



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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Limit Switches - Prewired Type Metal Body



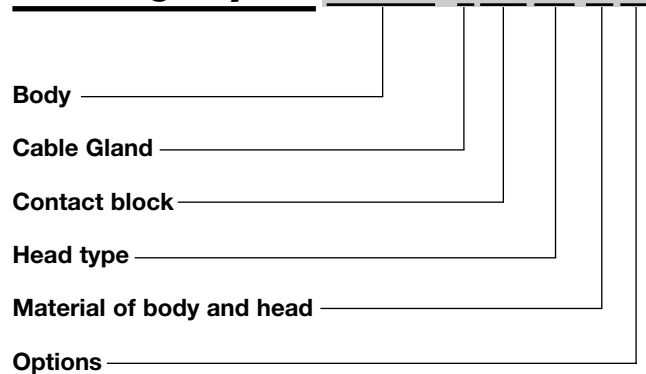
- Sealed with epoxy resin at the base of the box
- Degree of protection IP67
- Diecast zinc alloy body
- Positive Opening Operation (↻)
- Minimum Actuation Force/Torque
- Minimum Force to achieve Positive Opening Operation
- Precise operating points (consistency)
- Immune to electromagnetic disturbances
- Zb type contact blocks
- Current Ith = 10A
- Rated insulation voltage Ui = 500V
- UL, CSA, CE, RoHS
- Conform with IEC 947-5-1 (EN 60947-5-1)

## Product Description

They are developed with very compact size, to enable its mounting on machine's moving member during adverse environmental conditions and controlling their position.

## Ordering Key

**PS21M-CS11RT-M00**



## Description of the key codes

### Body

PS21M | PS 30mm (fix 20mm) 1m cable lateral side (prewired)

### Cable Gland

C | Prewired - std cable  
U | Prewired - UL cable

### Contact block

S11 | 1NO+1NC snap(+)  
T11 | 1NO+1NC slow(+)

### Material of body and head

M | Metal Body and Metal head

### Options

00 | no option  
0L | with fixing nuts (only with head type P0, PR, PY, P9, P8)

### Head type

BE | nylon roller ext bent LEVER  
BO | ball roller bent LEVER  
BR | nylon roller int bent LEVER  
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  
P0 | metal plain PLUNGER  
P8 | nylon cross roller PLUNGER with fixing nuts  
P9 | cross metal roller PLUNGER  
PH | metal PLUNGER +gasket  
PR | metal roller PLUNGER  
PY | nylon roller PLUNGER  
R1 | adj LEVER with nylon roller  
R2 | adj LEVER with stainless steel roller  
RM | metal roller LEVER  
RO | roller LEVER steel ball bearing  
RS | metal roller LEVER  
RT | nylon roller LEVER  
W1 | adj LEVER with Ø50 rubber roller

## Technical Data

### Standards

#### Certifications – Approvals

**Air temperature** near the device

- during operation
- for storage

°C  
°C

Devices conform with international IEC 947-5-1 and European EN 60947-5-1 standards  
UL, CSA, CE, RoHS

-25 ... +70  
-40 ... +70

### Mounting positions

All positions are authorized

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

**Degree of protection** (according to IEC 529 and EN 60 529)

**Degree of protection** (according to UL50)

**Class I**

**IP67**

**Type 4 - 4X - 6** enclosure

("outdoor use - raintight - watertight corrosion resistant")

## Electrical Data

### Rated insulation voltage $U_i$

-according to IEC 947-1 and EN 60-947-1

-according to UL 508, CSA C22-2 n°14

**400V** (degree of pollution 3)

**B 300, R 300**

### Rated impulse withstand voltage $U_{imp}$

kV

**4**

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

### Conventional enclosed thermal current $I_{th}$

A

**5**

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

### Short-circuit protection - gG type fuses

A

**6**

### Rated operational current

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

24Vac (50/60 Hz) A

**5.0**

120Vac (50/60 Hz) A

**3.0**

240Vac (50/60 Hz) A

**1.5**

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

24Vdc A

**1.1**

110Vdc A

**0.22**

250Vdc A

**0.1**

**Electrical durability** (according to IEC 60497-5-1 annex C)

- max. switching frequency Cycles/h
- load factor

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

**3600**

**0.5**

### Mechanical durability

**10 millions of operations**

Diagram for snap action contact

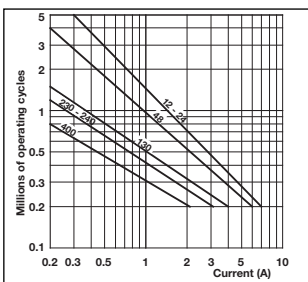
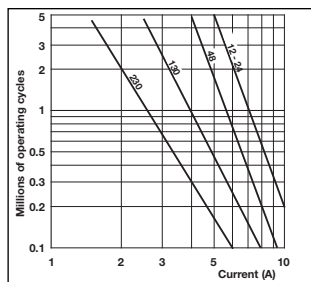


Diagram for slow action contact



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



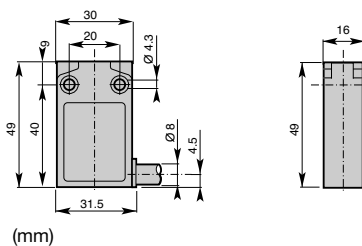
# Limit Switches - Miniature Type (PS21M) Metal Body IP67



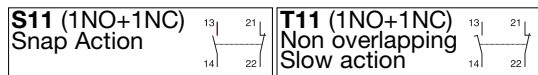
## ▣ Cable Characteristics

**C** = Pre-wired, 1m standard cable 4x0.75mm<sup>2</sup>  
**U** = Pre-wired, 1m UL cable 4x0.75mm<sup>2</sup>

(Different lengths available on request)



## ▲ Contact block (Zb type)



		<b>S11</b>	<b>T11</b>

<b>Conformity / (NC)</b>	/ (NC)
<b>Max. Actuation speed</b>	0.5ms
<b>Min. force or torque</b>	15N / 30Nm
<b>Weight</b>	175g

**Plain Plunger**  
**Code** PS21M-   P0-M00

		<b>S11</b>	<b>T11</b>

<b>Conformity / (NC)</b>	/ (NC)
<b>Max. Actuation speed</b>	0.1ms
<b>Min. force or torque</b>	10N / 30Nm
<b>Weight</b>	180g

**Roller Plunger**  
**Code** Metal roller  
 Nylon roller  
 PS21M-   PR-M00  
 PS21M-   PY-M00

		<b>S11</b>	<b>T11</b>

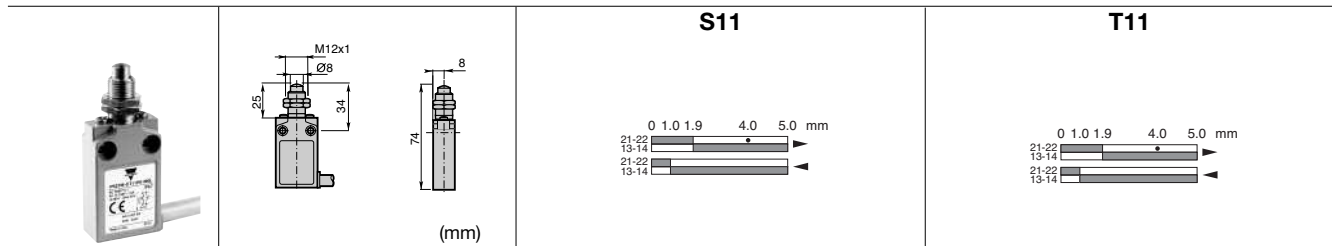
<b>Conformity / (NC)</b>	/ (NC)
<b>Max. Actuation speed</b>	0.1ms
<b>Min. force or torque</b>	10N / 30Nm
<b>Weight</b>	180g

**Cross roller plunger**  
**Code** Metal roller  
 Nylon roller  
 PS21M-   P9-M00  
 PS21M-   P8-M00

		<b>S11</b>	<b>T11</b>

<b>Conformity / (NC)</b>	/ (NC)
<b>Max. Actuation speed</b>	0.5ms
<b>Min. force or torque</b>	15N / 30Nm
<b>Weight</b>	180g

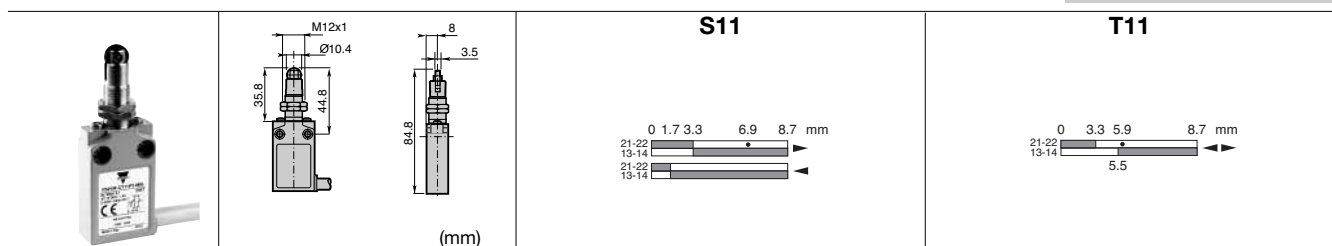
**Plain plunger with dust protection cup**  
**Code** PS21M-   PH-M00



**Conformity** / (NC) / (C)  
**Max. Actuation speed** 0.5ms  
**Min. force or torque** 15N / 30Nm  
**Weight** 190g

**S11**  
**Pain plunger with fixing nuts**  
**Code**

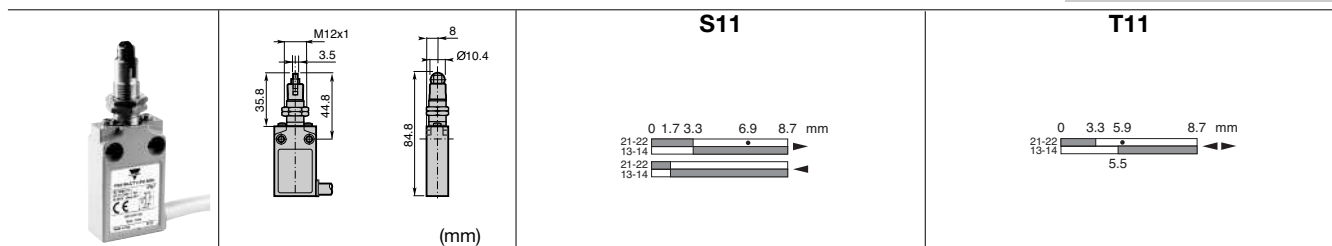
**T11**  
**PS21M-▲P0-M0L**



**Conformity** / (NC) / (C)  
**Max. Actuation speed** 0.1ms  
**Min. force or torque** 10N / 30Nm  
**Weight** 195g

**S11**  
**Roller plunger with fixing nuts**  
**Code** metal roller  
 nylon roller

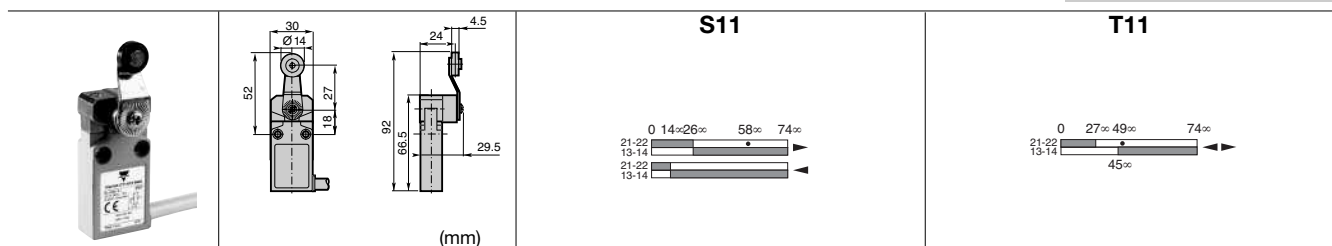
**T11**  
**PS21M-▲PR-M0L**  
**PS21M-▲PY-M0L**



**Conformity** / (NC) / (C)  
**Max. Actuation speed** 0.1ms  
**Min. force or torque** 10N / 30Nm  
**Weight** 195g

**S11**  
**Cross roller plunger with fixing nuts**  
**Code** metal roller  
 nylon roller

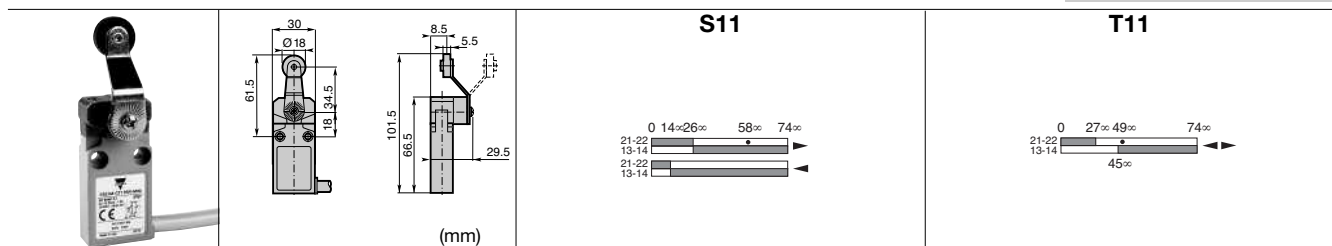
**T11**  
**PS21M-▲P9-M0L**  
**PS21M-▲P8-M0L**



**Conformity** / (NC) / (C)  
**Max. Actuation speed** 1.5ms  
**Min. force or torque** 0.08N / 0.28Nm  
**Weight** 225g

**S11**  
**Ø14 roller lever**  
**Code** nylon roller  
 metal roller  
 ball bearing

**T11**  
**PS21M-▲RT-M00**  
**PS21M-▲RS-M00**  
**PS21M-▲RO-M00**



**Conformity** / (NC) / (C)  
**Max. Actuation speed** 1.5ms  
**Min. force or torque** 0.08N / 0.28Nm  
**Weight** 230g

**S11**  
**Ø18 nylon roller lever**  
**Code**

**T11**  
**PS21M-▲BR-M00**

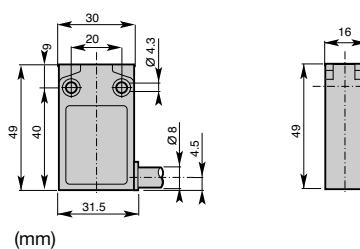
# Limit Switches - Miniature Type (PS21M) Metal Body IP67



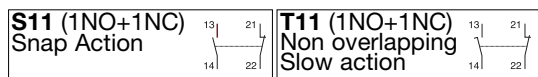
## ▣ Cable Characteristics

**C** = Pre-wired, 1m standard cable 4x0.75mm<sup>2</sup>  
**U** = Pre-wired, 1m UL cable 4x0.75mm<sup>2</sup>

(Different lengths available on request)



## ▲ Contact block (Zb type)



		<b>S11</b>	<b>T11</b>

**Conformity / (NC)** / (C)  
**Max. Actuation speed** 1.5ms  
**Min. force or torque** 0.08N / 0.28Nm  
**Weight** 240g

**Adjustable lever with Ø18 nylon roller**  
**Code** PS21M-▲R1-M00

		<b>S11</b>	<b>T11</b>

**Conformity / (NC)** / (C)  
**Max. Actuation speed** 1.5ms  
**Min. force or torque** 0.08N / -  
**Weight** 240g

**Nylon actuator with stainless steel spring**  
**Code** PS21M-▲LB-M00

		<b>S11</b>	<b>T11</b>

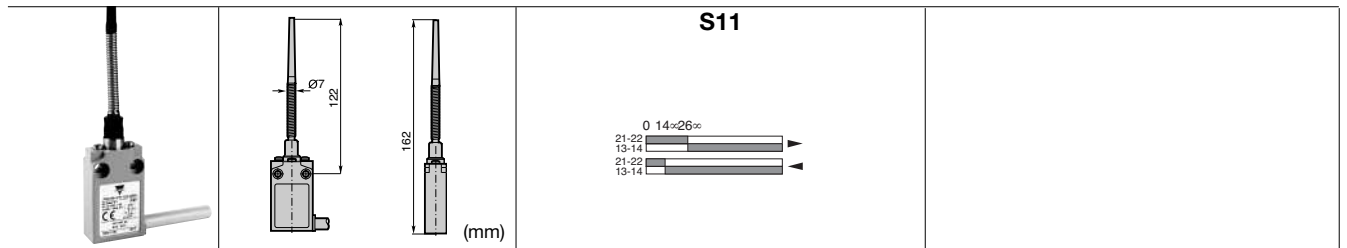
**Conformity / (NC)** / (C)  
**Max. Actuation speed** 1.5ms  
**Min. force or torque** 0.08N / 0.28Nm  
**Weight** 235g

**Adjustable rod lever**  
**Code** stainless steel rod Ø3  
 fiberglass rod Ø3  
 square steel rod 3x3  
 PS21M-▲LA-M00  
 PS21M-▲LF-M00  
 PS21M-▲L3-M00

		<b>S11</b>	<b>T11</b>

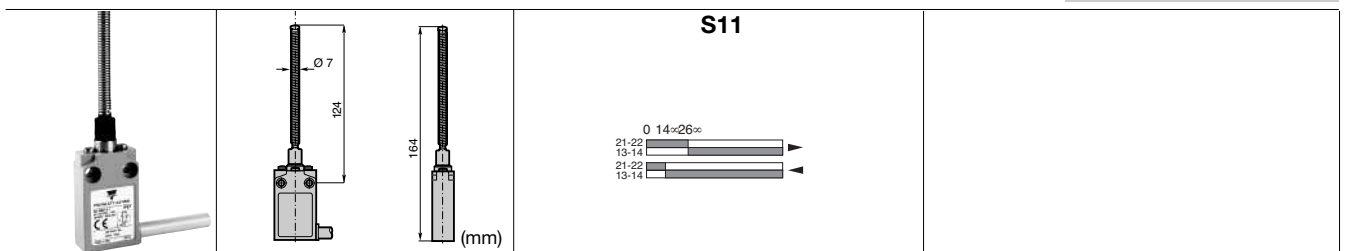
**Conformity / (NC)** / (C)  
**Max. Actuation speed** 1.5ms  
**Min. force or torque** 0.08N / 0.28Nm  
**Weight** 250g

**Adjustable Ø6 rod lever**  
**Code** Nylon rod  
 fiberglass rod  
 PS21M-▲LN-M00  
 PS21M-▲LG-M00



<b>Conformity /</b>	<b>(NC)</b>	<b>/</b>
<b>Max. Actuation speed</b>	1.0ms	
<b>Min. force or torque</b>	0.10N / -	
<b>Weight</b>	245g	

**Multidirectional nylon actuator with stainless steel spring**  
**Code** PS21M- LP-M00

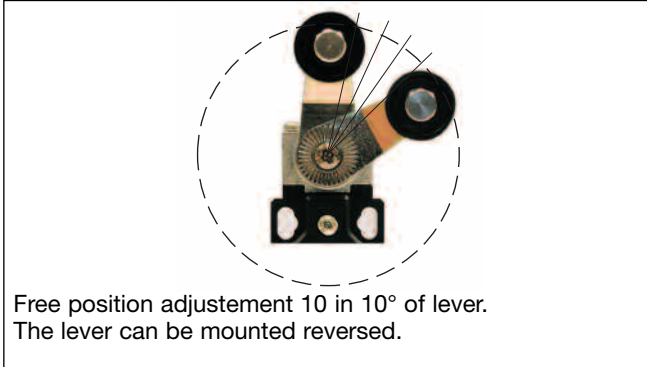


<b>Conformity /</b>	<b>(NC)</b>	<b>/</b>
<b>Max. Actuation speed</b>	1.0ms	
<b>Min. force or torque</b>	0.10N / -	
<b>Weight</b>	250g	

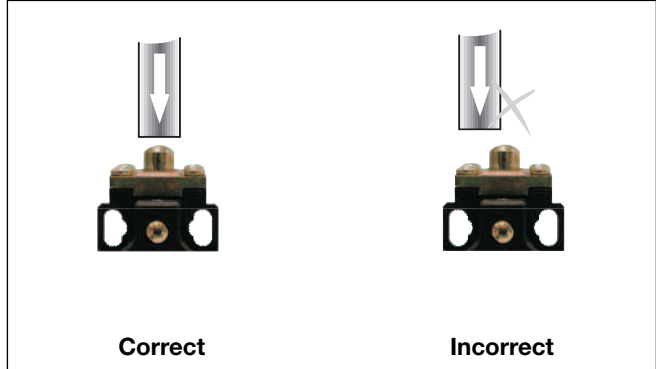
**Multidirectional actuator with stainless steel spring**  
**Code** PS21M- LS-M00

## Adjustment and utilization precautions

### Position adjustment of lever



### Plain plunger



### Roller plunger or Roller lever

