

Technical Data

Standards

Certifications – Approvals

Air temperature near the device

- during operation

- for storage

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)

Plastic Body

Metal body

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

-25 ... +70

-30 ... +80

-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 100 us

Class II

Class I

IP65

IP66

0.1 mm (upon closing point)

0.1 mm (upon closing point)

Electrical Data

Rated insulation voltage U_i

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

500 (degree of pollution 3)

Rated impulse withstand voltage U_{imp}

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

6

Conventional enclosed thermal current I_{the}

Short-circuit protection - gG type fuses A

10

Rated operational current

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

24V - 50/60 Hz	A	10
130V - 50/60 Hz	A	5.5
230V - 50/60 Hz	A	3.1
240V - 50/60 Hz	A	3
400V - 50/60 Hz	A	1.8

10

5.5

3.1

3

1.8

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

24 V - d.c.	A	2.8
110V-d.c.	A	0.6
250V - d.c	A	0,27

2.8

0.6

0,27

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

Connecting data of contact blocks

Connecting terminals

Connecting capacity 1 or 2 x mm² / AWG

Terminal marking

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

0,5mm² / AWG 20 to 2,5mm² / AWG 14

According to EN 50013

Diagram for snap action contacts:

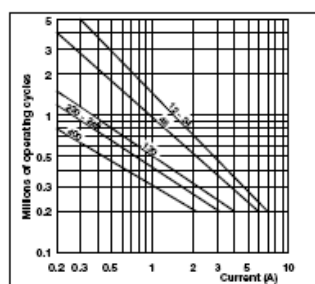
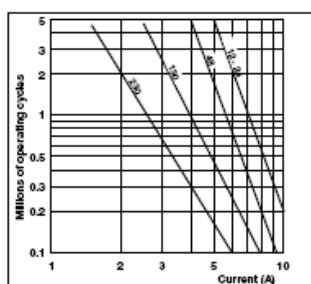


Diagram for non-overlapping slow action contacts:



Specifications are subject to change without notice

Electrical durability for DC-3 utilization category

Snap action Slow action

Power breaking for a durability of
5 million operating cycles

Voltage 24V 9,5W 12W

Voltage 48V 6,8W 9W

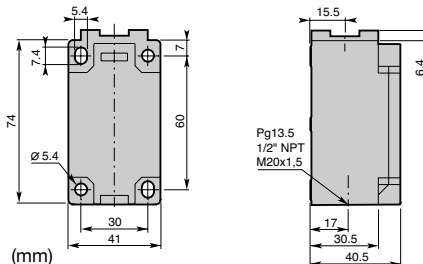
Voltage 110V 3,6W 6W

Limit Switches - Limit Type (PS31) Plastic Body IP65



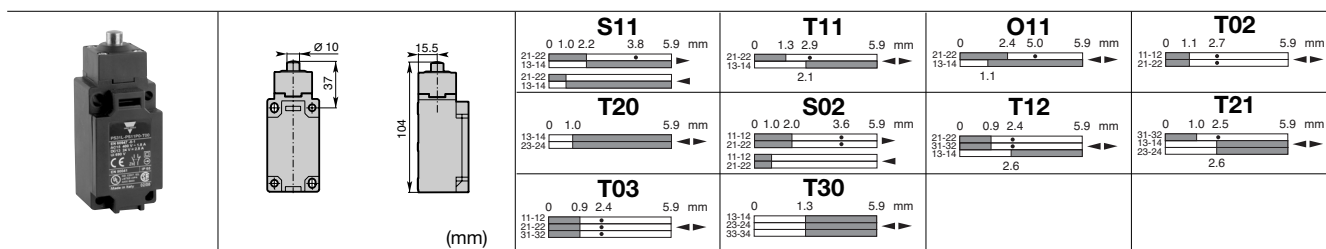
• Cable Gland

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



▲ Contact block (Zb type)

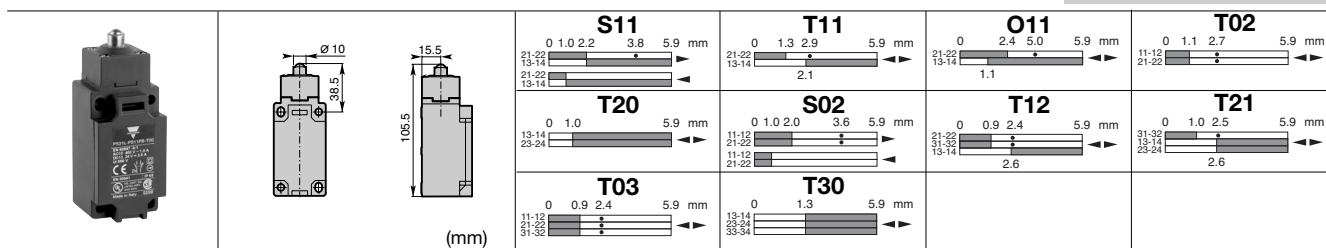
S11 (1NO+1NC) Snap action	T11 (1NO+1NC) Non overlapping Slow action	O11 (1NO+1NC) Overlapping Slow action	T02 (2NC) Slow Action	T20 (2NO) Slow action
S02 (2NC) Snap action	T12 (1NO+2NC) Non overlapping Slow action	T21 (2NO+1NC) Non overlapping Slow action	T03 (3NC) Simultaneous Slow action	T30 (3NO)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



Conformity / (NC) EN 50041 / (C)
 Max. Actuation speed 0.5ms
 Min. force or torque 14N / 40Nm
 Weight 145g

Plain steel plunger
Code

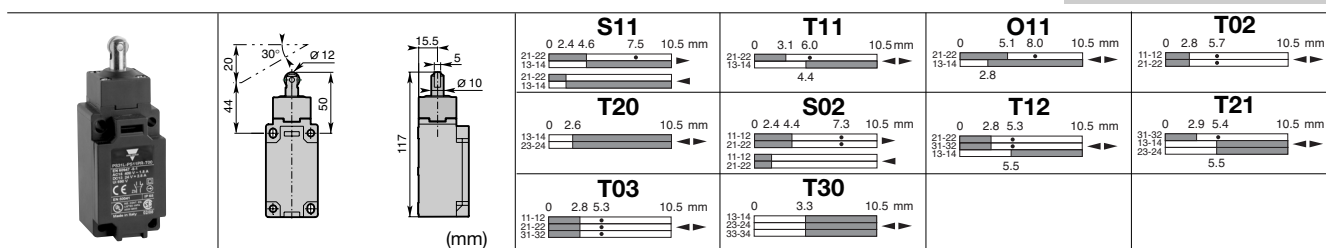
PS31L-●▲P0-T00



Conformity / (NC) EN 50041 / (C)
 Max. Actuation speed 0.5ms
 Min. force or torque 14N / 40Nm
 Weight 145g

Steel ball plunger
Code

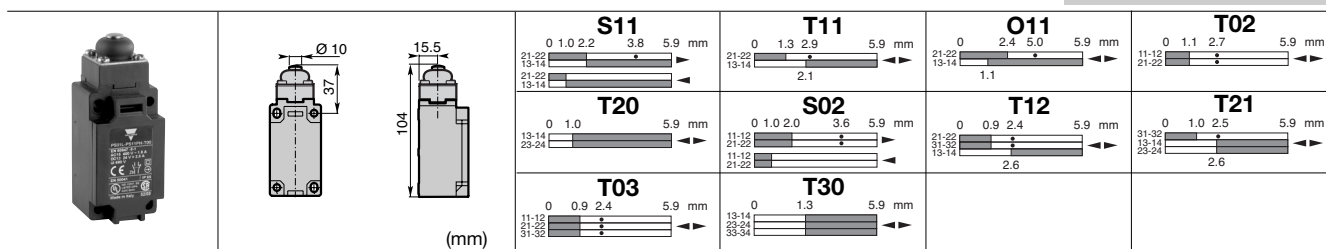
PS31L-●▲PB-T00



Conformity / (NC) EN 50041 / (C)
 Max. Actuation speed 0.5ms
 Min. force or torque 14N / 40Nm
 Weight 150g

Steel roller plunger
Code

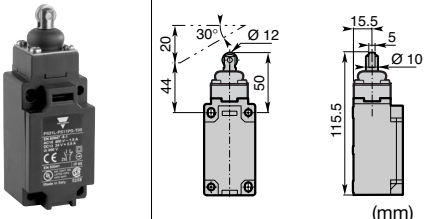
PS31L-●▲PR-T00



Conformity / (NC) EN 50041 / (C)
 Max. Actuation speed 0.5ms
 Min. force or torque 14N / 40Nm
 Weight 145g

Plain steel plunger with dust protection cup
Code

PS31L-●▲PH-T00





S11 0 2.4 4.6 7.5 10.5 mm 21-22 13-14 21-22 13-14	T11 0 3.1 6.0 10.5 mm 21-22 13-14 4.4	O11 0 5.1 8.0 10.5 mm 21-22 13-14 2.8	T02 0 2.8 5.7 10.5 mm 11-12 21-22
T20 0 2.6 10.5 mm 13-14 23-24	S02 0 2.4 4.4 7.3 10.5 mm 11-12 21-22 23-24 11-12 21-22	T12 0 2.8 5.3 10.5 mm 21-22 31-32 13-14 5.5	T21 0 2.9 5.4 10.5 mm 31-32 13-14 23-24 5.5
T03 0 2.8 5.3 10.5 mm 11-12 21-22 31-32	T30 0 3.3 10.5 mm 13-14 23-24 33-34		

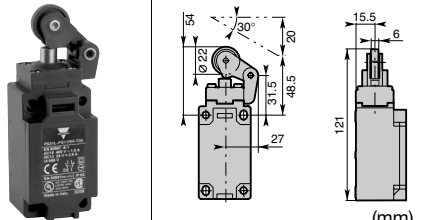
Conformity / (NC) EN 50041 / (NC)

Max. Actuation speed 0.5ms

Min. force or torque 14N / 40Nm

Weight 150g

Steel roller plunger with dust protection cup
Code **PS31L--T00**



S11 0 3.8 6.8 11.3 17.0 mm 21-22 13-14 21-22 13-14	T11 0 4.9 9.4 17.0 mm 21-22 13-14 6.3	O11 0 7.6 12.1 17.0 mm 21-22 13-14 4.4	T02 0 4.4 8.9 17.0 mm 11-12 21-22
T20 0 4.0 17.0 mm 13-14 23-24	S02 0 3.8 6.6 11.1 17.0 mm 11-12 21-22 23-24 11-12 21-22	T12 0 3.7 7.5 17.0 mm 21-22 31-32 13-14 7.7	T21 0 4.0 7.6 17.0 mm 31-32 13-14 23-24 7.7
T03 0 3.7 7.5 17.0 mm 11-12 21-22 31-32	T30 0 4.8 17.0 mm 13-14 23-24 33-34		







Conformity / (NC) / (NC)

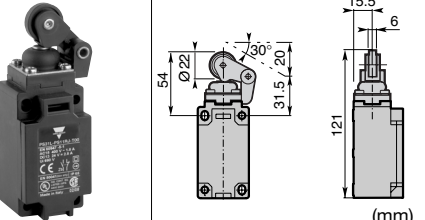
Max. Actuation speed 1.0ms

Min. force or torque 8N / 30Nm

Weight 185g

One way lever
Code $\varnothing 22$ nylon roller
 $\varnothing 22$ stainless steel roller
 $\varnothing 22$ steel ball bearing

PS31L--T00
PS31L--T00
PS31L--T00



S11 0 3.8 6.8 11.3 17.0 mm 21-22 13-14 21-22 13-14	T11 0 4.9 9.4 17.0 mm 21-22 13-14 6.3	O11 0 7.6 12.1 17.0 mm 21-22 13-14 4.4	T02 0 4.4 8.9 17.0 mm 11-12 21-22
T20 0 4.0 17.0 mm 13-14 23-24	S02 0 3.8 6.6 11.1 17.0 mm 11-12 21-22 23-24 11-12 21-22	T12 0 3.7 7.5 17.0 mm 21-22 31-32 13-14 7.7	T21 0 4.0 7.6 17.0 mm 31-32 13-14 23-24 7.7
T03 0 3.7 7.5 17.0 mm 11-12 21-22 31-32	T30 0 4.8 17.0 mm 13-14 23-24 33-34		







Conformity / (NC) / (NC)

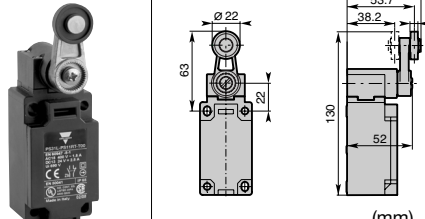
Max. Actuation speed 1.0ms

Min. force or torque 8N / 30Nm

Weight 180g

One way lever with dust protection cup
Code $\varnothing 22$ nylon roller
 $\varnothing 22$ stainless steel roller
 $\varnothing 22$ steel ball bearing

PS31L--T00
PS31L--T00
PS31L--T00



S11 0 19° 31° 47° 90° 21-22 13-14 21-22 13-14	T11 0 21° 37° 90° 21-22 13-14 30°	O11 0 34° 50° 90° 21-22 13-14 19°	T02 0 19° 35° 90° 11-12 21-22
T20 0 18° 90° 13-14 23-24	S02 0 19° 30° 46° 90° 11-12 21-22 23-24 11-12 21-22	T12 0 16° 33° 90° 21-22 31-32 13-14 35°	T21 0 17° 34° 90° 31-32 13-14 23-24 35°
T03 0 16° 33° 90° 11-12 21-22 31-32	T30 0 21° 90° 13-14 23-24 33-34		







Conformity / (NC) EN 50041 / (NC)

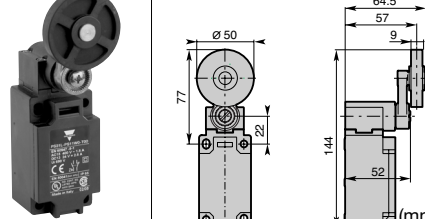
Max. Actuation speed 1.5ms

Min. force or torque 0.15N / 0.30Nm

Weight 200g

$\varnothing 22$ Roller lever
Code nylon roller
stainless steel roller
steel ball bearing

PS31L--T00
PS31L--T00
PS31L--T00



S11 0 19° 31° 47° 90° 21-22 13-14 21-22 13-14	T11 0 21° 37° 90° 21-22 13-14 30°	O11 0 34° 50° 90° 21-22 13-14 19°	T02 0 19° 35° 90° 11-12 21-22
T20 0 18° 90° 13-14 23-24	S02 0 19° 30° 46° 90° 11-12 21-22 23-24 11-12 21-22	T12 0 16° 33° 90° 21-22 31-32 13-14 35°	T21 0 17° 34° 90° 31-32 13-14 23-24 35°
T03 0 16° 33° 90° 11-12 21-22 31-32	T30 0 21° 90° 13-14 23-24 33-34		



Conformity / (NC) / (NC)

Max. Actuation speed 1.5ms

Min. force or torque 0.15N / 0.30Nm

Weight 205g

$\varnothing 50$ Rubber roller lever
Code

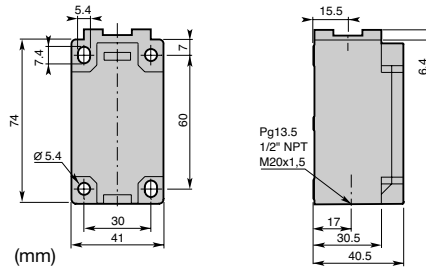
PS31L--T00

Limit Switches - Limit Type (PS31) Plastic Body IP65



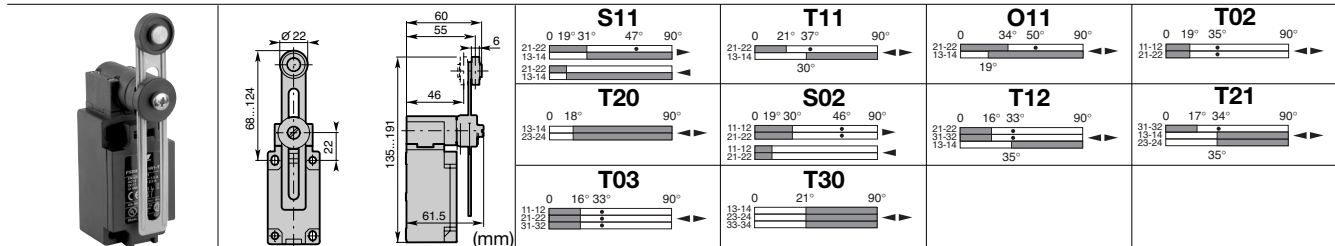
• Cable Gland

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



▲ Contact block (Zb type)

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



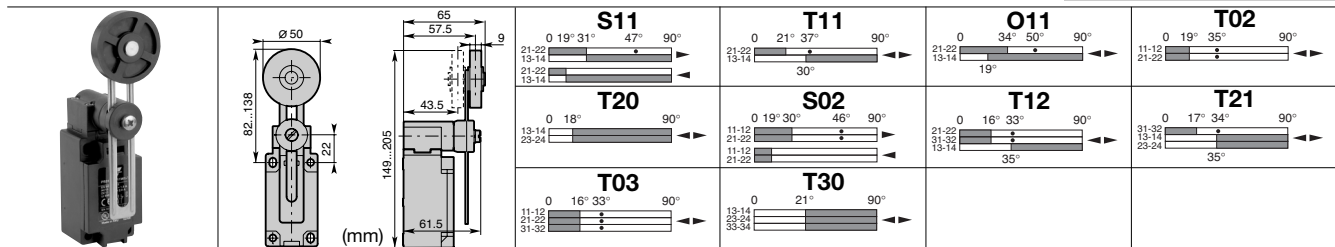
Conformity / (NC)

Max. Actuation speed	1.5ms
Min. force or torque	0.15N / 0.30Nm
Weight	195g

Adjustable Ø22 roller lever

Code	nylon lever stainless steel roller steel ball bearing
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PS31L-●▲R1-T00
PS31L-●▲R2-T00
PS31L-●▲R3-T00



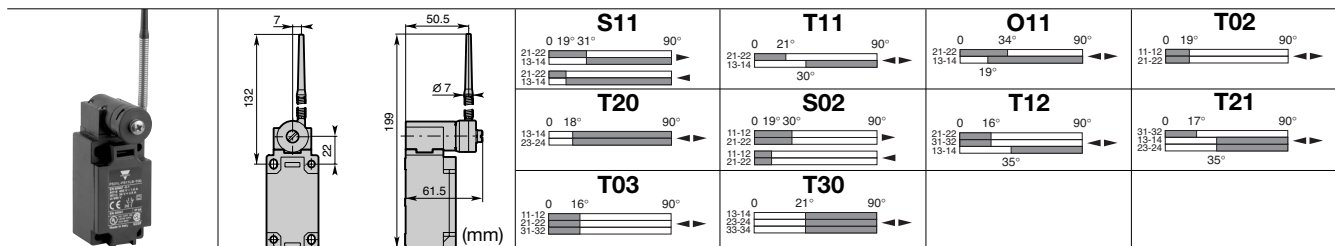
Conformity / (NC)

Max. Actuation speed	1.5ms
Min. force or torque	0.15N / 0.30Nm
Weight	205g

Adjustable Ø50 rubber roller lever

Code

PS31L-●▲W1-T00



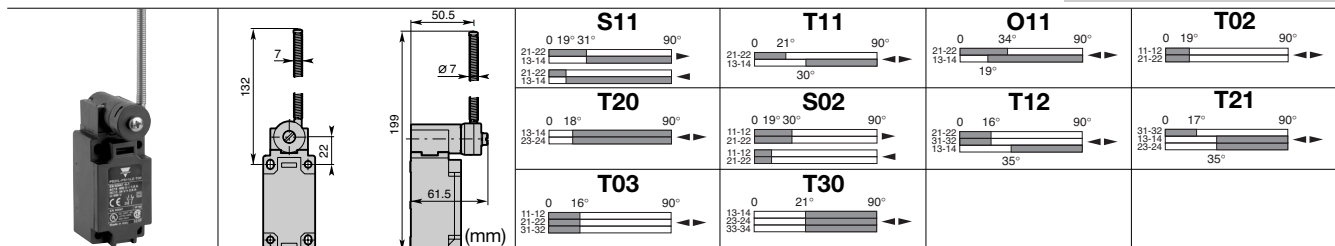
Conformity / (NC)

Max. Actuation speed	1.5ms
Min. force or torque	0.15N / -
Weight	190g

Nylon actuator with stainless steel spring

Code

PS31L-●▲LB-T00



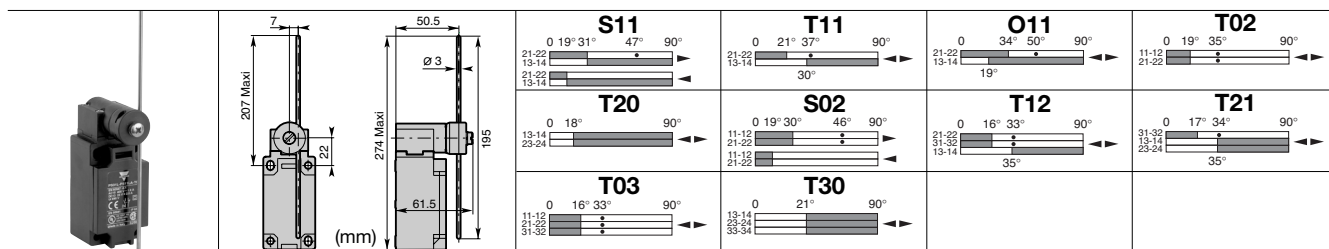
Conformity / (NC)

Max. Actuation speed	1.5ms
Min. force or torque	0.15N / -
Weight	195g

Stainless steel spring actuator

Code

PS31L-●▲LZ-T00

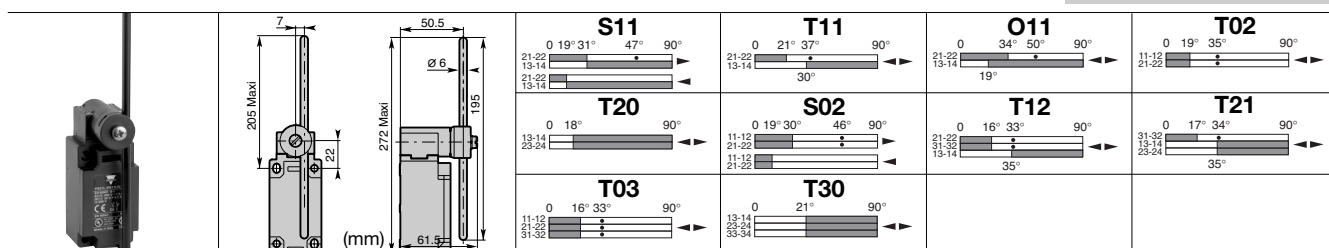


Conformity / \rightarrow (NC) / \rightarrow

Max. Actuation speed 1.5ms
 Min. force or torque 0.15N / 0.30
 Weight 185g

Adjustable rod lever
 Code stainless steel rod \varnothing 3
 fiberglass rod \varnothing 3
 square steel rod 3x3

PS31L- \square \blacktriangle LA-T00
 PS31L- \square \blacktriangle LF-T00
 PS31L- \square \blacktriangle L3-T00

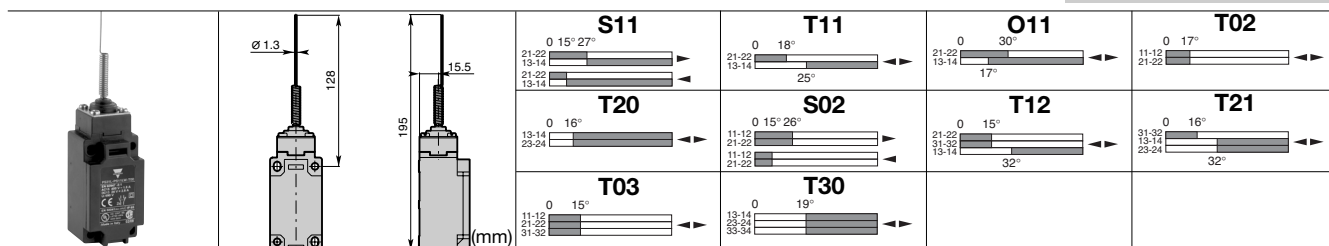


Conformity / \rightarrow (NC) / \rightarrow

Max. Actuation speed 1.5ms
 Min. force or torque 0.15N / 0.30Nm
 Weight 185g

Adjustable \varnothing 6 rod lever
 Code nylon rod
 fiberglass rod

PS31L- \square \blacktriangle LN-T00
 PS31L- \square \blacktriangle LG-T00

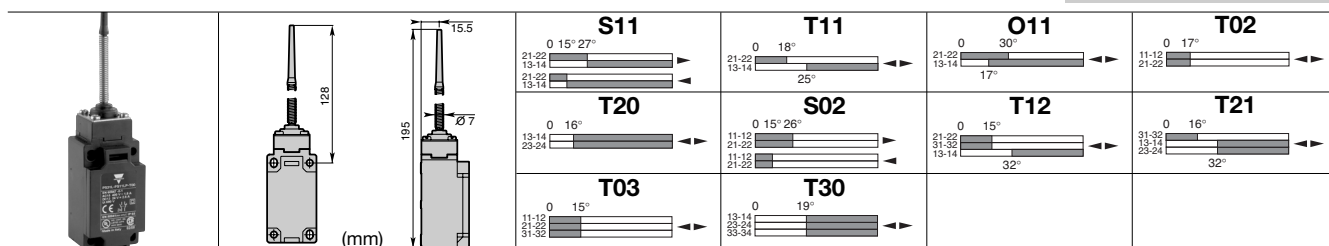


Conformity / \rightarrow / \rightarrow

Max. Actuation speed 1.0ms
 Min. force or torque 0.18N / -
 Weight 150g

Stainless steel spring multidirectional actuator
 Code

PS31L- \square \blacktriangle LW-T00

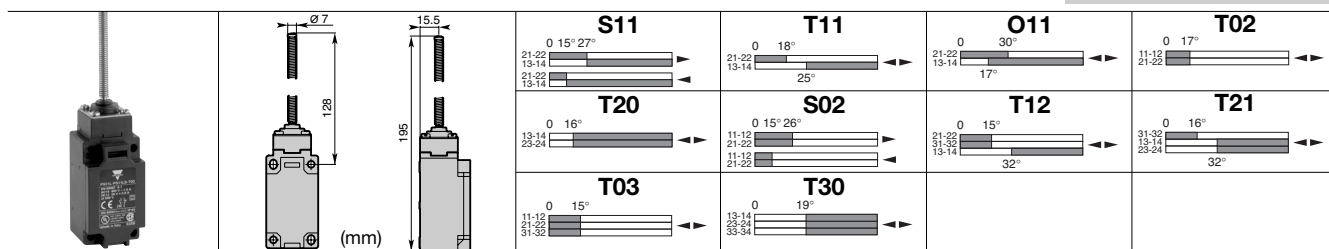


Conformity / \rightarrow (NC) / \rightarrow

Max. Actuation speed 1.0ms
 Min. force or torque 0.18N / -
 Weight 155g

Multidirectional nylon actuator with stainless steel spring
 Code

PS31L- \square \blacktriangle LP-T00



Conformity / \rightarrow (NC) / \rightarrow

Max. Actuation speed 1.0ms
 Min. force or torque 0.18N / -
 Weight 160g

Stainless steel spring multidirectional actuator
 Code

PS31L- \square \blacktriangle LS-T00