Leuze electronic

the sensor people

SMART
SENSOR
BUSINESS

SAFETY SWITCHES

Safety switches and safety locking devices, safety proximity sensors and command devices

www.leuze.com

ПРОМЭЛЕКТРОНИКА / sales@prom-elec.com

SAFETY AT WORK STARTS WITH THE SWITCH

Our extensive range of safety switches and safety locking devices, safety proximity sensors and command devices leaves nothing to be desired.

LEADER IN SAFETY AT WORK

As one of the technology leaders in the area of optoelectronic safety sensors for industrial automation, we offer effective personnel protection devices in accordance with international safety standards. Thanks to our global presence we are able to offer our product line quickly and efficiently worldwide.

Apart from extensive application know-how and sound knowledge of technical standards and guidelines regarding automation and safety at work, we in particular offer quality products with outstanding functional features.

ONLY ONE THING COUNTS – RELIABILITY

A multitude of different devices ensure comprehensive safety at work in complex systems. These also include safety switches, safety locking devices, safety proximity sensors and command devices, depending on the application. Naturally, you can also easily get these devices in addition to our other safety sensors, from the single source that is Leuze electronic – making our contact with you a “Smart Sensor Business” in no time.

SAFETY SWITCHES

Safety switches can be used to monitor movable guards such as protective doors, sliding grids or flaps, for example in the food, pharmaceutical or timber industries. Opening the protective devices triggers an E-Stop command.

SAFETY PROXIMITY SENSORS

These sensors are exceptionally well-suited for monitoring of guards, particularly in rough, easily contaminated or damp environments. The closed construction in a high-strength plastic housing also fulfills the highest demands on hygiene and robustness.

SAFETY LOCKING DEVICES

These devices keep safety doors locked and thereby prevent unauthorized access. Access is only released when the dangerous movement has been brought to a stop (personnel protection) or a non-interruptible work process has been finished (machine protection).

SAFETY COMMAND DEVICES

For stopping in emergencies, EN ISO 12100-1 stipulates protective devices and supplementary measures such as E-Stop buttons or emergency rope switches. Leuze electronic offers solutions that are optimized with respect to safety and ergonomics.

SAFETY SWITCHES

Safety switches
S20, S200

These switches are predestined for guarding machines and systems in which process interruptions are possible at any time.

- Housing made of glass fiber reinforced plastic (S20) or metal (S200) – with degree of protection IP 67 in each case
- Suitable for normal-duty applications (S20) and heavy-duty applications (S200)
- Easy mounting with standard construction
- Universal use with 5 actuator approach directions
- Self-centering through funnel-shaped insertion opening
- Compliant with type 2 in accordance with ISO 14119:2013

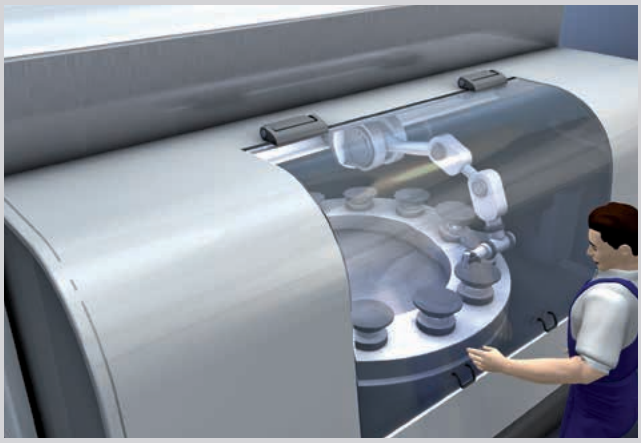
Safety hinge switches
S400, S410, S420

S400 series safety hinge switches are used for monitoring the position of hinged guards (e.g. protective hoods). The S400 safety hinge switches unite the safety switch and door hinge functions in one component.

- 180° maximum opening angle of the protective device
- Repeatable setting (switching angle alignment) with skewed or misaligned doors
- Robust metal version, degree of protection IP 67 and IP 69K
- Encapsulated, internal actuator guarantees proper functioning, even under difficult conditions
- Tamperproof due to covered screws
- Cable or M12 connection
- Compliant with type 1 in accordance with ISO 14119:2013

Safeguarding the door of a plastic film wrapping station

Safeguarding a semi-automatic test system with protection hood



Safety position switches
S300

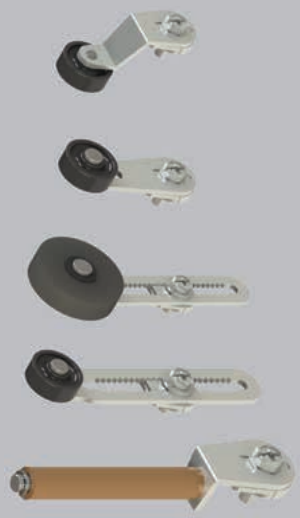
Because of their construction design, the safety position switches of the S300 series are used for the position monitoring of machines or as an alternative to hinge switches – always with the prerequisite that appropriate actuation tappets or notches can actuate the switch when friction closed.

- Metal housing for heavy duty applications
- Switching direction selectable
- Universal use with up to 5 actuator approach directions
- Stable lever fastening in 10° raster
- Models with plunger and roller actuator, extremely long-life and robust
- Compliant with type 1 in accordance with ISO 14119:2013

Guarding on a machine with hinged flap

The right solution for every application
Actuation tappet or notch

We offer the choice of various models with different actuators and supports.



SAFETY LOCKING DEVICES

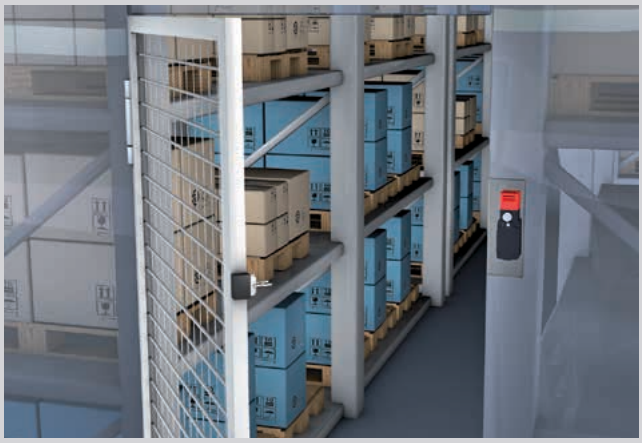
Safety locking devices
L10, L100

- L10 safety locking device as a particularly economical locking solution for rarely used maintenance doors and applications without electrical control signal
- Hardly any wiring and cabling costs due to manual locking and unlocking (L10)
- 6 different heavy duty actuators for the most diverse installation conditions
- L100 safety locking device in variants with electromagnetic or spring-operated locking type and auxiliary release function
- Compliant with type 2 in accordance with ISO 14119:2013

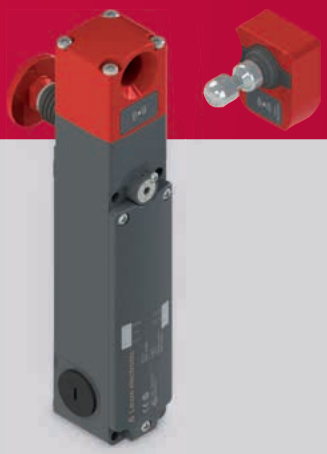
Heavy-duty safety locking devices
L200

- Heavy duty access guarding on big machinery and systems in harsh ambient conditions
- Emergency unlock function (ergonomically optimized panic button) for manually opening the protective devices in the event of an emergency
- Suitable for extreme mechanical loads
- Auxiliary unlocking (for spring locking)
- LED status indicators
- Compliant with type 2 in accordance with ISO 14119:2013

Guard interlocking (manual locking and unlocking) on a door to the store area without control signal with L10



L200 heavy-duty access guarding for safeguarding the door of a plastic film wrapping station

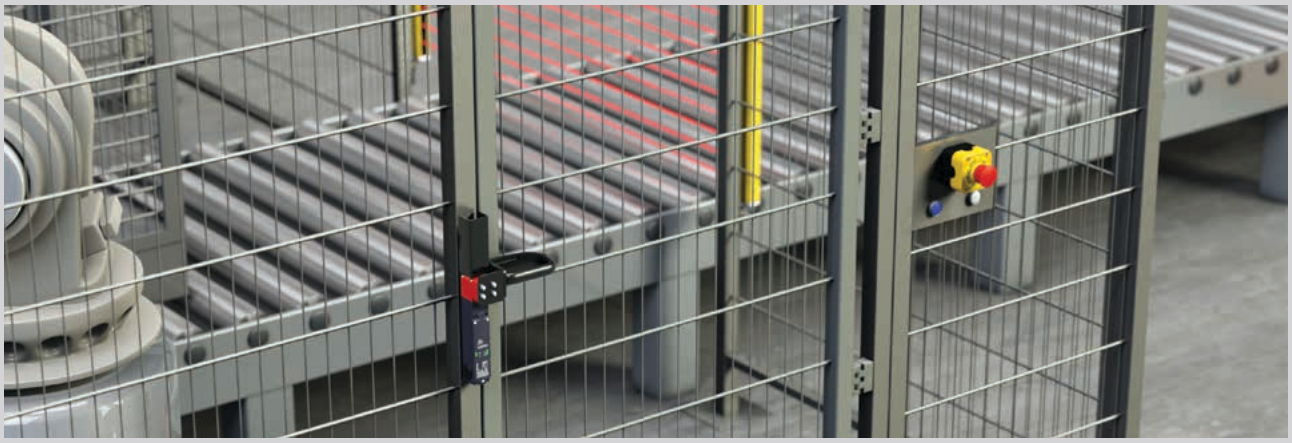


Safety locking devices with RFID transponders
L300

The robust L300 safety locking devices are used to guard large safety doors or sliding gates as well as very large machines that have stopping times. The actuator is detected electronically by means of RFID technology. The L300 series is designed for use under rough environmental conditions.

- Contactless position monitoring and maximum protection against manipulation through actuator with RFID technology
- Digitally encoded actuator
- Locking force of the system 7500 N
- Locks if electromagnet is deactivated
- SIL 3 / PL e Cat. 4 with 1 device
- Metal housing, 3x M20 cable inlets or M12 connectors
- Degree of protection IP 67 and IP 69K
- Designs with auxiliary release, lock and escape release button
- Non-detachable, directional swiveling heads and devices
- PL e also when connected in series with up to 32 devices
- LED display unit for on-site diagnosis
- Compliant with type 4 in accordance with ISO 14119:2013

Reliable access guarding due to L300 and the compatible safety door handle



SAFETY PROXIMITY SENSORS

Magnetically coded sensors
MC 300

The MC 3x coded magnetic sensor contains specially combined reed contacts that are contactlessly activated by the coded magnetic field of the actuator.

- Monitoring of moving guards on machines with sufficiently short stopping times for demanding applications
- For dusty or humid environments
- High-strength plastic housing
- Highly tamperproof
- Designs for many different types of applications
- PVC or PUR cable, M8 plug
- Compliant with type 3 in accordance with ISO 14119:2013

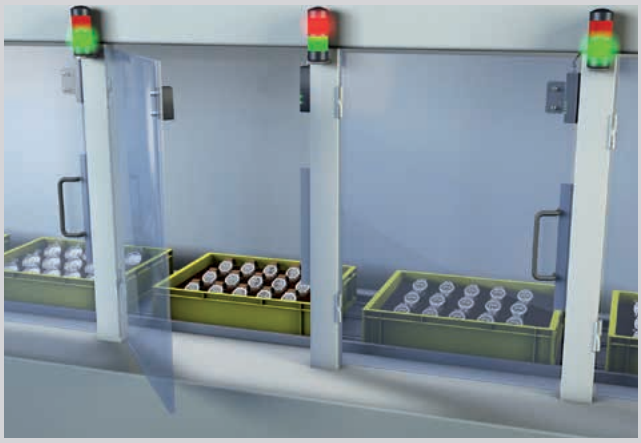
Safety transponders
RD 800-S, RD 800-M

Three basic variants leave nothing to be desired concerning application conditions and protection against possible manipulation. As a result, up to 32 safety transponders can be connected in series via the M12 connection on the left or right side. This reduces the installation effort considerably – while still maintaining a high safety level.

- RD 800-S for single connections
- RD 800-M for multiple applications
- Standard or unique code detection (S- or U-variants).
- Teachable P-variants for increased flexibility can be programmed flexibly and individually
- Increased manipulation security and detection reliability, e.g. in the pharmaceutical industry
- Compliant with type 4 in accordance with ISO 14119:2013

Safeguarding a sliding gate of a filling system

Door guarding



SAFETY COMMAND DEVICES

E-Stop rope switch
ERS200

The ERS200 E-Stop rope switch is a safety command device in accordance with IEC 60947-5-5 and is used with preference with expansive points of operation. The rope-pull activation guarantees that it is easy to reach and simple to operate all along the hazardous area. Pulling the rope or rope fracture safely stops the machine.

- Clicks in on both sides with friction-locking contacts
- Easy alignment with switching point indicator
- Easy integration with 3 cable approach directions
- Compact metal housing, degree of protection IP 67
- Reset button with status display
- Temperature compensation for longer rope lengths

E-Stop button
ESB200

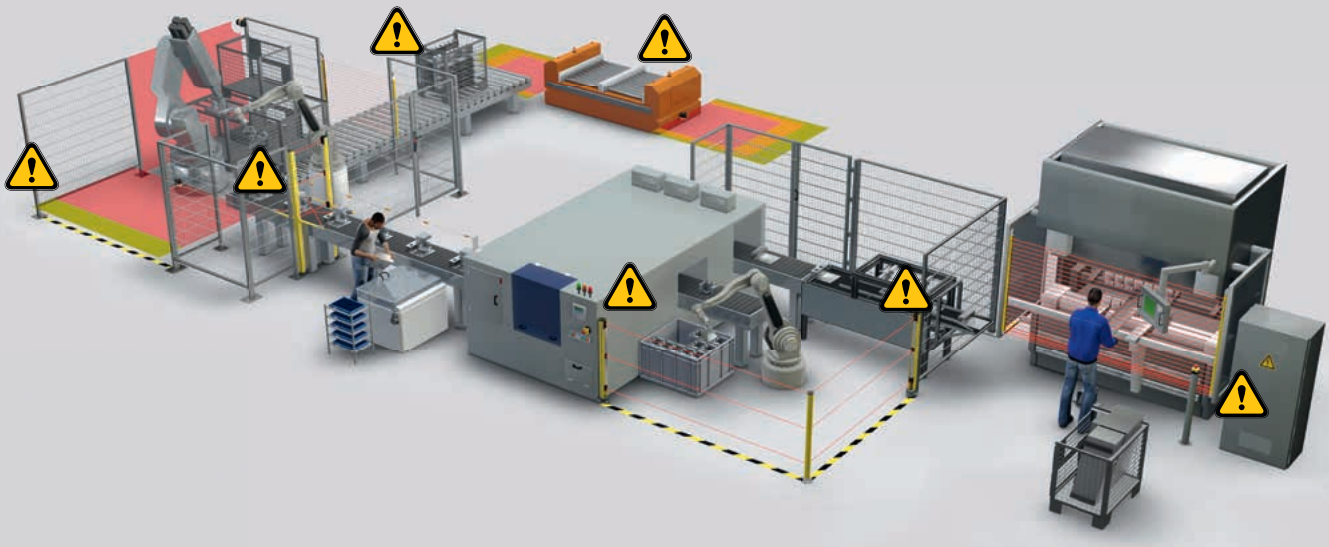
The ESB200 E-Stop buttons are safety command devices which are used at points of operation where it makes sense to be able to enter a stop command at a specific location. The devices are released by rotating the red button or by turning a key. 2NC contact sets enable integration in control circuits up to category 4 in accordance with EN ISO 13849.

- Position-dependent E-Stop command output
- 2 safety circuits, 1 signal circuit
- Either screw terminals or M12 connection
- Ergonomically optimized
- Degree of protection IP 67 and IP 69K

ERS200 E-Stop rope switch as safety command device on machines and systems with extensive points of operation, e.g. on filter presses

COMPLETE SAFETY SOLUTIONS

Together with our wide range of safety switches and sensors, we offer complete solutions for guarding machines and systems. Services covering all aspects of machine safety provide you with support during implementation.



Photoelectric sensors (single and multi-beam)

Proximity sensors

Switch

Light curtains

Laser scanners

Guard interlockings

Safety PLCs and safety relays

Command devices

OUR PROMISE TO YOU

SMARTER **PRODUCT USABILITY**

With regard to our product developments, we systematically place emphasis on the especially good usability of all devices. To this end, simple mounting and alignment are taken into account – just as the uncomplicated integrability of the sensors in existing field bus systems and easy configuration, e.g. via a web browser, are.

SMARTER **APPLICATION KNOW-HOW**

Whoever can do it all, can do nothing right. Which is why we concentrate on selected target sectors and applications. There, we are specialists and know all aspects inside out. For this purpose, we optimize our solutions and offer a comprehensive product range that makes it possible for our customers to obtain the absolute best solutions from a single source.

SMARTER **CUSTOMER SERVICE**

The technical and personal proximity to our customers, and a skilled, straightforward handling of queries and problems, are among our strengths – and will remain so. Consequently, we will continue to expand our service offerings and, indeed, also forge ahead in new directions to persistently redefine the utmost in customer service. Whether on the phone, on the Internet or on-site with our customers – regardless of when and where the expertise of the sensor people is needed at any time.

Info at: **www.leuze.com**

Martina Weil,
Employee in the
Customer Care Center

Switching Sensors
Optical Sensors
Ultrasonic Sensors
Fiber Optic Sensors
Inductive Switches
Forked Sensors
Light Curtains
Special Sensors

Measuring Sensors
Distance Sensors
Sensors for Positioning
3D Sensors
Light Curtains
Forked Sensors

Products for Safety at Work
Optoelectronic Safety Sensors
Safe Locking Devices, Switches and Proximity Sensors
Safe Control Components
Machine Safety Services

Identification
Bar Code Identification
2D-Code Identification
RF Identification

Data Transmission / Control Components
MA Modular Connection Units
Data Transmission
Safe Control Components
Signaling Devices
Connection Technology and Passive Distribution Boxes

Industrial Image Processing
Light Section Sensors
Smart Camera

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