

# LS30P ... LS35P and LS40P ... LS45P

## Limit Switches

### Description of Complete Device

## Applications

Easy to use, electromechanical limit switches offer specific qualities:

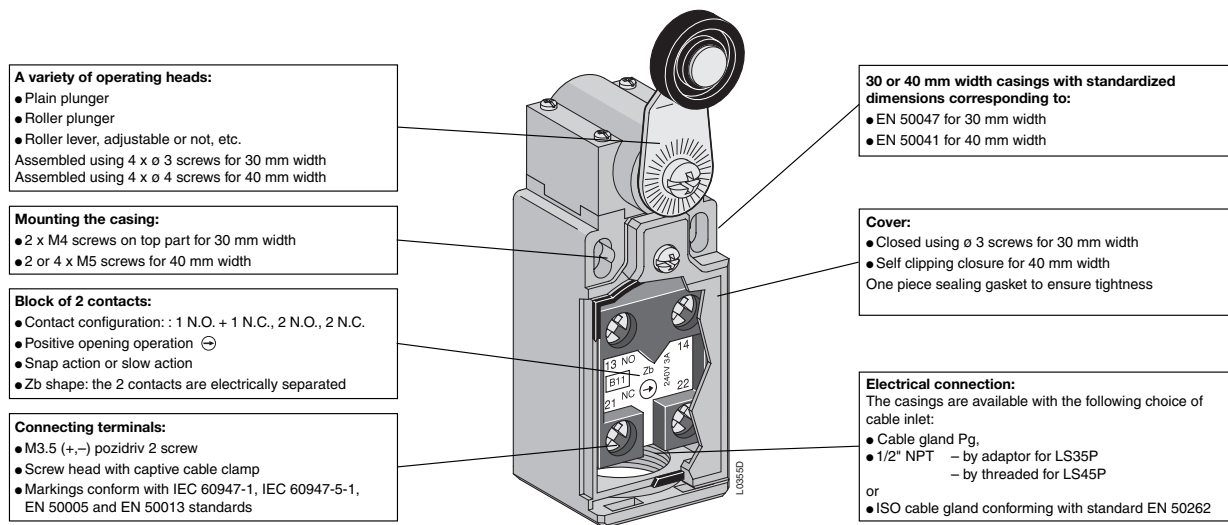
- Visible operation.
- Able to switch strong currents (10 A conventional thermal current).
- Contact blocks with positive opening operation of the "N.C." normally closed contact(s) (symbol ⊖).
- Electrically separated contacts (Zb shape).
- Precise operating points (consistency).
- Immune to electromagnetic disturbances.

They are purpose-built detection devices thanks to these characteristics:

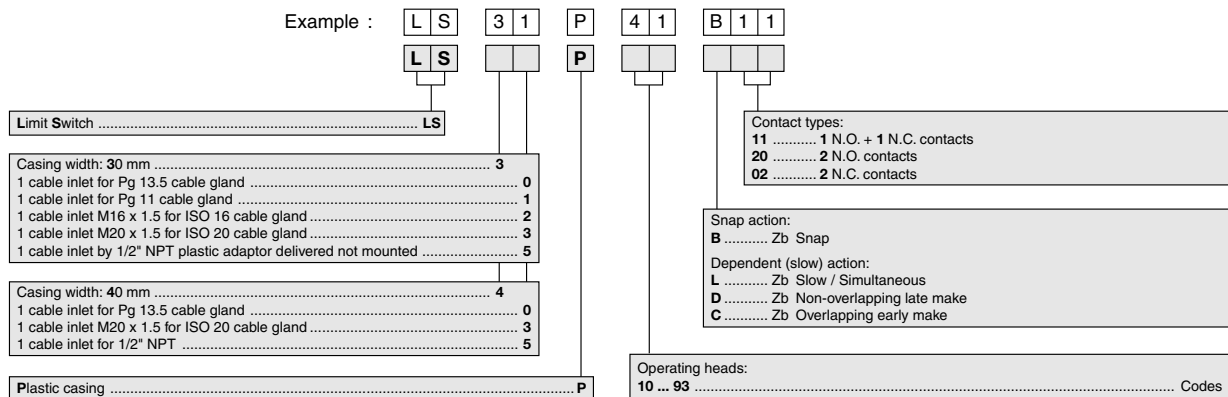
- Presence/absence.
- Positioning and travel limit.
- Objects passing/counting.

## Description

Limit switches, which are made of reinforced UL-V0 thermoplastic fibre-glass, offer double insulation and an IP65 degree of protection.

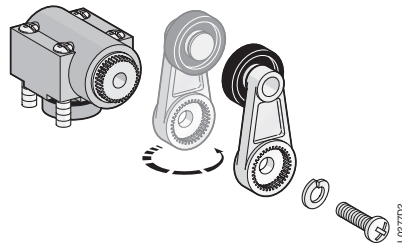


## Type

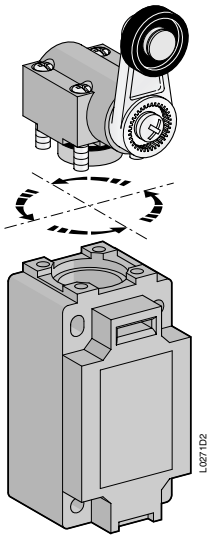


>> Type of Separate Elements ..... pages 10, 16 >> Ordering Details for Separate Elements ..... pages 12, 19	>> Operation Diagrams ..... pages 14, 22 >> Dimensions of Complete Device ..... pages 15, 23
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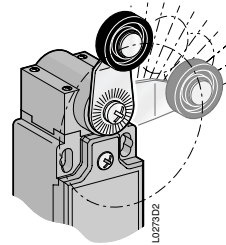
# LS30P ... LS35P and LS40P ... LS45P Limit Switches Implementation



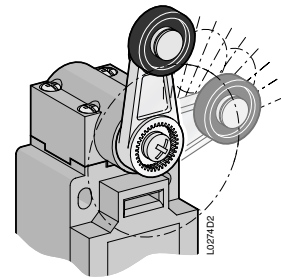
Lever round turning:  
LS30P ... LS35P and LS40P ... LS45P



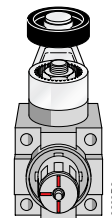
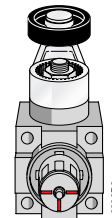
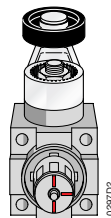
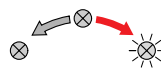
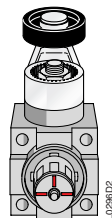
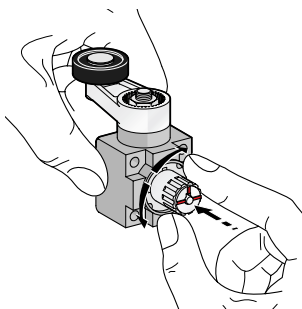
Head orientation:  
LS30P ... LS35P and LS40P ... LS45P



Free position adjustment  
10 in 10° of lever:  
LS30P ... LS35P



Free position adjustment  
9 in 9° of lever:  
LS40P ... LS45P



LS40P ... LSP45P Operating mode selection only

# LS30P ... LS35P Limit Switches

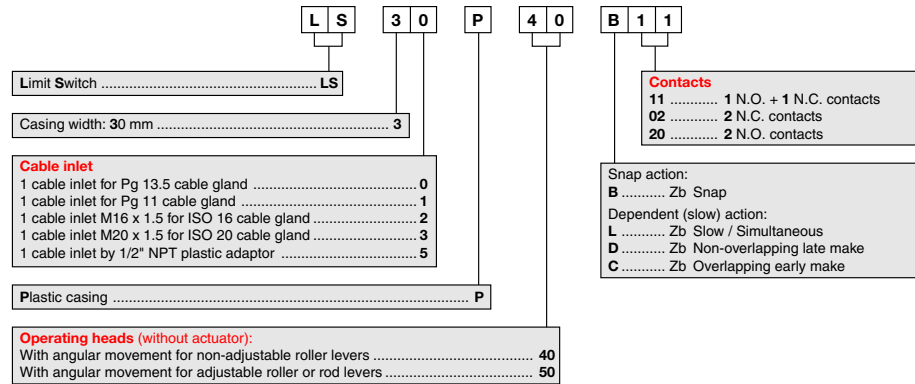
Double Insulation - Plastic Casing IP65 - 30 mm Width

## Type of Separate Elements



LS30P40B11

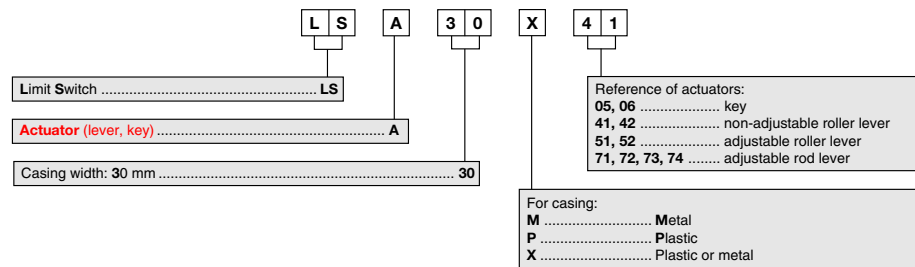
### Casings with Contact Block and Angular Motion Head (without actuator)



### Separate Actuators (lever, key)



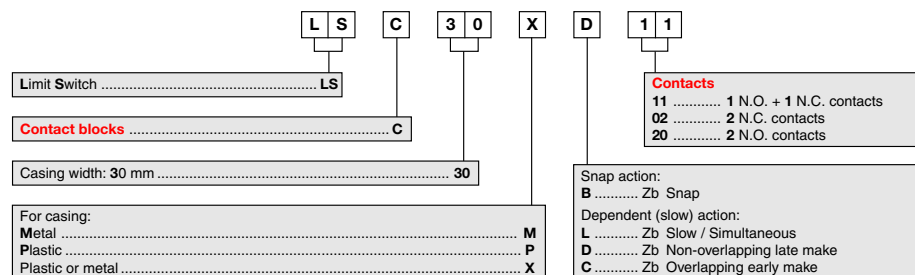
LSA30X41



### Separate Contact Blocks



LSC30XD11

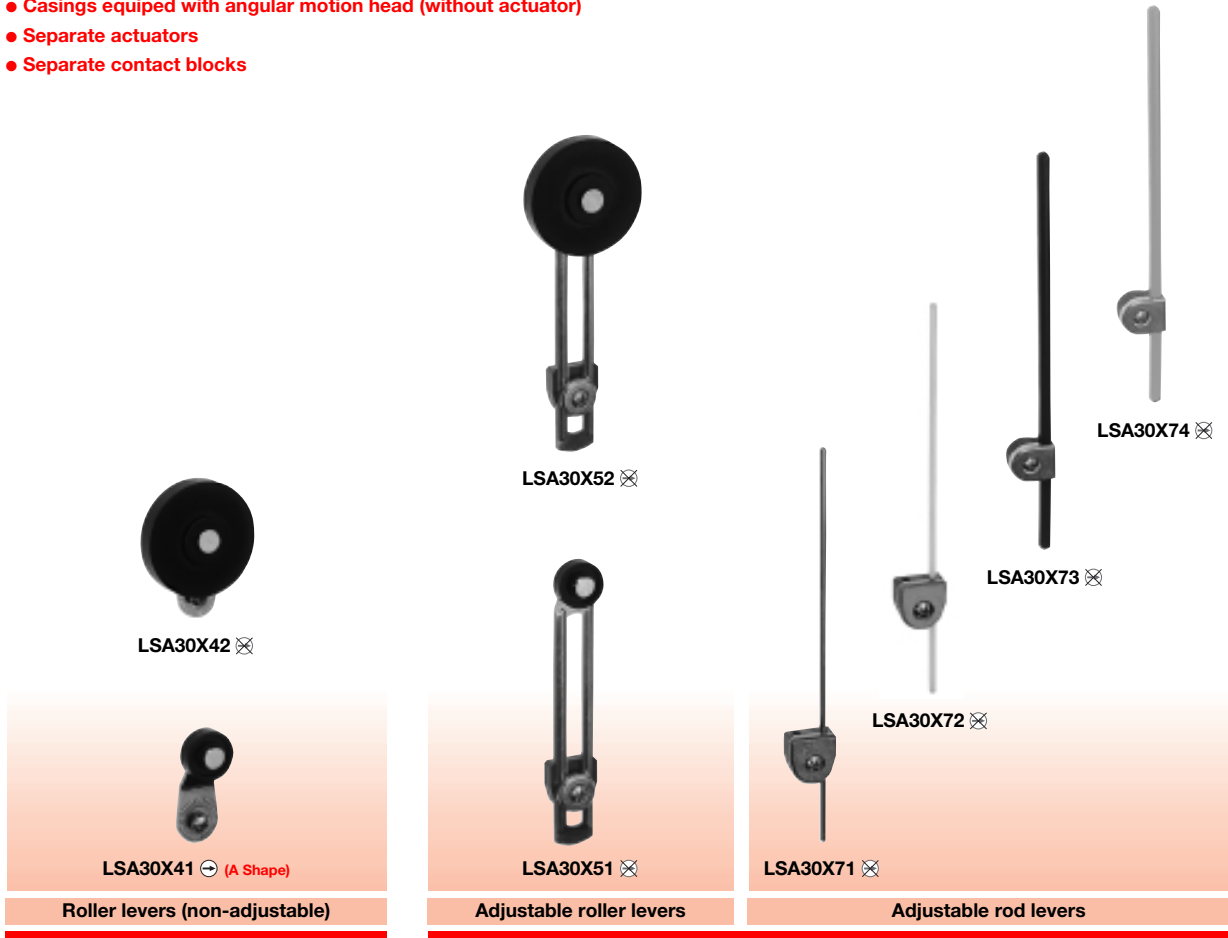


# LS30P ... LS35P Limit Switches

## Double Insulation - Plastic Casing IP65 - 30 mm Width

### Synoptic of Separate Elements

- Casings equipped with angular motion head (without actuator)
- Separate actuators
- Separate contact blocks



**LS30P40 ... LS35P40 casings equipped with angular motion head for roller levers (non-adjustable)**

- ⊖ LS30P40B11, LS30P40D11, LS30P40C11, LS30P40L02, LS30P40B02
- LS31P40B11, LS31P40D11, LS31P40C11, LS31P40L02, LS31P40B02
- LS32P40B11, LS32P40D11, LS32P40C11, LS32P40L02, LS32P40B02
- LS33P40B11, LS33P40D11, LS33P40C11, LS33P40L02, LS33P40B02
- LS35P40B11, LS35P40D11, LS35P40C11, LS35P40L02, LS35P40B02

- ⊗ LS30P40L20, LS31P40L20, LS32P40L20, LS33P40L20, LS35P40L20



**LS30P50 ... LS35P50 casings equipped with angular motion head for adjustable roller or rod levers**

- ⊗ LS30P50B11, LS30P50D11, LS30P50C11, LS30P50L02, LS30P50L20, LS30P50B02
- LS31P50B11, LS31P50D11, LS31P50C11, LS31P50L02, LS31P50L20, LS31P50B02
- LS32P50B11, LS32P50D11, LS32P50C11, LS32P50L02, LS32P50L20, LS32P50B02
- LS33P50B11, LS33P50D11, LS33P50C11, LS33P50L02, LS33P50L20, LS33P50B02
- LS35P50B11, LS35P50D11, LS35P50C11, LS35P50L02, LS35P50L20, LS35P50B02



**Contact blocks**

- ⊖ LSC30XB11, LSC30XD11, LSC30XC11, LSC30XL02, LSC30XB02

- ⊗ LSC30XL20

⊖ : Suitable for positive opening operation (IEC 60947-5-1 and EN 50041).

**Warning!** The positive opening operation of limit switch is only guaranteed if the elements noted with ⊖ are fitted.

# LS30P ... LS35P Limit Switches

## Double Insulation - Plastic Casing IP65 - 30 mm Width

### Separate Elements

⊖ "N.C." contact with positive opening operation or element (subassembly, head, lever) suitable for positive opening operation.

**Warning! The positive opening operation of limit switch is only guaranteed if the elements noted with ⊖ are fitted.**



LS30P40B11



LS30P50B11

LS30P with 1 cable inlet for Pg 13.5 cable gland.  
 LS31P with 1 cable inlet for Pg 11 cable gland.  
 LS32P with 1 cable inlet M16 x 1.5 for ISO 16 cable gland.  
 LS33P with 1 cable inlet M20 x 1.5 for ISO 20 cable gland.  
 LS35P with 1 cable inlet by 1/2" NPT plastic adaptor.

### Ordering Details

Contact blocks	Positive opening operation	Actuation speed	Type	Order code	Unit weight kg
 <b>B11 D11 C11 L02 L20 B02</b>	⊖	max. m/s			Packing 1 piece

#### Casings with angular motion head for non-adjustable roller levers, delivered without actuator

1					⊖	1.5	LS30P40B11	1SBV 01 0240 R1211	0.085
	1				⊖	1.5	LS30P40D11	1SBV 01 0240 R1411	0.085
		1			⊖	1.5	LS30P40C11	1SBV 01 0240 R1511	0.085
			1		⊖	1.5	LS30P40L02	1SBV 01 0240 R1302	0.085
				1	⊗	1.5	LS30P40L20	1SBV 01 0240 R1320	0.085
					⊖	1.5	LS30P40B02	1SBV 01 0240 R1202	0.085
1					⊖	1.5	LS31P40B11	1SBV 01 0140 R1211	0.085
	1				⊖	1.5	LS31P40D11	1SBV 01 0140 R1411	0.085
		1			⊖	1.5	LS31P40C11	1SBV 01 0140 R1511	0.085
			1		⊖	1.5	LS31P40L02	1SBV 01 0140 R1302	0.085
				1	⊗	1.5	LS31P40L20	1SBV 01 0140 R1320	0.085
					⊖	1.5	LS31P40B02	1SBV 01 0140 R1202	0.085
1					⊖	1.5	LS32P40B11	1SBV 01 0340 R1211	0.085
	1				⊖	1.5	LS32P40D11	1SBV 01 0340 R1411	0.085
		1			⊖	1.5	LS32P40C11	1SBV 01 0340 R1511	0.085
			1		⊖	1.5	LS32P40L02	1SBV 01 0340 R1302	0.085
				1	⊗	1.5	LS32P40L20	1SBV 01 0340 R1320	0.085
					⊖	1.5	LS32P40B02	1SBV 01 0340 R1202	0.085
1					⊖	1.5	LS33P40B11	1SBV 01 2240 R1211	0.085
	1				⊖	1.5	LS33P40D11	1SBV 01 2240 R1411	0.085
		1			⊖	1.5	LS33P40C11	1SBV 01 2240 R1511	0.085
			1		⊖	1.5	LS33P40L02	1SBV 01 2240 R1302	0.085
				1	⊗	1.5	LS33P40L20	1SBV 01 2240 R1320	0.085
					⊖	1.5	LS33P40B02	1SBV 01 2240 R1202	0.085
1					⊖	1.5	LS35P40B11	1SBV 01 2140 R1211	0.092
	1				⊖	1.5	LS35P40D11	1SBV 01 2140 R1411	0.092
		1			⊖	1.5	LS35P40C11	1SBV 01 2140 R1511	0.092
			1		⊖	1.5	LS35P40L02	1SBV 01 2140 R1302	0.092
				1	⊗	1.5	LS35P40L20	1SBV 01 2140 R1320	0.092
					⊖	1.5	LS35P40B02	1SBV 01 2140 R1202	0.092

#### Casings with angular motion head for adjustable rod or roller levers, delivered without actuator

1					⊗	1.5	LS30P50B11	1SBV 01 0250 R1211	0.085
	1				⊗	1.5	LS30P50D11	1SBV 01 0250 R1411	0.085
		1			⊗	1.5	LS30P50C11	1SBV 01 0250 R1511	0.085
			1		⊗	1.5	LS30P50L02	1SBV 01 0250 R1302	0.085
				1	⊗	1.5	LS30P50L20	1SBV 01 0250 R1320	0.085
					⊗	1.5	LS30P50B02	1SBV 01 0250 R1202	0.085
1					⊗	1.5	LS31P50B11	1SBV 01 0150 R1211	0.085
	1				⊗	1.5	LS31P50D11	1SBV 01 0150 R1411	0.085
		1			⊗	1.5	LS31P50C11	1SBV 01 0150 R1511	0.085
			1		⊗	1.5	LS31P50L02	1SBV 01 0150 R1302	0.085
				1	⊗	1.5	LS31P50L20	1SBV 01 0150 R1320	0.085
					⊗	1.5	LS31P50B02	1SBV 01 0150 R1202	0.085
1					⊗	1.5	LS32P50B11	1SBV 01 0350 R1211	0.085
	1				⊗	1.5	LS32P50D11	1SBV 01 0350 R1411	0.085
		1			⊗	1.5	LS32P50C11	1SBV 01 0350 R1511	0.085
			1		⊗	1.5	LS32P50L02	1SBV 01 0350 R1302	0.085
				1	⊗	1.5	LS32P50L20	1SBV 01 0350 R1320	0.085
					⊗	1.5	LS32P50B02	1SBV 01 0350 R1202	0.085

>> Synoptic of Separate Elements ..... page 11

>> Implementation ..... page 9

# LS30P ... LS35P Limit Switches

## Double Insulation - Plastic Casing IP65 - 30 mm Width

### Separate Elements

⊖ "N.C." contact with positive opening operation or element (subassembly, head, lever) suitable for positive opening operation.  
**Warning! The positive opening operation of limit switch is only guaranteed if the elements noted with ⊖ are fitted.**



LS30P50B11



LSA30X41



LSA30X42



LSA30X51



LSA30X71



LSA30P05



LSA30P06



LSC30XD11



LSR1305

### Ordering Details

Contact blocks	Positive opening operation	Actuation speed max. m/s	Type	Order code	Unit weight kg
B11 D11 C11 L02 L20 B02	⊖				Packing 1 piece

### Casings with angular motion head for adjustable rod or roller levers, delivered without actuator

1			⊗	1.5	LS33P50B11	1SBV 01 2250 R1211	0.085
1			⊗	1.5	LS33P50D11	1SBV 01 2250 R1411	0.085
	1		⊗	1.5	LS33P50C11	1SBV 01 2250 R1511	0.085
		1	⊗	1.5	LS33P50L02	1SBV 01 2250 R1302	0.085
			⊗	1.5	LS33P50L20	1SBV 01 2250 R1320	0.085
			⊗	1.5	LS33P50B02	1SBV 01 2250 R1202	0.085
1			⊗	1.5	LS35P50B11	1SBV 01 2150 R1211	0.092
1			⊗	1.5	LS35P50D11	1SBV 01 2150 R1411	0.092
	1		⊗	1.5	LS35P50C11	1SBV 01 2150 R1511	0.092
		1	⊗	1.5	LS35P50L02	1SBV 01 2150 R1302	0.092
			⊗	1.5	LS35P50L20	1SBV 01 2150 R1320	0.092
			⊗	1.5	LS35P50B02	1SBV 01 2150 R1202	0.092

### Actuators for LS30P40 ... LS35P40 (delivered with M3.5 screw)

#### To be actuated by 30° cam

ø 18 mm polyamide roller lever (1)	⊖	-	LSA30X41	1SBV 04 8641 R1000	0.012
ø 45 mm rubber roller lever (1)	⊗	-	LSA30X42	1SBV 04 8642 R1000	0.026

### Actuators for LS30P50 ... LS35P50 (delivered with M3.5 screw and adaptation parts)

#### To be actuated by 30° cam

Adjustable ø 18 mm polyamide roller lever (1)	⊗	-	LSA30X51	1SBV 04 8651 R1000	0.022
Adjustable ø 45 mm rubber roller lever (1)	⊗	-	LSA30X52	1SBV 04 8652 R1000	0.035

#### To be actuated by fully directional translation movement

Adjustable ø 3 mm inox rod lever 170 mm length (1)	⊗	-	LSA30X71	1SBV 04 8671 R1000	0.021
Adjustable ø 3 mm fibre-glass rod lever, 170 mm length (1)	⊗	-	LSA30X72	1SBV 04 8672 R1000	0.015
Adjustable ø 6 mm polyamide rod lever, 195 mm length (1)	⊗	-	LSA30X73	1SBV 04 8673 R1000	0.018
Adjustable ø 6 mm fibre-glass rod lever, 195 mm length (1)	⊗	-	LSA30X74	1SBV 04 8674 R1000	0.022

### Right angle key for LS30P15 ... LS35P15

Right angle key (fixing 13 mm)	⊖	-	LSA30P05	1SBV 04 8605 R1000	0.013
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### Straight key for LS30P16 ... LS35P16

Straight key (fixing 13 mm)	⊖	-	LSA30P06	1SBV 04 8606 R1000	0.013
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### Separate contact blocks

1 N.C. + 1 N.O. 2-pole snap action	⊖	-	LSC30XB11	1SBV 04 9500 R1211	0.025
1 N.C + 1 N.O. 2-pole non-overlapping slow action	⊖	-	LSC30XD11	1SBV 04 9500 R1411	0.025
1 N.O. + 1 N.C. 2-pole overlapping slow action	⊖	-	LSC30XC11	1SBV 04 9500 R1511	0.025
2 N.C. 2-pole simultaneous slow action	⊖	-	LSC30XL02	1SBV 04 9500 R1302	0.025
2 N.O. 2-pole simultaneous slow action	⊗	-	LSC30XL20	1SBV 04 9500 R1320	0.025
2 N.C. 2-pole snap action	⊖	-	LSC30XB02	1SBV 04 9500 R1202	0.025

### 1/2" NPT plastic adaptors

1 piece	-	-	LSR1305	1SBV 04 7500 R1305	0.007
10 pieces	-	-	LSR1305	1SBV 04 7500 T1305	0.070
50 pieces	-	-	LSR1305	1SBV 04 7500 W1305	0.350

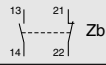
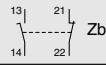
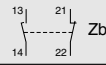
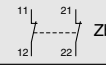
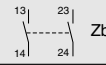
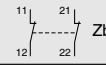
(1) Free position adjustment of lever 10° by 10° over 360°.

>> Synoptic of Separate Elements ..... page 11 >> Implementation ..... page 9

# LS30P ... LS35P Limit Switches

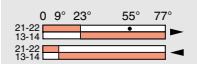
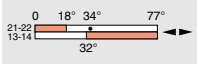
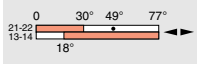
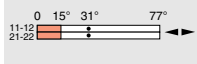

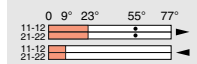
## Double Insulation - Plastic Casing IP65 - 30 mm Width

### Operation Diagrams (Body and Attached Head)

Contact blocks					
Snap action <b>B11</b> 	Non-overlapping slow action <b>D11</b> 	Overlapping slow action <b>C11</b> 	Simultaneous slow action <b>L02</b> 	Simultaneous slow action <b>L20</b> 	Snap action <b>B02</b> 
⊖	⊖	⊖	⊖	⊗	⊖

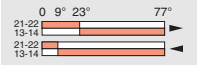
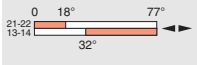
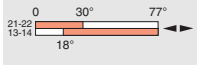


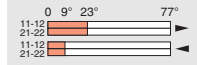
### Casings with angular motion head for non-adjustable roller levers, delivered without actuator


The casings with contact block marked with ⊖ give positive opening.

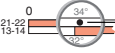
LS30P40B11 LS31P40B11 LS32P40B11 LS33P40B11 LS35P40B11	LS30P40D11 LS31P40D11 LS32P40D11 LS33P40D11 LS35P40D11	LS30P40C11 LS31P40C11 LS32P40C11 LS33P40C11 LS35P40C11	LS30P40L02 LS31P40L02 LS32P40L02 LS33P40L02 LS35P40L02	LS30P40L20 LS31P40L20 LS32P40L20 LS33P40L20 LS35P40L20	LS30P40B02 LS31P40B02 LS32P40B02 LS33P40B02 LS35P40B02
					

### Casings with angular motion head for adjustable rod or roller levers, delivered without actuator

These casings with contact block do not give positive opening. ⊗

LS30P50B11 LS31P50B11 LS32P50B11 LS33P50B11 LS35P50B11	LS30P50D11 LS31P50D11 LS32P50D11 LS33P50D11 LS35P50D11	LS30P50C11 LS31P50C11 LS32P50C11 LS33P50C11 LS35P50C11	LS30P50L02 LS31P50L02 LS32P50L02 LS33P50L02 LS35P50L02	LS30P50L20 LS31P50L20 LS32P50L20 LS33P50L20 LS35P50L20	LS30P50B02 LS31P50B02 LS32P50B02 LS33P50B02 LS35P50B02
					

**Note:** Contacts position 21/22, 21/22  
 contacts identification (example) 

 Positive opening position  
**Warning!** The positive opening operation of limit switch is only guaranteed if the elements noted with ⊖ are fitted.



# LS40P ... LS45P Limit Switches

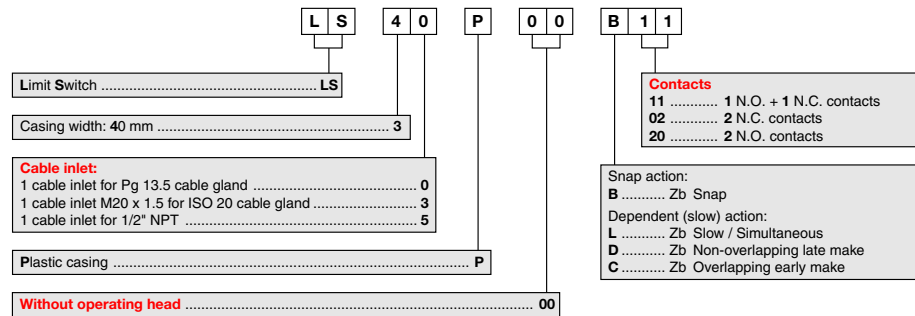
Double Insulation - Plastic Casing IP65 - 40 mm Width

## Type of Separate Elements

### Bodies with Contact Block for Rectilinear or Angular Motion Heads



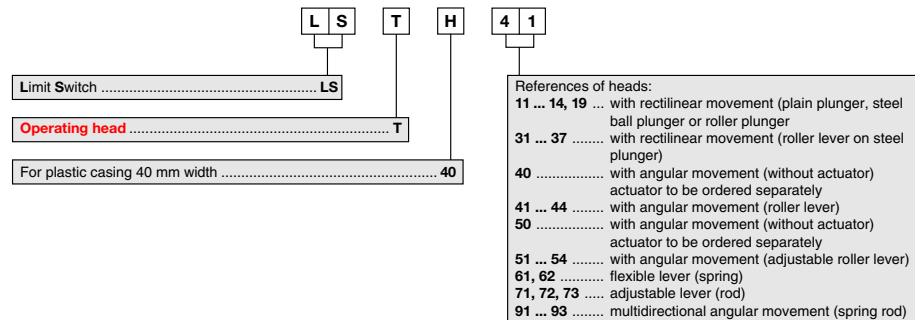
LS40P00B11



### Operating Heads



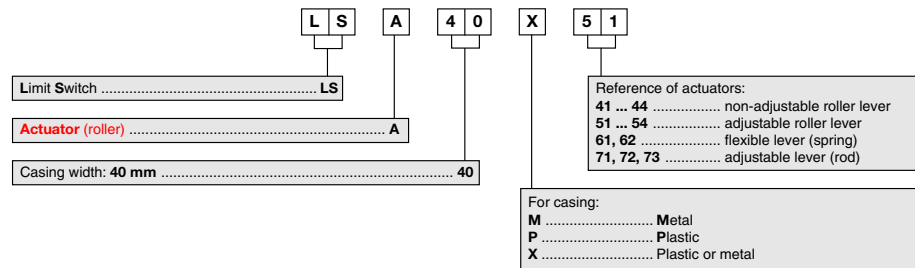
LSTH41



### Separate Actuators (Roller Lever, Adjustable Roller or Rod Levers, etc.)



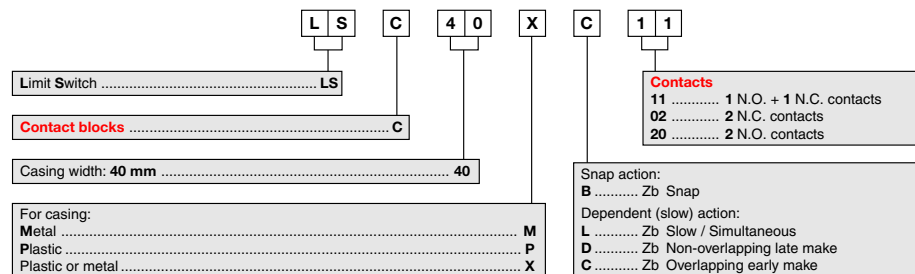
LSA40X51



### Separate Contact Blocks



LSC40XC11



>> Implementation ..... page 9  
 >> Ordering Details for Separate Elements ..... page 19

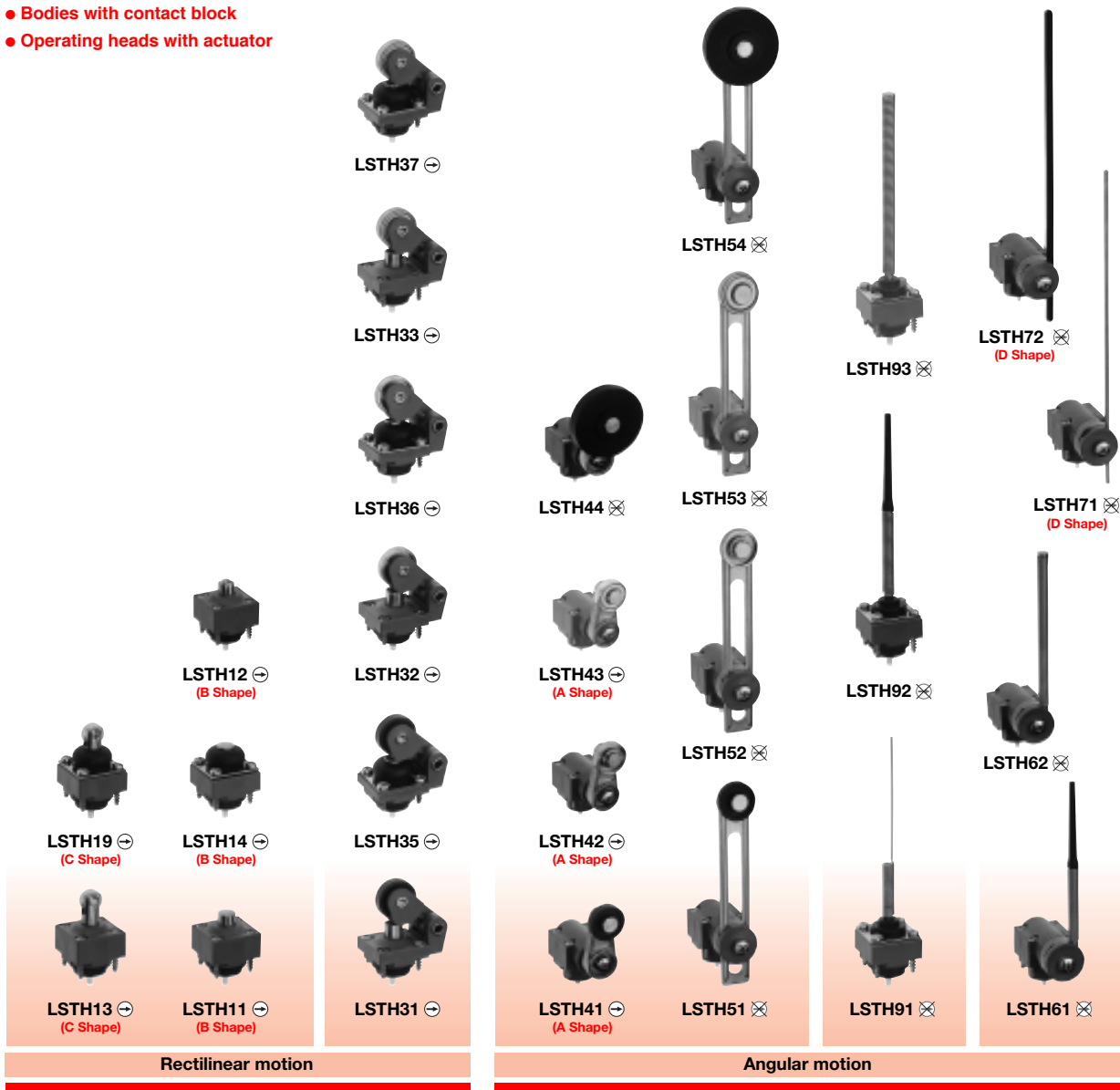
>> Operation Diagrams ..... page 22  
 >> Dimensions of Complete Device ..... page 23

# LS40P ... LS45P Limit Switches

## Double Insulation - Plastic Casing IP65 - 40 mm Width

### Synoptic of Separate Elements

- Bodies with contact block
- Operating heads with actuator



#### LS40P... rectilinear motion heads

- To be actuated from end.  
With plunger (plain or with ball): LSTH11, LSTH12 and LSTH14.
- To be actuated by 30° cam translation.  
With roller plunger: LSTH13, LSTH19.
- To be actuated unidirectionally by 30° cam translation.  
With roller lever on steel plunger: LSTH31 ... LSTH37.

#### LS40P... angular motion heads

- To be actuated by 30° cam translation.  
With roller lever: LSTH41 ... LSTH54.
- To be actuated by fully directional translation movement.  
With rod or spring lever: LSTH61 ... LSTH72.
- To be actuated multidirectionally.  
With spring rod: LSTH91 ... LSTH93.



#### Bodies with contact block

- ⊕ LS40P00B11, LS40P00D11, LS40P00C11, LS40P00L02, LS40P00B02
- ⊕ LS43P00B11, LS43P00D11, LS43P00C11, LS43P00L02, LS43P00B02
- ⊕ LS45P00B11, LS45P00D11, LS45P00C11, LS45P00L02, LS45P00B02

- ⊗ LS40P00L20, LS43P00L20, LS45P00L20

⊕ : Suitable for positive opening operation (IEC 60947-5-1 and EN 50041).

**Warning!** The positive opening operation of limit switch is only guaranteed if the elements noted with ⊕ are fitted.

>> Panorama of Complete Device ..... page 2

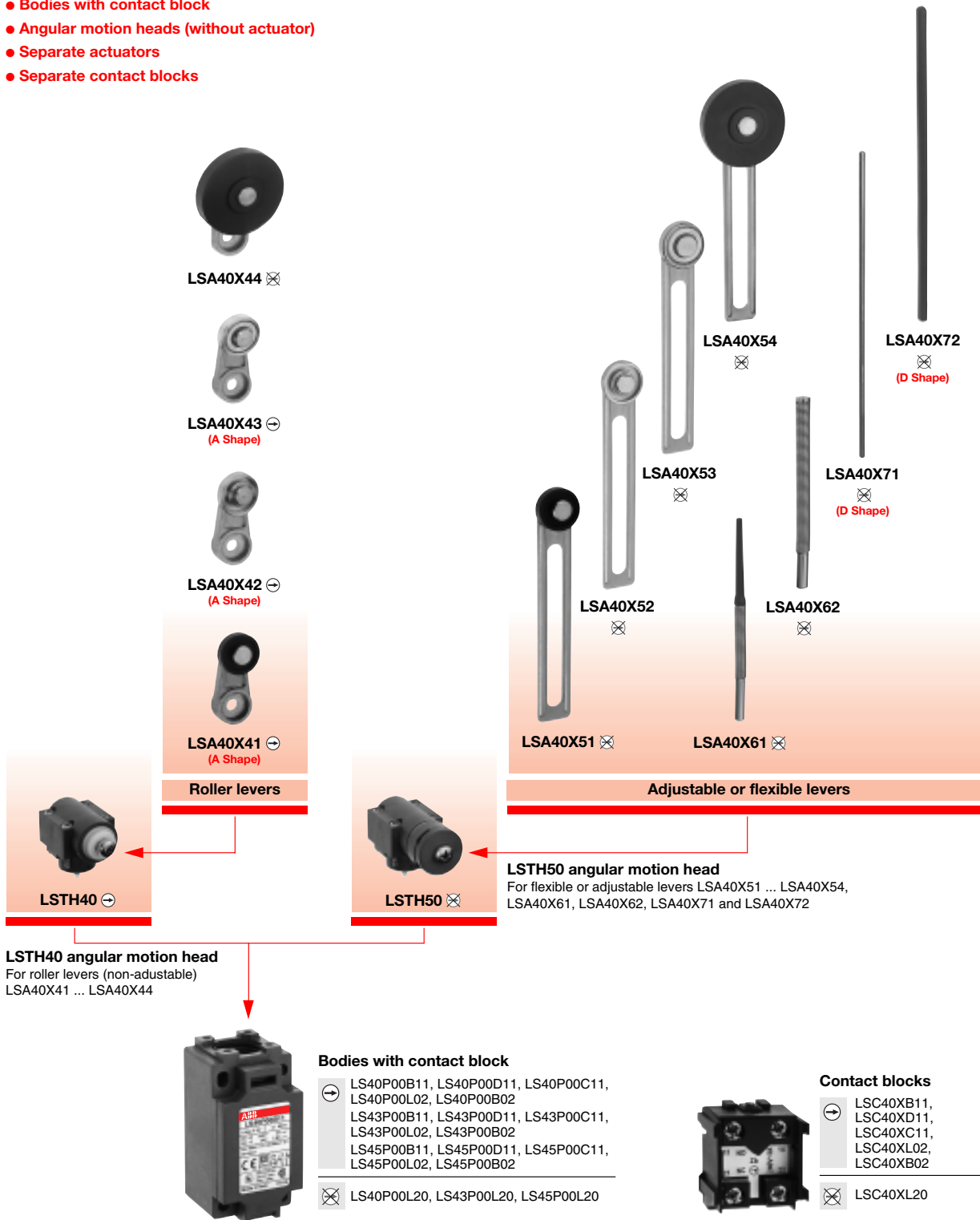
>> Ordering Details for Separate Elements ..... page 19

# LS40P ... LS45P Limit Switches

## Double Insulation - Plastic Casing IP65 - 40 mm Width

### Synoptic of Separate Elements (continued)

- Bodies with contact block
- Angular motion heads (without actuator)
- Separate actuators
- Separate contact blocks



⊖ : Suitable for positive opening operation (IEC 60947-5-1 and EN 50041)  
**Warning!** The positive opening operation of limit switch is only guaranteed if the elements noted with ⊖ are fitted.

>> Panorama of Complete Device ..... page 2 >> Ordering Details for Separate Elements ..... page 19

# LS40P ... LS45P Limit Switches

## Double Insulation - Plastic Casing IP65 - 40 mm Width

### Separate Elements

⊖ "N.C." contact with positive opening operation or element (subassembly, head, lever) suitable for positive opening operation.

**Warning! The positive opening operation of limit switch is only guaranteed if the elements noted with ⊖ are fitted.**



LS40P00B11

SBBC2B53



LSTH11

SBBC4252



LSTH19

SBBC4352



LSTH31

SBBC4653



LSTH37

SBBC5153

LS40P with 1 cable inlet for Pg 13.5 cable gland.  
 LS43P with 1 cable inlet M20 x 1.5 for ISO 20 cable gland.  
 LS45P with 1 cable inlet for 1/2" NPT.

### Ordering Details

Contact blocks						Positive opening operation	Actuation speed max. m/s	Type	Order code	Unit weight kg
Zb	Zb	Zb	Zb	Zb	Zb					
B11	D11	C11	L02	L20	B02	⊖				Packing 1 piece

### Bodies with contact block for rectilinear or angular motion heads

1						⊖	-	LS40P00B11	1SBV 01 0500 R1211	0.108
	1					⊖	-	LS40P00D11	1SBV 01 0500 R1411	0.108
		1				⊖	-	LS40P00C11	1SBV 01 0500 R1511	0.108
			1			⊖	-	LS40P00L02	1SBV 01 0500 R1302	0.108
				1		⊗	-	LS40P00L20	1SBV 01 0500 R1320	0.108
					1	⊖	-	LS40P00B02	1SBV 01 0500 R1202	0.108
1						⊖	-	LS43P00B11	1SBV 01 0700 R1211	0.108
	1					⊖	-	LS43P00D11	1SBV 01 0700 R1411	0.108
		1				⊖	-	LS43P00C11	1SBV 01 0700 R1511	0.108
			1			⊖	-	LS43P00L02	1SBV 01 0700 R1302	0.108
				1		⊗	-	LS43P00L20	1SBV 01 0700 R1320	0.108
					1	⊖	-	LS43P00B02	1SBV 01 0700 R1202	0.108
1						⊖	-	LS45P00B11	1SBV 01 2400 R1211	0.108
	1					⊖	-	LS45P00D11	1SBV 01 2400 R1411	0.108
		1				⊖	-	LS45P00C11	1SBV 01 2400 R1511	0.108
			1			⊖	-	LS45P00L02	1SBV 01 2400 R1302	0.108
				1		⊗	-	LS45P00L20	1SBV 01 2400 R1320	0.108
					1	⊖	-	LS45P00B02	1SBV 01 2400 R1202	0.108

### Rectilinear motion heads with actuator

#### To be actuated from end

Steel plain plunger (zinc-plated)	⊖	0.5	LSTH11	1SBV 04 9111 R1000	0.042
Steel plain plunger (zinc-plated) and dust protection cup	⊖	0.5	LSTH14	1SBV 04 9114 R1000	0.043
Steel ball plunger	⊖	0.5	LSTH12	1SBV 04 9112 R1000	0.042

#### To be actuated by 30° cam

Steel roller plunger (zinc-plated)	⊖	0.5	LSTH13	1SBV 04 9113 R1000	0.048
Steel roller plunger (zinc-plated) and dust protection cup	⊖	0.5	LSTH19	1SBV 04 9119 R1000	0.048

#### To be actuated unidirectionally by 30° cam

ø 22 mm polyamide roller lever on steel plunger (zinc-plated)	⊖	1.5	LSTH31	1SBV 04 9131 R1000	0.046
ø 22 mm polyamide roller lever on steel plunger (zinc-plated) and dust protection cup	⊖	1.5	LSTH35	1SBV 04 9135 R1000	0.049
ø 22 mm stainless steel roller lever on steel plunger (zinc-plated)	⊖	1.5	LSTH32	1SBV 04 9132 R1000	0.055
ø 22 mm stainless steel roller lever on steel plunger (zinc-plated) and dust protection cup	⊖	1.5	LSTH36	1SBV 04 9136 R1000	0.058
ø 22 mm steel ball-bearing roller lever on steel plunger (zinc-plated)	⊖	1.5	LSTH33	1SBV 04 9133 R1000	0.057
ø 22 mm steel ball-bearing roller lever on steel plunger (zinc-plated) and dust protection cup	⊖	1.5	LSTH37	1SBV 04 9137 R1000	0.060

>> Synoptic of Separate Elements ..... page 17

>> Implementation ..... page 9

# LS40P ... LS45P Limit Switches

## Double Insulation - Plastic Casing IP65 - 40 mm Width

### Separate Elements

⊖ "N.C." contact with positive opening operation or element (subassembly, head, lever) suitable for positive opening operation.

**Warning! The positive opening operation of limit switch is only guaranteed if the elements noted with ⊖ are fitted.**



LSTH41



LSTH51



LSTH92



LSTH40



LSA40X41



LSA40X43

LS40P with 1 cable inlet for Pg 13.5 cable gland.  
 LS43P with 1 cable inlet M20 x 1.5 for ISO 20 cable gland.  
 LS45P with 1 cable inlet for 1/2" NPT.

### Ordering Details

Contact blocks	Positive opening operation	Actuation speed max. m/s	Type	Order code	Unit weight kg
B11	⊖				Packing 1 piece
D11	⊖				
C11	⊖				
L02	⊖				
L20	⊖				
B02	⊖				

### Angular motion heads with actuator To be actuated by 30° cam

∅ 22 mm polyamide roller lever (1)	⊖	1.5	LSTH41	1SBV 04 9141 R1000	0.082
∅ 22 mm stainless steel roller lever (1)	⊖	1.5	LSTH42	1SBV 04 9142 R1000	0.091
∅ 22 mm steel ball-bearing roller lever (1)	⊖	1.5	LSTH43	1SBV 04 9143 R1000	0.093
∅ 45 mm rubber roller lever (1)	⊗	1.5	LSTH44	1SBV 04 9144 R1000	0.098
Adjustable ∅ 22 mm polyamide roller lever (1)	⊗	1.5	LSTH51	1SBV 04 9151 R1000	0.088
Adjustable ∅ 22 mm stainless steel roller lever (1)	⊗	1.5	LSTH52	1SBV 04 9152 R1000	0.098
Adjustable ∅ 22 mm steel ball-bearing roller lever (1)	⊗	1.5	LSTH53	1SBV 04 9153 R1000	0.100
Adjustable ∅ 45 mm rubber roller lever (1)	⊗	1.5	LSTH54	1SBV 04 9154 R1000	0.105

### To be actuated by fully directional translation movement

Stainless steel flexible lever with insulated end (1)	⊗	1	LSTH61	1SBV 04 9161 R1000	0.083
Stainless steel coil spring lever (1)	⊗	1	LSTH62	1SBV 04 9162 R1000	0.089
Adjustable ∅ 3 mm stainless steel rod lever, 195 mm length (1)	⊗	1	LSTH71	1SBV 04 9171 R1000	0.087
Adjustable ∅ 6 mm polyamide rod lever, 195 mm length (1)	⊗	1	LSTH72	1SBV 04 9172 R1000	0.083
Adjustable ∅ 6 mm fibre-glass rod lever, 195 mm length (1)	⊗	1	LSTH73	1SBV 04 9173 R1000	0.087

### Multidirectional angular motion heads (to be actuated by fully directional translation movement)

Stainless steel spring rod	⊗	1	LSTH91	1SBV 04 9191 R1000	0.046
Stainless steel flexible rod with insulated end	⊗	1	LSTH92	1SBV 04 9192 R1000	0.049
Stainless steel coil spring rod	⊗	1	LSTH93	1SBV 04 9193 R1000	0.055

### Angular motion head without actuator, for non-adjustable roller levers (delivered with M5 screw and washer)

	⊖	1.5	LSTH40	1SBV 04 9140 R1000	0.050
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### Actuators for angular motion head LSTH40

∅ 22 mm polyamide roller lever (1)	⊖	-	LSA40X41	1SBV 04 8841 R1000	0.032
∅ 22 mm stainless steel roller lever (1)	⊖	-	LSA40X42	1SBV 04 8842 R1000	0.042
∅ 22 mm steel ball-bearing roller lever (1)	⊖	-	LSA40X43	1SBV 04 8843 R1000	0.044
∅ 45 mm rubber roller lever (1)	⊗	-	LSA40X44	1SBV 04 8844 R1000	0.050

(1) Free position adjustment of lever 9° by 9° over 360°.

>> Synoptic of Separate Elements ..... page 17

>> Implementation ..... page 9

# LS40P ... LS45P Limit Switches

## Double Insulation - Plastic Casing IP65 - 40 mm Width

### Separate Elements

⊖ "N.C." contact with positive opening operation or element (subassembly, head, lever) suitable for positive opening operation.

**Warning! The positive opening operation of limit switch is only guaranteed if the elements noted with ⊖ are fitted.**



LSTH50



LSA40X72



LSA40X51



LSC40XB11

LS40P with 1 cable inlet for Pg 13.5 cable gland.  
 LS43P with 1 cable inlet M20 x 1.5 for ISO 20 cable gland.  
 LS45P with 1 cable inlet for 1/2" NPT.

### Ordering Details

Contact blocks	Positive opening operation	Actuation speed max. m/s	Type	Order code	Unit weight kg
B11 D11 C11 L02 L20 B02	⊖				Packing 1 piece

### Angular motion head without actuator, for flexible or adjustable levers

(delivered with M5 screw, washer and adaptation parts)

⊗	-	LSTH50	1SBV 04 9150 R1000	0.058
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### Actuators for angular motion head LSTH50

Adjustable ø 22 mm polyamide roller lever (1)	⊗	-	LSA40X51	1SBV 04 8851 R1000	0.023
Adjustable ø 22 mm stainless steel roller lever (1)	⊗	-	LSA40X52	1SBV 04 8852 R1000	0.032
Adjustable ø 22 mm steel ball-bearing roller lever (1)	⊗	-	LSA40X53	1SBV 04 8853 R1000	0.034
Adjustable ø 45 mm rubber roller lever (1)	⊗	-	LSA40X54	1SBV 04 8854 R1000	0.039
Stainless steel flexible lever with insulated end (1)	⊗	-	LSA40X61	1SBV 04 8861 R1000	0.017
Stainless steel coil spring lever (1)	⊗	-	LSA40X62	1SBV 04 8862 R1000	0.023
Adjustable ø 3 mm stainless steel rod lever, 195 mm length (1)	⊗	-	LSA40X71	1SBV 04 8871 R1000	0.014
Adjustable ø 6 mm polyamide rod lever, 195 mm length (1)	⊗	-	LSA40X72	1SBV 04 8872 R1000	0.010
Adjustable ø 6 mm fibre-glass rod lever, 195 mm length (1)	⊗	-	LSA40X73	1SBV 04 8873 R1000	0.014

### Contact blocks (with adaptor)

1 N.C. + 1 N.O. 2-pole snap action	⊖	-	LSC40XB11	1SBV 04 9600 R1211	0.032
1 N.C. + 1 N.O. 2-pole non-overlapping slow action	⊖	-	LSC40XD11	1SBV 04 9600 R1411	0.032
1 N.O. + 1 N.C. 2-pole overlapping slow action	⊖	-	LSC40XC11	1SBV 04 9600 R1511	0.032
2 N.C. 2-pole simultaneous slow action	⊖	-	LSC40XL02	1SBV 04 9600 R1302	0.032
2 N.O. 2-pole simultaneous slow action	⊗	-	LSC40XL20	1SBV 04 9600 R1320	0.032
2 N.C. 2-pole snap action	⊖	-	LSC40XB02	1SBV 04 9600 R1202	0.032

(1) Free position adjustment of lever 9° by 9° over 360°.

>> Synoptic of Separate Elements ..... page 17 >> Implementation ..... page 9

# LS40P ... LS45P Limit Switches

## Double Insulation - Plastic Casing IP65 - 40 mm Width

### Operation Diagrams (Body and Attached Head)

Contact blocks					
Snap action <b>B11</b> 	Non-overlapping slow action <b>D11</b> 	Overlapping slow action <b>C11</b> 	Simultaneous slow action <b>L02</b> 	Simultaneous slow action <b>L20</b> 	Snap action <b>B02</b> 

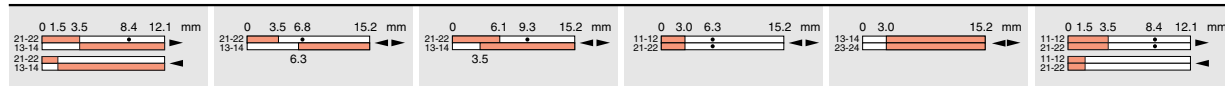
### Bodies with contact block

<b>LS40P00B11</b> <b>LS43P00B11</b> <b>LS45P00B11</b>	<b>LS40P00D11</b> <b>LS43P00D11</b> <b>LS45P00D11</b>	<b>LS40P00C11</b> <b>LS43P00C11</b> <b>LS45P00C11</b>	<b>LS40P00L02</b> <b>LS43P00L02</b> <b>LS45P00L02</b>	<b>LS40P00L20</b> <b>LS43P00L20</b> <b>LS45P00L20</b>	<b>LS40P00B02</b> <b>LS43P00B02</b> <b>LS45P00B02</b>
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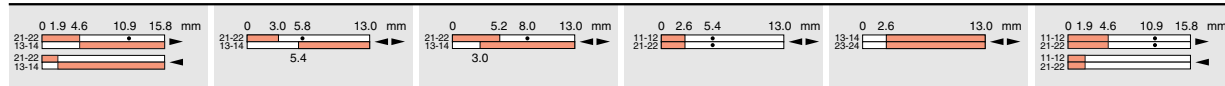
### Rectilinear motion heads LSTH11, LSTH12, LSTH14. ⊕



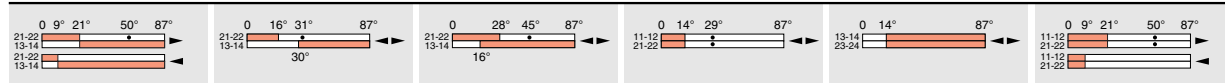
### Rectilinear motion heads LSTH13, LSTH19. ⊕



### Rectilinear motion heads LSTH31, LSTH32, LSTH33, LSTH35, LSTH36, LSTH37. ⊕



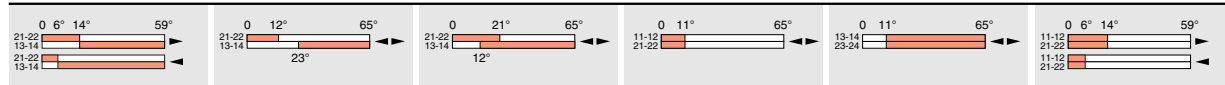
### Angular motion heads LSTH40, LSTH41, LSTH42, LSTH43. ⊕



### Angular motion heads LSTH44, LSTH50, LSTH51, LSTH52, LSTH53, LSTH54, LSTH61, LSTH62, LSTH71, LSTH72, LSTH73. ⊗



### Multidirectional angular motion heads LSTH91, LSTH92, LSTH93. ⊗



**Note:** Contacts position 21/22, 21/22  
 Contact closed  
 Contact open

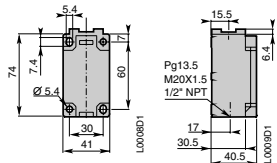
Positive opening position  
**Warning!** The positive opening operation of limit switch is only guaranteed if the elements noted with ⊕ are fitted.

# LS40P ... LS45P Limit Switches

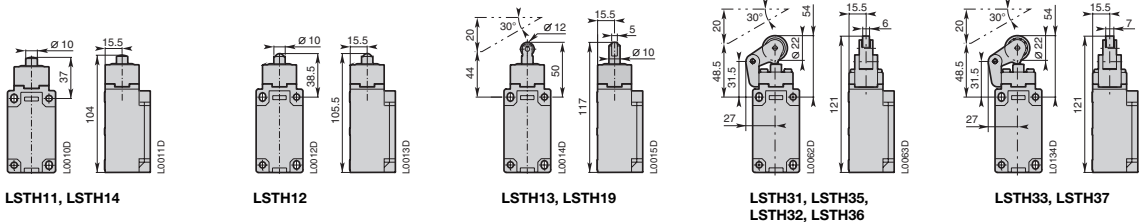
## Double Insulation - Plastic Casing IP65 - 40 mm Width

### Dimensions (in mm) - Complete Device

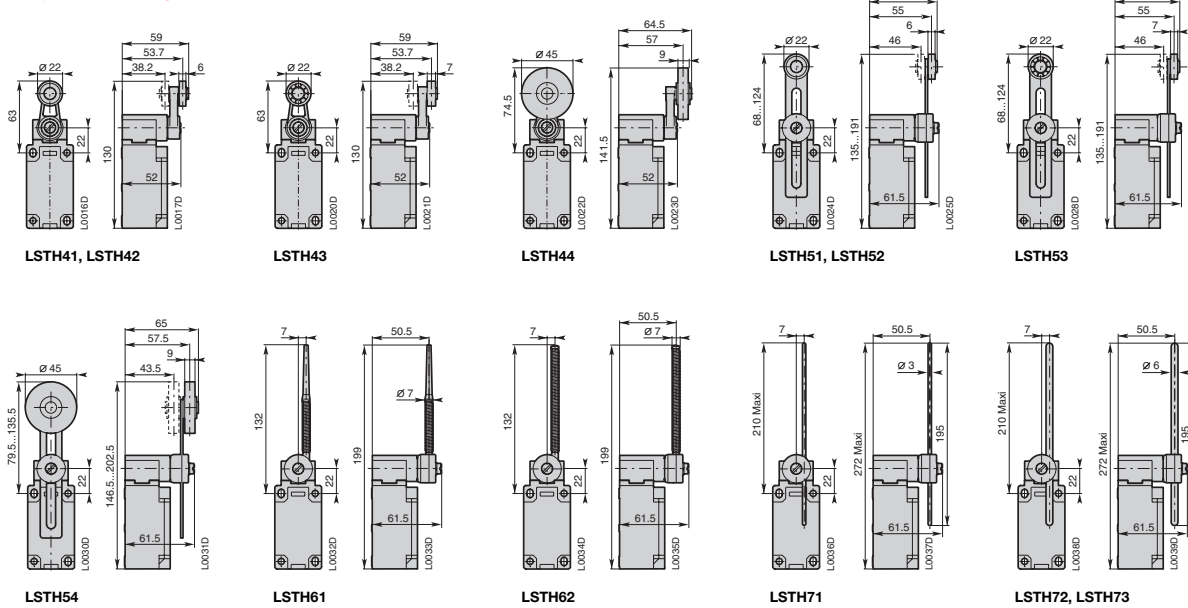
Bodies with contact block LS40P00..., LS43P00... or LS45P00...



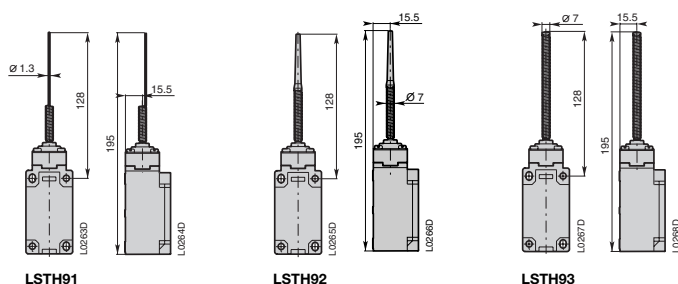
### Body and fitted rectilinear motion head LSTH...



### Body and fitted angular motion head LSTH...



### Body and fitted multidirectional angular motion head LSTH...



Note: The reference LSTH... under each picture, corresponds to the head only. The pictures show the complete device.

>> Description of Complete Device ..... page 8 >> Implementation ..... page 9