

MICROSWITCHES - 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
- › Max. rating 10A 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

		Standard 83240	High force 83242
Degree of protection	Connections		
IP40	W3 (QC 6.3x0.8)	83240000	83242000
IP40	W3/90B (QC 6.3x0.8, folded)	83240010	83242010
IP40	W5 (screw + clamp)	83240020	83242020
IP40	W5/IP20 (screw + clamp, protected)	83240030	83242030
IP67	W3 (QC 6.3x0.8)	83240200	83242200
IP67	W3/90B (QC 6.3x0.8, folded)	83240210	●
IP67	W5 (screw + clamp)	83240220	83242220
IP67	W5/IP20 (screw + clamp, protected)	83240230	83242230
Electrical characteristics			
Positive opening action			
Rating nominal / 250 V~ (A)		6	6
Rating thermal (A)		10	10
Mechanical characteristics			
Maximum operating force (N)		4.5	6.5
Minimum release force (N)		0.6	2.5
Minimum positive opening force (N)		28	28
Maximum rest position (mm)		8.9	8.9
Operating position (mm)		6.6 ±0.25	6.6 ±0.25
Positive opening position (mm)		4.4	4.4
Maximum total travel position (mm)		3.4	3.4
Differential travel (mm)		1 ±0.3	1 ±0.3
Operating temperature (°C)		-50 → +85	-50 → +85
Mechanical life - IP40 versions (operations)		10 ⁷	10 ⁷
Mechanical life - IP67 versions (operations)		4x10 ⁶	4 x 10 ⁶
Contact gap (mm)		2 x 1	2 x 1
Weight, terminal versions (g)		22	22

Additional specifications

- Case: PC GF (UL 94-V0 / GWFI 960 °C / GWIT 775 °C)
- Button: PBT GF (UL 94-V0 / GWFI 960 °C)
- Membrane: silicone rubber
- Contacts: silver alloy, micro-profile
- Terminals: brass (silver-plated : on request)
- Screws: stainless steel
- Levers: stainless steel, polyamide roller
- Degree of protection: IP65/IP67 or IP40 (mechanism)
- Recommended min actuating speed: 0.1 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
- Conformity / Certifications: (A300, Q150) /

Product adaptations

- › Special connections: W3 QC with specific folding, double QC tabs, W1 screw + washer, W5 without screw, ...
- › Integral wire lead or cable outputs, EN 50306 halogen-free versions
- › Special levers: special shapes and lengths
- › Maintained action variant (bistable reset switch), with plunger or lever
- › Two-pole DPDT assemblies with common lever
- › IP40 protective cover/housing on connections



Standard product

Product made to order

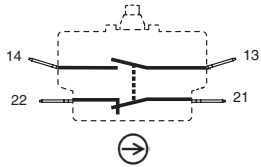


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Principles

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

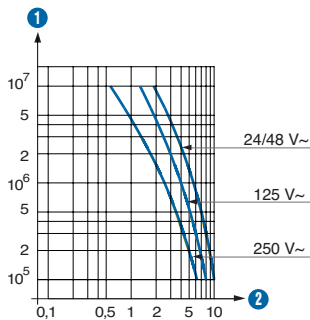
Changeover - SPDT (form Zb)



Both circuits can be used at opposite polarities

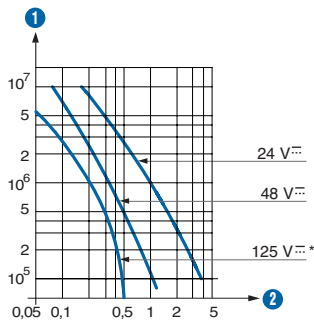
Curves

Operating curve for category AC-15



- ① Number of operations
- ② Current in Amps

Operating curve for category DC-13



Making & breaking capacities IEC/EN 60947-5-1 (6000 cycles)

AC-12 (resistive load)	10 A 24 V~
	10 A 250 V~
AC-15 (electromagnetic load)	10 A 24 V~
	6 A 250 V~
DC-12 (resistive load)	10 A 24 VDC
	0.6 A 250 VDC
DC-13 (electromagnetic load)	8 A 24 VDC
	0.3 A 250 VDC

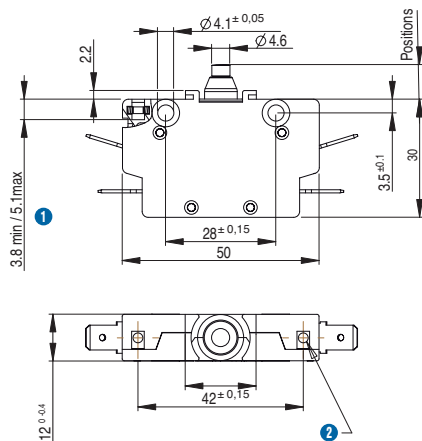
For other ratings please consult us

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

Dimensions

Product

8324

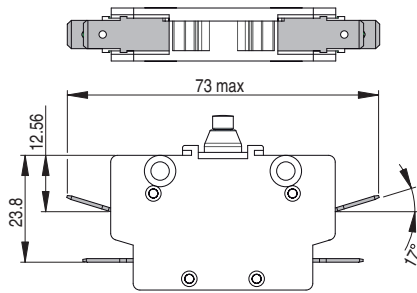


- ① Fixing screw threaded length
- ② Fixing nuts 2 x M3

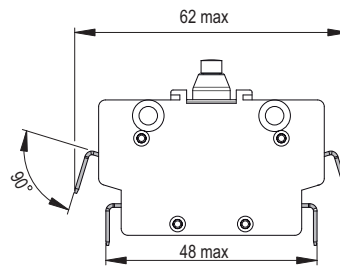
Max. tightening torque of fixing screws: 1.3 N.m on $\varnothing 4.1$ holes
0.9 N.m on M3 nuts

Connections

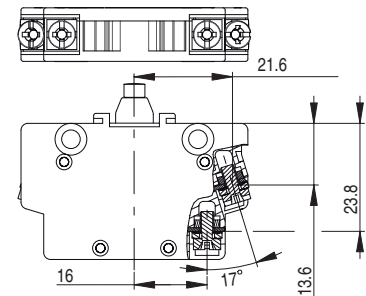
W3 quick-connect 6.3 x 0.8



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

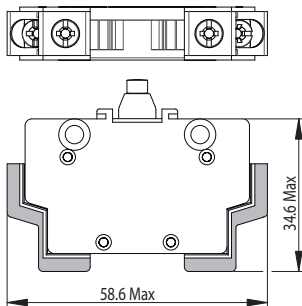


**W5 screw with clamp
W1 screw with washer**



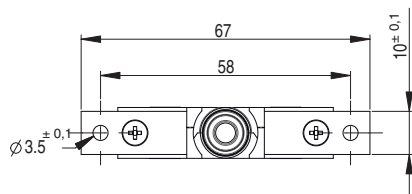
4 x M3 screws - PZ1 type

W5/IP20 screw with clamp and IP20 protection



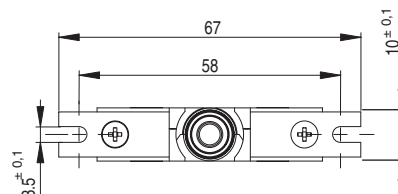
Mounting accessories

PT mounting plates with holes 79552459



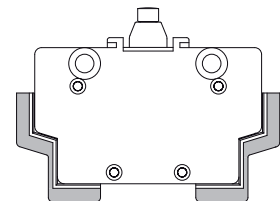
Thickness: 1 mm

PE mounting plates with notches 79552460



Thickness: 1 mm

IP20 screw connection cover 79552328



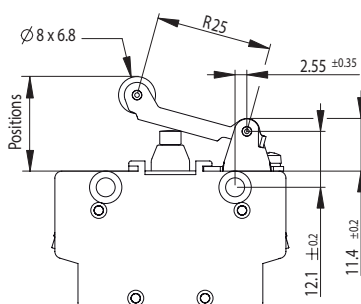
Snap-on mounting
2 pieces are needed

Actuators

LG roller lever 79552456

LG PT roller lever + plates with holes 79552457

LG PE roller lever + plates with notches 79552458



Mechanical characteristics on roller

	83240	83242
Maximum operating force (N)	3	4
Minimum release force (N)	0.3	1.3
Min. positive opening force (N)	19	19
Maximum rest position (mm)	21	21
Operating position (mm)	16,6±0,5	16,6±0,5
Positive opening position (mm)	13,2	13,2
Maximum total travel position (mm)	12	12
Differential travel (mm)	1,8±0,55	1,8±0,55

Actuators and mounting accessories

PBX-8324 with referenced accessories

Roller lever Mounting plates Accessory kit			LG -	LG PT	LG PE	- PT	- PE
			79552456	79552457	79552458	79552459	79552460
83240	IP40	W3	83240003	83240004	83240005	•	•
		W3/90B	83240013	83240014	83240015	•	•
		W5	83240023	83240024	•	83240021	•
		W5/IP20	83240033	83240034	•	•	•
		W3	83240203	•	•	•	•
	IP67	W3/90B	83240213	83240214	•	•	•
		W5	83240223	83240224	83240225	83240221	•
		W5/IP20	•	•	•	•	•
		W3	83242003	83242004	83242005	•	•
		W3/90B	•	83242014	•	83242011	•
83242	IP40	W5	83242023	83242024	•	83242021	•
		W5/IP20	•	•	•	•	•
	IP67	W3	•	•	•	•	•
		W3/90B	•	•	•	•	•
		W5	83242223	83242224	•	•	•
		W5/IP20	•	•	•	•	•

Installation recommendations

See "Basic technical concepts".

To observe the required clearances and creepage distances in the connection area :

- above 100 V: an insulating plate is needed when the switch is mounted on an uninsulated surface.
- above 250 V: insulating plates are needed between switches when ganging.

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*

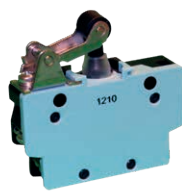
* if needed

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



In-line quick-connect terminals



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

Standard product

Product made to order



Contact us

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