LS-Titan Miniature DIN Switches

Contents

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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

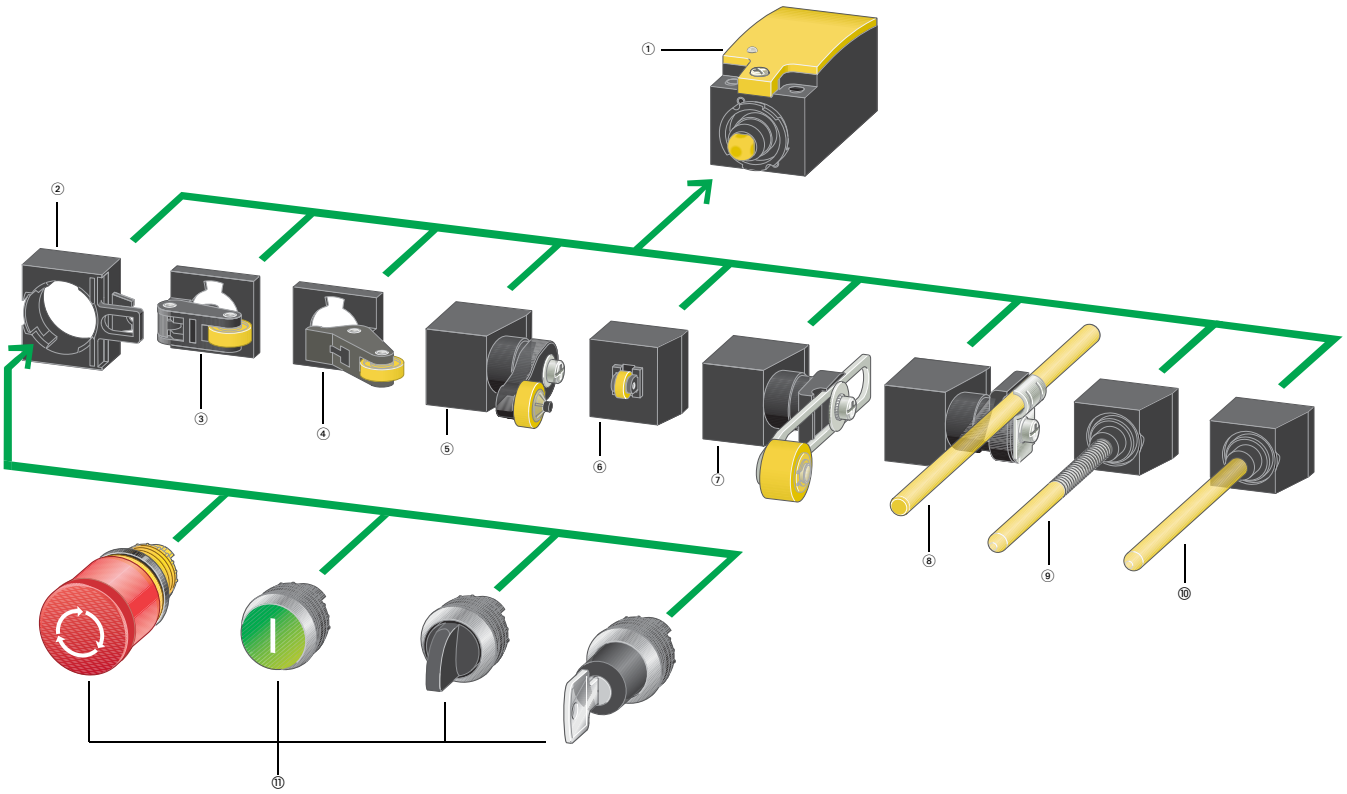
Listed

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

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



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

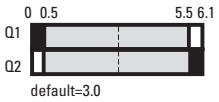
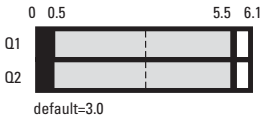
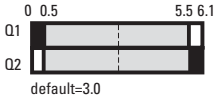
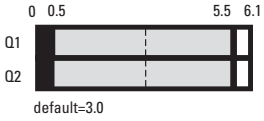
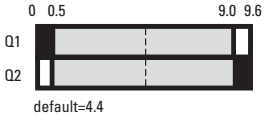
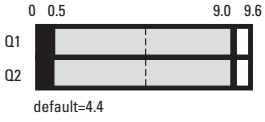
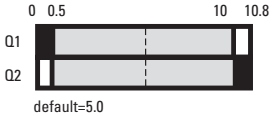
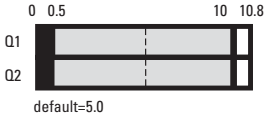
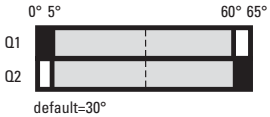
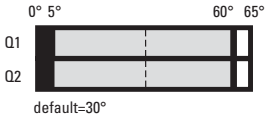
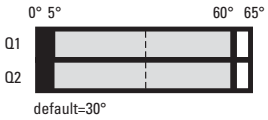
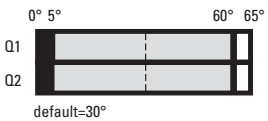
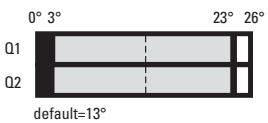
j **Actuating rod** (see **Pages V8-T2-25**, **V8-T2-29** and **V8-T2-31**)
Withdrawable mechanism from front

k Pushbuttons from the M22 family; see M22 catalog (CA04716001E) or www.eaton.com/m22

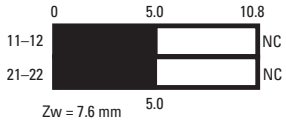
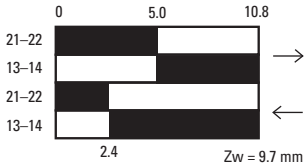
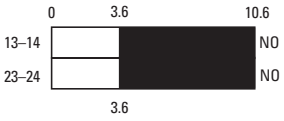
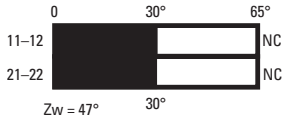
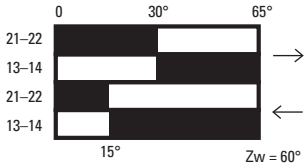
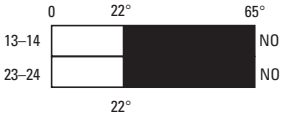
Operating heads can be rotated by 90 degrees.

Contact Travel Diagrams

LSE

Description	Contact Travel ■ = contact closed □ = contact open	LSE-11 Q1 Q2	LSE-02 Q1 Q2
Basic Units			
			
Operating Heads			
Roller plunger			
LS-XP LSM-XP			
Roller lever			
LS-XL LSM-XL LS-XL LS-XLB			
Angled roller lever			
LS-XLA LSM-XLA			
Rotary lever			
LS-XRL LSM-XRL			
Adjustable roller lever			
LS-XRLA LSM-XRLA LS-XRLA30 LS-XRLA40 LS-XRLA40R			
Actuating rod			
LS-XRR LSM-XRR LS-XRRM LSM-XRRM			
Spring rod			
LS-XS LSM-XS			

LS and LSM, continued

Description	Contact Travel ■ = contact closed □ = contact open	LS-02, LS-S02, LSM-02 NC 12–11, NC 22–21	LS-11S, LS-S11S, LSM-11S NO 14–13, NC 22–21	LS-20A, LS-S20A, LSM-20A NO 14–13, NO 24–23
Operating Heads				
Angled roller lever LS-XLA, LSM-XLA				
Rotary lever LS-XRL, LSM-XRL				
Adjustable roller lever LS-XRLA, LSM-XRLA LS-XRLA30, LS-XRLA40 LS-XRLA40R				
Actuating rod LS-XRR, LSM-XRR LS-XRRM, LSM-XRRM				
Spring rod LS-XS, LSM-XS