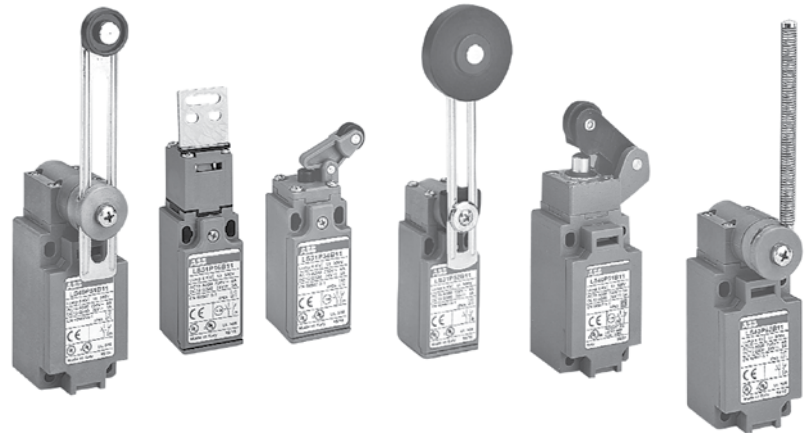


Selection Guide

Limit switches




Limit Switches Selection Guide



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Description

Limit switches can be mounted into remote locations so that they are actuated by an object other than a human operator. They are used for detecting presence/absence, counting, travel limit, and more.

Limit switches are made of reinforced UL-V0 thermoplastic fiberglass, offer double insulation  and a degree of protection of IP 65 and UL Type 4.

Casings come in 4 dimensions:

- 30mm width
- 35mm width
- 40mm width
- 60mm width

Applications

Easy to use, electromechanical limit switches offer specific qualities:

- Visible operation
- 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

UL Listed file #E191693

Selection guide

Plastic casing, 30mm, 40mm, & 60mm
IP65, UL Type 4

Plastic Casing NEMA 4, IP65 - Double Insulation 

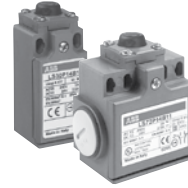
30 mm LS 3  P..B11 ^①









60 mm LS 7  P..B11 ^①

Width

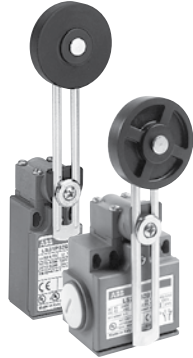
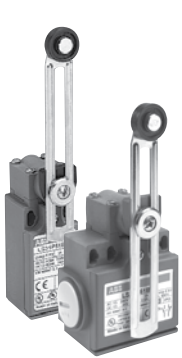
Electrical Connection













- 0** = Pg 13.5
- 1** = Pg 11
- 5** = 1/2" NPT




Type	LS..P10, LS..P11	LS..P12, LS..P13	LS..P14	LS..P31
Actuator	Plain plunger	Roller plunger	Plain plunger	Roller lever
Action type				
CENELEC Conformity / Positive opening operation	EN 50047 	EN 50047 	EN 50047 	EN 50047 

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LS..P51, LS..P53	LS..P52	LS..P55	LS..P61	LS..P62	LS..P71, LS..P72
Adjustable roller lever	Adjustable roller lever	Adjustable roller lever	Flexible lever	Flexible lever	Adjustable rod lever
					
N/A 	N/A 	N/A 	N/A 	N/A 	N/A 

Plastic Casing NEMA 4, IP65 Double Insulation 









40 mm LS 4  P..B11 ^①

Width

Electrical Connection

- 0** = Pg 13.5
- 5** = 1/2" NPT



Type	LS..P11	LS..P13	LS..P31	LS..P41
Actuator	Plain plunger	Roller plunger	Roller lever	Roller Lever
Action type				
CENELEC Conformity / Positive opening operation	EN 50041 	EN 50041 	N/A 	EN 50041 










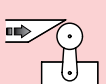
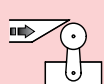
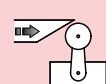


















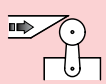
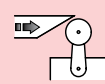
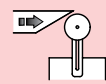
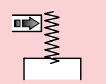
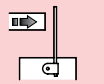
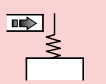
^① B11 = 1NO + 1NC Snap action contacts. Other contact configurations are available. Refer to catalog pages.

Selection guide

Plastic casing, 30mm, 40mm, & 60mm
IP65, UL Type 4

Limit switches

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LS..P32	LS..P35	LS..P38	LS..P41, LS..P43	LS..P42	LS..P45, LS..P46
Roller lever	Roller lever	Roller lever	Roller lever	Roller lever	Roller lever
					
N/A	EN 50047	N/A	EN 50047	N/A	N/A
					
LS..P73	LS..P74	LS..P78	LS..P91	LS..P92	LS..P98B11-A
Adjustable rod lever	Adjustable rod lever	Adjustable rod lever	Flexible rod	Flexible rod	Pull action
					
N/A	N/A	N/A	N/A	N/A	N/A
					
LS..P44	LS..P51	LS..P54	LS..P61	LS..P72	LS..P91
Roller lever	Adjustable roller levers		Adjustable flexible and rigid rod levers		Flexible rod
					
N/A	N/A	N/A	N/A	EN 50041	N/A

Selection guide

Metal casing, 30mm, 40mm, & 60mm
IP66, UL Type 4X

Metal Casing NEMA 4X, IP66

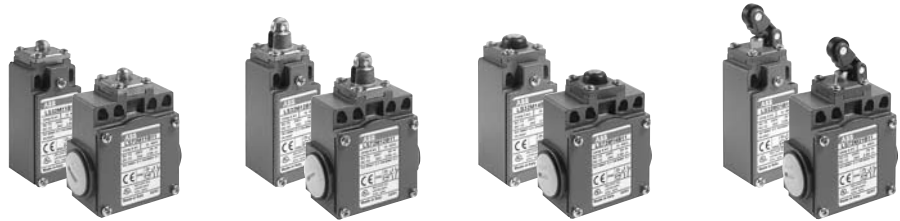
30 mm L S 3 M..B11^①

60 mm L S 7 M..B11^①

Width

Electrical
Connection

0 = Pg 13.5
1 = Pg 11
5 = 1/2" NPT



Type	LS..M11	LS..M12, LS..M13	LS..M14	LS..M31
Actuator	Plain plunger	Roller plunger	Plain plunger	Roller lever
Action type				
CENELEC Conformity / Positive opening operation	EN 50047	EN 50047	EN 50047	EN 50047

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LS..M51, LS..M53	LS..M52	LS..M55	LS..M61	LS..M62	LS..M71, LS..M72
Adjustable roller lever	Adjustable roller lever	Adjustable roller lever	Flexible lever	Flexible lever	Adjustable rod lever
N/A	N/A	N/A	N/A	N/A	N/A

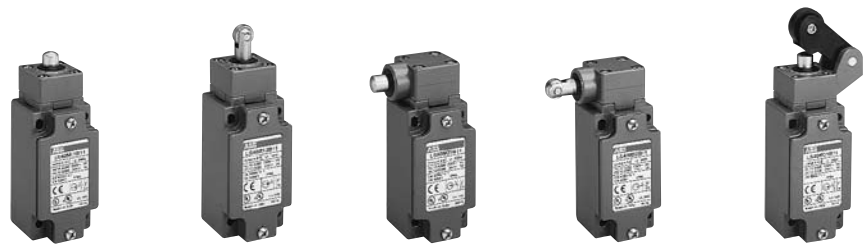
Metal Casing NEMA 4X, IP66

40 mm L S 4 M..B11^①

Width

Electrical
Connection

0 = Pg 13.5
5 = 1/2" NPT



Type	LS..M11	LS..M13	LS..M21	LS..M22	LS..M31
Actuator	Plain plunger	Roller plunger	Plain plunger	Roller plunger	Roller lever
Action type					
CENELEC Conformity / Positive opening operation	EN 50041	EN 50041	EN 50041	EN 50041	N/A

① B11 = 1NO + 1NC Snap action contacts. Other contact configurations are available. Refer to catalog pages.

Selection guide

Metal casing, 30mm, 40mm, & 60mm
IP66, UL Type 4X

Limit switches



LS..M32

LS..M35

LS..M38

LS..M41, LS..M43

LS..M42

LS..M45, LS..M46

Roller lever

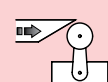
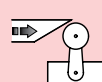
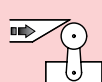
Roller lever

Roller lever

Roller lever

Roller lever

Roller lever



N/A

EN 50047

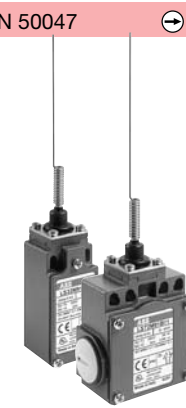
N/A

EN 50047

N/A

N/A

9



LS..M73

LS..M74

LS..M78

LS..M91

LS..M92

LS..M98B11-A

Adjustable rod lever

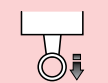
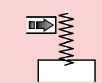
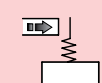
Adjustable rod lever

Adjustable rod lever

Flexible rod

Flexible rod

Pull action



N/A

N/A

N/A

N/A

N/A

N/A



LS..M41

LS..M51

LS..M54

LS..M61

LS..M72

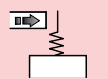
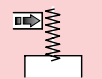
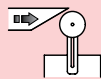
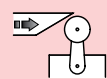
LS..M91

Roller lever

Adjustable roller levers

Adjustable flexible and rigid rod levers

Flexible rod



EN 50041

N/A

N/A

N/A

EN 50041

N/A

Selection guide

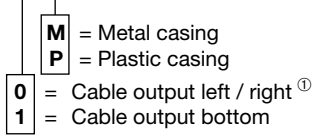
Miniature pre-wired, 30mm & 35mm IP67, UL Type 4X, 6

30 mm width

Metal Casing NEMA 4, 4X, 6, IP67

Plastic Casing NEMA 1, IP67 – Double insulation

LS2 ... B11 - U01



Type	LS2..M11, LS2..P11	LS2..M12, LS2..P12	LS2..M13, LS2..P13	LS2..M14, LS2..P14
Actuator	Brass plain plunger	Steel roller plunger	Plastic roller plunger	Cross steel roller plunger
Action type				
CENELEC Conformity / Positive opening operation	N/A	N/A	N/A	N/A

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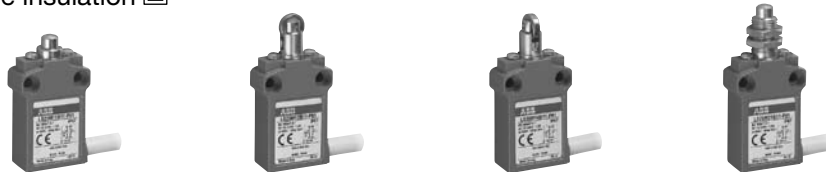
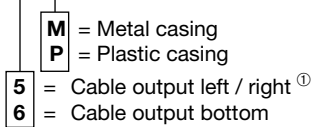
LS2..M41, LS2..P41	LS2..M42, LS2..P42	LS2..M45, LS2..P45	LS2..M46, LS2..P46	LS2..M51, LS2..P51	LS2..M54, LS2..P54
ø14 plastic roller lever	ø14 steel roller lever	ø18 plastic roller with bent lever	ø18 steel roller with bent lever	Adjustable ø18 plastic roller lever	Adjustable ø18 steel roller lever
N/A	N/A	N/A	N/A	N/A	N/A

35 mm width

Metal Casing NEMA 4, 4X, 6, IP67

Plastic Casing NEMA 1, IP67 – Double insulation

LS2 ... B11 - U01



Type	LS2..M11, LS2..P11	LS2..M12, LS2..P12	LS2..M14, LS2..P14	LS2..M21, LS2..P21
Actuator	Brass plain plunger	Steel roller plunger	Cross steel roller plunger	Brass plain plunger with fixing nuts
Action type				
CENELEC Conformity / Positive opening operation	N/A	N/A	N/A	N/A

^① Standard cable length 1m. Other lengths available.

Selection guide

Miniature pre-wired, 30mm & 35mm
IP67, UL Type 4X, 6

LS2..M15, LS2..P15	LS2..M21, LS2..P21	LS2..M22, LS2..P22	LS2..M23, LS2..P23	LS2..M24, LS2..P24	LS2..M25, LS2..P25
Cross plastic roller plunger	Brass plain plunger with fixing nuts	Steel roller plunger with fixing nuts	Plastic roller plunger with fixing nuts	Cross roller plunger with fixing nuts	Cross plastic roller plunger with fixing nuts
N/A	N/A	N/A	N/A	N/A	N/A
LS2..M71, LS2..P71	LS2..M72, LS2..P72	LS2..M73, LS2..P73	LS2..M78, LS2..P78	LS2..M91, LS2..P91	LS2..M92, LS2..P92
Adjustable ø3 steel rod lever	Adjustable ø3 fibre-glass rod lever	Adjustable ø6 polyamide rod lever	Adjustable ø3 steel rod lever	Spring rod	Flexible rod w/ insulated end
N/A	N/A	N/A	N/A	N/A	N/A
LS2..M22, LS2..P22	LS2..M24, LS2..P24	LS2..M41, LS2..P41	LS2..M51, LS2..P51	LS2..M71, LS2..P71	LS2..M91, LS2..P91
Steel roller plunger with fixing nuts	Cross steel roller lever with fixing nuts	ø14 Plastic roller lever	Adjustable ø18 plastic roller lever	Adjustable ø3 steel rod lever	Spring rod
N/A	N/A	N/A	N/A	N/A	N/A

Selection guide

Key safety, 30mm, 40mm
Latch & manual reset, 30mm

Key Safety Limit Switches

(Key ordered separately)

30 mm
40 mm
Width

LS 3 P M **..B11^①-S**
LS 4 P M **..B11^①-S**

Electrical Connection
0 = Pg 13.5
5 = 1/2" NPT



Limit Switches	LS3..P80..-S	LS3..M80..-S	LS3..P81..-S	LS3..M81..-S	LS4..P80..-S	LS4..M80..-S
Operating head options:	Adjustable head		Pivoting head		Adjustable head	
Action type: Translation with small latch (key)						
Positive opening operation						

Keys

(required for Key Safety Limit Switches)



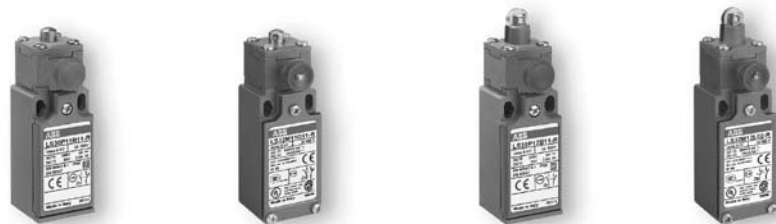
Keys for LS3 ...Limit Switches	LSA30P03	LSA30P04	LSA30P05	LSA30P06	LSA30P07	LSA30P08	LSA30P09
Keys for LS4 ...Limit Switches			LSA40X05	LSA40X06	LSA40X07	LSA40X08	LSA40X09
Actuator	Right angle key	Straight key	Right angle key	Straight key	Right angle key + shock absorber	Straight key + shock absorber	Adjustable angle key
Mounting Width	22 mm	22 mm	13 mm	13 mm	15 mm	15 mm	40 mm

Latch and Manual Reset Switches

30 mm
Width

LS 3 P M **..B11^①-R**

Electrical Connection
0 = Pg 13.5
5 = 1/2" NPT



Type	LS3..P11..-R	LS3..M11..-R	LS3..P12..-R	LS3..M12..-R
Actuator	Galvanized steel plain plunger		Galvanized steel roller plunger	
Action type				
Positive opening operation				

① B11 = 1NO + 1NC Snap action contacts. Other contact configurations are available. Refer to catalog pages.

Selection guide

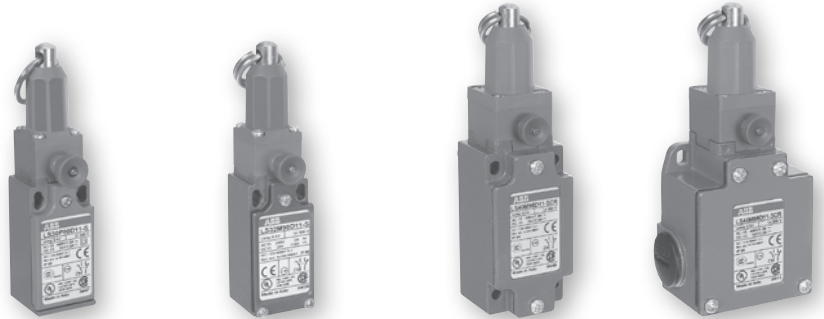
Pull cable, 30mm, 40mm, & 60mm

Rotative axis & lever, 30mm

Pull Cable Safety Limit Switches

30 mm Width **LS 3** P = Plastic casing
M = Metal casing
..B11^①-SCR
 Electrical Connection 0 = Pg 13.5
5 = 1/2" NPT

Metal only:
40 mm Width **LS 4** P = Plastic casing
M = Metal casing
M..B11^①-SCR
60 mm Width **LS 6** P = Plastic casing
M = Metal casing
M..B11^①-SCR
 Electrical Connection 0 = Pg 13.5
5 = 1/2" NPT



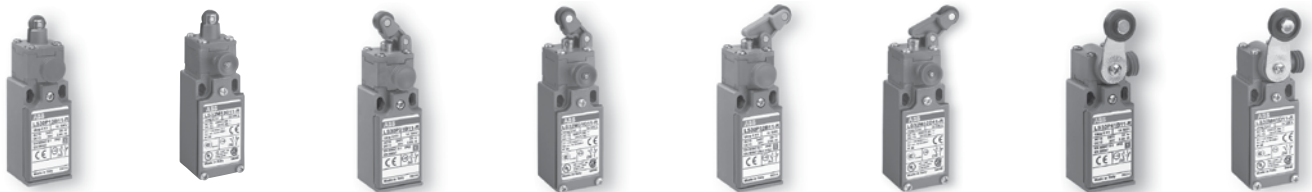
Limit Switches	LS3..P98..-SCR	LS3..M98..-SCR	LS4..M98..-SCR	LS6..M98..-SCR
Operating head options:	By red cable		By red cable	
Action type: Pulling				
Positive opening operation				

Rotative Axis and Lever Safety Limit Switches

30 mm Width **LS 3** P = Plastic casing
M = Metal casing
..B11^①-S
 Electrical Connection 0 = Pg 13.5
5 = 1/2" NPT



Limit Switches	LS3..P75..-S	LS3..M75..-S	LS3..P76..-S	LS3..M76..-S	LS3..P77..-S	LS3..M77..-S
Actuator:	Galvanized steel rotative axis		Stainless steel rotative axis		Galvanized steel lever	
Action type:						
Positive opening operation						



Limit Switches	LS3..P13..-R	LS3..M13..-R	LS3..P31..-R	LS3..M31..-R	LS3..P32..-R	LS3..M32..-R	LS3..P41..-R	LS3..M41..-R
Actuator:	Plastic roller plunger		Plastic roller lever on galvanized steel plunger				Rotary lever with plastic roller	
Action type:								
Positive opening operation								

① B11 = 1NO + 1NC Snap action contacts. For other contact configurations available, consult ABB.

