

Technical Data and Specifications

LS-Titan Safety Interlock Switches

	Units		LS-...ZBZ	LS-...ZB	LS4...ZB
General					
Standards			IEC/EN 60947	IEC/EN 60947	IEC/EN 60947
Climatic proofing			①	①	①
Ambient temperature	°C		-25... +0	-25... +70	-25... +70
Mounting position			As required	As required	As required
Protection type			IP65	IP65	IP65
Terminal capacities					
Solid	mm ²		1 x (0.75-2.5)/2 x (0.75-1.5)	1 x (0.75-2.5)/2 x (0.75-1.5)	1 x (0.75-2.5)/2 x (0.75-1.5)
Flexible with ferrule	mm ²		1 x (0.75-2.5)/2 x (0.75-1.5)	1 x (0.75-2.5)/2 x (0.75-1.5)	1 x (0.75-2.5)/2 x (0.75-1.5)
Contacts/Switching Capacity					
Rated impulse withstand voltage	U _{imp}	Vac	4000	6000	6000
Rated insulation voltage	U _i	V	400	500	500
Overvoltage category/pollution degree			III/3	III/3	III/3
Burden Current					
AC-15					
24V	I _e	A	6	10	10
230V/240V	I _e	A	6	6	6
400V/415V	I _e	A	4	4	4
DC-13					
24V	I _e	A	3	3	3
110V	I _e	A	0.8	0.8	0.8
220V	I _e	A	0.3	0.3	0.3
Supply frequency		Hz	max.400	max. 400	max.400
Short-circuit rating to IEC/EN 60947-5-1 Max. fuse		A gG/gL	6	6	6
Repetition accuracy		mm	± 0.02	± 0.02	± 0.02
Mechanical Variables					
Lifespan					
Standard-action contact	Operations	x 10 ⁶	1	10	10
Snap-action contact	Operations	x 10 ⁶			
Mechanical shock resistance (half-sinusoidal shock, 20 ms)					
Standard-action contact		g	10	25	5
Snap-action contact		g			
Operating frequency	Operations/h		≤ 800	≤ 1800	≤ 1800
Actuation					
Mechanical					
Actuating force at beginning/end of stroke					
ZB/ZBZ (push in/pull out)		N	25/15	10/5	15/20
Mechanical holding force according to GS-ET-19 (04/2004)					
XG, XW		N	1500	N/A	N/A
XFF, XNG, XWA		N	1300	N/A	N/A
XF		N	750	N/A	N/A
XNW		N	500	N/A	N/A
Electromechanical					
For magnet					
Power consumption					
at 120 Vac		VA	8	N/A	N/A
at 230 Vac		VA	11	N/A	N/A
at 24 Vdc		W	8	N/A	N/A
Pickup and dropout values		x U _s	0.85-1.1	N/A	N/A
Magnet duty factor		% ED	100	N/A	N/A

Note

① Damp heat, constant, to IEC 60068-2-78; damp heat, cyclical, to IEC 60068-2-30.

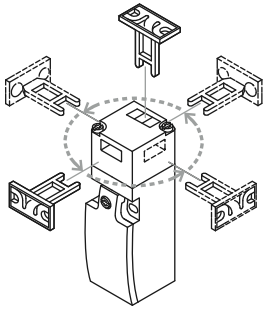
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Safety Products

LS-Titan Safety Interlock Switches

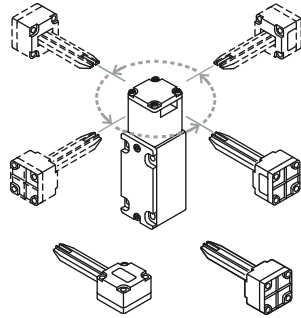
Mounting Instructions

LS-...ZB, TKG, TS



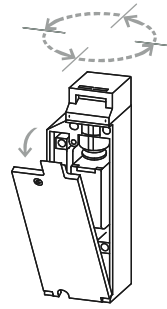
Actuator can be repositioned for horizontal or vertical installation. The operating heads can be rotated manually in 90° steps to suit the specified direction of operation.

LS4-...ZB

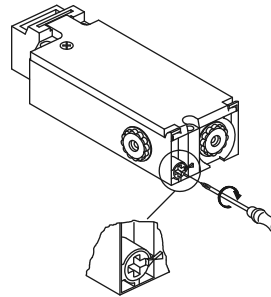


Actuator can be repositioned for horizontal or vertical installation. The operating heads can be rotated manually in 90° steps to suit the specified direction of operation.

LS-...ZBZ



The operating head can be rotated manually in 90° steps to suit the specified level of actuation.



In the event of a loss of voltage, (e.g., during commissioning), the spring-powered LS-...-...FT-ZBZ can be released with a screwdriver. **The auxiliary release mechanism must be sealed.**