**MICROSWATCHES - SEALED, POSITIVE BREAK**

**PBX - 8324**

- Double-break snap-action mechanism with electrically separated circuits (form Zb)
- Positive opening action according to IEC 60947-5-1 Annex K
- Long overtravel, also after the positive opening position
- Protection of mechanism: IP67/IP65, or IP40 with sealed plunger
- Operating temperature -50 °C to +85 °C
- Ratings from 1 mA 4 V~ to 6 A 250 V~/~ - Rating codes: A300, Q150
- Very long mechanical life
- Choice of connections - Mounting plates and roller lever (pre-assembled or retrofittable)
- cURus and CCC approved - Meet applicable railway standards

### Main specifications

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### Electrical characteristics

- Positive opening action:
  - Rating nominal / 250 V~/~ (A): 6 / 6 / 6* / 6*
  - Rating nominal / 250 V~/~/ (A): 0.6 / 0.6 / 0.6* / 0.6*
  - Rating Thermal (A): 10 / 10 / 10 / 10
- Maximum operating force (N): 4.5 / 6.5 / 4.5 / 6.5
- Minimum release force (N): 0.6 / 2.5 / 0.6 / 2.5
- Maximum 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 total 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 - IP40 versions (operations): 10² / 10² / 10² / 10²
- Mechanical life - IP67 versions (operations): 4 x 10⁶ / 4 x 10⁶ / 4 x 10⁶ / 4 x 10⁶
- Contact gap (mm): 2 x 1 / 2 x 1 / 2 x 1 / 2 x 1
- Weight (g): 22 / 22 / 22 / 22

### Additional characteristics

- Case: PC GF (UL 94-V2 / GWFI 960 °C / GWIT 775 °C)
- Button: PBT GF (UL 94-V0 / GWFI 960 °C)
- Membrane: silicone rubber
- Contacts: silver alloy, micro-profile, gold alloy on silver alloy, micro-profile (dual-current)
- Terminals: brass (silver-plated brass : on request)
- Screws: stainless steel
- Levers: stainless steel, polyamide roller

- Degree of protection: IP65/IP67 or IP40 (mechanism)
- Recommended min actuating speed: 0.5 mm/s
- Rated insulation voltage Ui: 400 V
- Impulse withstand voltage Uimp: 4 kV
- Pollution degree: 3
- Protection against electric shock: Button and actuators of IP67 versions have reinforced insulation
- Dimensional conformity: DIN 41636 F
- Fire/smoke resistance: EN 45545, NFF 16101/102-I3F1
- Approvals: cURus (A300, Q150), CCC

### Product adaptations

- IP67 wire lead or cable outputs, EN 50306 halogen-free versions
- Special connections: W3 QC tabs with specific folding angles, double QC tabs, W5 without screws, ...
- Special levers: special shapes and lengths
- AgPd contacts for infrequent switching in corrosive atmospheres up to 1A (83241/83243)
- Maintained action variant (bistable reset switch), with plunger or lever
- Two-pole DPDT assemblies with common lever
- IP40 protective cover/housing on connections

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**www.crouzet-switches.com**
**Principles**

Double break snap-action switch with electrically separated circuits and with positive opening action on NC contacts (21-22) according to IEC 60947-5-1 Annex K

**Changeover - SPDT (form Zb)**

Both circuits can be used at opposite polarities

**Curves**

Operating curve for category AC15  
Operating curve for category DC13

*Number of operations  
Current in Amps*

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

* Models 83244 and 83245 are designed to operate equally well on low-current (1 mA 4 V minimum recommended) or medium to high current circuits. However, a given product should only be used to switch one type of circuit during its working life.

**Dimensions (mm)**

**Product**

8324

*Fixing screw threaded length  
Fixing nuts 2 x M3*

Max. tightening torque of fixing screws: 1.3 N.m on  0.9 N.m on M3 nuts
Connections

**W3** quick-connect 6.3 x 0.8

**W3/90B** quick-connect 6.3x0.8, 90° downward folding

**W5** screw with clamp

**W1** screw with washer

**W5/IP20** screw with clamp and IP20 protection

**4 x M3 screws - PZ1 type**

Mounting accessories

**PT** mounting plates with holes

**PE** mounting plates with notches

**Thicknes**: 1 mm

Actuators

**LG** roller lever

**Mechanical characteristics on roller**

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<td>Minimum release force (N)</td>
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<td>Min. positive opening force (N)</td>
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<td>Maximum rest position (mm)</td>
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<td>Differential travel (mm)</td>
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### Actuators and mounting accessories

**PBX 8324 with referenced accessories**

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<th>Mounting plates</th>
<th>Accessory kit</th>
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### Installation recommendations

See “Basic technical concepts”

### How to order

Use the 8 digit part numbers when they are defined

Other cases, precise: Type of microswitch - Degree of protection - Connection - Actuator* - Mounting accessories* - Adaptation*  
* if needed

Example: 83240 IP67 W3/90B LG PE

### Examples of special adaptations

- **Two-pole DPDT assembly with linked levers**
- **Short roller lever**
- **Mixed connections: NO quick-connect 6.3 x 0.8 / NC screw with clamp**
- **Mixed connections: NO screw with clamp / NC quick-connect 6.3 x 0.8, 90° downward folding**

Economic version (839930): SPDT form Za without positive opening, Ø 3.2 mounting holes on top face, screw terminals