Latch & manual reset
Safety limit switches

Description

Limit switches with latch and manual reset are equipped with operating heads with plunger, roller plunger or roller lever, used to detect rectilinear or angular movements.
Made of fibre-glass reinforced UL-V0 thermoplastic material, they offer double insulation and a degree of protection IP65.
Limit switches with latch and manual reset are equipped with 1 N.C. + 1 N.O. or 2 N.C. contact blocks with positive opening operation of the "N.C." contact(s). After actuating the control device and overshooting the latching point, the N.C. safety contact(s) remain in the open position. Return to the initial operating state takes place by voluntary action on the reset button.

Applications

Easy to use, the limit switches for safety applications with latch and manual reset offer specific qualities:

- Visible operation (fault memorisation).
- Capability for strong current switching (conventional thermal current 10 A).
- Contact blocks with positive opening operation of the "N.C." normally closed contact(s) (symbol ⊖).
- Electrically separated contacts (Zb shape).
- Precision on operating positions (consistency).
- Immunity to electromagnetic disturbances.

These specific features make the limit switches ideal for detection and monitoring of faults in hoisting machines, electric lifts, freight elevators, escalators, conveyor belts, etc.
Limit switches with latch and manual reset comply with the requirements of standard EN 81-1: safety rules for the construction and installations of electric lifts. In this application they detect or monitor: cabin overtravel, cabin speed by means of a speed limiting device, energisation of the parachute block on detection of excessive speed with respect to the set-point value, etc.

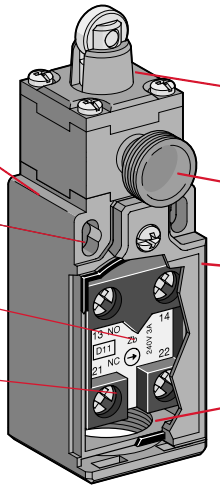
They comply with the requirements of European Directives (Low Voltage, Machines and Electromagnetic Compatibility) and are conform to European and international standards.

Casing
- 30 mm wide with standardized dimensions corresponding to EN 50047

Casing fixing
- 2 M4 screws in the top part

Blocks of 2 contacts
- Contact configuration: 1 N.O. + 1 N.C. or 2 N.C.
- Positive opening operation ⊖
- Snap or dependent action
- Zb shape: the 2 contacts are electrically separated

Connecting terminals
- M3.5 screw with (+,-) posidriv 2 head
- Screw heads with captive cable clamps
- Marking conform to IEC 60947-1, IEC 60947-5-1, EN 50005 and EN 50013 standards



4 operating head options:
- Plain plunger
- Roller plunger
- Roller lever on plunger
- Rotative roller lever

Assembly by 4 x ø 3 screws with (+,-) pozidriv 1 head

Blue manual reset button

Cover
- Closure by 1x ø 3 screw with (+,-) pozidriv 1 head

Gasket made in one part to prevent tightness breaks

Electrical connection in various options:
- 1 x Pg 13.5 cable gland for LS30P
- 1 x Pg 11 cable gland for LS31P
- 1 x 1/2" NPT adaptor delivered not mounted for LS35P

Catalog number explanation

Example: **LS 35 P 13 D11 R**

Limit Switch ..... **LS**

Casing width: 30 mm **3**

Cable inlet:
1 cable inlet for Pg 13.5 cable gland **0**
1 cable inlet for Pg 11 cable gland **1**
1 x 1/2" NPT (adaptor) cable inlet **5**

Plastic casing ..... **P**

Operating heads:
Galvanised steel plain plunger **11**
Galvanised steel roller plunger **12**
Plastic roller plunger **13**
Plastic roller lever on plunger (hori. act.) **31**
Plastic roller lever on plunger (ver. act.) **32**
Rotative lever with plastic roller **41**

Contact types:
11 ..... **1** N.O. + **1** N.C. contacts
02 ..... **2** N.C. contacts

Snap action:
B .....Zb Snap

Dependent (slow) action:
L .....Zb Slow / Simultaneous
D .....Zb Non-overlapping late make
C .....Zb Overlapping early make

R .....**Reset Device**