



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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# Limit Switches - Limit Type Metal Body IP66



- High mechanical resistance
- Degree of protection IP66
- Aluminium body
- Positive Opening Operation (↻)
- Minimum Actuation Force/Torque
- Minimum Force to achieve Positive Opening Operation
- Precise operating points (consistency)
- Immune to electromagnetic disturbances
- Zb type contact blocks
- Current Ith = 10A
- Rated insulation voltage Ui = 500V
- UL, CSA, CE
- Conform with IEC 947-5-1 (EN 60947-5-1)

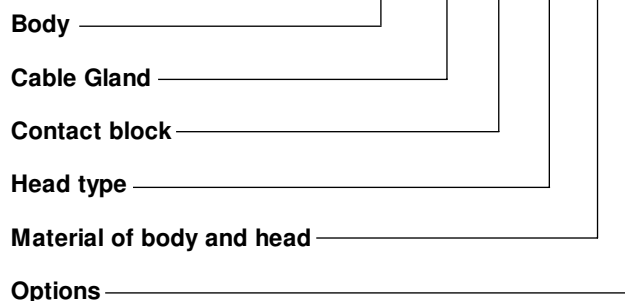
## Product Description

They are developed in order to be used for following operations:

- Presence/Absence
- Positioning and travel limit
- Objects passing/counting

## Ordering Key

**PS43L-PS11RT-M00**



## Description of the key codes

### Body

PS43L | PS 60mm (fix 40/42mm) 3 cable inlet for General Purpose

### Cable Gland

M | M20  
P | PG13.5  
N | 1/2 NPT

### Contact block

O11 | 1NO+1NC overlap slow(+)  
S02 | 2NC snap(+)  
S11 | 1NO+1NC snap(+)  
T02 | 2NC slow(+)  
T03 | 3NC slow(+)  
T11 | 1NO+1NC slow(+)  
T12 | 1NO+2NC slow(+)  
T20 | 2NO slow  
T21 | 2NO+1NC slow(+)  
T30 | 3NO slow

### Material of body and head

M | Metal Body and Metal head

### Options

00 | no option

### Head type

L3 | adj square (3x3) steel rod LEVER  
LA | adj Ø3 rod LEVER stainless steel rod  
LB | nylon actuator with stainless steel spring  
LF | adj fiberglass rod LEVER Ø3  
LG | adj fiberglass rod LEVER Ø6  
LN | adj nylon rod LEVER  
LP | multidir nylon actuator with stainless steel spring  
LS | stainless steel spring multidir actuator  
LW | Stainless steel spring multidir actuator (cat Whisker)  
LZ | Stainless steel spring actuator  
N6 | pull wire for simple stop  
P0 | metal plain PLUNGER  
PB | steel ball PLUNGER  
PR | metal roller PLUNGER  
R1 | adj LEVER with nylon roller  
R2 | adj LEVER with stainless steel roller  
R3 | adj LEVER with steel ball bearing  
RB | one way LEVER steel ball bearing  
RH | plastic roller LEVER on metal PLUNGER (left)  
RK | one way LEVER stainless steel roller  
RO | roller LEVER steel ball bearing  
RS | metal roller LEVER  
RT | nylon roller LEVER  
SH | stainless steel lateral PLUNGER with horizontal roller  
SP | stainless steel lateral plain PLUNGER  
SV | stainless steel lateral PLUNGER with vertical roller  
W0 | Ø50 rubber roller LEVER  
W1 | adj LEVER with Ø50 rubber roller

## Technical Data

### Standards

#### Certifications – Approvals

**Air temperature** near the device

- during operation °C
- for storage °C

#### Climatic withstand

#### Mounting positions

**Shock withstand** (according to IEC 68-2-27 and 60068-2-27) g  
(1/2sinusoidal shock for 11 ms) no change in contact position

**Resistance to vibrations** (acc.to IEC 68-2-6 and EN 60068-2-6) g

**Protection against electrical shocks** (acc.to IEC 536)

**Degree of protection** (according to IEC 529 and EN 60529)

**Consistency** (measured over 1 million operations)

IEC 60947-1, IEC 60947-5-1, EN 60947-1, EN 60947-5-1,  
UL508 and CSA C22-2 n°14  
UL – CSA

-25 ... +70

-30 ... +80

According to IEC 68-2-3 and salty mist according to IEC 68-2-11

All positions are authorized

50g\*

25g (10...500Hz) no change in position of contacts greater than 100µs

Class I

IP66

0.1 mm (upon closing point)

\* except for PS21/PS42 with head type W0, W1: 25g.

## Electrical Data

### Rated insulation voltage $U_i$

-according to IEC 60947-1 and EN 60947-1

-according to UL 508, CSA C22-2 n°14

**Rated impulse withstand voltage  $U_{imp}$**  kV

(according to IEC 60947-1 and EN 60947-1)

**Conventional enclosed thermal current  $I_{the}$**  A

(according to IEC 60947-5-1 and EN 60947-5-1) ( $\theta \leq 40^\circ\text{C}$ )

**Short-circuit protection - gG type fuses** A

### Rated operational current

$I_e$  / **AC-15** - acc.to IEC 60947-5-1

24Vac (50/60 Hz) A

130Vac (50/60 Hz) A

230Vac (50/60 Hz) A

240Vac (50/60 Hz) A

400Vac (50/60 Hz) A

- acc.to UL 508, CSA C22 n°14

$I_e$  / **DC-13** - acc.to IEC 60947-5-1

24Vdc A

110Vdc A

250Vdc A

- acc.to UL 508, CSA C22 n°14

### Electrical durability

(according to IEC 60497-5-1 annex C)

- max. switching frequency Cycles/h

- load factor

### Connecting data of contact blocks

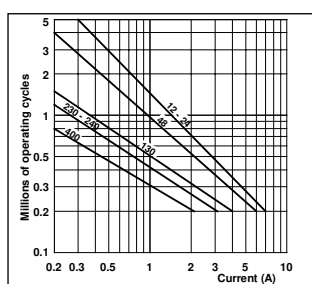
Connecting terminals

Connecting capacity 1 or 2 x mm<sup>2</sup> / AWG

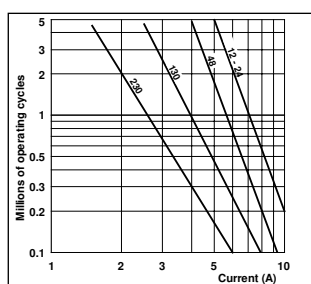
Terminal marking

### Positivity

### Diagram for snap action contact:



### Diagram for slow action contact:



### Electrical durability for DC-13 utilization category

Power breaking for a durability of 5 million operating cycles

	Snap action	Slow action
Voltage 24V	9,5W	12W
Voltage 48V	6,8W	9W
Voltage 110V	3,6W	6W

400V (PS21, PS42), 500V (PS31, PS43) (degree of pollution 3)

A 300 Q 300 (PS21, PS42), A 600 Q 600 (PS31, PS43)

6

10

10

10

5.5

3.1

3

1.8

A 300 (PS21, PS42), A 600 (PS31, PS43)

2.8

0.6

0,27

Q 300 (PS21, PS42), Q 600 (PS31, PS43)

Utilization categories AC-15 and DC-13 (see curves and value below)

3600

0,5

M3,5 (+,-) pozidriv 2 screw with cable clamp

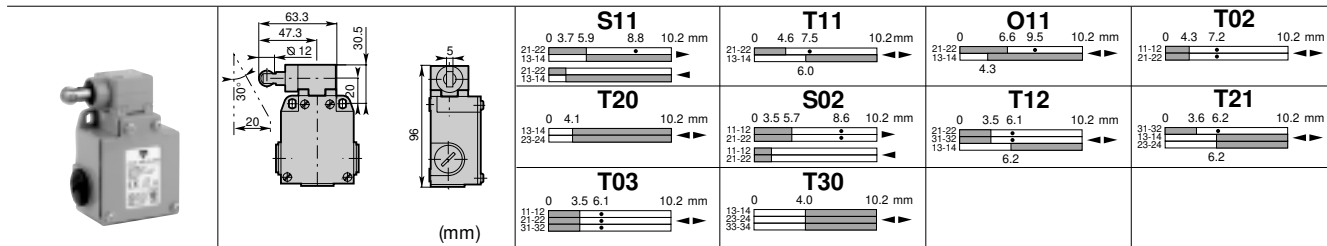
0,5mm<sup>2</sup> / AWG 20 to 2,5mm<sup>2</sup> / AWG 14

According to EN 50013

Contacts with positive opening operation as per IEC 60947-5-1 chapter 3

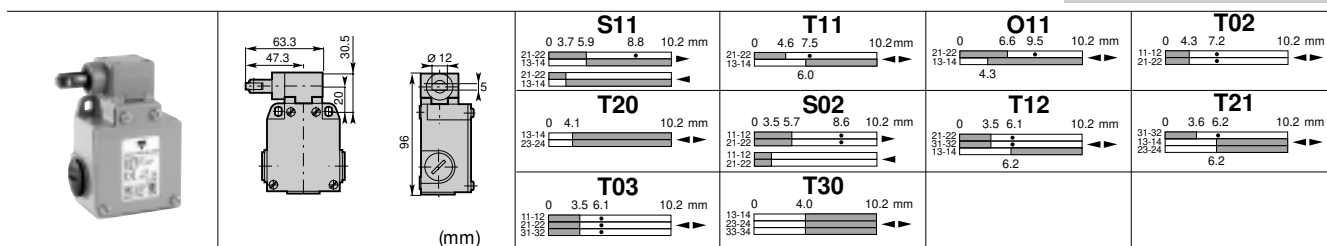






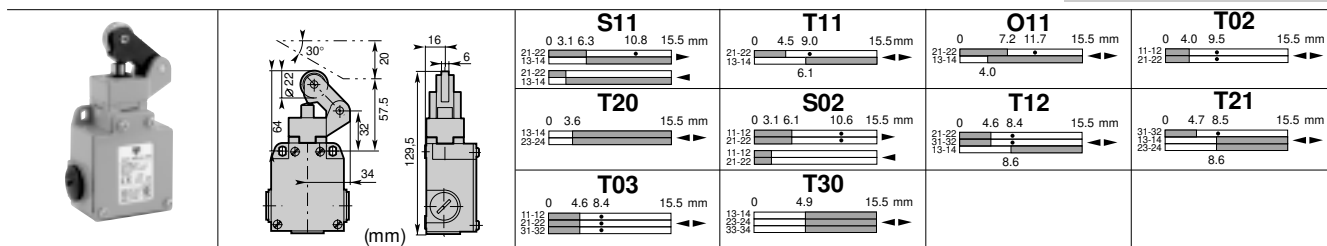
Conformity /  $\rightarrow$  (NC) /  $\rightarrow$   
 Max. Actuation speed 0.5ms  
 Min. force or torque 30N / 50Nm  
 Weight 290g

Stainless steel lateral plunger with  $\varnothing 12$  vertical roller  
 Code PS43L-  $\bullet$   $\blacktriangle$  SV-M00



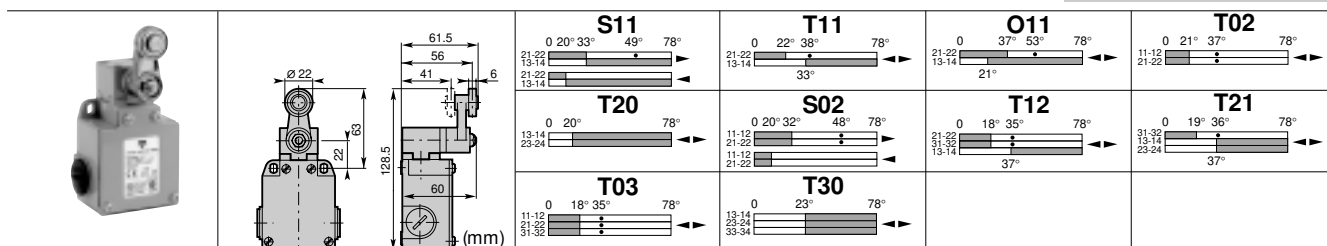
Conformity /  $\rightarrow$  (NC) /  $\rightarrow$   
 Max. Actuation speed 0.5ms  
 Min. force or torque 30N / 50Nm  
 Weight 290g

Stainless steel lateral plunger with  $\varnothing 12$  horizontal roller  
 Code PS43L-  $\bullet$   $\blacktriangle$  SH-M00



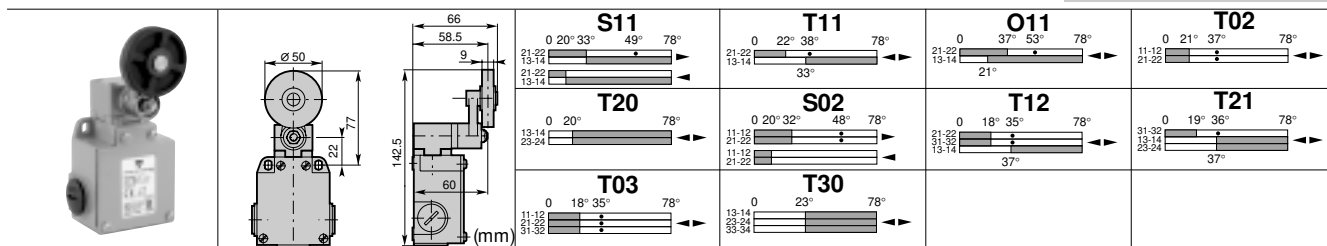
Conformity /  $\rightarrow$  /  $\rightarrow$   
 Max. Actuation speed 1.5ms  
 Min. force or torque 12N / 40Nm  
 Weight 305g

One way lever  
 Code  $\varnothing 22$  nylon roller  
 $\varnothing 22$  stainless steel roller  
 $\varnothing 22$  steel ball bearing  
 PS43L-  $\bullet$   $\blacktriangle$  RH-M00  
 PS43L-  $\bullet$   $\blacktriangle$  RK-M00  
 PS43L-  $\bullet$   $\blacktriangle$  RB-M00



Conformity /  $\rightarrow$  (NC) /  $\rightarrow$   
 Max. Actuation speed 1.5ms  
 Min. force or torque 0.15N / 0.30Nm  
 Weight 305g

$\varnothing 22$  Roller lever  
 Code nylon roller  
 stainless steel roller  
 steel ball bearing  
 PS43L-  $\bullet$   $\blacktriangle$  RT-M00  
 PS43L-  $\bullet$   $\blacktriangle$  RS-M00  
 PS43L-  $\bullet$   $\blacktriangle$  RO-M00



Conformity /  $\rightarrow$  (NC) /  $\rightarrow$   
 Max. Actuation speed 1.5ms  
 Min. force or torque 0.15N / 0.30Nm  
 Weight 315g

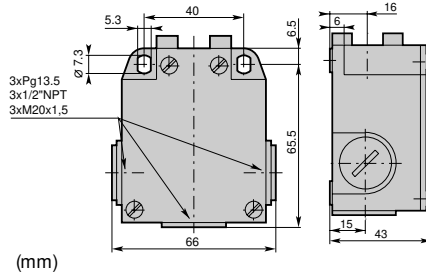
$\varnothing 50$  Rubber roller lever  
 Code PS43L-  $\bullet$   $\blacktriangle$  W0-M00

# Limit Switches - Limit Type (PS43) Metal Body IP66



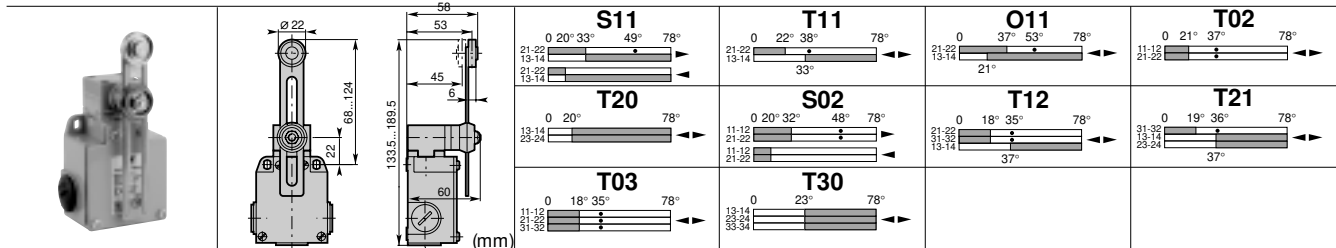
## ■ Cable Gland

- P** = Three cable inlet PG13.5 cable gland
- M** = Three cable inlet M20x1.5 cable gland
- N** = Three cable inlet 1/2" NPT cable gland



## ▲ Contact block (Zb type)

<b>S11</b> (1NO+1NC) Snap action	<b>T11</b> (1NO+1NC) Non overlapping Slow action	<b>O11</b> (1NO+1NC) Overlapping Slow action	<b>T02</b> (2NC) Slow Action	<b>T20</b> (2NO) Slow action
<b>S02</b> (2NC) Snap action	<b>T12</b> (1NO+2NC) Non overlapping Slow action	<b>T21</b> (2NO+1NC) Non overlapping Slow action	<b>T03</b> (3NC) Simultaneous Slow action	<b>T30</b> (3NO) Simultaneous Slow action



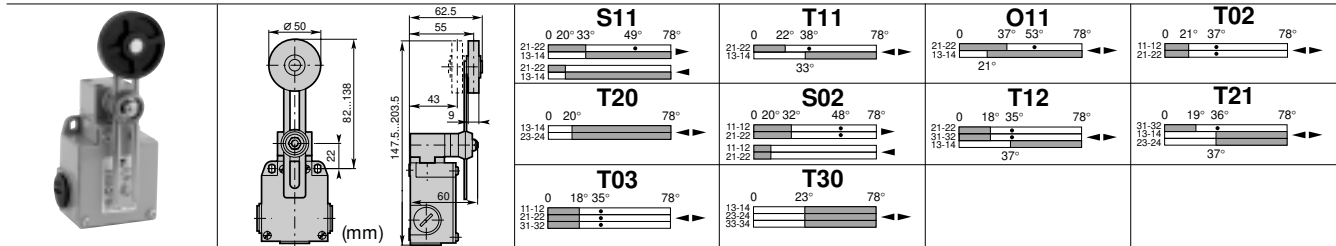
Conformity / (NC)

Max. Actuation speed	1.5ms
Min. force or torque	0.15N / 0.30Nm
Weight	325g

Adjustable Ø22 roller lever

Code	nylon lever stainless steel roller steel ball bearing
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PS43L-	●▲R1-M00
PS43L-	●▲R2-M00
PS43L-	●▲R3-M00



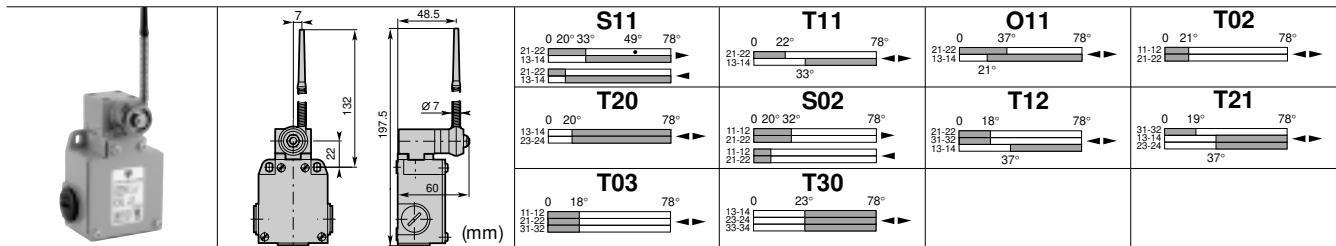
Conformity / (NC)

Max. Actuation speed	1.5ms
Min. force or torque	0.15N / 0.30Nm
Weight	330g

Adjustable Ø50 rubber roller lever

Code	nylon lever stainless steel roller steel ball bearing
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PS43L-	●▲W1-M00
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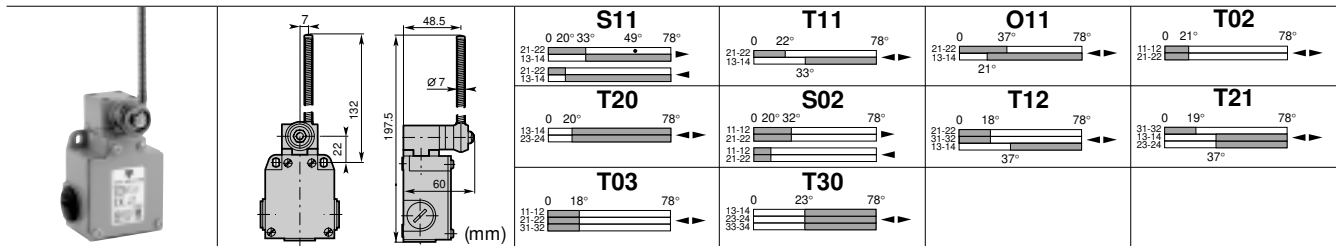
Conformity / (NC)

Max. Actuation speed	1.5ms
Min. force or torque	0.15N / -
Weight	330g

Nylon actuator with stainless steel spring

Code	nylon lever stainless steel roller steel ball bearing
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PS43L-	●▲LB-M00
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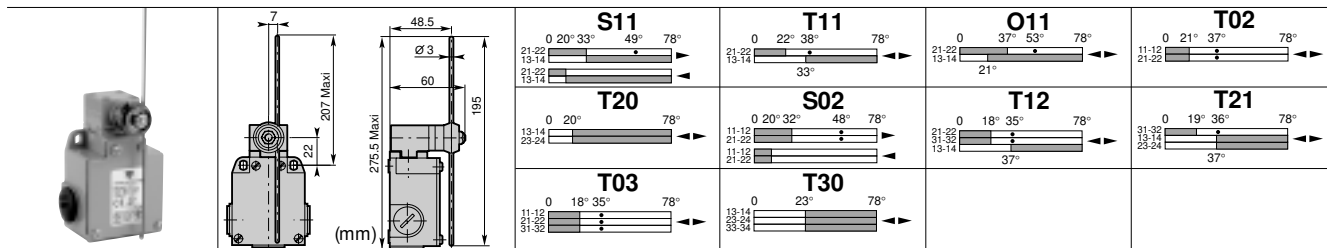
Conformity / (NC)

Max. Actuation speed	1.5ms
Min. force or torque	0.15N / -
Weight	330g

Stainless steel spring actuator

Code	nylon lever stainless steel roller steel ball bearing
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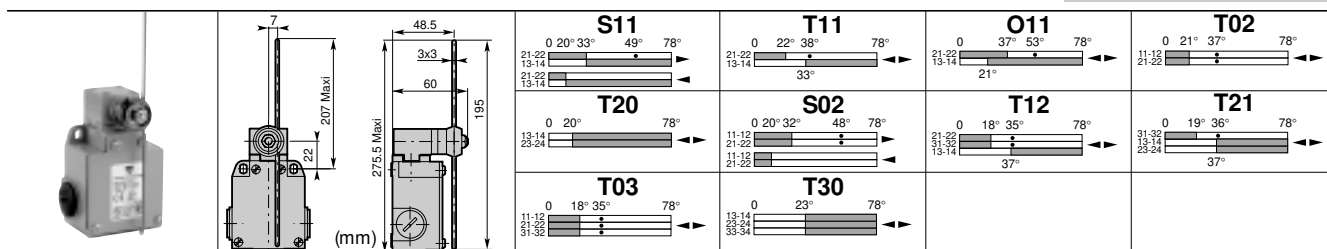
PS43L-	●▲LZ-M00
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Conformity /  $\rightarrow$  (NC) /  $\rightarrow$   
 Max. Actuation speed 1.5ms  
 Min. force or torque 0.15N / 0.30  
 Weight 330g

Adjustable rod lever  
 Code stainless steel rod  $\varnothing 3$   
 fiberglass rod  $\varnothing 3$

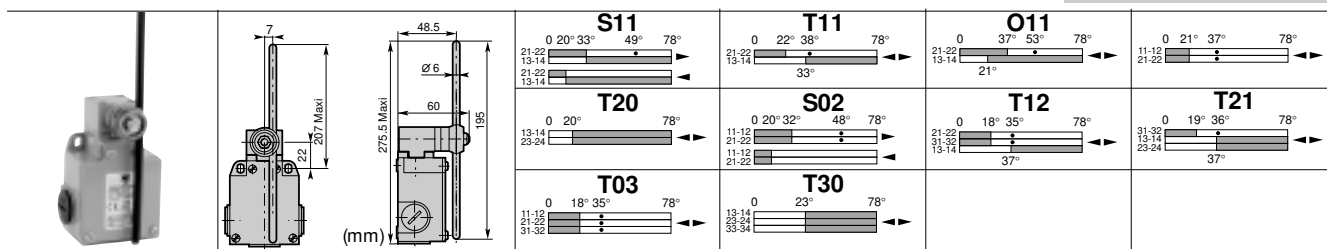
PS43L-   LA-M00  
 PS43L-   LF-M00



Conformity /  $\rightarrow$  (NC) /  $\rightarrow$   
 Max. Actuation speed 1.5ms  
 Min. force or torque 0.15N / 0.30  
 Weight 330g

Adjustable rod lever  
 Code square steel rod 3x3

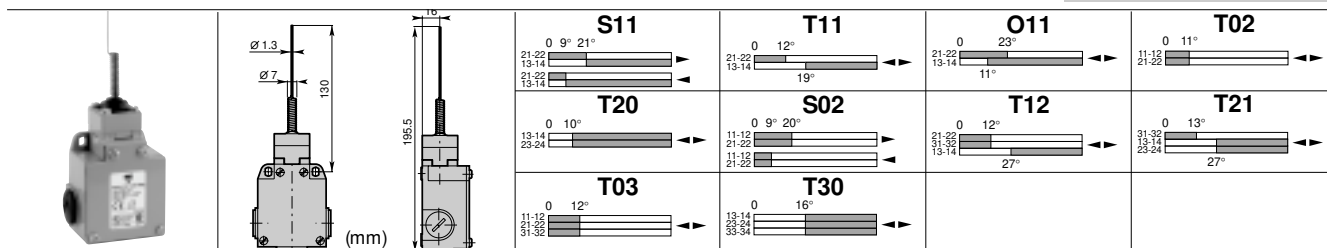
PS43L-   L3-M00



Conformity /  $\rightarrow$  (NC) /  $\rightarrow$   
 Max. Actuation speed 1.5ms  
 Min. force or torque 0.15N / 0.30Nm  
 Weight 330g

Adjustable  $\varnothing 6$  rod lever  
 Code nylon rod  
 fiberglass rod

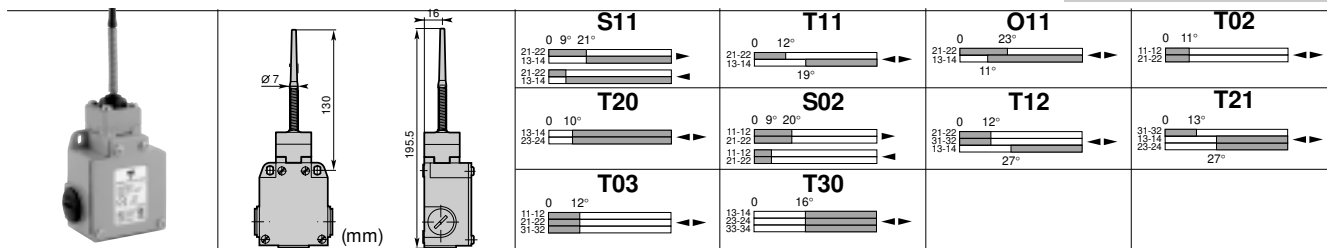
PS43L-   LN-M00  
 PS43L-   LG-M00



Conformity /  $\rightarrow$  /  $\rightarrow$   
 Max. Actuation speed 1.0ms  
 Min. force or torque 0.18N / -  
 Weight 265g

Stainless steel spring multidirectional actuator  
 Code

PS43L-   LW-M00



Conformity /  $\rightarrow$  (NC) /  $\rightarrow$   
 Max. Actuation speed 1.0ms  
 Min. force or torque 0.18N / -  
 Weight 265g

Multidirectional nylon actuator with stainless steel spring  
 Code

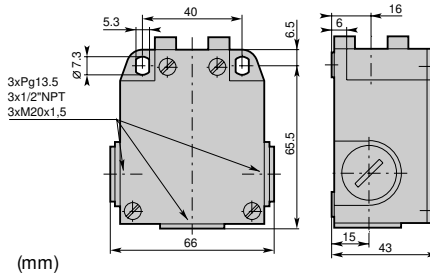
PS43L-   LP-M00

# Limit Switches - Limit Type (PS43) Metal Body IP66



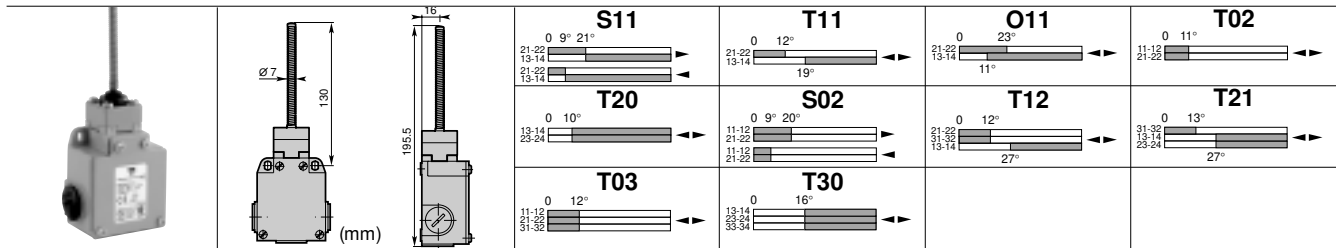
## ● Cable Gland

- P** = Three cable inlet PG13.5 cable gland
- M** = Three cable inlet M20x1.5 cable gland
- N** = Three cable inlet 1/2" NPT cable gland



## ▲ Contact block (Zb type)

<b>S11</b> (1NO+1NC) Snap action		<b>T11</b> (1NO+1NC) Non overlapping Slow action		<b>O11</b> (1NO+1NC) Overlapping Slow action		<b>T02</b> (2NC) Slow Action		<b>T20</b> (2NO) Slow action	
<b>S02</b> (2NC) Snap action		<b>T12</b> (1NO+2NC) Non overlapping Slow action		<b>T21</b> (2NO+1NC) Non overlapping Slow action		<b>T03</b> (3NC) Simultaneous Slow action		<b>T30</b> (3NO) Simultaneous Slow action	

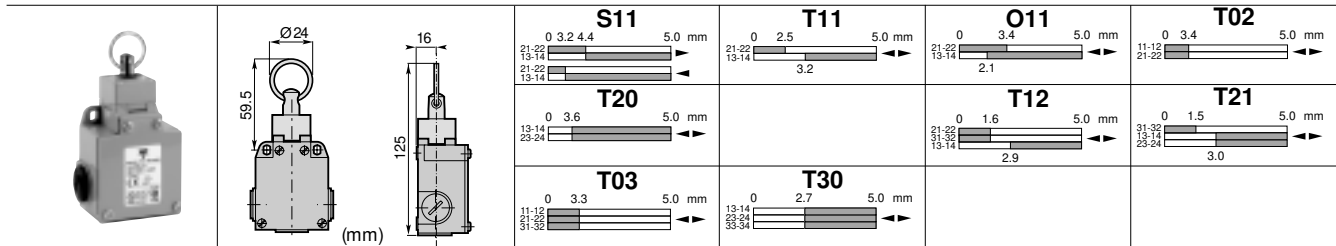


Conformity / (NC)

<b>Max. Actuation speed</b>	1.0ms
<b>Min. force or torque</b>	0.18N / -
<b>Weight</b>	270g

Stainless steel spring multidirectional actuator

Code PS43L-●▲LS-M00



Conformity / (NC)

<b>Max. Actuation speed</b>	0.5ms
<b>Min. force or torque</b>	25N / -
<b>Weight</b>	270g

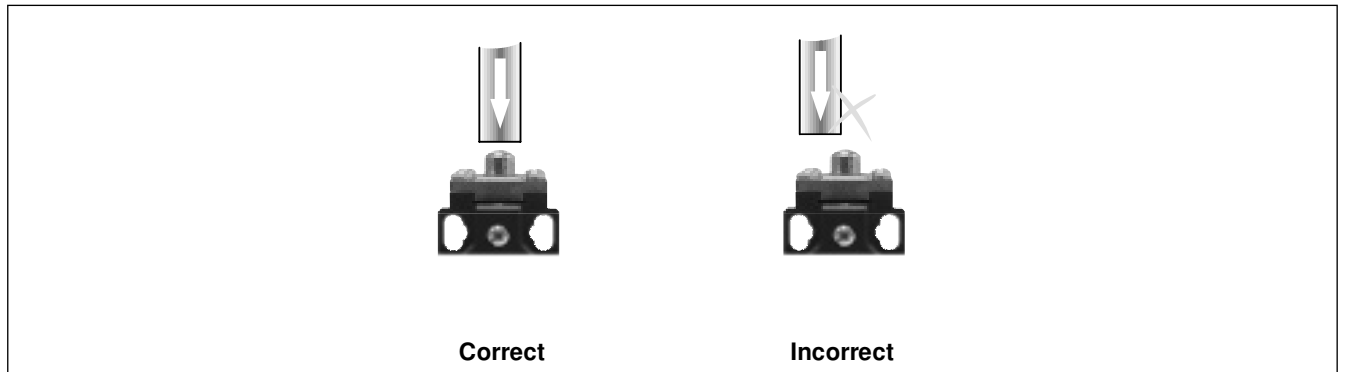
Pull action with ring

Code PS43L-●▲N6-M00

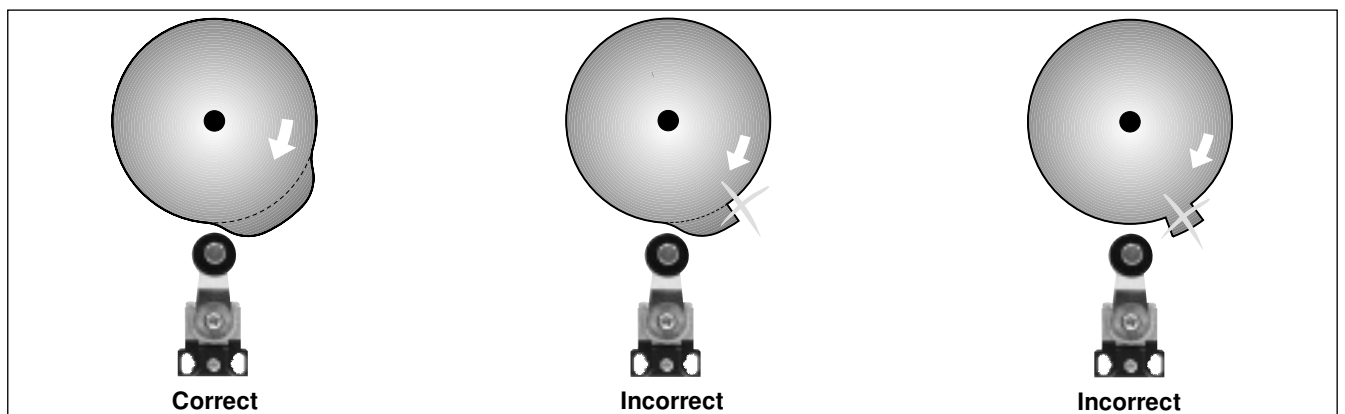
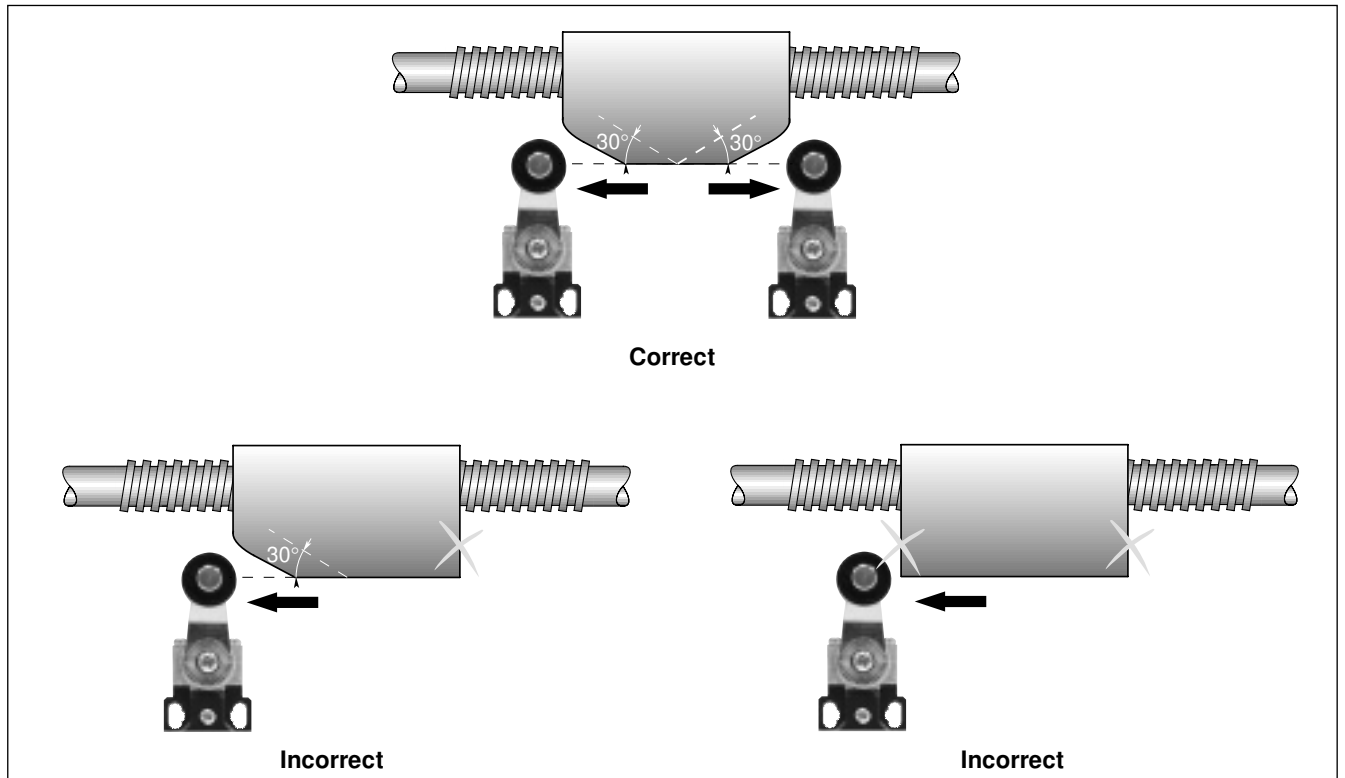


## Utilization precautions

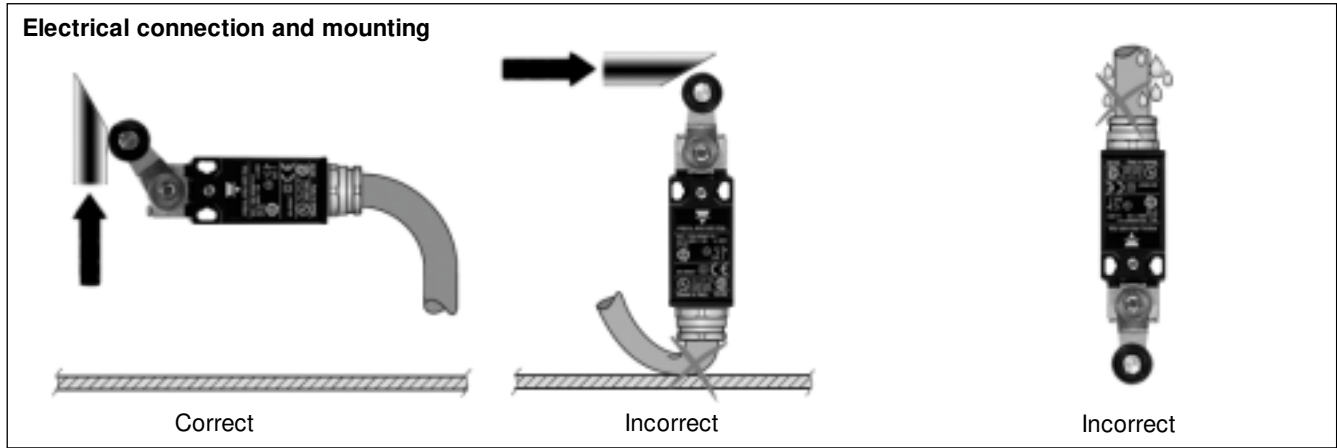
### Plain plunger



### Roller plunger or Roller lever



## Utilization precautions



## Adjustement

