± 0,5           | 1,5                 | 0,55                 | 0,5                           |
| DG13-B2LA  | 3A, 125VAC; 2A, 30VDC | PCB terminal straight | Auxiliary actuator straight | 45                   | 6,8 +0,8/-0,4        | 1,8                 | 0,55                 | 0,5                           |
| DG23-B1LA  | 0,05A, 30VDC          | PCB terminal straight | Auxiliary actuator straight | 45                   | 6,8 +0,8/-0,4        | 1,8                 | 0,55                 | 0,5                           |
| DG23-B1RA  | 0,05A, 30VDC          | PCB terminal straight | Auxiliary actuator roller   | 60                   | 12,4 ± 0,5           | 1,5                 | 0,55                 | 0,5                           |
| DG23-B2LA  | 0,05A, 30VDC          | PCB terminal right    | Auxiliary actuator straight | 45                   | 6,8 +0,8/-0,4        | 1,8                 | 0,55                 | 0,5                           |
| DG23-B3LA  | 0,05A, 30VDC          | PCB terminal left     | Auxiliary actuator straight | 45                   | 6,8 +0,8/-0,4        | 1,5                 | 0,55                 | 0,5                           |

## Terminals

Solder terminal



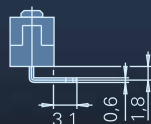
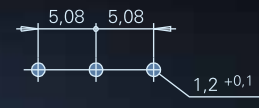
PCB terminal right



PCB terminal left



Drilling pattern



## Auxiliary actuator options

