

2.3

Limit Switches

LS-Titan Miniature DIN Switches

Product Selection

LS-Titan Plastic Safety Switches

Plastic Safety Switch Bodies



Assembled Switch



Plastic Safety Switches

Switch Body Catalog Number

Output Function

Terminal Connection

Contact Sequence

Contact Travel

- = contact closed
- = contact open

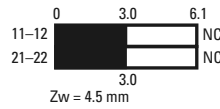
Operating Head Type ②

Heads Only Catalog Number

LS-S02

2NC with Positive Opening Contacts

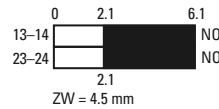
Screw Terminal ①



LS-S20A

2NO with Slow Make/Break

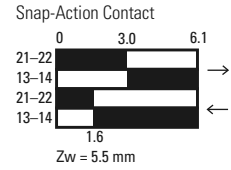
Screw Terminal ①



LS-S11S

1NO and 1NC with Positive Opening Contact

Screw Terminal ①



Assembled Switches Catalog Numbers

Top Push Roller Plunger



LS-XP

LS-S02-P

LS-S20A-P

LS-S11S-P

Long Roller Lever



LS-XL

LS-S02-L

LS-S20A-L

LS-S11S-L

Short Roller Lever



LS-XLS

LS-S02-LS

LS-S20A-LS

LS-S11S-LS

Large Roller Lever



LS-XLB

LS-S02-LB

LS-S20A-LB

LS-S11S-LB

Angled Roller



LS-XLA

LS-S02-LA

LS-S20A-LA

LS-S11S-LA

Rotary Lever



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 21**.

Plastic Safety Switch Bodies



Assembled Switch



Plastic Safety Switches, continued

Switch Body Catalog Number

Output Function

Terminal Connection

Contact Sequence

Contact Travel

■ = contact closed

□ = contact open

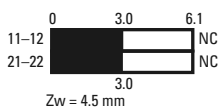
Operating Head Type ②

Heads Only Catalog Number

LS-S02

2NC with Positive Opening Contacts

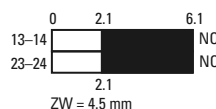
Screw Terminal ①



LS-S20A

2NO with Slow Make/Break

Screw Terminal ①



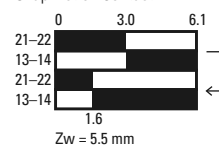
LS-S11S

1NO and 1NC with Positive Opening Contact

Screw Terminal ①



Snap-Action Contact



Assembled Switches Catalog Numbers

Adjustable Roller Lever (with 18 mm Roller)



LS-XRLA

LS-S02-RLA

LS-S20A-RLA

LS-S11S-RLA

Adjustable Roller Lever (with 30 mm Roller)



LS-XRLA30

LS-S02-RLA30

LS-S20A-RLA30

LS-S11S-RLA30

Adjustable Roller Lever (with 40 mm Roller)



LS-XRLA40

LS-S02-RLA40

LS-S20A-RLA40

LS-S11S-RLA40

Adjustable Roller Lever (with 40 mm Rubber Roller)



LS-XRLA40R

LS-S02-RLA40R

LS-S20A-RLA40R

LS-S11S-RLA40R

Notes

① Cage Clamp versions available. Contact Application Engineering.

② For operating head dimensions, see **Page 21**.

2.3

Limit Switches

LS-Titan Miniature DIN Switches

Plastic Safety Switch Bodies



Assembled Switch



Plastic Safety Switches, continued

Switch Body Catalog Number

Output Function

Terminal Connection

Contact Sequence

Contact Travel

- = contact closed
- = contact open

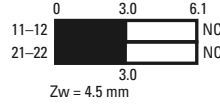
Operating Head Type ②

Heads Only Catalog Number

LS-S02

2NC with Positive Opening Contacts

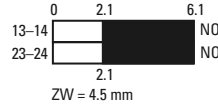
Screw Terminal ①



LS-S20A

2NO with Slow Make/Break

Screw Terminal ①



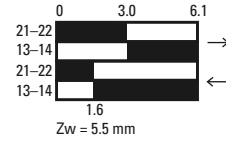
LS-S11S

1NO and 1NC with Positive Opening Contact

Screw Terminal ①



Snap-Action Contact



Assembled Switches Catalog Numbers

Plastic Rod Lever



LS-XRR

LS-S02-RR

LS-S20A-RR

LS-S11S-RR

Metal Rod



LS-XRRM

LS-S02-RRM

LS-S20A-RRM

LS-S11S-RRM

Spring Rod (Wobble) ③



LS-XS

LS-S02-S

LS-S20A-S

LS-S11S-S

Actuating Rod



LS-XOR

LS-S02-OR

LS-S20A-OR

LS-S11S-OR

Notes

- ① Cage Clamp versions available. Contact Application Engineering.
- ② For operating head dimensions, see **Page 21**.
- ③ Not to be used as a safety position switch. Use only in conjunction with snap-action contact.

LS-Titan Plastic Electronic Safety Position Switches

Plastic Electronic Safety Position Switch Bodies



Assembled Switch

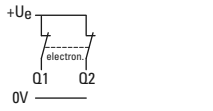
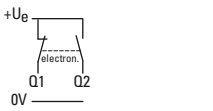


Plastic Electronic Safety Position Switches

Switch Body Catalog Number	LSE-11	LSE-02	LSE-AI	LSE-AU
Output Function	1NO and 1 NC	2NC	Analog 4–20 mA	Analog 0–10V
Terminal Connections	Cage Clamp ①	Cage Clamp ①	Cage Clamp ①	Cage Clamp ①
Safety Functions and Approvals	These models may be used in safety-oriented circuits. Visual status LED indication is comparable to positive opening contacts. Certified by TÜV as a “Functional-Safety” device. Suitable for protection of people or processes.		Additional diagnostic output that registers a 0V signal in the event of a fault. Self-test function continuously tests both outputs for overloads, short circuits to 0V and short circuits to +U _e . Certified by TÜV to EN 954-1, Category 3 or 4. Suitable for protection of people or processes.	



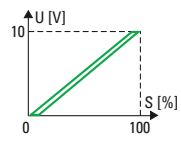
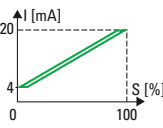
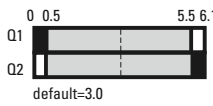
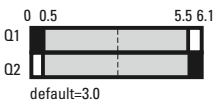
Contact Sequence



Analog 4–20 mA

Analog 0–10V

Contact Travel
 ■ = contact closed
 □ = contact open



Operating Head Type ②

Heads Only Catalog Number **Assembled Switches Catalog Numbers**

Top Push Roller Plunger



LS-XP	LSE-11-P	LSE-02-P	LSE-AI-P	LSE-AU-P
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Long Roller Lever



LS-XL	LSE-11-L	LSE-02-L	LSE-AI-L	LSE-AU-L
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Short Roller Lever



LS-XLS	LSE-11-LS	LSE-02-LS	LSE-AI-LS	LSE-AU-LS
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Large Roller Lever



LS-XLB	LSE-11-LB	LSE-02-LB	LSE-AI-LB	LSE-AU-LB
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Angled Roller



LS-XLA	LSE-11-LA	LSE-02-LA	LSE-AI-LA	LSE-AU-LA
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Notes

- ① A compatible Cage Clamp tool is available as an accessory on **Page 14**.
- ② For operating head dimensions, see **Page 21**.

2.3

Limit Switches

LS-Titan Miniature DIN Switches

Plastic Electronic Safety Position Switch Bodies



Assembled Switch



Plastic Electronic Safety Position Switches, continued

Switch Body

Catalog Number

LSE-11

LSE-02

LSE-AI

LSE-AU

Output Function

1NO and 1NC

2NC

Analog 4–20 mA

Analog 0–10V

Terminal Connections

Cage Clamp ①

Cage Clamp ①

Cage Clamp ①

Cage Clamp ①

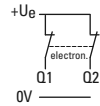
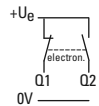
Safety Functions and Approvals

These models may be used in safety-oriented circuits. Visual status LED indication is comparable to positive opening contacts. Certified by TÜV as a "Functional-Safety" device. Suitable for protection of people or processes.

Additional diagnostic output that registers a 0V signal in the event of a fault. Self-test function continuously tests both outputs for overloads, short circuits to 0V and short circuits to +U_e. Certified by TÜV to EN 954-1, Category 3 or 4. Suitable for protection of people or processes.



Contact Sequence



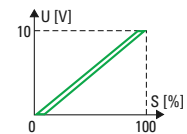
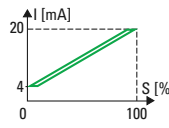
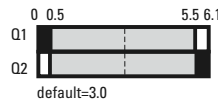
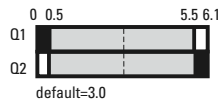
Analog 4–20 mA

Analog 0–10V

Contact Travel

■ = contact closed

□ = contact open



Operating Head Type ②

Heads Only

Catalog Number

Assembled Switches

Catalog Numbers

Rotary Lever



LS-XRL

LSE-11-RL

LSE-02-RL

LSE-AI-RL

LSE-AU-RL

Adjustable Roller Lever (with 18 mm Roller)



LS-XRLA

LSE-11-RLA

LSE-02-RLA

LSE-AI-RLA

LSE-AU-RLA

Adjustable Roller Lever (With 30 mm Roller)



LS-XRLA30

LSE-11-RLA30

LSE-02-RLA30

LSE-AI-RLA30

LSE-AU-RLA30

Notes

① A compatible Cage Clamp tool is available as an accessory on [Page 14](#).

② For operating head dimensions, see [Page 21](#).

Plastic Electronic Safety Position Switch Bodies



Assembled Switch



Plastic Electronic Safety Position Switches, continued

Switch Body

Catalog Number

LSE-11

LSE-02

LSE-AI

LSE-AU

Output Function

1NO and 1NC

2NC

Analog 4–20 mA

Analog 0–10V

Terminal Connections

Cage Clamp ①

Cage Clamp ①

Cage Clamp ①

Cage Clamp ①

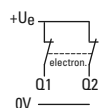
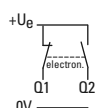
Safety Functions and Approvals

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Contact Sequence



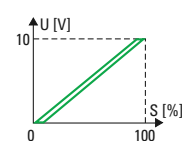
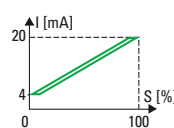
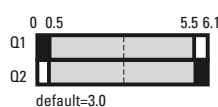
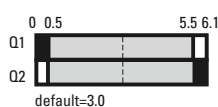
Analog 4–20 mA

Analog 0–10V

Contact Travel

■ = contact closed

□ = contact open



Operating Head Type ②

Heads Only

Catalog Number

Assembled Switches Catalog Numbers

Adjustable Roller Lever (With 40 mm Roller)



LS-XRLA40

LSE-11-RLA40

LSE-02-RLA40

LSE-AI-RLA40

LSE-AU-RLA40

Adjustable Roller Lever (With 40 mm Roller)



LS-XRLA40R

LSE-11-RLA40R

LSE-02-RLA40R

LSE-AI-RLA40R

LSE-AU-RLA40R

Plastic Rod Lever



LS-XRR

LSE-11-RR

LSE-02-RR

LSE-AI-RR

LSE-AU-RR

Notes

① A compatible Cage Clamp tool is available as an accessory on **Page 14**.

② For operating head dimensions, see **Page 21**.

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Limit Switches

LS-Titan Miniature DIN Switches

Plastic Electronic Safety Position Switches, continued

Plastic Electronic Safety Position Switch Bodies



Assembled Switch



Switch Body

Catalog Number

LSE-11

LSE-02

LSE-AI

LSE-AU

Output Function

1NO and 1NC

2NC

Analog 4–20 mA

Analog 0–10V

Terminal Connections

Cage Clamp ^①

Cage Clamp ^①

Cage Clamp ^①

Cage Clamp ^①

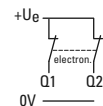
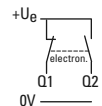
Safety Functions and Approvals

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Contact Sequence

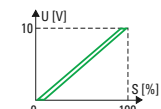
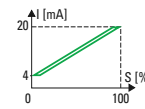
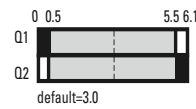
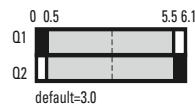


Analog 4–20 mA

Analog 0–10V

Contact Travel

■ = contact closed
□ = contact open



Operating Head Type ^②

Heads Only Catalog Number

Assembled Switches Catalog Numbers

Metal Rod



LS-XRRM

LSE-11-RRM

LSE-02-RRM

LSE-AI-RRM

LSE-AU-RRM

Spring Rod (Wobble) ^③



LS-XS

LSE-11-S

LSE-02-S

LSE-AI-S

LSE-AU-S

Actuating Rod



LS-XOR

LSE-11-OR

LSE-02-OR

LSE-AI-OR

LSE-AU-OR

Notes

- ① A compatible Cage Clamp tool is available as an accessory on **Page 14**.
- ② For operating head dimensions, see **Page 21**.
- ③ Not to be used as a safety position switch. Use only in conjunction with snap-action contact.

LS-Titan Metal Safety Switches

Metal Safety Switch Bodies



Assembled Switch



Metal Safety Switches

Switch Body Catalog Number

Output Function

Terminal Connection

Contact Sequence

Contact Travel

■ = contact closed

□ = contact open

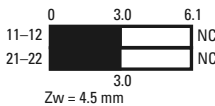
Operating Head Type ①

Heads Only Catalog Number

LSM-02

2NC with Positive Opening Contacts

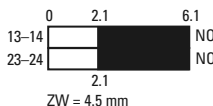
Cage Clamp



LSM-20A

2NO with Slow Make/Break

Cage Clamp



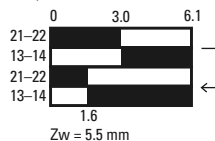
LSM-11S

1NO and 1NC with Positive Opening Contact

Cage Clamp



Snap-Action Contact



Assembled Switches Catalog Numbers

Top Push Roller Plunger



LSM-XP

LSM-02-P

LSM-20A-P

LSM-11S-P

Long Roller Lever



LSM-XL

LSM-02-L

LSM-20A-L

LSM-11S-L

Angled Roller



LSM-XLA

LSM-02-LA

LSM-20A-LA

LSM-11S-LA

Rotary Lever



LSM-XRL

LSM-02-RL

LSM-20A-RL

LSM-11S-RL

Adjustable Roller Lever



LSM-XRLA

LSM-02-RLA

LSM-20A-RLA

LSM-11S-RLA

Note

① For operating head dimensions, see Page 21.

2.3

Limit Switches

LS-Titan Miniature DIN Switches

Metal Safety Switch Bodies



Assembled Switch



Metal Safety Switches, continued

Switch Body Catalog Number

Output Function

Terminal Connection

Contact Sequence

Contact Travel

■ = contact closed

□ = contact open

Operating Head Type ①

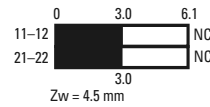
Heads Only

Catalog Number

LSM-02

2NC with Positive Opening Contacts

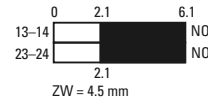
Cage Clamp



LSM-20A

2NO with Slow Make/Break

Cage Clamp



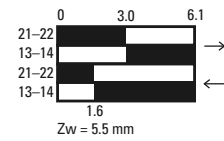
LSM-11S

1NO and 1NC with Positive Opening Contact

Cage Clamp



Snap-Action Contact



Assembled Switches Catalog Numbers

Plastic Rod Lever



LSM-XRR

LSM-02-RR

LSM-20A-RR

LSM-11S-RR

Metal Rod Lever



LSM-XRRM

LSM-02-RRM

LSM-20A-RRM

LSM-11S-RRM

Spring Rod (Wobble)



LSM-XS

LSM-02-S

LSM-20A-S

LSM-11S-S

Note

① For operating head dimensions, see **Page 21**.