

Limit Switches - Prewired Type Plastic Body

CARLO GAVAZZI



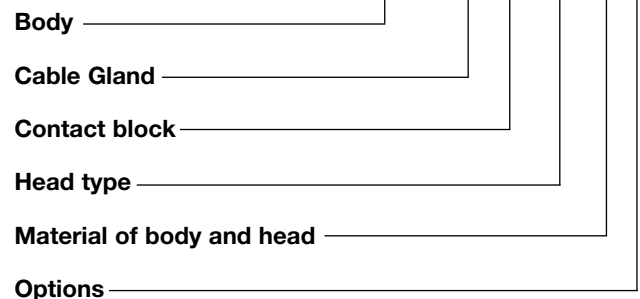
- Double Insulation □ (for thermoplastic type)
- Sealed with epoxy resin at the base of the box
- Degree of protection IP67
- Thermoplastic material body
- Positive Opening Operation →
- Minimum Actuation Force/Torque
- Minimum Force to achieve Positive Opening Operation
- Precise operating points (consistency)
- 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-T00



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

T | Thermoplastic 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 stell spring multidir actuator (cat Whisker)
LZ | Stainless stell 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 stell 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)

IP67

Class II

IP67

Type 1 enclosure ("indoor use only")

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

Rated impulse withstand voltage U_{imp}

kV

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

Conventional enclosed thermal current I_{th}

A

(according to IEC 60947-1 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

120Vac (50/60 Hz) A

240Vac (50/60 Hz) A

400V (degree of pollution 3)

B 300, R 300

4

5

6

5.0

3.0

1.5

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

24Vdc A

110Vdc A

250Vdc A

1.1

0.22

0.1

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

- max. switching frequency Cycles/h

- load factor

Mechanical durability

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

3600

0.5

10 millions of operations

Diagram for snap action contact:

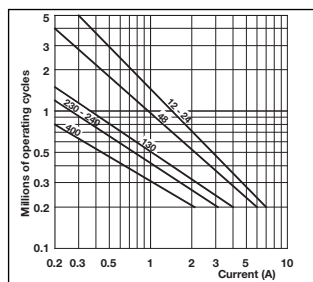
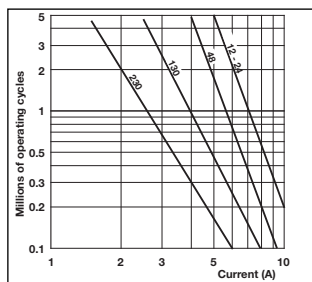


Diagram for slow action contact:



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) Plastic Body IP67



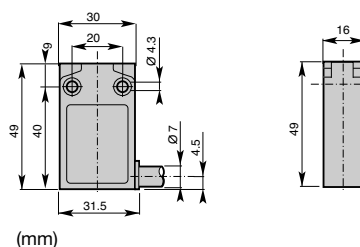
■ Cable Characteristics

C = Pre-wired, 1m standard cable 4x0.75mm²
U = Pre-wired, 1m UL cable 4x0.75mm²

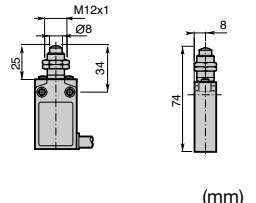
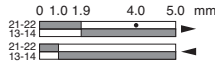
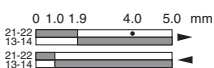
(Different lengths available on request)

▲ Contact block (Zb type)

S11 (1NO+1NC) Snap Action		T11 (1NO+1NC) Non overlapping Slow action	
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		S11		T11	
		Plain Plunger Code		PS21M-●▲P0-T00	
		Conformity / (NC) / (NC) Max. Actuation speed 0.5ms Min. force or torque 15N / 30Nm Weight 125g			
		S11		T11	
		Roller Plunger Code Metal roller Nylon roller		PS21M-●▲PR-T00 PS21M-●▲PY-T00	
		Conformity / (NC) / (NC) Max. Actuation speed 0.1ms Min. force or torque 10N / 30Nm Weight 130g			
		S11		T11	
		Cross roller plunger Code Metal roller Nylon roller		PS21M-●▲P9-T00 PS21M-●▲P8-T00	
		Conformity / (NC) / (NC) Max. Actuation speed 0.1ms Min. force or torque 10N / 30Nm Weight 130g			
		S11		T11	
		Plain plunger with dust protection cup Code		PS21M-●▲PH-T00	
		Conformity / (NC) / (NC) Max. Actuation speed 0.5ms Min. force or torque 15N / 30Nm Weight 130g			

		S11 	T11 
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Conformity / (NC)

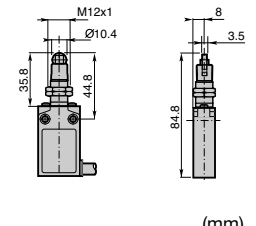
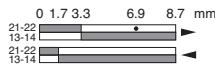
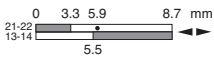
Max. Actuation speed 0.5ms

Min. force or torque 15N / 30Nm

Weight 140g

Pain plunger with fixing nuts
Code

PS21M-P0-T0L

		S11 	T11 
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Conformity / (NC)

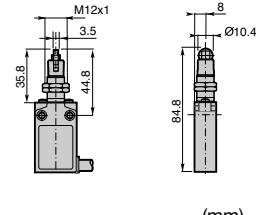
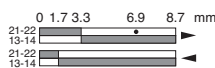
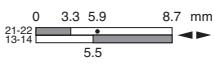
Max. Actuation speed 0.1ms

Min. force or torque 10N / 30Nm

Weight 145g

Roller plunger with fixing nuts
Code metal roller
nylon roller

PS21M-PR-T0L
PS21M-PY-T0L

		S11 	T11 
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Conformity / (NC)

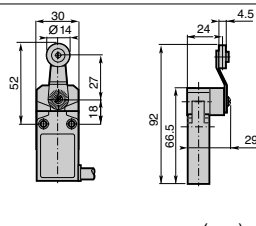
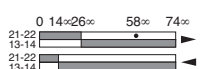
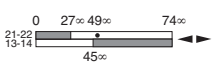
Max. Actuation speed 0.1ms

Min. force or torque 10N / 30Nm

Weight 145g

Cross roller plunger with fixing nuts
Code metal roller
nylon roller

PS21M-P9-T0L
PS21M-P8-T0L

		S11 	T11 
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Conformity / (NC)

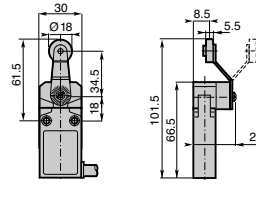
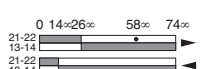
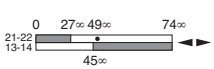
Max. Actuation speed 1.5ms

Min. force or torque 0.08N / 0.28Nm

Weight 175g

Ø14 roller lever
Code nylon roller
metal roller
ball bearing

PS21M-RT-T00
PS21M-RS-T00
PS21M-RO-T00

		S11 	T11 
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Conformity / (NC)

Max. Actuation speed 1.5ms

Min. force or torque 0.08N / 0.28Nm

Weight 180g

Ø18 nylon roller lever
Code

PS21M-BR-T00

Specifications are subject to change without notice. Pictures are just an example. For special features and/or customization, please ask to our sales network.

Limit Switches - Miniature Type (PS21M) Plastic Body IP67

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Cable Characteristics

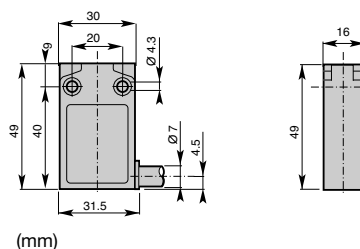
C = Pre-wired, 1m standard cable 4x0.75mm²

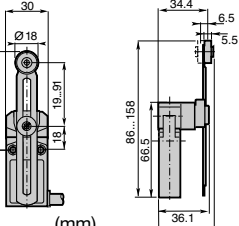
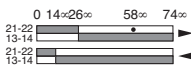
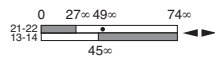
U = Pre-wired, 1m UL cable 4x0.75mm²

(Different lengths available on request)

Contact block (Zb type)

S11 (1NO+1NC) Snap Action		T11 (1NO+1NC) Non overlapping Slow action	
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		S11 	T11 
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Conformity / (NC) / (C)

Max. Actuation speed 1.5ms

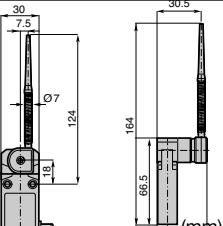
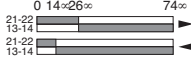
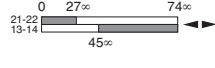
Min. force or torque 0.08N / 0.28Nm

Weight 190g

Adjustable lever with Ø18 nylon roller

Code

PS21M-R1-T00

		S11 	T11 
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Conformity / (NC) / (C)

Max. Actuation speed 1.5ms

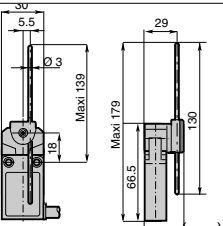
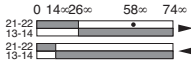
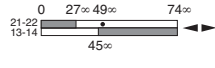
Min. force or torque 0.08N / -

Weight 190g

Nylon actuator with stainless steel spring

Code

PS21M-LB-T00

		S11 	T11 
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Conformity / (NC) / (C)

Max. Actuation speed 1.5ms

Min. force or torque 0.08N / 0.28Nm

Weight 185g

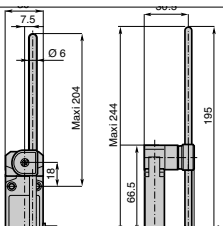
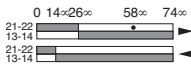
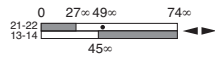
Adjustable rod lever

Code stainless steel rod Ø3
fiberglass rod Ø3
square steel rod 3x3

PS21M-LA-T00

PS21M-LF-T00

PS21M-L3-T00

		S11 	T11 
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Conformity / (NC) / (C)

Max. Actuation speed 1.5ms

Min. force or torque 0.08N / 0.28Nm

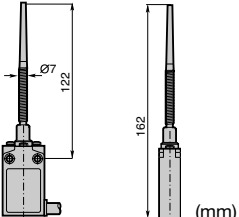
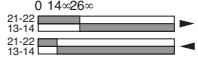
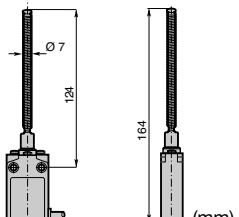
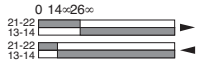
Weight 200g

Adjustable Ø6 rod lever

Code Nylon rod
fiberglass rod

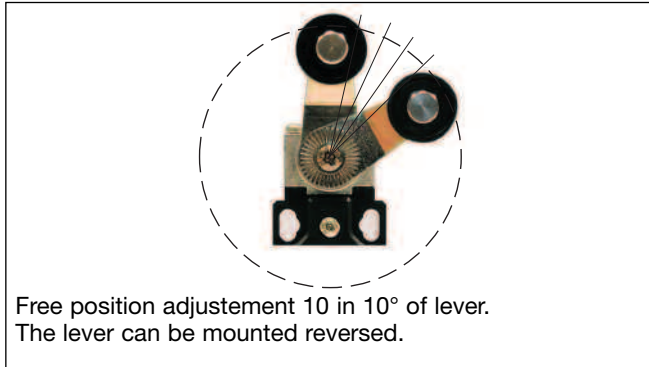
PS21M-LN-T00

PS21M-LG-T00

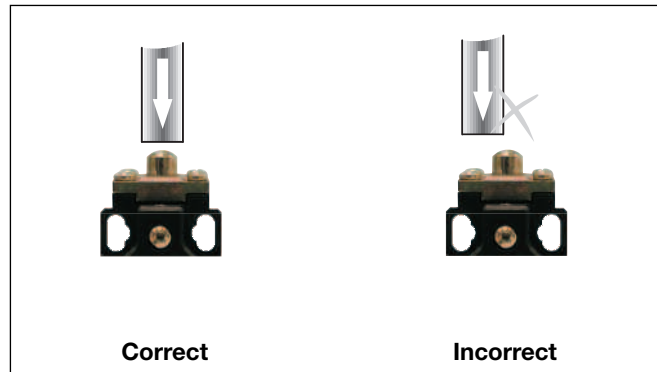
		S11 	
Conformity / (NC) / (NC) Max. Actuation speed 1.0ms Min. force or torque 0.10N / - Weight 195g		Multidirectional nylon actuator with stainless steel spring Code PS21M-01LP-T00	
		S11 	
Conformity / (NC) / (NC) Max. Actuation speed 1.0ms Min. force or torque 0.10N / - Weight 200g		Multidirectional actuator with stainless steel spring Code PS21M-01LS-T00	

Adjustement and utilization precautions

Position ajustement of lever



Plain plunger



Roller plunger or Roller lever

