

LS-Titan Miniature DIN Switches



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LS-Titan Miniature DIN Switches

Product Description

Eaton’s LS-Titan™ limit switch line is a complete offering of safety position switches designed for worldwide application. Economical insulated plastic or rugged metal enclosures and modular, plug-in operating heads and bodies make LS-Titan a flexible switching solution.

A highlight of the LS-Titan switch line is the world’s first electronic position switch (LSE models). These switches feature freely programmable operating points that can be set individually at any time. Additional LSE models provide analog outputs proportional to the actuator position.

LS-Titan switches are suitable for use in safety applications designed to protect persons or processes.

Features

- Modular, plug-in system (head and body components)
- Positive opening NC contacts for safety applications
- Wide variety of economical plastic and rugged metal versions available
- Operating heads can be rotated 90 degrees to suit specific direction of operation
- Unique electronic safety position switches (LSE models) provide analog (0–10 Vdc or 4–20 mA) outputs proportional to the actuator position and allow for easy configuration of a custom trip point
- Can be ordered as separate components (head and body) or as completely assembled switches
- Screw and Cage Clamp® (standard on LSE models and optionally available on mechanical models) connections provide larger wiring areas for easier installation
- Approved for worldwide application

Standards and Certifications

- Safety function by positive opening contacts per IEC/EN 60947-5-1 up to Category 4 per EN 954-1
- TÜV-Rheinland Certified for Functional-Safety (LSE models)
- CSA certified
- UL listed
- CE
- CCC



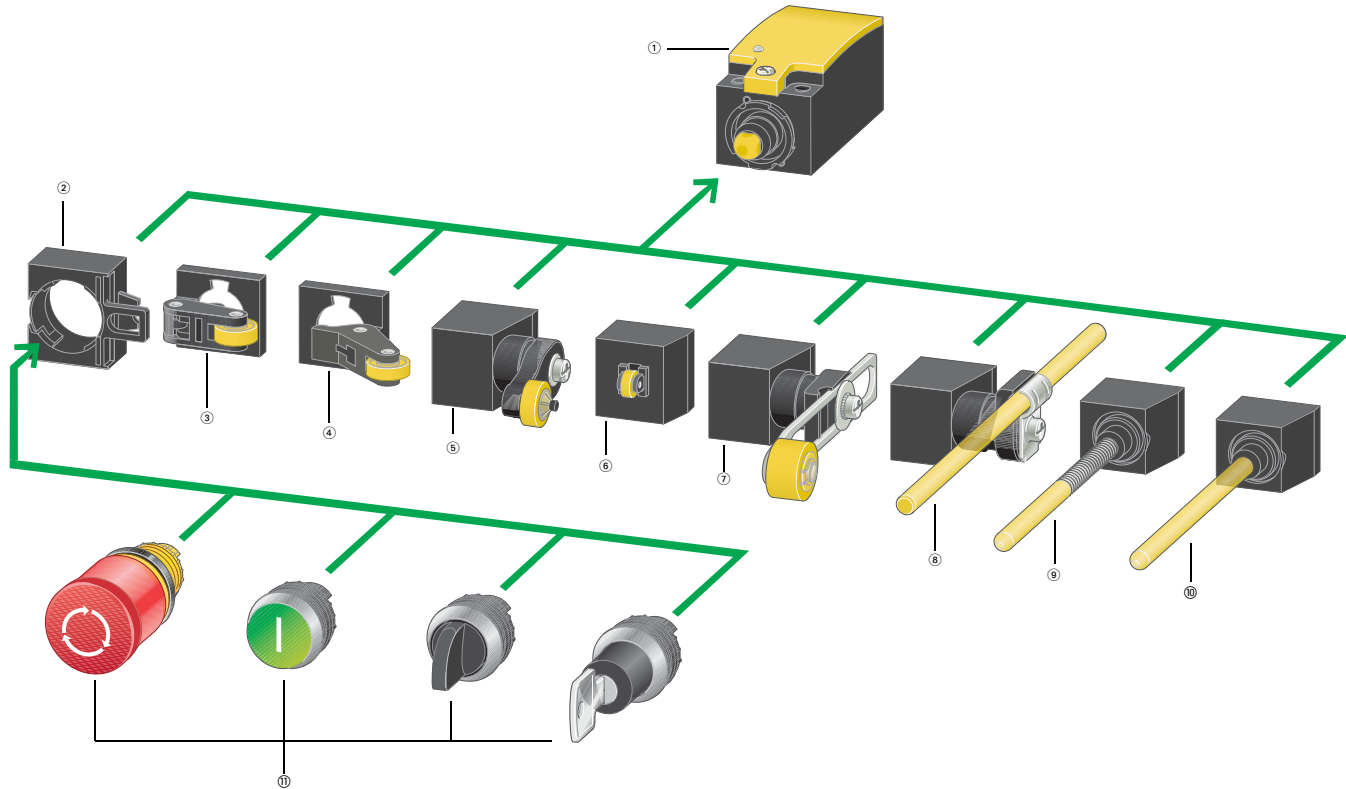
**Note:** Cage Clamp is a registered trademark of Wago Kontakttechnik, 32423 Minden, Germany.

For the most current information on this product, visit our Web site: [www.eaton.com](http://www.eaton.com)

For Customer Service in the U.S. call 1-877-ETN CARE (386-2273), in Canada call 1-800-268-3578. For Application Assistance in the U.S. and Canada call 1-800-426-9184.

## Product Identification

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## Notes

- ① **Basic device** (see Pages V8-T2-23 to V8-T2-31)  
According to EN 50047  
With screw-on cover  
Contacts: 1NO-1NC, 2NO, 2NC  
Cage Clamp, screw terminal  
As snap-action or standard-action switch  
As electronic snap-action switch (individually adjustable)  
As 4–20 mA analog signal encoder  
As 0–10 Vdc analog signal encoder
- ② **Fixing adapter** (see Page V8-T2-33)  
Allows mounting of M22 pushbuttons
- ③ **Roller lever** (see Pages V8-T2-23 and V8-T2-26)  
For one-sided operation with higher operating speed
- ④ **Angled roller lever** (see Pages V8-T2-23, V8-T2-26 and V8-T2-30)  
For actuation along the unit axis
- ⑤ **Rotary lever** (see Pages V8-T2-23, V8-T2-27 and V8-T2-30)  
For actuation from the side, for pendulum movements
- ⑥ **Roller plunger** (see Pages V8-T2-23, V8-T2-26 and V8-T2-30)  
For actuation from the side with low actuating force
- ⑦ **Adjustable roller lever** (see Pages V8-T2-24, V8-T2-27, V8-T2-28 and V8-T2-30)  
For length adjustment as required
- ⑧ **Actuating rod** (see Pages V8-T2-25, V8-T2-29 and V8-T2-31)  
On conveyor belts for lightweight goods
- ⑨ **Spring-rod** (see Pages V8-T2-25, V8-T2-29 and V8-T2-31)  
For flexible actuation from all sides
- j **Actuating rod** (see Pages V8-T2-25, V8-T2-29 and V8-T2-31)  
Withdrawable mechanism from front
- k Pushbuttons from the M22 family; see M22 catalog (CA04716001E) or [www.eaton.com/m22](http://www.eaton.com/m22)

**Operating heads can be rotated by 90 degrees.**

**Product Selection**

**LS-Titan Plastic Safety Switches**

**Plastic Safety Switches**



**Switch Body Catalog Number**

**Output Function**

**Terminal Connection**

**Contact Sequence**

**Contact Travel**

- = contact closed
- = contact open

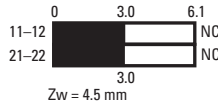
**Operating Head Type ②**

**Head Only Catalog Number**

**LS-S02**

2NC with positive opening contacts

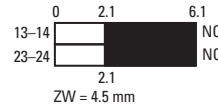
Screw terminal ①



**LS-S20A**

2NO with slow make/break

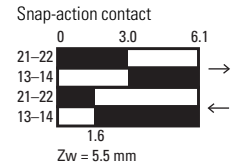
Screw terminal ①



**LS-S11S**

1NO and 1NC with positive opening contact

Screw terminal ①



**Assembled Switch Catalog Number**

	LS-XP	LS-S02-P	LS-S20A-P	LS-S11S-P
<b>Top Push Roller Plunger</b>				
<b>Long Roller Lever</b>	LS-XL	LS-S02-L	LS-S20A-L	LS-S11S-L
<b>Short Roller Lever</b>	LS-XLS	LS-S02-LS	LS-S20A-LS	LS-S11S-LS
<b>Large Roller Lever</b>	LS-XLB	LS-S02-LB	LS-S20A-LB	LS-S11S-LB
<b>Angled Roller</b>	LS-XLA	LS-S02-LA	LS-S20A-LA	LS-S11S-LA
<b>Rotary Lever</b>	LS-XRL	LS-S02-RL	LS-S20A-RL	LS-S11S-RL

**Notes**

- ① Cage Clamp versions available. Contact Application Engineering.
- ② For operating head dimensions, see **Page V8-T2-40**.

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## Limit Switches

### LS-Titan Miniature DIN Switches

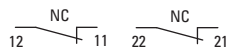
#### LS and LSM

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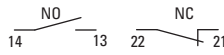
#### Contact Travel

■ = contact closed  
□ = contact open

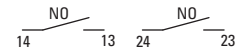
#### LS-02, LS-S02, LSM-02



#### LS-11S, LS-S11S, LSM-11S

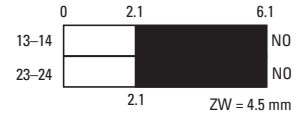
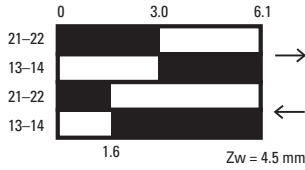
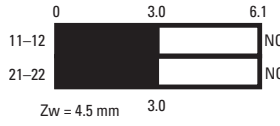


#### LS-20A, LS-S20A, LSM-20A



#### Description

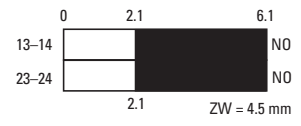
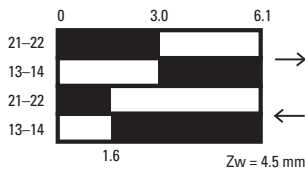
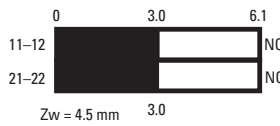
#### Basic Units



#### Operating Heads

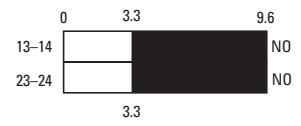
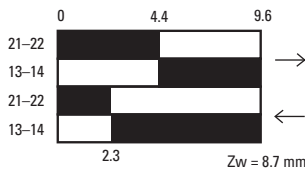
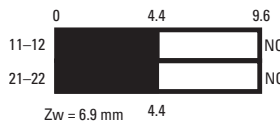
##### Roller plunger

LS-XP, LSM-XP



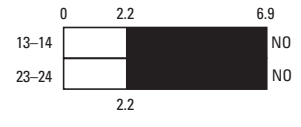
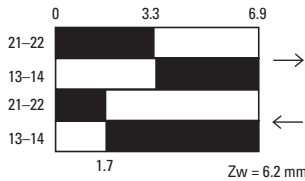
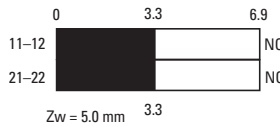
##### Roller lever

LS-XL, LSM-XL



##### Roller lever, short

LS-XLS



##### Roller lever, large

LS-XLB

