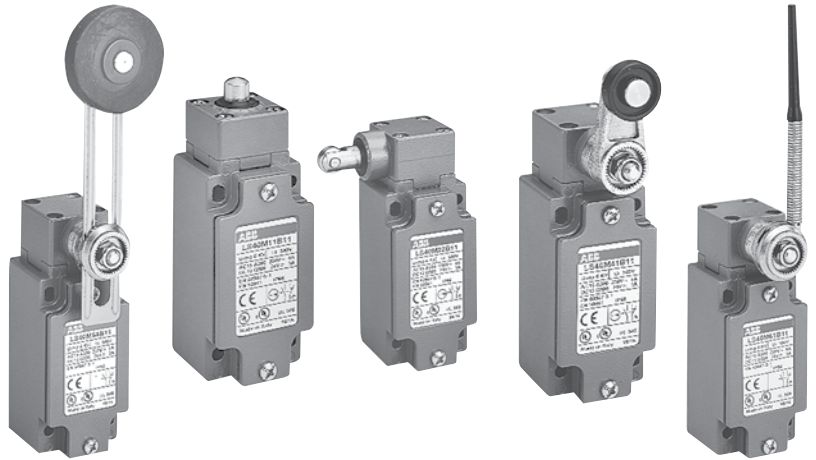


# Metal Limit switches

# ABB

## Limit Switches

Metal casing, 30mm, 40mm & 60mm



### Description

Limit switches are made of aluminum alloy and have a degree of protection of IP 66 and UL type 4X.

The casings come in 3 dimensions:

- LS35M, 30mm width.
- LS45M, 40mm width.
- LS75M, 60mm width.

UL Listed #E191693

### Applications

Easy to use, electromechanical limit switches offer specific qualities:

- Visible operation.
- Able to switch strong currents (10 conventional thermal current).
- Electrically separated contacts.
- Precise operating points (consistency).
- Immune to electromagnetic disturbances.

Limit switches used for these mechanical applications:

- Presence/absence.
- Positioning and travel limit.
- Objects passing/counting.

## General information

### IP66, UL Type 4X

### 30mm, 40mm & 60mm

#### Applications

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The casings come in 3 dimensions:

- 30mm width  
– LS35M
- 40mm width  
– LS45M
- 60mm width  
– LS65M

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#### Casing

- 30mm width with standardized dimensions according to EN 50047
- 40mm width with standardized dimensions according to EN 50041
- 60mm width

#### Mounting the casing

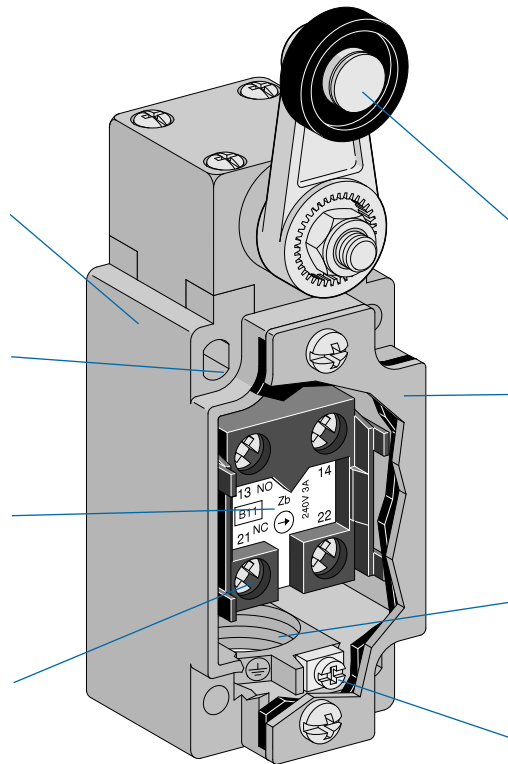
- 2 x M4 screws for 30mm width
- 2 or 4 x M5 screws for 40mm width
- 2 or 4 x M5 screws for 60mm width

#### Block of 2 contacts

- Contact configuration: N.O. + N.C., 2 N.O., 2 N.C.
- Positive opening operation
- Snap action or slow action
- Zb shape: the 2 contacts are electrically separated

#### Connecting terminals

- M3.5 (+,-) pozidriv 2 screw
- Screw heads with captive cable clamp
- Markings conform with IEC 947-1, IEC 947-5-1, EN 50005 and 50013 standards



#### A variety of operating heads

- Plain plunger
- Roller plunger
- Roller lever, adjustable or not, etc.
- Assembled using 4 x M3 screws for 30mm widths
- Assembled using 4 x M4 screws for 40 & 60mm widths

#### Cover

- Closed using 3 x M3 screws for 30mm width
- Closed using 2 x M4 screws for 40mm width
- Closed using 4 x M4 screws for 60mm width
- One piece sealing gasket to ensure tightness

#### Electrical connection

- 1 x pg 13.5 cable gland for 40mm width – LS40M
- 1 x 1/2" NPT cable gland – LS45M
- 3 x pg 13.5 cable glands for 60mm width – LS70M
- 3 x 1/2" NPT cable glands for 60mm width – LS75M

#### Terminal for protective conductor placed near the cable inlet and marked ⊕

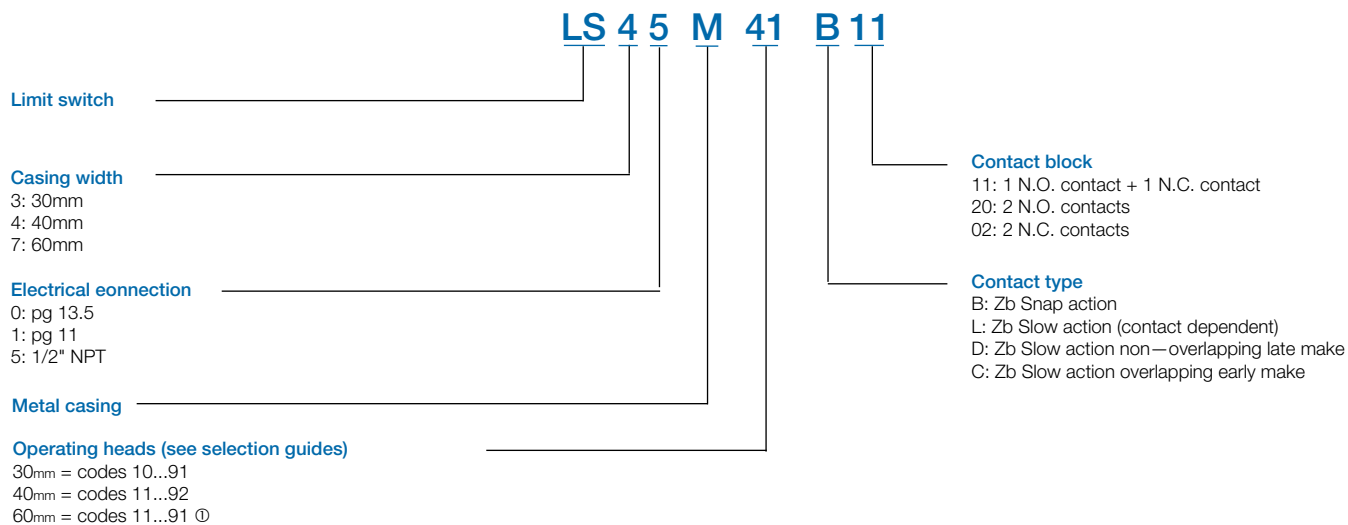
- M3.5 (+,-) pozidriv 2 screw
- Screw head with captive cable clamp

## General information

IP66, UL Type 4X

30mm, 40mm & 60mm

### Catalog number explanation



① For 60mm components, contact factory.

# 40mm, IP66, UL Type 4X, PG 13.5 and 1/2" NPT

Metal  
Limit switches

## Movement to be detected



## Operating head type

	Adjustable Ø 6 polyamide rod lever	Spring rod	Flexible rod with insulated end	Coil spring rod
Conformity / $\ominus$ (N.C. contact with positive opening operation)	EN 50 041			
Maximum actuation speed	m/s 1.5	1	1	1
Min. torque: - actuation	N.m 0.15	0.18	0.18	0.18
- positive opening operation	N.m -	-	-	-

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	Catalog number	LS45M72B11	LS45M91B11	LS45M92B11	LS45M93B11
B11 = Snap action contacts 	Operation diagram				
D11 = Non-overlapping Slow action contacts 	Operation diagram				
C11 = Overlapping Slow action contacts 	Operation diagram				
L02 = Slow action contacts 	Operation diagram				
L20 = Slow action contacts 	Operation diagram				
B02 = Snap action contacts 	Operation diagram				
Weight (packing per unit)	oz	10.05	8.28	8.28	8.28

## Dimensions (mm)

