

LS-Titan Safety Interlock Switches



LS-Titan Safety Interlock Switches

Product Description

Eaton's LS-Titan safety interlock switches have been specifically designed for monitoring the position of protective guards, such as doors, flaps, hoods and grilles. All switches in this family are safety-rated, include positively opening NC contacts, and cannot be defeated using simple tools, such as pliers, screwdrivers and nails.

The LS-Titan safety interlock family is comprised of three types of safety switches: key interlock, door-flap and door-hinge switches.

Key interlock switches are a two-piece design, made up of the switch and key (actuator). The key portion of the switch is affixed to a movable door, cover or other such guard. The switch itself is mounted to a rigid portion of the machine. When the guard is opened, the key is removed from the switch, thereby positively breaking the NC contacts. This interrupts the control circuit, stopping machine operation.

The door-flap and door-hinge switches are one-piece designs, suitable for when a key cannot be mounted in the application. When an attempt is made to open a protected door hinge or flap during operation, these switches disconnect the power supply to the machine or installation. Both switches feature four-way adjustable heads.

All LS-Titan safety interlock switches are approved to protect personnel and processes.

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Features

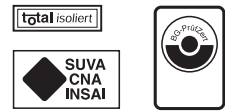
- Broad family of safety interlock switches in industry-standard enclosure sizes: miniature DIN; full-size DIN; and larger, solenoid key interlocks providing the highest degree of personnel and process protection
- Large selection of actuators (keys), including those for sliding doors, swing doors and doors that do not close precisely
- Miniature DIN models have a five-way adjustable head, while full-size DIN models have four-way adjustable heads
- Fully safety-rated as interlocking devices per EN 1088, with safety function by positive opening contacts per IEC/EN 60947-5-1
- Door-flap and door-hinge safety switches provide a unique solution when actuators (keys) cannot be used
- IP65 degree of protection

Standards and Certifications

- UL® listed
- CSA® approved
- CCC



- Positive opening NC contacts per EN 60947-5-1



Safety Notes

Do not use as a mechanical stop/shipping brace.

Any change to an original Eaton safety position switch is not permitted and automatically leads to the loss of all approvals.

⚠ Switch must never be used as a mechanical stop.

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.

LS-Titan Full-Size DIN Safety Interlock Switches

Key Interlock Switch

Full-Size DIN—LS4...ZB ^{①②}



Contacts	Contact Sequence	Contact Travel	Connection	Catalog Number (Includes Key)
1NO and 1NC with positive opening		—	Screw terminal	LS4-S11-1-I-ZB

LS-Titan Solenoid Safety Interlock Switches

Switch Body without Key

Switch Body without Key—LS...ZBZ ^{①②③}



Operation	Operating Voltage	Contacts	Contact Sequence	Catalog Number (Key not Included)
Power to unlock (mechanical bypass present)	24 Vdc	1NO and 1NC with positive opening		LS-S11-24DFT-ZBZ-X
		2NC with positive opening		LS-S02-24DFT-ZBZ-X
	120 Vac (50/60 Hz)	1NO and 1NC with positive opening		LS-S11-120AFT-ZBZ-X
		2NC with positive opening		LS-S02-120AFT-ZBZ-X
Power to lock	24 Vdc	1NO and 1NC with positive opening		LS-S11-24DMT-ZBZ-X
		2NC with positive opening		LS-S02-24DMT-ZBZ-X
	120 Vac (50/60 Hz)	1NO and 1NC with positive opening		LS-S11-120AMT-ZBZ-X
		2NC with positive opening		LS-S02-120AMT-ZBZ-X

Notes

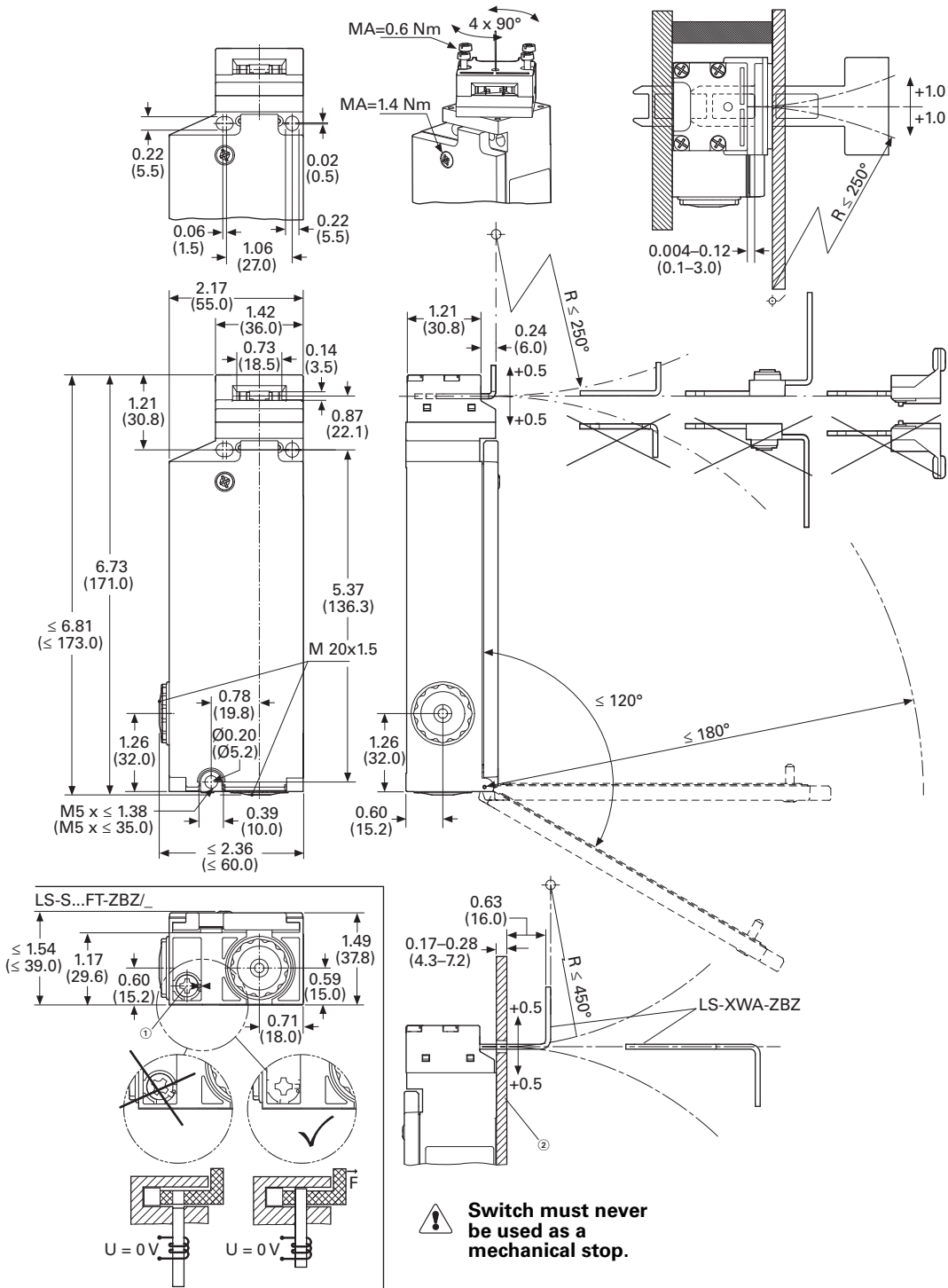
- ① For dimensions, see **Page V8-T1-11**.
- ② For mounting instructions, see **Page V8-T1-10**.
- ③ Key ordered separately, see **Page V8-T1-8**.

Dimensions

Approximate Dimensions in Inches (mm)

Safety Position Switches

LS...ZB



Notes

- ① The auxiliary release mechanism must be sealed for proper operation.
- ② Can be used as stop with the corresponding material selection and design.