

Limit Switch - Prewired Type Metal Body



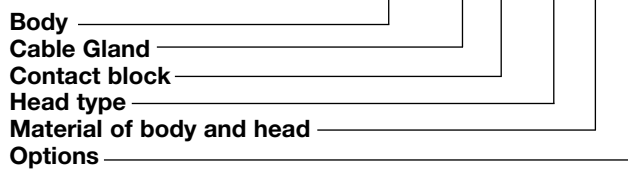
- Sealed with epoxy resin at the base of the box
- Degree of protection IP67
- Thermoplastic material or diecast zinc alloy body
- Positive Opening Operation (→)
- Minimum Actuation Force/Torque
- Minimum Force to achieve Positive Opening Operation
- Precise operating points (consistency)
- Immune to electromagnetic disturbances
- Zb type contact blocks
- Current Ith = 10A
- Rated insulation voltage Ui = 500V
- CE, cULus
- Conform with IEC 947-5-1, EN 60947-5-1 standards and UL508 and EN ISO 13849-1

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

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
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Options

00	no option
0L	with fixing nuts

Head type

BR	Nylon roller internal bent LEVER
L3	Adj. square □ 3 (□ 0.12") steel rod LEVER
LA	Adj. Ø3 (0.12") rod LEVER stainless steel rod
LB	Nylon actuator with stainless steel spring
LF	Adj. fiberglass rod LEVER Ø3 (0.12")
LG	Adj. fiberglass rod LEVER Ø6 (0.24")
LN	Adj. nylon rod LEVER
LP	Multidir. nylon actuator with stainless steel spring
LS	Stainless steel spring multidir 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
RO	Roller LEVER steel ball bearing
RS	Metal roller LEVER
RT	Nylon roller LEVER

Technical Data

Standards	Metal Body
Certifications - Approvals	Devices conform with international IEC 947-5-1 and European EN 60947-5-1 standards, UL508, EN ISO 13849-1
Air temperature near the device - during operation - for storage	cULus -25°C...+70°C / -13°F...+158°F -40°C...+70°C / -40°F...+158°F
Mounting positions	All positions are authorized
Protection against electrical shocks (according to IEC 536)	Class I
Degree of protection (according to IEC 529 and EN 60529)	IP67
Degree of protection (according to UL508)	Type 4 - 4X - 6
B10d	enclosure ("outdoor use - raintigh - watertight - corrosion resistant") 20 millions of operations

Electrical Data

Rated insulation voltage U_i -according to IEC 60947-1 and EN 60947-1 -according to UL 508	Metal Body 400V (degree of pollution 3) B 300, R 300
Rated impulse withstand voltage U_{imp} (according to IEC 60947-1 and EN 60947-1)	4kV
Conventional enclosed thermal current I_{the} (according to IEC 60947-1 and EN 60947-5-1) ($\theta \leq 40^\circ\text{C}/104^\circ\text{F}$)	5A
Short-circuit protection - gG type fuses	6A
Rated operational current	
I_e / AC-15 - acc.to IEC 60947-5-1 24VAC (50/60 Hz) 120VAC (50/60 Hz) 240VAC (50/60 Hz) - acc.to UL 508	5.0A 3.0A 1.5A B 300
I_e / DC-13 - acc.to IEC 60947-5-1 24VDC 110VDC 250VDC - acc.to UL 508	1.1A 0.22A 0.1A R 300
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:

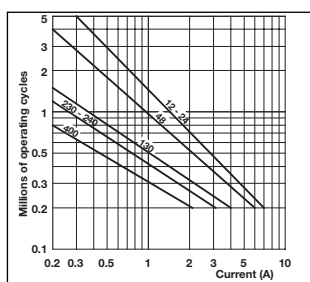
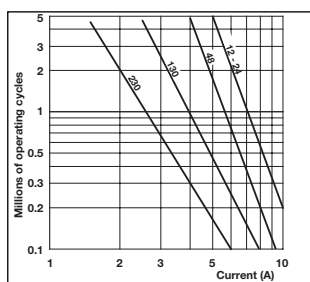


Diagram for slow action contact:



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) Plastic Body IP67

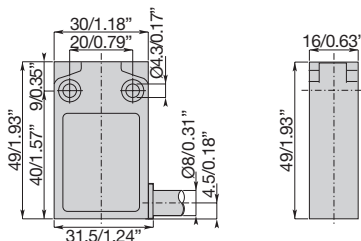


● Cable Gland

- C** = Pre-wired standard cable (PVC) 5x0.75 mm² Length: 1m
(Different lengths available on request)
- U** = Pre-wired UL cable 5x0.75 mm² Length: 1m
(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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	mm/inches 	S11 	T11
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Conformity / (NC)	/	Plain Plunger	
Max. Actuation speed	0.5m/s / 1.64ft/s	Code	PS21M-●▲P0-M00
Min. force or torque	15N / 30Nm		
Weight	175.0g / 6.173oz		

	mm/inches 	S11 	T11
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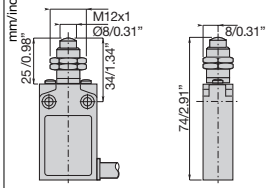
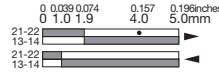
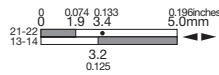
Conformity / (NC)	/	Roller Plunger	
Max. Actuation speed	0.1m/s / 0.33ft/s	Code Metal Roller	PS21M-●▲PR-M00
Min. force or torque	10N / 30Nm	Nylon Roller	PS21M-●▲PY-M00
Weight	180.0g / 6.349oz		

	mm/inches 	S11 	T11
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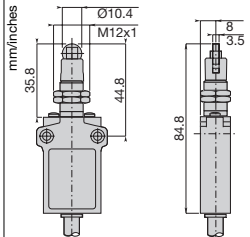
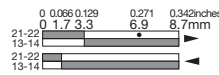
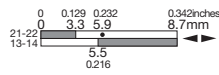
Conformity / (NC)	/	Cross roller plunger	
Max. Actuation speed	0.1m/s / 0.33ft/s	Code Metal Roller	PS21M-●▲P9-M00
Min. force or torque	10N / 30Nm	Nylon Roller	PS21M-●▲P8-M00
Weight	180.0g / 6.349oz		

	mm/inches 	S11 	T11
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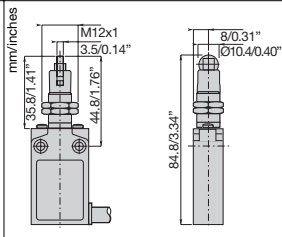
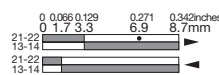
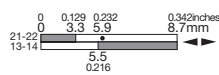
Conformity / (NC)	/	Plain plunger with dust protection cup	
Max. Actuation speed	0.5m/s / 1.64ft/s	Code	PS21M-●▲PH-M00
Min. force or torque	15N / 30Nm		
Weight	180.0g / 6.349oz		

		S11	T11
			


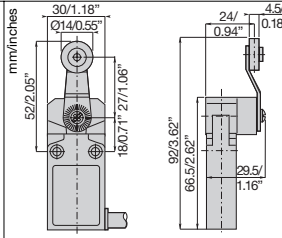
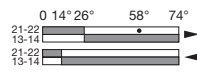
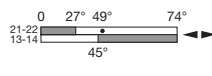
Conformity / (NC)	/	Pain plunger with fixing nuts	
Max. Actuation speed	0.5m/s / 1.64ft/s	Code	PS21M-●▲ P0-M0L
Min. force or torque	15N / 30Nm		
Weight	190.0g / 6.702oz		

		S11	T11
			


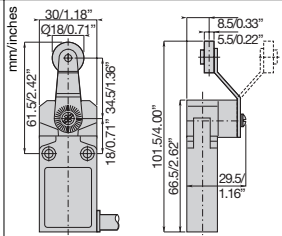
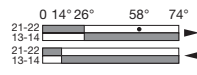
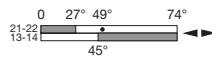
Conformity / (NC)	/	Roller plunger with fixing nuts	
Max. Actuation speed	0.1m/s / 0.33ft/s	Code	PS21M-●▲ PR-M0L PS21M-●▲ PY-M0L
Min. force or torque	10N / 30Nm		
Weight	195.0g / 6.878oz		

		S11	T11
			

Conformity / (NC)	/	Cross roller plunger with fixing nuts	
Max. Actuation speed	0.1m/s / 0.33ft/s	Code	PS21M-●▲ P9-M0L PS21M-●▲ P8-M0L
Min. force or torque	10N / 30Nm		
Weight	195.0g / 6.878oz		

		S11	T11
			

Conformity / (NC)	/	Ø14 (0.55") roller lever	
Max. Actuation speed	1.5m/s / 4.92ft/s	Code	PS21M-●▲ RT-M00 PS21M-●▲ RS-M00 PS21M-●▲ RO-M00
Min. force or torque	0.08N / 0.28Nm		
Weight	225.0g / 7.937oz		

		S11	T11
			

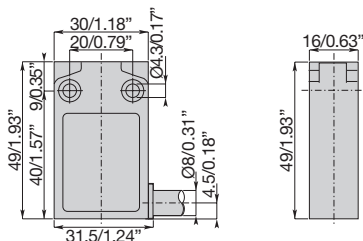
Conformity / (NC)	/	Ø18 (0.71") Nylon roller lever	
Max. Actuation speed	1.5m/s / 4.92ft/s	Code	PS21M-●▲ BR-M00
Min. force or torque	0.08N / 0.28Nm		
Weight	230.0g / 8.113oz		

Limit Switches - Miniature Type (PS21M) Plastic Body IP67

CARLO GAVAZZI

● Cable Gland

- C** = Pre-wired standard cable (PVC) 5x0.75 mm² Length: 1m
(Different lengths available on request)
- U** = Pre-wired UL cable 5x0.75 mm² Length: 1m
(Different lengths available on request)



▲ Contact block (Zb type)

S11 (1NO+1NC)
Snap Action



T11 (1NO+1NC)
Non overlapping
Slow action



Conformity / (NC)

Max. Actuation speed

0.5m/s / 1.64ft/s

Adjustable lever with Ø18 (0.71") nylon roller

Code

PS21M-●▲R1-M00

Min. force or torque

0.08N / 0.28Nm

Weight

240.0g / 8.466oz

Conformity / (NC)

Max. Actuation speed

1.5m/s / 4.92ft/s

Nylon actuator with stainless steel spring

Code

PS21M-●▲LB-M00

Min. force or torque

0.08N / -

Weight

240.0g / 8.466oz

Conformity / (NC)

Max. Actuation speed

1.5m/s / 4.92ft/s

Cross roller plunger

Code

Stainless steel rod Ø3 (0.12") PS21M-●▲LA-M00

Min. force or torque

0.08N / 0.28Nm

Fiberglass rod Ø3 (0.12") PS21M-●▲LF-M00

Weight

235.0g / 8.289oz

Square steel rod □3 (□0.12") PS21M-●▲L3-M00

Conformity / (NC)

Max. Actuation speed

1.5m/s / 4.92ft/s

Adjustable Ø6 (0.24") rod lever

Code

Nylon rod PS21M-●▲LN-M00

Min. force or torque

0.08N / 0.28Nm

Fiberglass rod PS21M-●▲LG-M00

Weight

250.0g / 8.818oz



Conformity / (NC)	/	Multidirectional nylon actuator with stainless steel spring	
Max. Actuation speed	1.0m/s / 3.28ft/s	Code	PS21M-●▲LP-M00
Min. force or torque	0.10N / -		
Weight	245.0g / 8.642oz		



Conformity / (NC)	/	Multidirectional actuator with stainless steel spring	
Max. Actuation speed	1.0m/s / 3.28ft/s	Code	PS21M-●▲LS-M00
Min. force or torque	0.10N / -		
Weight	250.0g / 8.818oz		

Utilization precautions

Plain plunger

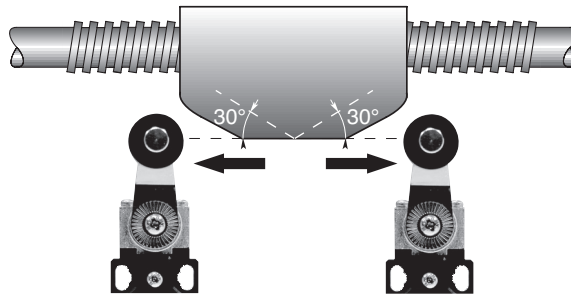


Correct

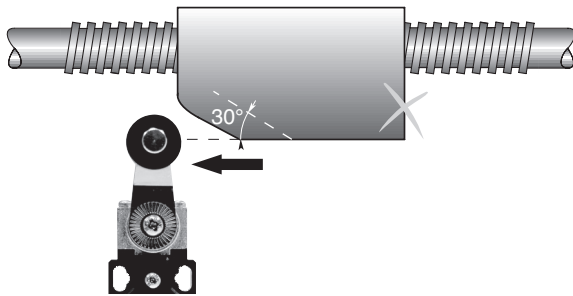


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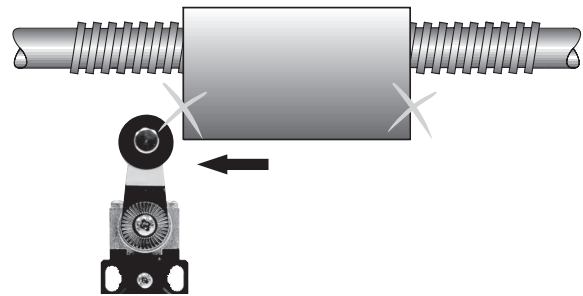
Roller plunger or Roller lever



Correct

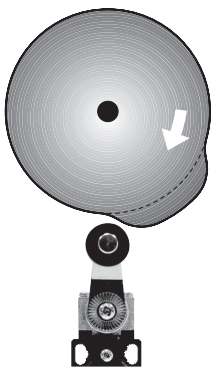


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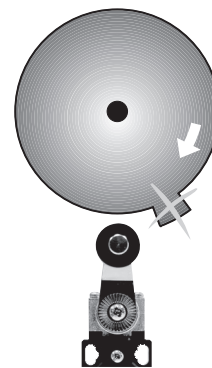
Roller plunger or Roller lever



Correct



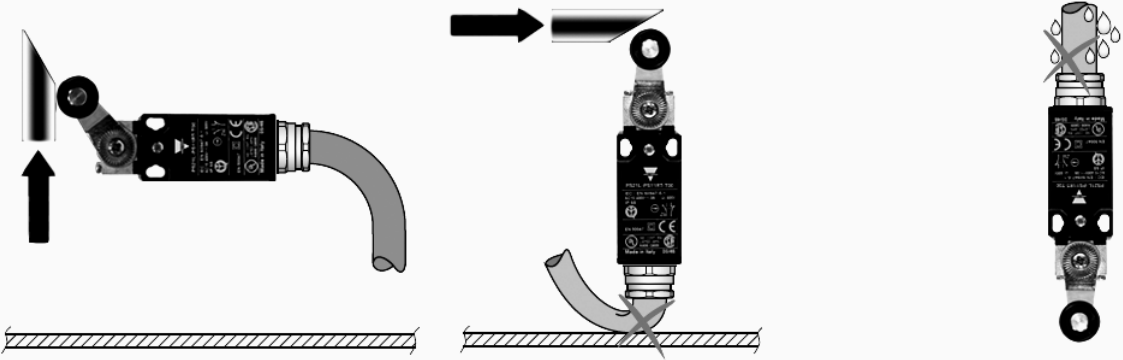
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Incorrect

Utilization precautions

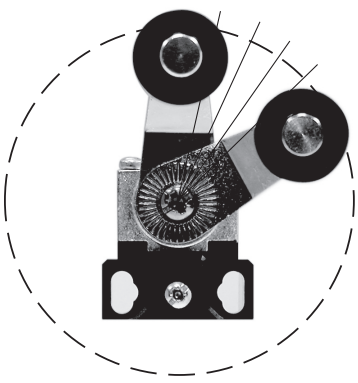
Electrical connection and mounting



Correct Incorrect Incorrect

Adjustment

Position adjustment of lever



Free position adjustment 10 in 10° of lever

Position adjustment of lever and head

