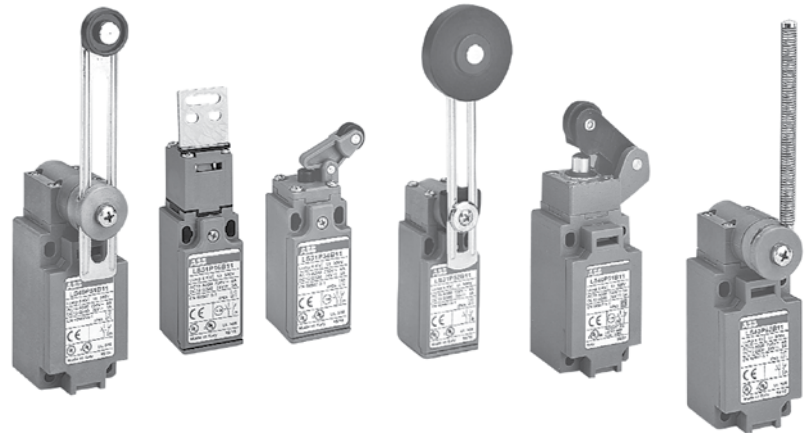


# Plastic Limit switches



## Limit Switches

Plastic casing, 30mm , 40mm, & 60mm  
Assembled units  
Components



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### Description

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 3 dimensions:

- 30mm width
  - LS35P
- 40mm width
  - LS45P
- 60mm width
  - LS75P

### 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

## General information

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

### Applications

Easy to use, electromechanical limit switches offer specific qualities:

- Visible operation
- Able to switch strong currents (10 A 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

### Description

Limit switches, which 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 3 dimensions:

- 30mm width  
– LS35P
- 40mm width  
– LS45P
- 60mm width  
– LS75P

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30 or 40mm width casings with standardized dimensions corresponding to:

- EN 50047 for 30mm width
- EN 50041 for 40mm width

#### Mounting the casing

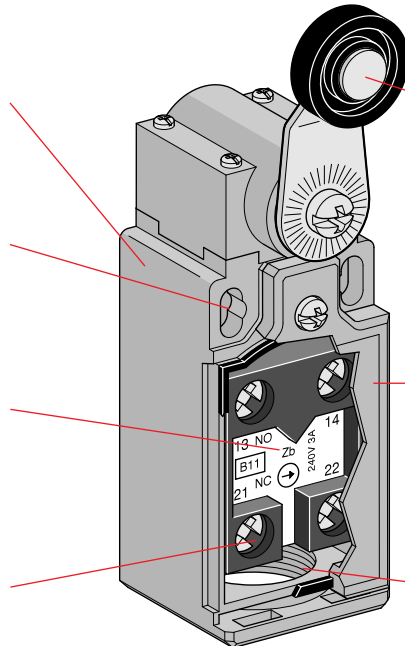
- 2 x M4 screws on top part for 30mm width
- 2 or 4 x M5 screws for 40mm width
- 2 or 4 x M5 screws for 60mm width

#### 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 head 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 ø 3 screws for 30mm width  
Assembled using 4 x ø 4 screws for 40mm width

#### Cover

- Closed using ø 3 screws for 30mm width
  - Self clipping closure for 40mm width
- One piece sealing gasket to ensure tightness

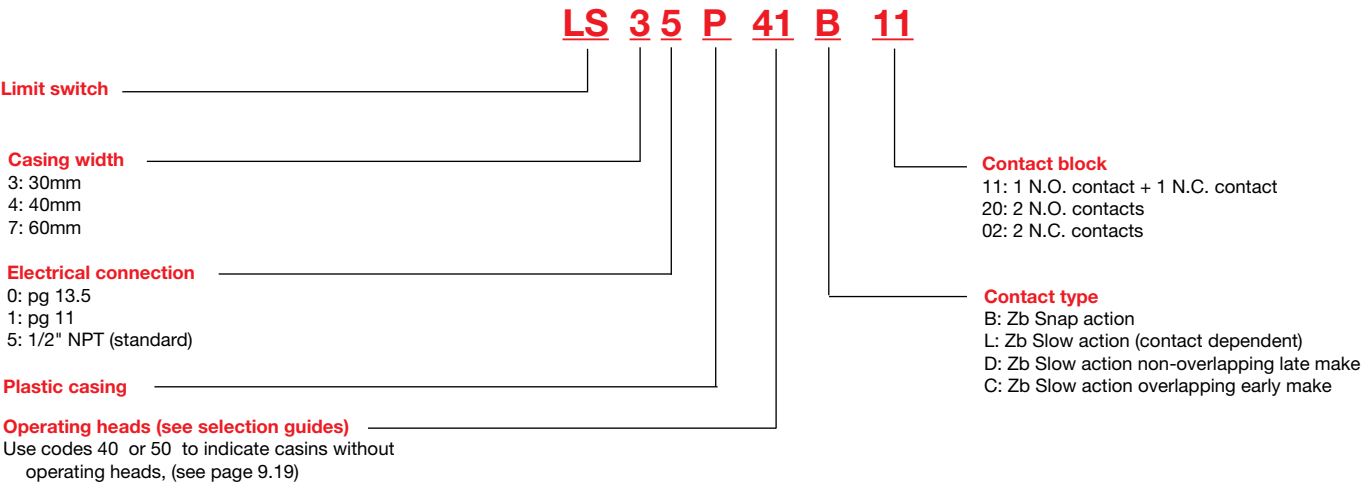
#### Electrical connection

- 1 x Pg 11 cable gland for LS31P
- 1 x Pg 13.5 cable gland for LS30P
- 1 x Pg 13.5 cable gland for LS40P
- 1 x 1/2" NPT cable gland for LS35P (standard)
- 1 x 1/2" NPT cable gland for LS45P (standard)

**General information**  
30mm, 40mm & 60mm, IP65, UL Type 4  
Catalog number explanation



**Catalog number explanation**



## Assembled 30mm, IP 65, UL Type 4

### Movement to be detected

#### Key translation, on end or lateral

#### On end



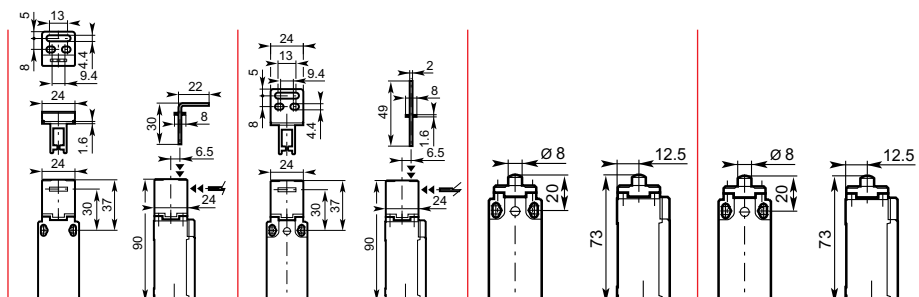
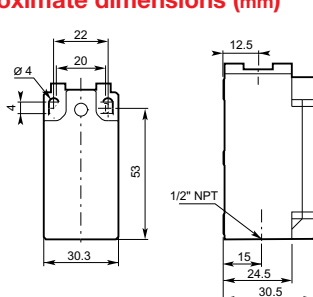
### Operating head type

|                                                             | Right angle<br>key | Straight<br>key | Plain thermoplastic<br>plunger | Plain steel<br>plunger |
|-------------------------------------------------------------|--------------------|-----------------|--------------------------------|------------------------|
| Conformity / (N.C. contact with positive opening operation) |                    |                 | EN 50 047                      | EN 50 047              |
| Maximum actuation speed <b>m/s</b>                          | 0.5                | 0.5             | 0.5                            | 0.5                    |
| Min. force: - actuation <b>N</b>                            | 18                 | 18              | 9                              | 9                      |
| - positive opening operation <b>N</b>                       | 60                 | 60              | 44                             | 44                     |

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|                                         |                              |                        |                        |                     |                     |
|-----------------------------------------|------------------------------|------------------------|------------------------|---------------------|---------------------|
| Snap action contacts                    | Catalog number<br>List price | LS35P15B11<br>\$ 46.50 | LS35P16B11<br>\$ 49.50 | LS35P10B11<br>\$ 33 | LS35P11B11<br>\$ 33 |
|                                         | Operation<br>diagram         |                        |                        |                     |                     |
| Non-overlapping<br>Slow action contacts | Catalog number<br>List price | LS35P15D11<br>49.50    | LS35P16D11<br>52.50    | LS35P10D11<br>34.50 | LS35P11D11<br>34.50 |
|                                         | Operation<br>diagram         |                        |                        |                     |                     |
| Overlapping<br>Slow action contacts     | Catalog number<br>List price | LS35P15C11<br>51       | LS35P16C11<br>54       | LS35P10C11<br>36    | LS35P11C11<br>36    |
|                                         | Operation<br>diagram         |                        |                        |                     |                     |
| Slow action contacts                    | Catalog number<br>List price | LS35P15L02<br>51       | LS35P16L02<br>54       | LS35P10L02<br>36    | LS35P11L02<br>36    |
|                                         | Operation<br>diagram         |                        |                        |                     |                     |
| Slow action contacts                    | Catalog number<br>List price | LS35P15L20<br>51       | LS35P16L20<br>54       | LS35P10L20<br>36    | LS35P11L20<br>36    |
|                                         | Operation<br>diagram         |                        |                        |                     |                     |
| Snap action contacts                    | Catalog number<br>List price | LS35P15B02<br>51       | LS35P16B02<br>54       | LS35P10B02<br>36    | LS35P11B02<br>36    |
|                                         | Operation<br>diagram         |                        |                        |                     |                     |
| Weight (packing per unit)               | kg                           | 0.085                  | 0.085                  | 0.065               | 0.070               |

### Approximate dimensions (mm)



# Assembled 30mm, IP 65, UL Type 4

Plastic  
Limit switches

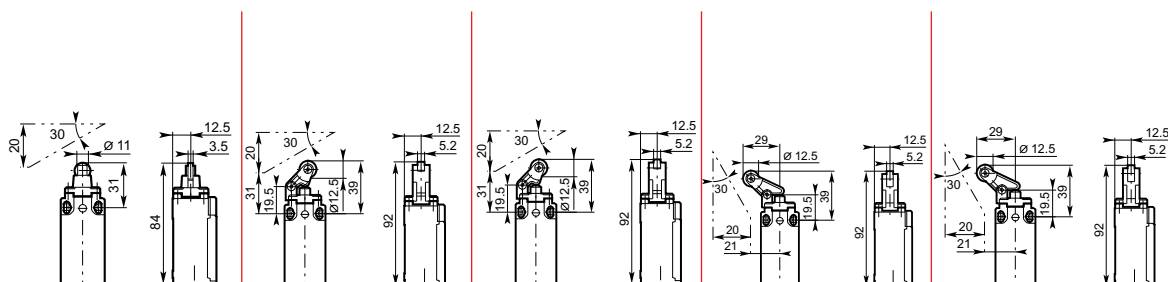
## 30° Cam Translat.

## 30° Unidirectional Cam Translation Movement



| Plastic roller plunger | Plastic roller lever on plastic plunger | Plastic roller lever on steel plunger | Plastic roller lever on steel plunger | Plastic roller lever on plastic plunger |
|------------------------|-----------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------|
| EN 50 047              | EN 50 047                               | EN 50 047                             |                                       |                                         |
| 0.3                    | 1                                       | 1                                     | 1                                     | 1                                       |
| 12                     | 7                                       | 7                                     | 3                                     | 3                                       |
| 41                     | 24                                      | 24                                    | 24                                    | 24                                      |

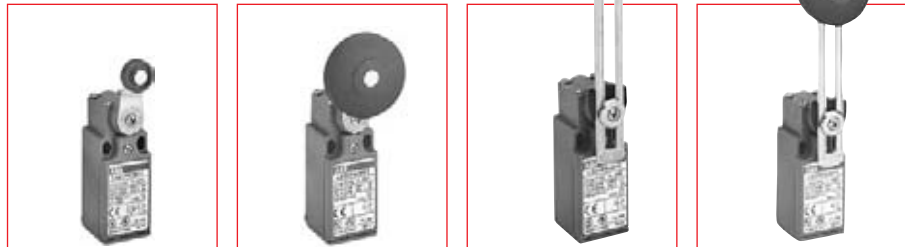
|                                                                                          |                                                                                        |                                                                                           |                                                                                        |                                                                                           |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>LS35P13B11</b><br><b>\$ 37.50</b><br>0 1.4 3.3 7.8 11.2 mm<br>21-22<br>13-14<br>13-14 | <b>LS35P30B11</b><br><b>\$ 36</b><br>0 3.0 7.1 16.9 24.4 mm<br>21-22<br>13-14<br>13-14 | <b>LS35P31B11</b><br><b>\$ 37.50</b><br>0 3.0 7.1 16.9 24.4 mm<br>21-22<br>13-14<br>13-14 | <b>LS35P32B11</b><br><b>\$ 36</b><br>0 2.6 6.2 14.7 21.3 mm<br>21-22<br>13-14<br>13-14 | <b>LS35P34B11</b><br><b>\$ 37.50</b><br>0 2.6 6.2 14.7 21.3 mm<br>21-22<br>13-14<br>13-14 |
| <b>LS35P13D11</b><br><b>39</b><br>0 2.6 5.1 11.4 mm<br>21-22<br>13-14<br>4.7             | <b>LS35P30D11</b><br><b>37.50</b><br>0 5.6 10.9 24.4 mm<br>21-22<br>13-14<br>10.1      | <b>LS35P31D11</b><br><b>39</b><br>0 5.6 10.9 24.4 mm<br>21-22<br>13-14<br>10.1            | <b>LS35P32D11</b><br><b>37.50</b><br>0 4.9 9.4 21.1 mm<br>21-22<br>13-14<br>8.8        | <b>LS35P34D11</b><br><b>39</b><br>0 4.9 9.4 21.1 mm<br>21-22<br>13-14<br>8.8              |
| <b>LS35P13C11</b><br><b>40.50</b><br>0 4.6 7.0 11.4 mm<br>21-22<br>13-14<br>2.6          | <b>LS35P30C11</b><br><b>39</b><br>0 9.8 15.0 24.4 mm<br>21-22<br>13-14<br>5.6          | <b>LS35P31C11</b><br><b>40.50</b><br>0 9.8 15.0 24.4 mm<br>21-22<br>13-14<br>5.6          | <b>LS35P32C11</b><br><b>39</b><br>0 8.5 13.0 21.1 mm<br>21-22<br>13-14<br>4.9          | <b>LS35P34C11</b><br><b>40.50</b><br>0 8.5 13.0 21.1 mm<br>21-22<br>13-14<br>4.9          |
| <b>LS35P13L02</b><br><b>40.50</b><br>0 2.3 4.7 11.4 mm<br>11-12<br>21-22                 | <b>LS35P30L02</b><br><b>39</b><br>0 4.9 10.1 24.4 mm<br>11-12<br>21-22                 | <b>LS35P31L02</b><br><b>40.50</b><br>0 4.9 10.1 24.4 mm<br>11-12<br>21-22                 | <b>LS35P32L02</b><br><b>39</b><br>0 4.2 8.8 21.1 mm<br>11-12<br>21-22                  | <b>LS35P34L02</b><br><b>40.50</b><br>0 4.2 8.8 21.1 mm<br>11-12<br>21-22                  |
| <b>LS35P13L20</b><br><b>40.50</b><br>0 2.3 11.4 mm<br>13-14<br>23-24                     | <b>LS35P30L20</b><br><b>39</b><br>0 4.9 24.4 mm<br>13-14<br>23-24                      | <b>LS35P31L20</b><br><b>40.50</b><br>0 4.9 24.4 mm<br>13-14<br>23-24                      | <b>LS35P32L20</b><br><b>39</b><br>0 4.2 21.1 mm<br>13-14<br>23-24                      | <b>LS35P34L20</b><br><b>40.50</b><br>0 4.2 21.1 mm<br>13-14<br>23-24                      |
| <b>LS35P13B02</b><br><b>40.50</b><br>0 1.4 3.3 7.8 11.2 mm<br>11-12<br>21-22<br>11-12    | <b>LS35P30B02</b><br><b>39</b><br>0 3.0 7.1 16.9 24.4 mm<br>11-12<br>21-22<br>11-12    | <b>LS35P31B02</b><br><b>40.50</b><br>0 3.0 7.1 16.9 24.4 mm<br>11-12<br>21-22<br>11-12    | <b>LS35P32B02</b><br><b>39</b><br>0 2.6 6.2 14.7 21.3 mm<br>11-12<br>21-22<br>11-12    | <b>LS35P34B02</b><br><b>40.50</b><br>0 2.6 6.2 14.7 21.3 mm<br>11-12<br>21-22<br>11-12    |
| 0.070                                                                                    | 0.065                                                                                  | 0.070                                                                                     | 0.075                                                                                  | 0.070                                                                                     |



## Assembled 30mm, IP 65, UL Type 4

### Movement to be detected

#### 30° Cam translation movement



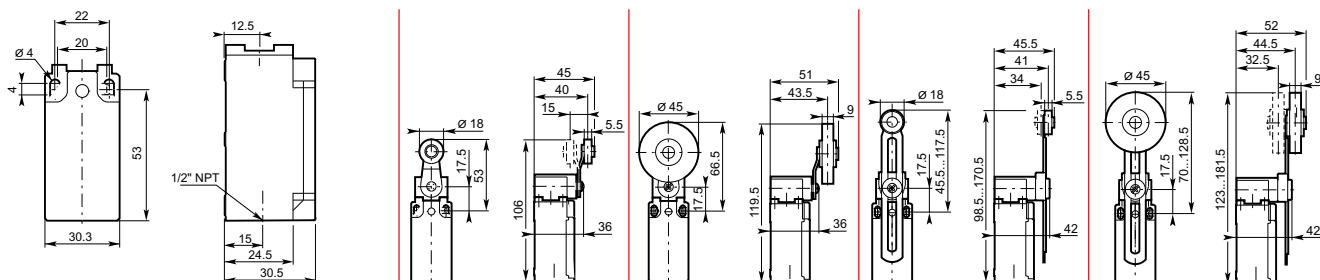
### Operating head type

|                                                             | Ø 18 Polyamide roller lever | Ø 45 Rubber roller lever | Adjustable Ø 18 polyamide roller lever | Adjustable Ø 45 rubber roller lever |
|-------------------------------------------------------------|-----------------------------|--------------------------|----------------------------------------|-------------------------------------|
| Conformity / (N.C. contact with positive opening operation) | EN 50 047                   |                          |                                        |                                     |
| Maximum actuation speed                                     | m/s 1.5                     | 1.5                      | 1.5                                    | 1.5                                 |
| Min. torque: - actuation                                    | N.m 0.10                    | 0.10                     | 0.10                                   | 0.10                                |
| - positive opening operation                                | N.m 0.32                    | —                        | —                                      | —                                   |

### 9 Additional technical data

|                                      |                              |                     |                        |                        |                     |
|--------------------------------------|------------------------------|---------------------|------------------------|------------------------|---------------------|
| Snap action contacts                 | Catalog number<br>List price | LS35P41B11<br>\$ 39 | LS35P42B11<br>\$ 40.50 | LS35P51B11<br>\$ 40.50 | LS35P52B11<br>\$ 42 |
|                                      | Operation diagram            |                     |                        |                        |                     |
| Non-overlapping slow action contacts | Catalog number<br>List price | LS35P41D11<br>40.50 | LS35P42D11<br>43.50    | LS35P51D11<br>42       | LS35P52D11<br>45    |
|                                      | Operation diagram            |                     |                        |                        |                     |
| Overlapping slow action contacts     | Catalog number<br>List price | LS35P41C11<br>42    | LS35P42C11<br>45       | LS35P51C11<br>43.50    | LS35P52C11<br>45    |
|                                      | Operation diagram            |                     |                        |                        |                     |
| Slow action contacts                 | Catalog number<br>List price | LS35P41L02<br>42    | LS35P42L02<br>45       | LS35P51L02<br>43.50    | LS35P52L02<br>45    |
|                                      | Operation diagram            |                     |                        |                        |                     |
| Slow action contacts                 | Catalog number<br>List price | LS35P41L20<br>42    | LS35P42L20<br>45       | LS35P51L20<br>43.50    | LS35P52L20<br>45    |
|                                      | Operation diagram            |                     |                        |                        |                     |
| Snap action contacts                 | Catalog number<br>List price | LS35P41B02<br>42    | LS35P42B02<br>45       | LS35P51B02<br>43.50    | LS35P52B02<br>45    |
|                                      | Operation diagram            |                     |                        |                        |                     |
| Weight (packing per unit)            | kg                           | 0.090               | 0.120                  | 0.100                  | 0.130               |

### Dimensions (mm)



# Assembled 30mm, IP 65, UL Type 4

Plastic  
Limit switches

## Movement to be detected

### Fully directional translation

### Multidirectional

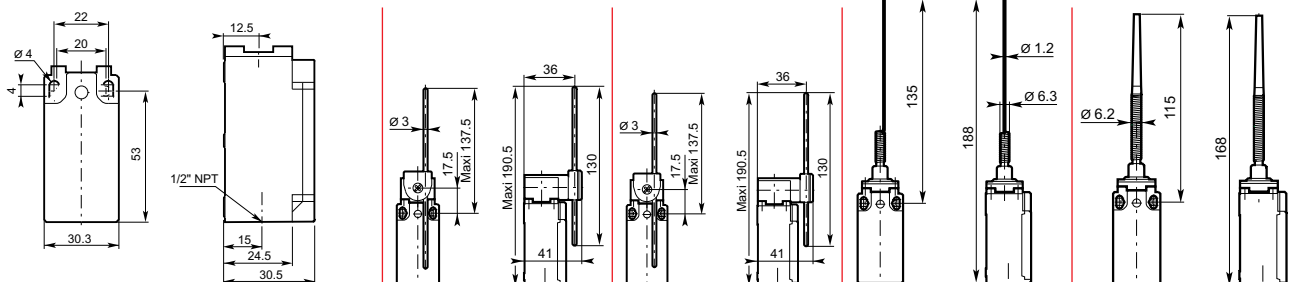
## Operating head type

|                                                             | Adjustable ø 3 stainless steel rod lever | Adjustable ø 3 fiber-glass rod lever | Spring rod | Flexible rod with insulated end |
|-------------------------------------------------------------|------------------------------------------|--------------------------------------|------------|---------------------------------|
| Conformity / (N.C. contact with positive opening operation) |                                          |                                      |            |                                 |
| Maximum actuation speed                                     | m/s 1.5                                  | m/s 1.5                              | m/s 1      | m/s 1                           |
| Min. torque: - actuation                                    | N.m 0.10                                 | N.m 0.10                             | N.m 0.12   | N.m 0.12                        |
| - positive opening operation                                | N.m —                                    | N.m —                                | N.m —      | N.m —                           |

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|                                      |                              |                        |                        |                        |                        |
|--------------------------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|
| Snap action contacts                 | Catalog number<br>List price | LS35P71B11<br>\$ 40.50 | LS35P72B11<br>\$ 40.50 | LS35P91B11<br>\$ 37.50 | LS35P92B11<br>\$ 37.50 |
|                                      | Operation diagram            |                        |                        |                        |                        |
| Non-overlapping Slow action contacts | Catalog number<br>List price | LS35P71D11<br>42       | LS35P72D11<br>42       | LS35P91D11<br>40.50    | LS35P92D11<br>40.50    |
|                                      | Operation diagram            |                        |                        |                        |                        |
| Overlapping Slow action contacts     | Catalog number<br>List price | LS35P71C11<br>43.50    | LS35P72C11<br>43.50    | LS35P91C11<br>40.50    | LS35P92C11<br>40.50    |
|                                      | Operation diagram            |                        |                        |                        |                        |
| Slow action contacts                 | Catalog number<br>List price | LS35P71L02<br>43.50    | LS35P72L02<br>43.50    | LS35P91L02<br>40.50    | LS35P92L02<br>40.50    |
|                                      | Operation diagram            |                        |                        |                        |                        |
| Slow action contacts                 | Catalog number<br>List price | LS35P71L20<br>43.50    | LS35P72L20<br>43.50    | LS35P91L20<br>40.50    | LS35P92L20<br>40.50    |
|                                      | Operation diagram            |                        |                        |                        |                        |
| Snap action contacts                 | Catalog number<br>List price | LS35P71B02<br>43.50    | LS35P72B02<br>43.50    | LS35P91B02<br>40.50    | LS35P92B02<br>40.50    |
|                                      | Operation diagram            |                        |                        |                        |                        |
| Weight (packing per unit)            | kg                           | 0.100                  | 0.100                  | 0.080                  | 0.080                  |

## Dimensions (mm)



## Components

### Catalog number explanation

### 30mm, IP 65, UL Type 4



LS35P40B11

#### Casings with contact block and angular motion head (without actuator)

|                                                                 | LS | 35 | P | 40 | B11                          |
|-----------------------------------------------------------------|----|----|---|----|------------------------------|
| 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 cable inlet by 1/2" NPT plastic adaptor .....                 |    |    |   | 5  |                              |
| Plastic casing.....                                             |    |    | P |    |                              |
| Operating heads (without actuator)                              |    |    |   |    |                              |
| With angular movement for non-adjustable roller levers .....    |    |    |   | 40 |                              |
| With angular movement for adjustable roller or rod levers ..... |    |    |   | 50 |                              |
| Contacts                                                        |    |    |   |    |                              |
| 11 .....                                                        |    |    |   |    | 1 N.O. + 1 N.C. contacts     |
| 02 .....                                                        |    |    |   |    | 2 N.C. contacts              |
| 20 .....                                                        |    |    |   |    | 2 N.O. contacts              |
| Snap action                                                     |    |    |   |    |                              |
| B .....                                                         |    |    |   |    | Zb Snap                      |
| Dependent (slow) action                                         |    |    |   |    |                              |
| L .....                                                         |    |    |   |    | Zb Slow / Simultaneous       |
| D .....                                                         |    |    |   |    | Zb Non-overlapping late make |
| C .....                                                         |    |    |   |    | Zb Overlapping early make    |

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LSA30X41

#### Separate actuators (lever, key)

|                             | LS | A | 30 | X | 41                          |
|-----------------------------|----|---|----|---|-----------------------------|
| Limit Switch.....           | LS |   |    |   |                             |
| Actuator (lever, key) ..... |    | A |    |   |                             |
| Casing width: 30 mm .....   |    |   | 30 |   |                             |
| Actuator:                   |    |   |    |   |                             |
| 05, 06 .....                |    |   |    |   | key                         |
| 41, 42 .....                |    |   |    |   | non-adjustable roller lever |
| 51, 52 .....                |    |   |    |   | adjustable roller lever     |
| 71, 72, 73, 74 .....        |    |   |    |   | adjustable rod lever        |
| For casing of:              |    |   |    |   |                             |
| M .....                     |    |   |    |   | Metal                       |
| P .....                     |    |   |    |   | Plastic                     |
| X .....                     |    |   |    |   | Plastic or metal            |

#### Separate contact blocks

|                          | LS | C | 30 | X | D | 11                           |
|--------------------------|----|---|----|---|---|------------------------------|
| Limit Switch.....        | LS |   |    |   |   |                              |
| Contact blocks .....     |    | C |    |   |   |                              |
| Casing width 30 mm ..... |    |   | 30 |   |   |                              |
| For casing of:           |    |   |    |   |   |                              |
| Metal.....               |    |   |    |   | M |                              |
| Plastic.....             |    |   |    |   | P |                              |
| Plastic or metal .....   |    |   |    |   | X |                              |
| Contacts                 |    |   |    |   |   |                              |
| 11 .....                 |    |   |    |   |   | 1 N.O. + 1 N.C. contacts     |
| 02 .....                 |    |   |    |   |   | 2 N.C. contacts              |
| 20 .....                 |    |   |    |   |   | 2 N.O. contacts              |
| Snap action              |    |   |    |   |   |                              |
| B .....                  |    |   |    |   |   | Zb Snap                      |
| Dependent (slow) action  |    |   |    |   |   |                              |
| L .....                  |    |   |    |   |   | Zb Slow / Simultaneous       |
| D .....                  |    |   |    |   |   | Zb Non-overlapping late make |
| C .....                  |    |   |    |   |   | Zb Overlapping early make    |



LSC30XD11

# Components

## Selection guide

### 30mm, IP 65, UL Type 4

Plastic  
Limit switches

#### Non-adjustable actuators



LSA30X42



LSA30X41 (A Shape)

Roller levers (non-adjustable)

#### Adjustable actuators



LSA30X52



LSA30X51

Adjustable roller levers



LSA30X71

Adjustable rod levers



LSA30X72



LSA30X73



LSA30X74

#### Casings



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

LS35P40B11, LS35P40D11, LS35P40C11, LS35P40L02, LS35P40B02

LS35P40L20



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

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.

## Components

### Casings with angular motion head 30mm, IP 65, UL Type 4

⊕ "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.**



LS35P40B11

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

| Contact blocks |     |     |     |     |     | Positive opening operation | Actuation speed max. m/s | Unit weight kg (1 pc) | Catalog number | List price |
|----------------|-----|-----|-----|-----|-----|----------------------------|--------------------------|-----------------------|----------------|------------|
| B11            | D11 | C11 | L02 | L20 | B02 |                            |                          |                       |                |            |
| 1              |     |     |     |     |     | ⊕                          | 1.5                      | 0.092                 | LS35P40B11     | \$ 34.50   |
|                | 1   |     |     |     |     | ⊕                          | 1.5                      | 0.092                 | LS35P40D11     | 36.00      |
|                |     | 1   |     |     |     | ⊕                          | 1.5                      | 0.092                 | LS35P40C11     | 37.50      |
|                |     |     | 1   |     |     | ⊕                          | 1.5                      | 0.092                 | LS35P40L02     | 37.50      |
|                |     |     |     | 1   |     | ⊗                          | 1.5                      | 0.092                 | LS35P40L20     | 37.50      |
|                |     |     |     |     | 1   | ⊕                          | 1.5                      | 0.092                 | LS35P40B02     | 37.50      |

# Components

## Casings with angular motion head

### 30mm, IP 65, UL Type 4

Plastic  
Limit switches

⊕ "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.**



LS35P50B11



LSA30X41



LSA30X42



LSA30X51



LSA30X71



LSA30P05



LSA30P06



LSC30XD11



LSR1305

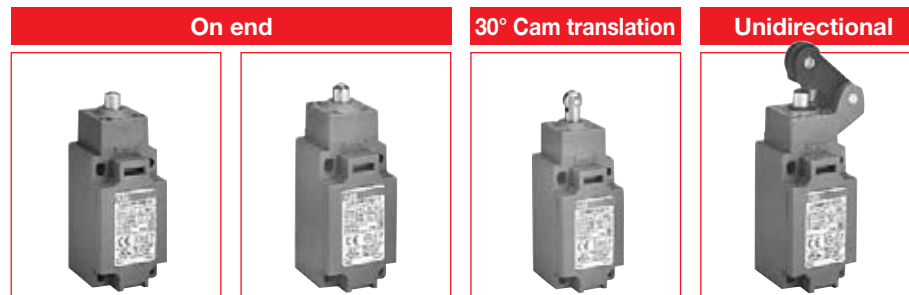
#### Casings with angular motion head for adjustable rod or roller levers, delivered without actuator

| Contact blocks                                                                |     |     |     |     |     | Positive opening operation | Actuation speed max. m/s | Unit weight kg (1 pc) | Catalog number | List price |
|-------------------------------------------------------------------------------|-----|-----|-----|-----|-----|----------------------------|--------------------------|-----------------------|----------------|------------|
| B11                                                                           | D11 | C11 | L02 | L20 | B02 |                            |                          |                       |                |            |
| 1                                                                             |     |     |     |     |     | ⊗                          | 1.5                      | 0.092                 | LS35P50B11     | \$ 34.50   |
|                                                                               | 1   |     |     |     |     | ⊗                          | 1.5                      | 0.092                 | LS35P50D11     | 36.00      |
|                                                                               |     | 1   |     |     |     | ⊗                          | 1.5                      | 0.092                 | LS35P50C11     | 37.50      |
|                                                                               |     |     | 1   |     |     | ⊗                          | 1.5                      | 0.092                 | LS35P50L02     | 37.50      |
|                                                                               |     |     |     | 1   |     | ⊗                          | 1.5                      | 0.092                 | LS35P50L20     | 37.50      |
|                                                                               |     |     |     |     | 1   | ⊗                          | 1.5                      | 0.092                 | LS35P50B02     | 37.50      |
| <b>Actuators for LS35P40 (delivered with M3.5 screw)</b>                      |     |     |     |     |     |                            |                          |                       |                |            |
| <b>To be actuated by 30° cam</b>                                              |     |     |     |     |     |                            |                          |                       |                |            |
| ø 18mm polyamide roller lever ①                                               |     |     |     |     |     | ⊕                          | —                        | 0.012                 | LSA30X41       | 4.50       |
| ø 45mm rubber roller lever ①                                                  |     |     |     |     |     | ⊗                          | —                        | 0.026                 | LSA30X42       | 7.50       |
| <b>Actuators for LS35P50 (delivered with M3.5 screw and adaptation parts)</b> |     |     |     |     |     |                            |                          |                       |                |            |
| <b>To be actuated by 30° cam</b>                                              |     |     |     |     |     |                            |                          |                       |                |            |
| ø 18mm adjustable polyamide roller lever ①                                    |     |     |     |     |     | ⊗                          | —                        | 0.022                 | LSA30X51       | 7.50       |
| ø 45mm adjustable rubber roller lever ①                                       |     |     |     |     |     | ⊗                          | —                        | 0.035                 | LSA30X52       | 9.00       |
| <b>To be actuated by fully directional translation movement</b>               |     |     |     |     |     |                            |                          |                       |                |            |
| ø 3mm adjustable inox rod lever, 170mm ①                                      |     |     |     |     |     | ⊗                          | —                        | 0.021                 | LSA30X71       | 7.50       |
| ø 3mm adjustable fiberglass rod lever, 170mm ①                                |     |     |     |     |     | ⊗                          | —                        | 0.015                 | LSA30X72       | 7.50       |
| ø 6mm adjustable polyamide rod lever, 195mm ①                                 |     |     |     |     |     | ⊗                          | —                        | 0.018                 | LSA30X73       | 7.50       |
| ø 6mm adjustable fiberglass rod lever, 195mm ①                                |     |     |     |     |     | ⊗                          | —                        | 0.022                 | LSA30X74       | 9.00       |
| <b>Right angle key for LS35P15</b>                                            |     |     |     |     |     |                            |                          |                       |                |            |
| Right angle key (mounting 13mm)                                               |     |     |     |     |     | ⊕                          | —                        | 0.013                 | LSA30P05       | 7.50       |
| <b>Straight key for LS35P16</b>                                               |     |     |     |     |     |                            |                          |                       |                |            |
| Straight key (mounting 13mm)                                                  |     |     |     |     |     | ⊕                          | —                        | 0.013                 | LSA30P06       | 7.50       |
| <b>Separate contact blocks</b>                                                |     |     |     |     |     |                            |                          |                       |                |            |
| 1 NC & 1 NO 2-pole snap action                                                |     |     |     |     |     | ⊕                          | —                        | 0.025                 | LSC30XB11      | 21.00      |
| 1 NC & 1 NO 2-pole non-overlapping slow action                                |     |     |     |     |     | ⊕                          | —                        | 0.025                 | LSC30XD11      | 21.00      |
| 1 NO & 1 NC 2-pole non-overlapping slow action                                |     |     |     |     |     | ⊕                          | —                        | 0.025                 | LSC30XC11      | 24.00      |
| 2 NC 2-pole simultaneous slow action                                          |     |     |     |     |     | ⊕                          | —                        | 0.025                 | LSC30XL02      | 24.00      |
| 2 NO 2-pole simultaneous slow action                                          |     |     |     |     |     | ⊗                          | —                        | 0.025                 | LSC30XL20      | 24.00      |
| 2 NC 2-pole snap action                                                       |     |     |     |     |     | ⊕                          | —                        | 0.025                 | LSC30XB02      | 24.00      |
| <b>1/2" NPT plastic adaptors</b>                                              |     |     |     |     |     |                            |                          |                       |                |            |
| 1 piece                                                                       |     |     |     |     |     | —                          | —                        | 0.007                 | LSR1305        | 7.50       |

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

## Assembled 40mm, IP 65, UL Type 4

### Movement to be detected



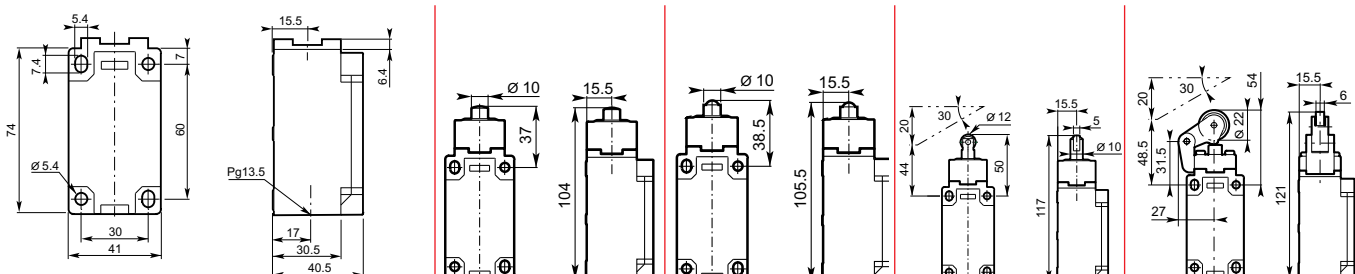
### Operating head type

|                                                             | Steel plain plunger | Steel ball plunger | Steel roller plunger | Polyamide roller lever |
|-------------------------------------------------------------|---------------------|--------------------|----------------------|------------------------|
| Conformity / (N.C. contact with positive opening operation) | EN 50 041           | EN 50 041          | EN 50 041            |                        |
| Maximum actuation speed m/s                                 | 0.5                 | 0.5                | 0.5                  | 1                      |
| Min. force/torque:                                          |                     |                    |                      |                        |
| - actuation                                                 | 22 N                | 22 N               | 16 N                 | 12 N                   |
| - positive opening operation                                | 66 N                | 66 N               | 48 N                 | 40 N                   |

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|                                      |                              |                     |                     |                        |                     |
|--------------------------------------|------------------------------|---------------------|---------------------|------------------------|---------------------|
| Snap action contacts                 | Catalog number<br>List price | LS45P11B11<br>\$ 45 | LS45P12B11<br>\$ 48 | LS45P13B11<br>\$ 55.50 | LS45P31B11<br>\$ 51 |
| Operation diagram                    |                              |                     |                     |                        |                     |
| Non-overlapping Slow action contacts | Catalog number<br>List price | LS45P11D11<br>48    | LS45P12D11<br>51    | LS45P13D11<br>58.50    | LS45P31D11<br>54    |
| Operation diagram                    |                              |                     |                     |                        |                     |
| Overlapping Slow action contacts     | Catalog number<br>List price | LS45P11C11<br>49.50 | LS45P12C11<br>52.50 | LS45P13C11<br>60       | LS45P31C11<br>55.50 |
| Operation diagram                    |                              |                     |                     |                        |                     |
| Slow action contacts                 | Catalog number<br>List price | LS45P11L02<br>49.50 | LS45P12L02<br>52.50 | LS45P13L02<br>60       | LS45P31L02<br>55.50 |
| Operation diagram                    |                              |                     |                     |                        |                     |
| Slow action contacts                 | Catalog number<br>List price | LS45P11L20<br>49.50 | LS45P12L20<br>52.50 | LS45P13L20<br>60       | LS45P31L20<br>55.50 |
| Operation diagram                    |                              |                     |                     |                        |                     |
| Snap action contacts                 | Catalog number<br>List price | LS45P11B02<br>49.50 | LS45P12B02<br>52.50 | LS45P13B02<br>60       | LS45P31B02<br>55.50 |
| Operation diagram                    |                              |                     |                     |                        |                     |
| Weight (packing per unit)            | kg                           | 0.140               | 0.140               | 0.145                  | 0.175               |

### Dimensions (mm)



# Assembled 40mm, IP 65, UL Type 4

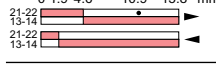
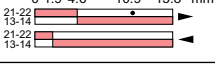
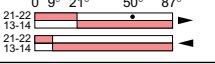
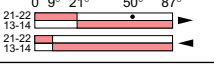
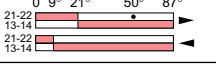
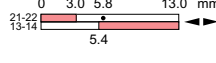
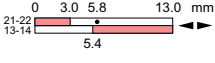
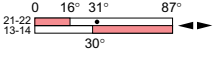
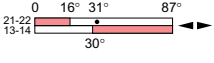
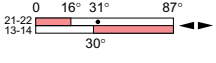
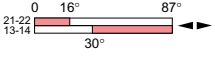
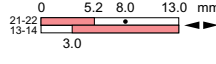
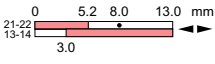
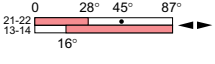
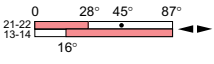
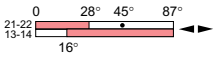
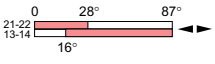
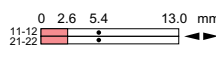
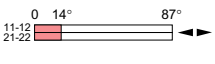
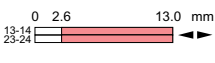
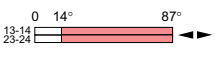
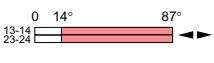
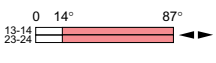
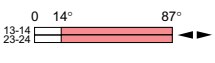
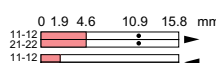
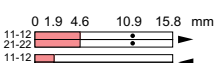
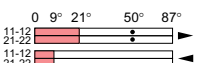
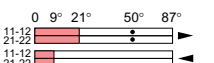
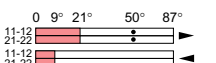
Plastic  
Limit switches

## 30° Cam transl.

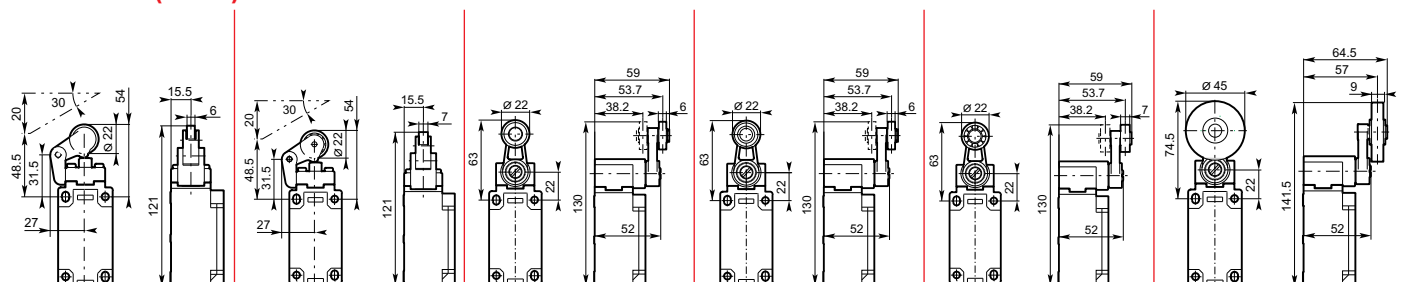
## 30° Cam translation movement

|                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |   |  |  |
| Stainless steel roller lever                                                      | Ball-bearing roller lever                                                         | Ø 22 Polyamide roller lever                                                       | Ø 22 Stainless steel roller lever                                                  | Ø 22 Ball-bearing roller lever                                                      | Ø 45 Rubber roller lever                                                            |
|  |  |  |  |  |  |
| 1<br>12 N<br>40 N                                                                 | 1<br>12 N<br>40 N                                                                 | EN 50 041<br>1.5<br>0.15 N.m<br>0.44 N.m                                          | EN 50 041<br>1.5<br>0.15 N.m<br>0.44 N.m                                           | EN 50 041<br>1.5<br>0.15 N.m<br>0.44 N.m                                            | 1.5<br>0.15 N.m<br>-                                                                |

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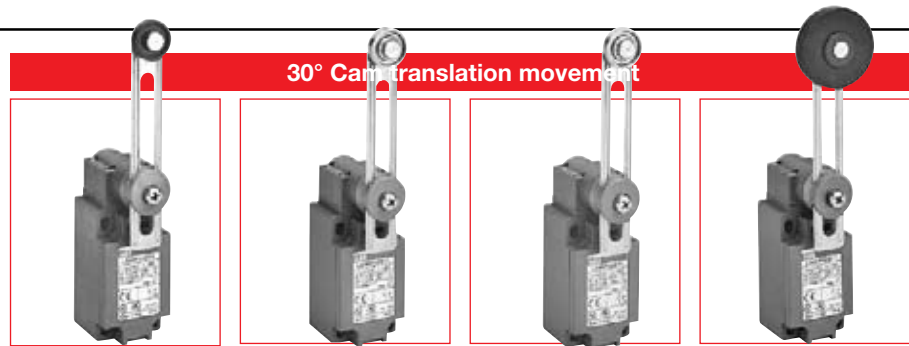
|                                                                                                             |                                                                                                            |                                                                                                             |                                                                                                              |                                                                                                              |                                                                                                               |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| LS45P32B11<br>\$ 58.50<br> | LS45P33B11<br>\$ 54<br>   | LS45P41B11<br>\$ 58.50<br> | LS45P42B11<br>\$ 70.50<br> | LS45P43B11<br>\$ 63<br>   | LS45P44B11<br>\$ 61.50<br> |
| LS45P32D11<br>63<br>     | LS45P33D11<br>57<br>    | LS45P41D11<br>63<br>     | LS45P42D11<br>75<br>     | LS45P43D11<br>67.50<br> | LS45P44D11<br>66<br>     |
| LS45P32C11<br>64.50<br>  | LS45P33C11<br>58.50<br> | LS45P41C11<br>64.50<br>  | LS45P42C11<br>78<br>     | LS45P43C11<br>70.50<br> | LS45P44C11<br>67.50<br>  |
| LS45P32L02<br>64.50<br>  | LS45P33L02<br>58.50<br> | LS45P41L02<br>64.50<br>  | LS45P42L02<br>78<br>     | LS45P43L02<br>70.50<br> | LS45P44L02<br>67.50<br>  |
| LS45P32L20<br>64.50<br>  | LS45P33L20<br>58.50<br> | LS45P41L20<br>64.50<br>  | LS45P42L20<br>78<br>     | LS45P43L20<br>70.50<br> | LS45P44L20<br>67.50<br>  |
| LS45P32B02<br>64.50<br>  | LS45P33B02<br>58.50<br> | LS45P41B02<br>64.50<br>  | LS45P42B02<br>78<br>     | LS45P43B02<br>70.50<br> | LS45P44B02<br>67.50<br>  |
| 0.185                                                                                                       | 0.185                                                                                                      | 0.185                                                                                                       | 0.195                                                                                                        | 0.195                                                                                                        | 0.205                                                                                                         |

## Dimensions (in mm)



## Assembled 40mm, IP 65, UL Type 4

### Movement to be detected



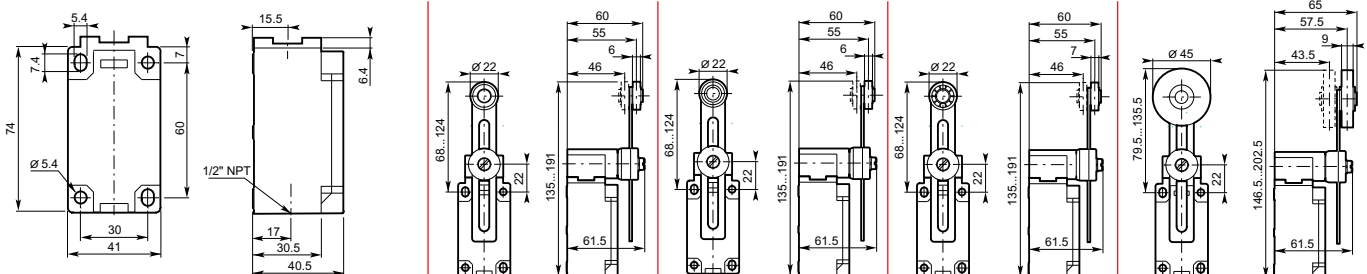
### Operating head type

|                                                             |     | Adjustable Ø 22<br>polyamide roller lever | Adjustable Ø 22<br>stainless steel<br>roller lever | Adjustable Ø 22<br>stainless steel<br>ball-bearing roller lever | Adjustable Ø 45<br>rubber roller lever |
|-------------------------------------------------------------|-----|-------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------|----------------------------------------|
| Conformity / (N.C. contact with positive opening operation) |     |                                           |                                                    |                                                                 |                                        |
| Maximum actuation speed                                     | m/s | 1.5                                       | 1.5                                                | 1.5                                                             | 1.5                                    |
| Min. torque: - actuation                                    | N.m | 0.15                                      | 0.15                                               | 0.15                                                            | 0.15                                   |
| - positive opening operation                                | N.m | —                                         | —                                                  | —                                                               | —                                      |

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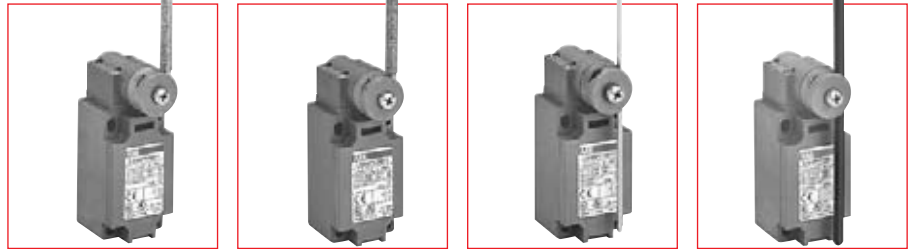
|                                         |                              |                        |                        |                        |                        |
|-----------------------------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|
| Snap action contacts                    | Catalog number<br>List price | LS45P51B11<br>\$ 58.50 | LS45P52B11<br>\$ 70.50 | LS45P53B11<br>\$ 64.50 | LS45P54B11<br>\$ 61.50 |
|                                         | Operation<br>diagram         |                        |                        |                        |                        |
| Non-overlapping<br>Slow action contacts | Catalog number<br>List price | LS45P51D11<br>63       | LS45P52D11<br>75       | LS45P53D11<br>69       | LS45P54D11<br>66       |
|                                         | Operation<br>diagram         |                        |                        |                        |                        |
| Overlapping<br>Slow action contacts     | Catalog number<br>List price | LS45P51C11<br>64.50    | LS45P52C11<br>78       | LS45P53C11<br>70.50    | LS45P54C11<br>67.50    |
|                                         | Operation<br>diagram         |                        |                        |                        |                        |
| Slow action contacts                    | Catalog number<br>List price | LS45P51L02<br>64.50    | LS45P52L02<br>78       | LS45P53L02<br>70.50    | LS45P54L02<br>67.50    |
|                                         | Operation<br>diagram         |                        |                        |                        |                        |
| Slow action contacts                    | Catalog number<br>List price | LS45P51L20<br>64.50    | LS45P52L20<br>78       | LS45P53L20<br>70.50    | LS45P54L20<br>67.50    |
|                                         | Operation<br>diagram         |                        |                        |                        |                        |
| Snap action contacts                    | Catalog number<br>List price | LS45P51B02<br>64.50    | LS45P52B02<br>78       | LS45P53B02<br>70.50    | LS45P54B02<br>67.50    |
|                                         | Operation<br>diagram         |                        |                        |                        |                        |
| Weight (packing per unit)               | kg                           | 0.190                  | 0.200                  | 0.200                  | 0.200                  |

### Dimensions (in mm)

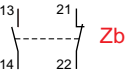
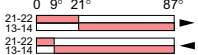
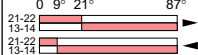
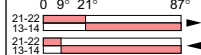
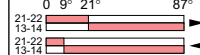
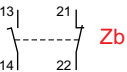
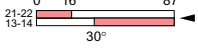
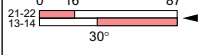
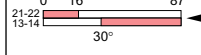
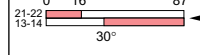
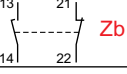
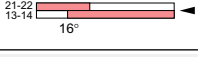
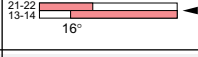
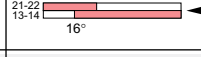
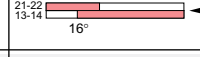
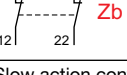
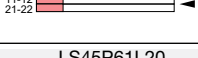
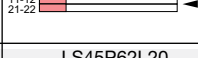
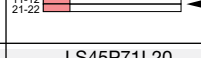
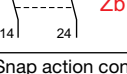
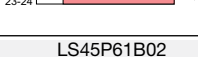
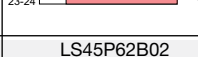
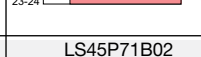
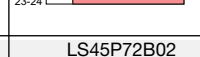
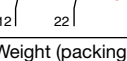
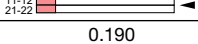
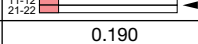
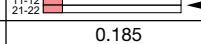
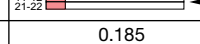


Plastic  
Limit switches

## Fully directional translation movement



|                                                                                                                                               |     | Flexible lever<br>with insulated end                                              | Coil spring lever                                                                 | Adjustable Ø 3<br>stainless steel<br>rod lever                                                | Adjustable ø 6<br>polyamide rod lever                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Conformity /  (N.C. contact with positive opening operation) |     |  |  | EN 50 041  | EN 50 041  |
| Maximum actuation speed                                                                                                                       | m/s | 1.5                                                                               | 1.5                                                                               | 1.5                                                                                           | 1.5                                                                                           |
| Min. torque: - actuation                                                                                                                      | N.m | 0.15                                                                              | 0.15                                                                              | 0.15                                                                                          | 0.15                                                                                          |
| - positive opening operation                                                                                                                  | N.m | -                                                                                 | -                                                                                 | -                                                                                             | -                                                                                             |

|                                                                                     |                              |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Snap action contacts                                                                | Catalog number<br>List price | LS45P61B11<br>\$ 61.50                                                              | LS45P62B11<br>\$ 61.50                                                               | LS45P71B11<br>\$ 57                                                                   | LS45P72B11<br>\$ 57                                                                   |
|    | Operation diagram            |    |    |    |    |
| Non-overlapping Slow action contacts                                                | Catalog number<br>List price | LS45P61D11<br>66                                                                    | LS45P62D11<br>66                                                                     | LS45P71D11<br>61.50                                                                   | LS45P72D11<br>61.50                                                                   |
|  | Operation diagram            |  |  |  |  |
| Overlapping Slow action contacts                                                    | Catalog number<br>List price | LS45P61C11<br>69                                                                    | LS45P62C11<br>67.50                                                                  | LS45P71C11<br>64.50                                                                   | LS45P72C11<br>63                                                                      |
|  | Operation diagram            |  |  |  |  |
| Slow action contacts                                                                | Catalog number<br>List price | LS45P61L02<br>69                                                                    | LS45P62L02<br>67.50                                                                  | LS45P71L02<br>64.50                                                                   | LS45P72L02<br>63                                                                      |
|  | Operation diagram            |  |  |  |  |
| Slow action contacts                                                                | Catalog number<br>List price | LS45P61L20<br>69                                                                    | LS45P62L20<br>67.50                                                                  | LS45P71L20<br>64.50                                                                   | LS45P72L20<br>63                                                                      |
|  | Operation diagram            |  |  |  |  |
| Snap action contacts                                                                | Catalog number<br>List price | LS45P61B02<br>69                                                                    | LS45P62B02<br>78.00                                                                  | LS45P71B02<br>64.50                                                                   | LS45P72B02<br>63                                                                      |
|  | Operation diagram            |  |  |  |  |
| Weight (packing per unit)                                                           | kg                           | 0.190                                                                               | 0.190                                                                                | 0.185                                                                                 | 0.185                                                                                 |

**Assembled**  
40mm, IP 65, UL Type 4

### Movement to be detected

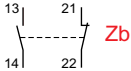
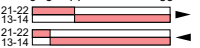
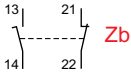
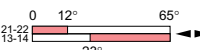
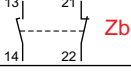
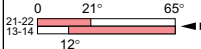
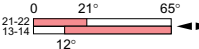
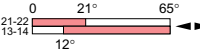
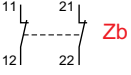
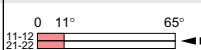
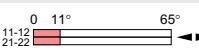
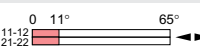
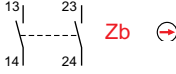
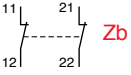
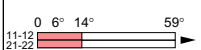
## Multidirectional



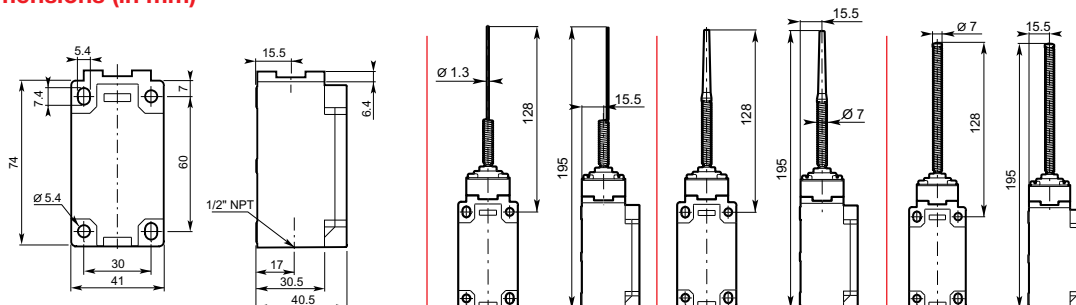
### Operating head type

| Operating head type                                                                                                                           | Spring rod                                                                        | Flexible rod<br>with insulated end                                                | Coil spring rod                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Conformity /  (N.C. contact with positive opening operation) |  |  |  |
| Maximum actuation speed                                                                                                                       | m/s 1                                                                             | 1                                                                                 | 1                                                                                 |
| Min. torque: - actuation                                                                                                                      | N.m 0.18                                                                          | 0.18                                                                              | 0.18                                                                              |
| - positive opening operation                                                                                                                  | N.m -                                                                             | -                                                                                 | -                                                                                 |

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|                                                                                    |                   |                                                                                     |                                                                                     |                                                                                      |
|------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Snap action contacts                                                               | Catalog number    | LS45P91B11                                                                          | LS45P92B11                                                                          | LS45P93B11                                                                           |
|                                                                                    | List price        | \$ 48                                                                               | \$ 52.50                                                                            | \$ 49.50                                                                             |
|    | Operation diagram |    |    |    |
| Non-overlapping Slow action contacts                                               | Catalog number    | LS45P91D11                                                                          | LS45P92D11                                                                          | LS45P93D11                                                                           |
|                                                                                    | List price        | 51                                                                                  | 55.50                                                                               | 52.50                                                                                |
|   | Operation diagram |   |   |   |
| Overlapping Slow action contacts                                                   | Catalog number    | LS45P91C11                                                                          | LS45P92C11                                                                          | LS45P93C11                                                                           |
|                                                                                    | List price        | 52.50                                                                               | 57                                                                                  | 55.50                                                                                |
|  | Operation diagram |  |  |  |
| Slow action contacts                                                               | Catalog number    | LS45P91L02                                                                          | LS45P92L02                                                                          | LS45P93L02                                                                           |
|                                                                                    | List price        | 52.50                                                                               | 57                                                                                  | 55.50                                                                                |
|  | Operation diagram |  |  |  |
| Slow action contacts                                                               | Catalog number    | LS45P91L20                                                                          | LS45P92L20                                                                          | LS45P93L20                                                                           |
|                                                                                    | List price        | 52.50                                                                               | 57                                                                                  | 55.50                                                                                |
|  | Operation diagram |  |  |  |
| Snap action contacts                                                               | Catalog number    | LS45P91B02                                                                          | LS45P92B02                                                                          | LS45P93B02                                                                           |
|                                                                                    | List price        | 51.00                                                                               | 57                                                                                  | 55.50                                                                                |
|  | Operation diagram |  |  |  |
| Weight (packing per unit)                                                          | kg                | 0.135                                                                               | 0.140                                                                               | 0.145                                                                                |

### Dimensions (in mm)



# Components Catalog number explanation 40mm, IP 65, UL Type 4



LS45P00B11



LSTH41



LSA40X51



LSC40XC11

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

|                                             |           |           |          |           |            |                                     |
|---------------------------------------------|-----------|-----------|----------|-----------|------------|-------------------------------------|
|                                             | <b>LS</b> | <b>45</b> | <b>P</b> | <b>00</b> | <b>B11</b> |                                     |
| Limit Switch.....                           | LS        |           |          |           |            | <b>Contacts</b>                     |
| Casing width 40 mm .....                    |           | 4         |          |           |            | 11 ..... 1 N.O. + 1 N.C. contacts   |
| Cable inlet                                 |           |           |          |           |            | 02 ..... 2 N.C. contacts            |
| 1 cable inlet for Pg 13.5 cable gland ..... |           |           |          | 0         |            | 20 ..... 2 N.O. contacts            |
| 1 cable inlet for 1/2" NPT .....            |           |           |          | 5         |            |                                     |
| Plastic casing .....                        |           |           | P        |           |            | <b>Snap action</b>                  |
| Without operating head .....                |           |           |          | 00        |            | B .....Zb Snap                      |
|                                             |           |           |          |           |            | <b>Dependent (slow) action</b>      |
|                                             |           |           |          |           |            | L .....Zb Slow / Simultaneous       |
|                                             |           |           |          |           |            | D .....Zb Non-overlapping late make |
|                                             |           |           |          |           |            | C .....Zb Overlapping early make    |

## Operating heads

|                                      |           |          |          |           |                                                                                                     |
|--------------------------------------|-----------|----------|----------|-----------|-----------------------------------------------------------------------------------------------------|
|                                      | <b>LS</b> | <b>T</b> | <b>H</b> | <b>41</b> |                                                                                                     |
| Limit Switch.....                    | LS        |          |          |           | <b>Operator head:</b>                                                                               |
| Operating head .....                 |           | T        |          |           | 11 ... 14, 19 ..... with rectilinear movement (plain plunger, steel ball plunger or roller plunger) |
| For plastic casing 40 mm width ..... |           |          |          | 40        | 31 ... 37 ..... with rectilinear movement (roller lever on steel plunger)                           |
|                                      |           |          |          |           | 40 ..... with angular movement (without actuator) actuator to be ordered separately                 |
|                                      |           |          |          |           | 41 ... 44 ..... with angular movement (roller lever)                                                |
|                                      |           |          |          |           | 50 ..... with angular movement (without actuator) actuator to be ordered separately                 |
|                                      |           |          |          |           | 51 ... 54 ..... with angular movement (adjustable roller lever)                                     |
|                                      |           |          |          |           | 61, 62 ..... flexible lever (spring)                                                                |
|                                      |           |          |          |           | 71, 72, 73 ..... adjustable lever (rod)                                                             |
|                                      |           |          |          |           | 91 ... 93 ..... multidirectional angular movement (spring rod)                                      |

## Separate actuators (roller lever, adjustable roller or rod levers, etc.)

|                           |           |          |           |          |           |                                            |
|---------------------------|-----------|----------|-----------|----------|-----------|--------------------------------------------|
|                           | <b>LS</b> | <b>A</b> | <b>40</b> | <b>X</b> | <b>51</b> |                                            |
| Limit Switch.....         | LS        |          |           |          |           | <b>Actuator:</b>                           |
| Actuator (roller) .....   |           | A        |           |          |           | 41 ... 44 .....non-adjustable roller lever |
| Casing width: 40 mm ..... |           |          | 40        |          |           | 51 ... 54 .....adjustable roller lever     |
|                           |           |          |           |          |           | 61, 62 .....flexible lever (spring)        |
|                           |           |          |           |          |           | 71, 72, 73 .....adjustable lever (rod)     |
|                           |           |          |           |          |           | <b>For casing of:</b>                      |
|                           |           |          |           |          |           | M ..... Metal                              |
|                           |           |          |           |          |           | P ..... Plastic                            |
|                           |           |          |           |          |           | X ..... Plastic or metal                   |

## Separate contact blocks

|                           |           |          |           |          |          |           |                                     |
|---------------------------|-----------|----------|-----------|----------|----------|-----------|-------------------------------------|
|                           | <b>LS</b> | <b>C</b> | <b>40</b> | <b>X</b> | <b>C</b> | <b>11</b> |                                     |
| Limit Switch.....         | LS        |          |           |          |          |           | <b>Contacts</b>                     |
| Contact blocks .....      |           | C        |           |          |          |           | 11 ..... 1 N.O. + 1 N.C. contacts   |
| Casing width: 40 mm ..... |           |          | 40        |          |          |           | 02 ..... 2 N.C. contacts            |
| For casing of:            |           |          |           |          |          |           | 20 ..... 2 N.O. contacts            |
| Metal .....               |           |          |           |          |          |           | <b>Snap action:</b>                 |
| Plastic .....             |           |          |           |          |          |           | B .....Zb Snap                      |
| Plastic or metal .....    |           |          |           |          |          |           | <b>Dependent (slow) action:</b>     |
|                           |           |          |           |          |          |           | L .....Zb Slow / Simultaneous       |
|                           |           |          |           |          |          |           | D .....Zb Non-overlapping late make |
|                           |           |          |           |          |          |           | C .....Zb Overlapping early make    |

## Components

### Selection guide

40mm, IP 65, UL Type 4

#### Rectilinear motion



LSTH37



LSTH33



LSTH36



LSTH12  
(B Shape)



LSTH32



LSTH19  
(C Shape)



LSTH14  
(B Shape)



LSTH35



LSTH13  
(C Shape)



LSTH11  
(B Shape)



LSTH31

#### Angular motion



LSTH54



LSTH53



LSTH44



LSTH43  
(A Shape)



LSTH42  
(A Shape)



LSTH41  
(A Shape)



LSTH52



LSTH51



LSTH93



LSTH92



LSTH91



LSTH72  
(D Shape)



LSTH71  
(D Shape)



LSTH62



LSTH61

#### LSTH... 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.

#### LSTH... 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

- LS45P00B11, LS45P00D11, LS45P00C11, LS45P00L02, LS45P00B02

- 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.

# Components

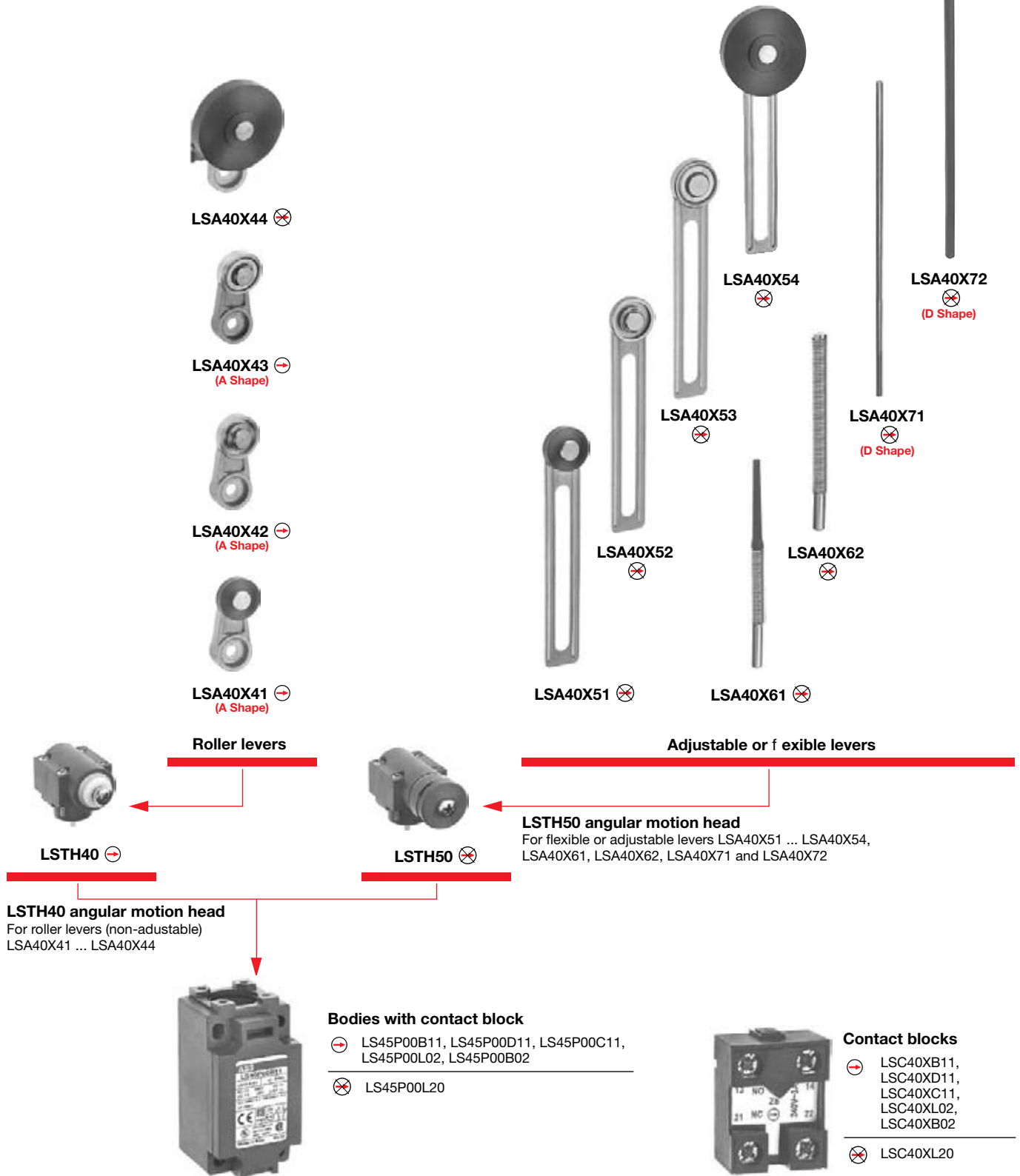
## Selection guide

### 40mm, IP 65, UL Type 4

Plastic  
Limit switches

#### Angular motion

9



⊕ : 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.

## Components

### 40mm, IP 65, UL Type 4

⊕ "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.**



LS45P00B11



LSTH11



LSTH19



LSTH31



LSTH37

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

| Contact blocks |     |     |     |     |     | Positive opening operation | Actuation speed max. m/s | Unit weight kg (1 pc) | Catalog number | List price |
|----------------|-----|-----|-----|-----|-----|----------------------------|--------------------------|-----------------------|----------------|------------|
| B11            | D11 | C11 | L02 | L20 | B02 |                            |                          |                       |                |            |
| 1              |     |     |     |     |     | ⊕                          | —                        | 0.108                 | LS45P00B11     | \$ 34.50   |
|                | 1   |     |     |     |     | ⊕                          | —                        | 0.108                 | LS45P00D11     | 36.00      |
|                |     | 1   |     |     |     | ⊕                          | —                        | 0.108                 | LS45P00C11     | 37.50      |
|                |     |     | 1   |     |     | ⊕                          | —                        | 0.108                 | LS45P00L02     | 37.50      |
|                |     |     |     | 1   |     | ⊗                          | —                        | 0.108                 | LS45P00L20     | 37.50      |
|                |     |     |     |     | 1   | ⊕                          | —                        | 0.108                 | LS45P00B02     | 37.50      |

#### Rectilinear motion heads with actuator

##### To be actuated by end

|                                                           |   |     |       |        |       |
|-----------------------------------------------------------|---|-----|-------|--------|-------|
| Steel plain plunger (zinc-plated)                         | ⊕ | 0.5 | 0.042 | LSTH11 | 13.50 |
| Steel plain plunger (zinc-plated) and dust protection cup | ⊕ | 0.5 | 0.043 | LSTH14 | 18.00 |
| Steel ball plunger                                        | ⊕ | 0.5 | 0.042 | LSTH12 | 16.50 |

##### To be actuated by 30° cam

|                                    |   |     |       |        |       |
|------------------------------------|---|-----|-------|--------|-------|
| Steel roller plunger (zinc-plated) | ⊕ | 0.5 | 0.048 | LSTH13 | 24.00 |
|------------------------------------|---|-----|-------|--------|-------|

|                                                            |   |     |       |        |       |
|------------------------------------------------------------|---|-----|-------|--------|-------|
| Steel roller plunger (zinc-plated) and dust protection cup | ⊕ | 0.5 | 0.048 | LSTH19 | 28.50 |
|------------------------------------------------------------|---|-----|-------|--------|-------|

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

|                                                              |   |     |       |        |       |
|--------------------------------------------------------------|---|-----|-------|--------|-------|
| ø 22mm polyamide roller lever on steel plunger (zinc-plated) | ⊕ | 1.5 | 0.046 | LSTH31 | 22.50 |
|--------------------------------------------------------------|---|-----|-------|--------|-------|

|                                                                                    |   |     |       |        |       |
|------------------------------------------------------------------------------------|---|-----|-------|--------|-------|
| ø 22mm polyamide roller lever on steel plunger (zinc-plated) & dust protection cup | ⊕ | 1.5 | 0.049 | LSTH35 | 27.00 |
|------------------------------------------------------------------------------------|---|-----|-------|--------|-------|

|                                                                     |   |     |       |        |       |
|---------------------------------------------------------------------|---|-----|-------|--------|-------|
| ø 22mm stainless steel roller lever on steel plunger (zinc-plated). | ⊕ | 1.5 | 0.055 | LSTH32 | 30.00 |
|---------------------------------------------------------------------|---|-----|-------|--------|-------|

|                                                                                          |   |     |       |        |       |
|------------------------------------------------------------------------------------------|---|-----|-------|--------|-------|
| ø 22mm stainless steel roller lever on steel plunger (zinc-plated) & dust protection cup | ⊕ | 1.5 | 0.058 | LSTH36 | 34.50 |
|------------------------------------------------------------------------------------------|---|-----|-------|--------|-------|

|                                                                       |   |     |       |        |       |
|-----------------------------------------------------------------------|---|-----|-------|--------|-------|
| ø 22mm steel ball-bearing roller lever on steel plunger (zinc-plated) | ⊕ | 1.5 | 0.057 | LSTH33 | 25.50 |
|-----------------------------------------------------------------------|---|-----|-------|--------|-------|

|                                                                                             |   |     |       |        |       |
|---------------------------------------------------------------------------------------------|---|-----|-------|--------|-------|
| ø 22mm steel ball-bearing roller lever on steel plunger (zinc-plated) & dust protection cup | ⊕ | 1.5 | 0.060 | LSTH37 | 30.00 |
|---------------------------------------------------------------------------------------------|---|-----|-------|--------|-------|

# Components

## 40mm, IP 65, UL Type 4

Plastic  
Limit switches

⊕ "N.C." contact with positive opening operation or element (sub-assembly, 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

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

| Contact blocks                                                                                                    | Positive opening operation | Actuation speed max. m/s | Unit weight kg (1 pc) | Catalog number | List price |
|-------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------|-----------------------|----------------|------------|
| <b>Angular motion heads with actuator</b>                                                                         |                            |                          |                       |                |            |
| <b>To be actuated by 30° cam</b>                                                                                  |                            |                          |                       |                |            |
| ø 22mm polyamide roller lever ①                                                                                   | ⊕                          | 1.5                      | 0.082                 | LSTH41         | \$ 30.00   |
| ø 22mm stainless steel roller lever ①                                                                             | ⊕                          | 1.5                      | 0.091                 | LSTH42         | 42.00      |
| ø 22mm steel ball-bearing roller lever ①                                                                          | ⊕                          | 1.5                      | 0.093                 | LSTH43         | 34.50      |
| ø 45mm rubber roller lever ①                                                                                      | ⊗                          | 1.5                      | 0.098                 | LSTH44         | 33.00      |
| ø 22mm adjustable polyamide roller lever ①                                                                        | ⊗                          | 1.5                      | 0.088                 | LSTH51         | 30.00      |
| ø 22mm adjustable stainless steel roller lever ①                                                                  | ⊗                          | 1.5                      | 0.098                 | LSTH52         | 42.00      |
| ø 22mm adjustable steel ball-bearing roller lever ①                                                               | ⊗                          | 1.5                      | 0.100                 | LSTH53         | 36.00      |
| ø 45mm adjustable rubber roller lever ①                                                                           | ⊗                          | 1.5                      | 0.105                 | LSTH54         | 33.00      |
| <b>To be actuated by fully directional translation movement</b>                                                   |                            |                          |                       |                |            |
| Stainless steel flexible lever with insulated end ①                                                               | ⊗                          | 1                        | 0.083                 | LSTH61         | 33.00      |
| Stainless steel coil spring lever ①                                                                               | ⊗                          | 1                        | 0.089                 | LSTH62         | 33.00      |
| ø 3mm adjustable stainless steel rod lever, 195mm ①                                                               | ⊗                          | 1                        | 0.087                 | LSTH71         | 28.50      |
| ø 6mm adjustable polyamide rod lever, 195mm ①                                                                     | ⊗                          | 1                        | 0.083                 | LSTH72         | 28.50      |
| ø 6mm adjustable fiberglass rod lever, 195mm ①                                                                    | ⊗                          | 1                        | 0.087                 | LSTH73         | 30.00      |
| <b>Multidirectional angular motion heads (to be actuated by fully directional translation movement)</b>           |                            |                          |                       |                |            |
| Stainless steel spring rod                                                                                        | ⊗                          | 1                        | 0.046                 | LSTH91         | 19.50      |
| Stainless steel flexible rod with insulated end                                                                   | ⊗                          | 1                        | 0.049                 | LSTH92         | 24.00      |
| Stainless steel coil spring rod                                                                                   | ⊗                          | 1                        | 0.055                 | LSTH93         | 21.00      |
| <b>Angular motion head without actuator for non-adjustable roller levers (delivered with M5 screw and washer)</b> |                            |                          |                       |                |            |
|                                                                                                                   | ⊕                          | 1.5                      | 0.050                 | LSTH40         | 21.00      |
| <b>Actuators for angular motion head LSTH40</b>                                                                   |                            |                          |                       |                |            |
| ø 22mm polyamide roller lever ①                                                                                   | ⊕                          | —                        | 0.032                 | LSA40X41       | 9.00       |
| ø 22mm stainless steel roller lever ①                                                                             | ⊕                          | —                        | 0.042                 | LSA40X42       | 21.00      |
| ø 22mm steel ball-bearing roller lever ①                                                                          | ⊕                          | —                        | 0.044                 | LSA40X43       | 13.50      |
| ø 45mm rubber roller lever ①                                                                                      | ⊗                          | —                        | 0.050                 | LSA40X44       | 12.00      |

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

## Components

### 40mm, IP 65, UL Type 4

⊕ "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

|                                                                                                                                        | Positive opening operation | Actuation speed max. m/s | Unit weight kg (1 pc) | Catalog number | List price |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------|-----------------------|----------------|------------|
| <b>Angular motion head without actuator, for flexible or adjustable levers</b><br>(delivered with M5 screw, washer & adaptation parts) |                            |                          |                       |                |            |
|                                                                                                                                        | ⊕                          | —                        | 0.058                 | LSTH50         | \$ 22.50   |
| <b>Actuators for angular motion head LSTH50</b>                                                                                        |                            |                          |                       |                |            |
| ø 22mm adjustable polyamide roller lever ①                                                                                             | ⊕                          | —                        | 0.023                 | LSA40X51       | 7.50       |
| ø 22mm adjustable stainless steel roller lever ①                                                                                       | ⊕                          | —                        | 0.032                 | LSA40X52       | 19.50      |
| ø 22mm adjustable steel ball-bearing roller lever ①                                                                                    | ⊕                          | —                        | 0.034                 | LSA40X53       | 13.50      |
| ø 45mm adjustable rubber roller lever ①                                                                                                | ⊕                          | —                        | 0.039                 | LSA40X54       | 10.50      |
| Stainless steel flexible lever with insulated end ①                                                                                    | ⊕                          | —                        | 0.017                 | LSA40X61       | 10.50      |
| Stainless steel coil spring lever ①                                                                                                    | ⊕                          | —                        | 0.023                 | LSA40X62       | 10.50      |
| ø 3mm adjustable stainless steel rod lever, 195mm ①                                                                                    | ⊕                          | —                        | 0.014                 | LSA40X71       | 25.50      |
| ø 6mm adjustable polyamide rod lever, 195mm ①                                                                                          | ⊕                          | —                        | 0.010                 | LSA40X72       | 6.00       |
| ø 6mm adjustable fiberglass rod lever, 195mm ①                                                                                         | ⊕                          | —                        | 0.014                 | LSA40X73       | 7.50       |
| <b>Contact blocks (with adaptor)</b>                                                                                                   |                            |                          |                       |                |            |
| 1 NC & 1 NO 2-pole snap action                                                                                                         | ⊕                          | —                        | 0.032                 | LSC40XB11      | 22.50      |
| 1 NC & 1 NO 2-pole non-overlapping slow action                                                                                         | ⊕                          | —                        | 0.032                 | LSC40XD11      | 22.50      |
| 1 NO & 1 NC 2-pole overlapping slow action                                                                                             | ⊕                          | —                        | 0.032                 | LSC40XC11      | 25.50      |
| 2 NC 2-pole simultaneous slow action                                                                                                   | ⊕                          | —                        | 0.032                 | LSC40XL02      | 25.50      |
| 2 NO 2-pole simultaneous slow action                                                                                                   | ⊕                          | —                        | 0.032                 | LSC40XL20      | 25.50      |
| 2 NC 2-pole snap action                                                                                                                | ⊕                          | —                        | 0.032                 | LSC40XB02      | 25.50      |

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

## Components

### 40mm, IP 65, UL Type 4

Plastic  
Limit switches

⊖ "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.**



LSC40XB11

|                                                | Positive opening operation | Actuation speed max. m/s | Unit weight kg (1 pc) | Catalog number | List price      |
|------------------------------------------------|----------------------------|--------------------------|-----------------------|----------------|-----------------|
| <b>Contact blocks (with adaptor)</b>           |                            |                          |                       |                |                 |
| 1 NC & 1 NO 2-pole snap action                 | ⊖                          | —                        | 0.032                 | LSC40XB11      | \$ <b>22.50</b> |
| 1 NC & 1 NO 2-pole non-overlapping slow action | ⊖                          | —                        | 0.032                 | LSC40XD11      | <b>22.50</b>    |
| 1 NO & 1 NC 2-pole overlapping slow action     | ⊖                          | —                        | 0.032                 | LSC40XC11      | <b>25.50</b>    |
| 2 NC 2-pole simultaneous slow action           | ⊖                          | —                        | 0.032                 | LSC40XL02      | <b>25.50</b>    |
| 2 NO 2-pole simultaneous slow action           | ⊗                          | —                        | 0.032                 | LSC40XL20      | <b>25.50</b>    |
| 2 NC 2-pole snap action                        | ⊖                          | —                        | 0.032                 | LSC40XB02      | <b>25.50</b>    |

## Assembled 60mm, IP 65, UL Type 4

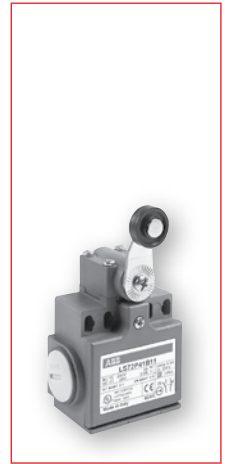
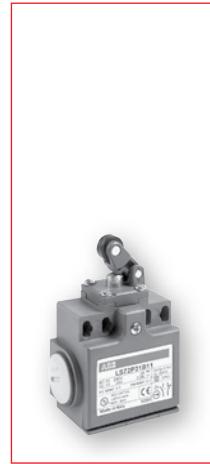
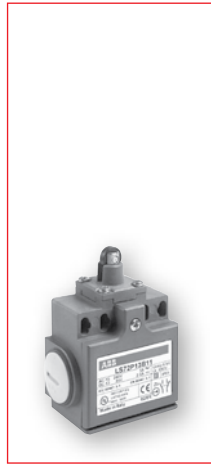
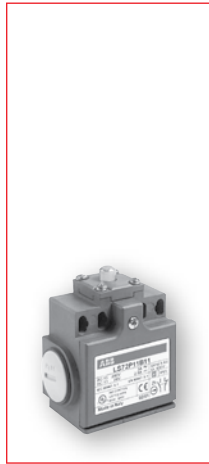
Movement to be detected

On end

30° Cam Translat.

Unidirectional

30° Cam Translat.

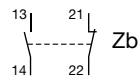


9

Actuator

|                                                                       | Metal plunger | ø11 plastic roller plunger | ø12.5 plastic roller lever on steel plunger | ø18 plastic roller lever |
|-----------------------------------------------------------------------|---------------|----------------------------|---------------------------------------------|--------------------------|
| Conformity / $\ominus$ (N.C. contact with positive opening operation) | -             | -                          | -                                           | -                        |
| Maximum actuation speed                                               | 0.5 m/s       | 0.3 m/s                    | 1 m/s                                       | 1.5 m/s                  |
| Min. force / torque: - actuation                                      | 15 N          | 12 N                       | 7 N                                         | 0.1 N.m                  |
| - positive opening operation                                          | 45 N          | 41 N                       | 24 N                                        | 0.32 N.m                 |

Snap action contacts

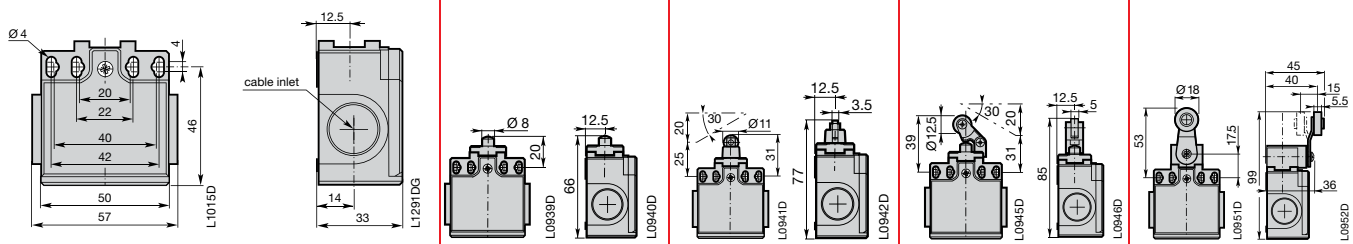


| Catalog Number<br>List Price | LS75P11B11<br>\$ 51 | LS75P13B11<br>\$ 56 | LS75P31B11<br>\$ 57 | LS75P41B11<br>\$ 59 |
|------------------------------|---------------------|---------------------|---------------------|---------------------|
| Operation diagram            |                     |                     |                     |                     |
| Catalog Number<br>List Price | LS75P11D11<br>55    | LS75P13D11<br>59    | LS75P31D11<br>61    | LS75P41D11<br>63    |
| Operation diagram            |                     |                     |                     |                     |
| Weight (packing per unit)    | kg 0.100            | 0.100               | 0.105               | 0.125               |

Special heads, accessories and special contact arrangement or particular function: please consult us.

Closed contact / Open contact

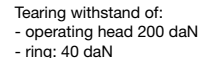
Dimensions (mm)



## Plastic Limit switches

9

 Closed contact /  Open contact



# Technical data IP 65, UL Type 4

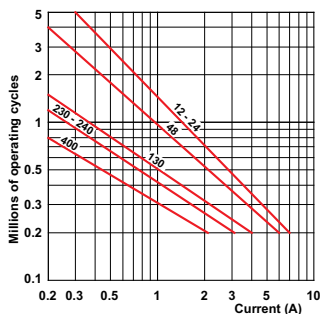
## General technical data

|                                                                 |                                                                                     |                                                         |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------|
| Standards                                                       | Devices conform with international IEC 947-5-1 and European EN 60 947-5-1 standards |                                                         |
| Certifications - Approvals                                      | UL & CSA                                                                            |                                                         |
| Air temperature near the device (IEC)                           | °C                                                                                  | - 25 ... + 70                                           |
| - during operation                                              | °C                                                                                  | - 30 ... + 80                                           |
| - for storage                                                   |                                                                                     |                                                         |
| Climatic withstand                                              | According to IEC 68-2-3 and salty mist according to IEC 68-2-11                     |                                                         |
| Mounting positions                                              | All positions are authorized                                                        |                                                         |
| Shock withstand (according to IEC 68-2-27 and EN 60 068-2-27)   | 50g ① (1/2 sinusoidal shock for 11 ms) no change in contact position                |                                                         |
| Resistance to vibrations (acc. to IEC 68-2-6 and EN 60 068-2-6) | 25g (10 – 500 Hz) no change in position of contacts greater than 100 µs             |                                                         |
| Protection against electrical shocks (acc. to IEC 536)          | Class II                                                                            |                                                         |
| Degree of protection                                            | UL Type 4 & IP 65                                                                   |                                                         |
| Consistency (measured over 1 million operations)                | 0.1 mm (upon closing point)                                                         |                                                         |
| Minimum actuation speed                                         | m/s                                                                                 | Slow action contacts 0.060 / Snap action contacts 0.001 |

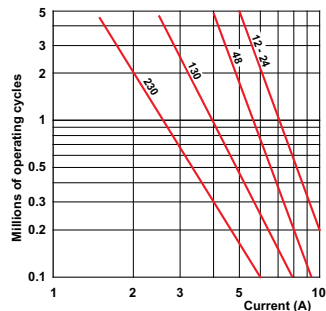
## Electrical Data

|                                                                                                                                        |                  |                          |                                                                                                                           |  |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------|--|
| <b>Rated insulation voltage U<sub>i</sub></b><br>- according to IEC 947-1 and EN 60-947-1<br>- according to UL 508 and CSA C22-2 n° 14 |                  |                          | 500 V (degree of pollution 3)<br>A 600, Q 600                                                                             |  |
| Rated impulse withstand voltage U <sub>imp</sub><br>(according to IEC 947-1 and EN 60 947-1)                                           |                  | kV                       | 6                                                                                                                         |  |
| Conventional free air thermal current I <sub>th</sub><br>(according to IEC 947-5-1) q ≤ 40 °C                                          |                  | A                        | 10                                                                                                                        |  |
| Short-circuit protection<br>U <sub>e</sub> ≤ 500 V a.c. - gG (gl) type fuses                                                           |                  | A                        | 10                                                                                                                        |  |
| Rated operational current<br>I <sub>e</sub> / AC-15 (according to IEC 947-5-1)                                                         | 24 V - 50/60 Hz  | A                        | 10                                                                                                                        |  |
|                                                                                                                                        | 130 V - 50/60 Hz | A                        | 5.5                                                                                                                       |  |
|                                                                                                                                        | 230 V - 50/60 Hz | A                        | 3.1                                                                                                                       |  |
|                                                                                                                                        | 240 V - 50/60 Hz | A                        | 3                                                                                                                         |  |
|                                                                                                                                        | 400 V - 50/60 Hz | A                        | 1.8                                                                                                                       |  |
| I <sub>e</sub> / DC-13 (according to IEC 947-5-1)                                                                                      | 24 V - d.c.      | A                        | 2.8                                                                                                                       |  |
|                                                                                                                                        | 110 V - d.c.     | A                        | 0.6                                                                                                                       |  |
|                                                                                                                                        | 250 V - d.c.     | A                        | 0.27                                                                                                                      |  |
| Switching frequency                                                                                                                    |                  | Cycles/h                 | 3600                                                                                                                      |  |
| Load factor                                                                                                                            |                  |                          | 0.5                                                                                                                       |  |
| Resistance between contacts                                                                                                            |                  | mW                       | 25                                                                                                                        |  |
| Connecting terminals                                                                                                                   |                  |                          | M3.5 (+, -) pozidriv 2 screw with cable clamp                                                                             |  |
| Terminal for protective conductor                                                                                                      |                  |                          | - M3.5 (+, -) pozidriv 2 screw with cable clamp                                                                           |  |
| Connecting capacity                                                                                                                    |                  | 1 or 2 x mm <sup>2</sup> | 0.5 ... 2.5                                                                                                               |  |
| Terminal marking                                                                                                                       |                  |                          | According to EN 50 013                                                                                                    |  |
| Mechanical durability                                                                                                                  |                  | Millions of operations   | 15 }<br>10 }<br>5 }<br>> 1 } LS   30<br>31<br>40 P { 10 – 12; 30 – 34<br>13; 41 – 44; 51– 54; 61 – 72<br>91– 93<br>15; 16 |  |
| Electrical durability (according to IEC 947-5-1)                                                                                       |                  |                          | Utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves below)                                     |  |

## AC-15 – Snap action



## AC-15 – Slow action



| DC-13                                                         | Snap action | Slow action |
|---------------------------------------------------------------|-------------|-------------|
| Power breaking for a durability of 5 million operating cycles |             |             |
| Voltage 24 V                                                  | 9.5 W       | 12 W        |
| Voltage 48 V                                                  | 6.8 W       | 9 W         |
| Voltage 110 V                                                 | 3.6 W       | 6 W         |

① except for LS30/31/35 (P42): 25g