

# Double break

## → PBX Secure

- Dimensions according to standard DIN 41 636 type F
- Positive break operation mechanism according to IEC 60947-5-1 Annex K
- Double break changeover switch with electrically separated circuits (form Zb)
- IP 40 or IP 67 / IP 65 versions
- Operating temperature between -50 and +85°C
- Long overtravel
- Standard or Low level version



### Main specifications

|   |   | Standard<br>83240                                   | Standard<br>High force<br>83242                      | Low level<br>83241                                   | Low level<br>High force<br>83243                     |
|---|---|---|--|--|--|
| <b>Degree of protection mechanism - connection</b>  | <b>Connections / Accessories</b>                          |   |  |  |  |
| IP 40 - IP 00   | W3  | 83240000  | 83242000   | 83241000   | 83243000   |
| IP 40 - IP 00   | W3 + Lever  | 83240003  | 83242003   | 83241003   | ●  |
| IP 40 - IP 00   | W3 + Lever + Mounting plate with holes                    | 83240004  | 83242004   | 83241004   | 83243004   |
| IP 40 - IP 00   | W3 + Lever + Mounting plate with notches                  | 83240005  | 83242005   | ●  | ●  |
| IP 40 - IP 00   | W3 with 90° angle   | 83240010  | ●  | ●  | ●  |
| IP 40 - IP 00   | W3 with 90° angle + Lever                                 | 83240013  | ●  | ●  | ●  |
| IP 40 - IP 00   | W3 with 90° angle + Lever + Mounting plate with holes     | 83240014  | ●  | ●  | ●  |
| IP 40 - IP 00   | W3 with 90° angle + Lever + Mounting plate with notches   | 83240015  | ●  | ●  | ●  |
| IP 40 - IP 00   | W5  | 83240020  | 83242020   | 83241020   | 83243020   |
| IP 40 - IP 00   | W5 + Lever  | 83240023  | 83242023   | 83241023   | ●  |
| IP 40 - IP 00   | W5 + Lever + Mounting plate with holes                    | 83240024  | 83242024   | 83241024   | ●  |
| IP 40 - IP 20   | W5 + Protective cover                                     | 83240030  | ●  | ●  | ●  |
| IP 40 - IP 20   | W5 + Protective cover + Lever                             | 83240033  | ●  | ●  | ●  |
| IP 40 - IP 20   | W5 + Protective cover + Lever + Mounting plate with holes | 83240034  | ●  | 83241034   | ●  |
| IP 67 / IP 65 - IP 00   | W3  | 83240200  | 83242200   | 83241200   | 83243200   |
| IP 67 / IP 65 - IP 00   | W3 + Lever  | 83240203  | ●  | 83241203   | ●  |
| IP 67 / IP 65 - IP 00   | W3 with 90° angle   | 83240210  | ●  | 83241210   | ●  |
| IP 67 / IP 65 - IP 00   | W3 with 90° angle + Lever                                 | 83240213  | ●  | 83241213   | ●  |
| IP 67 / IP 65 - IP 00   | W5  | 83240220  | 83242220   | 83241220   | 83243220   |
| IP 67 / IP 65 - IP 00   | W5 + Lever  | 83240223  | ●  | ●  | ●  |
| IP 67 / IP 65 - IP 00   | W5 + Lever + Mounting plate with holes                    | 83240224  | 83242224   | ●  | ●  |
| <b>Electrical characteristics</b>   |   |   |  |  |  |
| Direct opening action   |   | ↔   | ↔  |  |  |
| Rating nominal / 250 V~ (A)   |   | 6   | 6  | -  | -  |
| Rating nominal / 250 V--- (A)   |   | 0.6   | 0.6  | -  | -  |
| Rating Thermal (A)  |   | 10  | 10   | -  | -  |
| Operating range / 4 → 30 V--- / ~ (A)   |   | -   | -  | 0.001 → 0.1  | 0.001 → 0.1  |
| <b>Mechanical characteristics</b>   |   |   |  |  |  |
| Maximum operating force (N)   |   | 4.5   | 6.5  | 4.5  | 6.5  |
| Minimum positive opening force (N)  |   | 28  | 28   | 28   | 28   |
| Maximum rest position (mm)  |   | 8.9   | 8.9  | 8.9  | 8.9  |
| Operating position (mm)   |   | 6.6 ±0.25 *   | 6.6 ±0.25 *  | 6.6 ±0.25 *  | 6.6 ±0.25 *  |
| Positive opening position (mm)  |   | 4.4 *   | 4.4 *  | 4.4 *  | 4.4 *  |
| Maximum end of travel position (mm)   |   | 3.4 *   | 3.4 *  | 3.4 *  | 3.4 *  |
| Differential travel (mm)  |   | 1 ±0.3  | 1 ±0.3   | 1 ±0.3   | 1 ±0.3   |
| Operating temperature (°C)  |   | -50 → +85   | -50 → +85  | -50 → +85  | -50 → +85  |
| Mechanical life (operations)  |   | 10 <sup>7</sup> (IP40)<br>4x10 <sup>6</sup> (IP 67) | 10 <sup>7</sup> (IP40)<br>4 x 10 <sup>6</sup> (IP67) | 10 <sup>7</sup> (IP40)<br>4 x 10 <sup>6</sup> (IP67) | 10 <sup>7</sup> (IP40)<br>4 x 10 <sup>6</sup> (IP67) |
| Contact gap (mm)  |   | 2 x 1   | 2 x 1  | 2 x 1  | 2 x 1  |
| Max. tightening torque (Nm)   |   | 1.3 on Ø 4.1 holes                                  | 1.3 on Ø 4.1 holes                                   | 1.3 on Ø 4.1 holes                                   | 1.3 on Ø 4.1 holes                                   |
| Weight (g)  |   | 22 *  | 22 *   | 22 *   | 22 *   |
| <b>Comments</b>   |   |   |  |  |  |
| * Values given for versions without lever (in relation to the reference dimension X0 - See Dimensions section). |   |   |  |  |  |

Stocked product

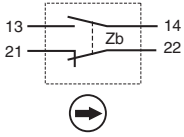
Product made to order

Available on request

## Principles

### Function

Four-terminal two-way snap-action contact element (form Zb) with positive break operation. The 2 contacts are electrically separated.



## Product adaptations



- Wire outputs, cable outputs
- Special levers and actuators
- Connections:
  - W3 terminals with angle between 0° and 90°
  - special add-on terminals
- Special protective cover
- UL CSA, CCC, GOST and VDE certification on request

## Additional characteristics

### Components

#### Material

- Case/cover: PC GF 20 FR. (UL 94-V0, GWFI 960°C, NFF 16-101/102 I2F1)
- Contacts: AgNi for Standard version and AgPd for low level version
- Terminals: Brass
- Button membrane: Silicone
- Screws: zinc protected steel (stainless steel on request)

#### Conformity to standards

- Construction and performance according to IEC 60947-5-1
- Positive opening operation according to IEC 60947-5-1 Annex K
- Dimensions conforming to standard DIN 41 636 type F

- Insulation characteristics according to standard IEC 60947-5-1

\* Impulse withstand voltage:  $U_{imp} = 4 \text{ KV}$

\* Rated insulation voltage:  $U_i = 400 \text{ V}$

\* Pollution degree = 3

- Insulation characteristics according to standard EN 50124-1

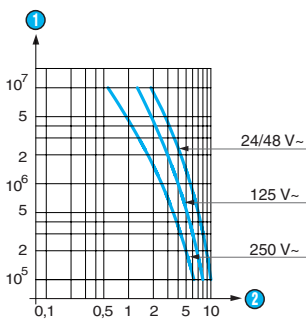
\* Impulse withstand voltage:  $U_{imp} = 2.5 \text{ KV}$

\* Rated insulation voltage:  $U_i = 150 \text{ V}$

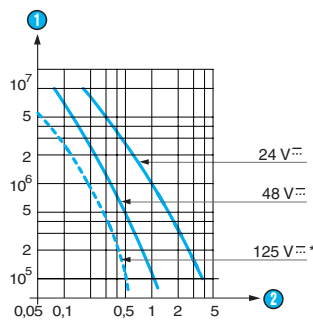
\* Pollution degree = PD3A

## Curves

Operating curve for category AC15



Operating curve for category DC13



① Number of operations

② Current in Amps

\* For IP67 versions used in 125 V DC, please consult us.

## Dimensions (mm)

### → Product

83240 - 83241 - 83242 - 83243



- ① Fixing screw threaded length
- ② Fixing nuts 2 x M3

### → Connections

W3 for 6.35 mm x 0.8 mm female connector



W3 with 90° angle



W5 with screws



4 x M3 screws with saddle

W5 with screws and IP20 protective covers



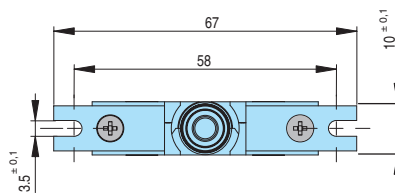
## → Mounting accessories

### Mounting plates with holes



Thickness: 1 mm

### Mounting plates with notches



Thickness: 1 mm

## → Actuators

### Roller lever



### Mechanical features of lever versions

| With reference to dimension X1      | 83240/83241    | 83242/83243    |
|-------------------------------------|----------------|----------------|
| Maximum operating force (N)         | 2,7            | 3,9            |
| Min. positive opening force (N)     | 19             | 19             |
| Maximum rest position (mm)          | 21             | 21             |
| Operating position (mm)             | 16,6 $\pm$ 0,6 | 16,6 $\pm$ 0,6 |
| Positive opening position (mm)      | 13,2           | 13,2           |
| Maximum end of travel position (mm) | 12             | 12             |
| Differential travel (mm)            | 1,8 $\pm$ 0,55 | 1,8 $\pm$ 0,55 |

## Other information

### How to order

#### 8324Xxxx (Contact/Force)

- 0: Standard/4.5N
- 1: Low level/4.5N
- 2: Standard/6.5N High force
- 3: Low level/6.5N High force

#### 8324xXxx (Sealing)

- 0: IP 40
- 2: IP 67

#### 8324xxXx (Connection)

- 0: W3 terminals for 6.35 mm female connector
- 1: W3 90B terminals with 90° angle for 6.35 mm female connector
- 2: W5 terminals with screw
- 3: W5 terminals with screw and protective cover
- 4: W5 terminals supplied without screws

#### 8324xxxX (Accessory fitted)

- 0: Without
- 1: Mounting plates with holes
- 2: Mounting plates with notches
- 3: Roller lever (without plate)
- 4: Roller lever with mounting plates with holes
- 5: Roller lever with mounting plates with notches

**Example:** A PBX with Standard contact (AgNi), 6.5 N force, IP 67 sealing, W3 terminals and Roller lever accessory with mounting plates with holes = **83242204**

#### Accessories supplied separately:

- 79552459: Mounting plates with holes
- 79552460: Mounting plates with notches
- 79552456: Roller lever (without plate)
- 79552457: Roller lever with mounting plates with holes
- 79552458: Roller lever with mounting plates with notches