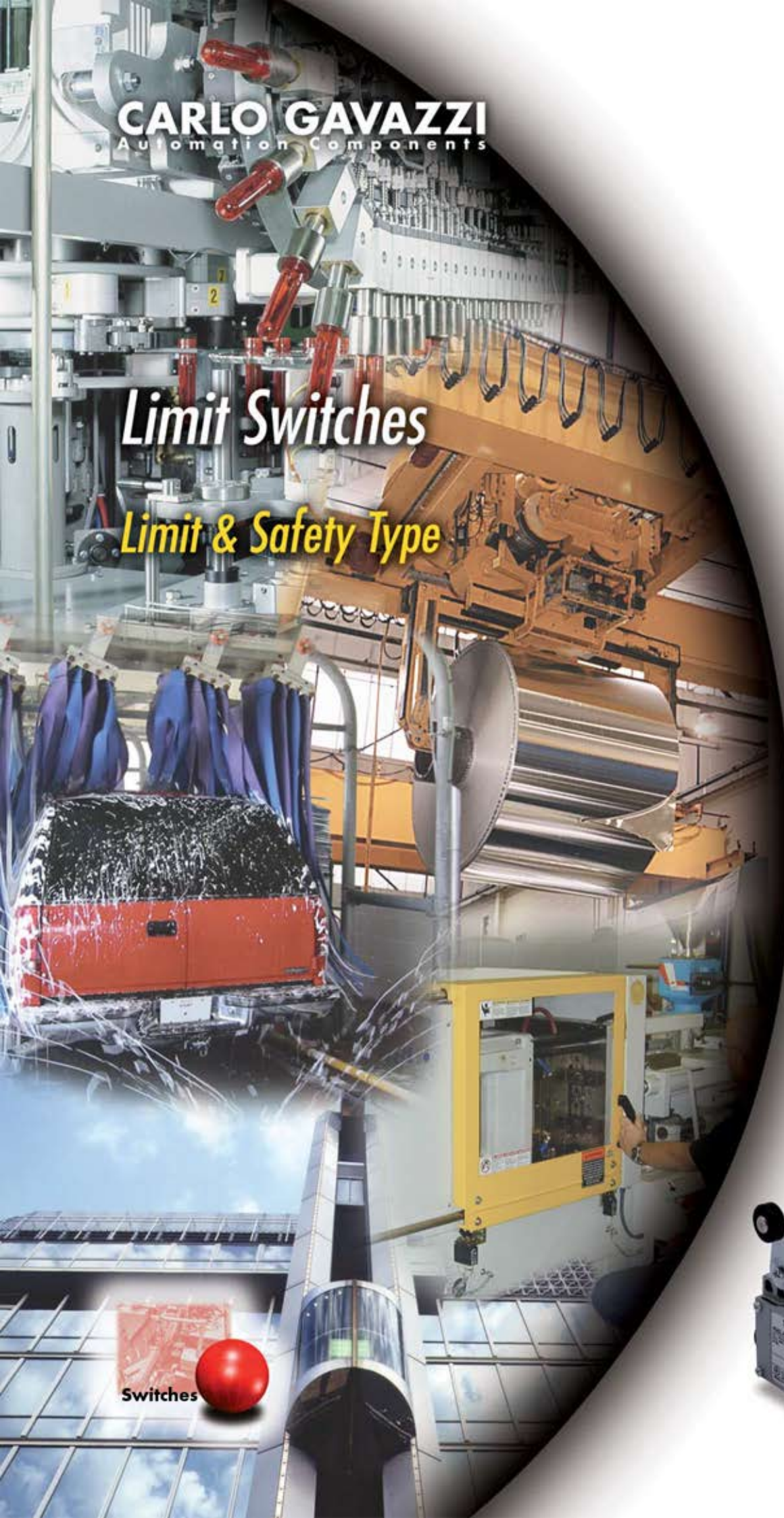


CARLO GAVAZZI
Automation Components



Limit Switches

Limit & Safety Type



Limit Switches

The range of Carlo Gavazzi's Limit Switches is tailored for the industrial automation world and provide the machine manufacturers and panel builders with a global and exhaustive solution to their systems, without compromises or restrictions to the more and more demanding requirements, allowing machineries to properly operate and minimizing process stops and personnel risk. Limit and Safety Switches, classified by application, allow an easier selection of the right switch.

Over 8000 different types of Limit and Safety Switches for Industrial Automation as well as for Elevator and Door Applications allow a reliable and safe operation of machineries and personnel.



User
Friendly



Long Term
Reliability



Cost
Saving



Diagnostic
Warning

Contact Blocks

With 10 different contact blocks, most of them with positive opening safety contacts (IEC60947-5-1) slow, slow overlapping and snap, coupled with over 60 different actuating head types, for a huge variety of systems. Contact blocks can be easily wired and guarantee an IP20 protection degree and, once the wiring has been completed, a cover provided with gasket guarantees at least IP65 protection rating.

Housing

Four different housing sizes PS21x, PS42x, PS43x and PS31x allowing five different cable entries (the ordinary PG13,5 and PG11 cable entry, the new Metric M20 and M16 version and the 1/2" NPT as well) for the utmost flexibility required by the system design.



Two additional miniature housings, PS21M and PS31M, where space saving and rapid wiring are decisive factors. They are Miniature prewired switches, which offers cable with IP67 degree. All

switches housings as well as all actuating heads, available not only in Thermoplastic (double insulation) but also in Metal housing as well along with a wide temperature range, $-30/+80^{\circ}\text{C}$, enable harsh-duty applications, where robustness cannot be a compromise, without involving more space.

Safety Switches

They are with keys, shaft lever or pull wire. Key featuring five different separated actuators (with 90° steps or fully turnable adjustable head), allow linear or radial operation and a small pivot radius, adjustable up to 50 mm, for the most demanding installations. Shaft lever with two different solutions, by lever and by pin, to allow hinge applications. Pull wire type, with and without reset for emergency stop, can be used also on great distances (up to 25m).

Limit Switch - Limit Type Plastic Body

- Double Insulation 
- Degree of protection IP65
- Reinforced UL-V0 thermoplastic fiber-glass 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 I_{th} = 10A
- Rated insulation voltage U_i = 500V
- UL, CSA
- Conform with IEC 947-5-1 (EN 60947-5-1)

Body

PS 21 L-P S11 PO-T 00



PS21
width 30mm
(fixing interaxe 20/22mm)
1 cable inlet

PS42
width 50mm
(fixing interaxe 40/42mm)
2 cable inlet

PS31
width 40mm
(fixing interaxe 30mm)
1 cable inlet







(1) L = General Purpose







Contact block

PS 21 L-P S11 PO-T 00

For all the bodies

S11	1NO + 1NC Snap Action Contacts	
T11	1NO + 1NC Non overlapping Slow Action Contacts	
O11	1NO + 1NC Overlapping Slow Action Contacts	
T02	2NC Slow Action Contacts	
T20	2NO Slow Action Contacts	
S02	2NC Snap Action Contacts	

Only for PS31

T12	1NO + 2NC Non overlapping Slow Action Contacts	
T21	2NO + 1NC Non overlapping Slow Action Contacts	
T03	3NC Simultaneous Slow Action Contacts	
T30	3NO Simultaneous Slow Action Contacts	

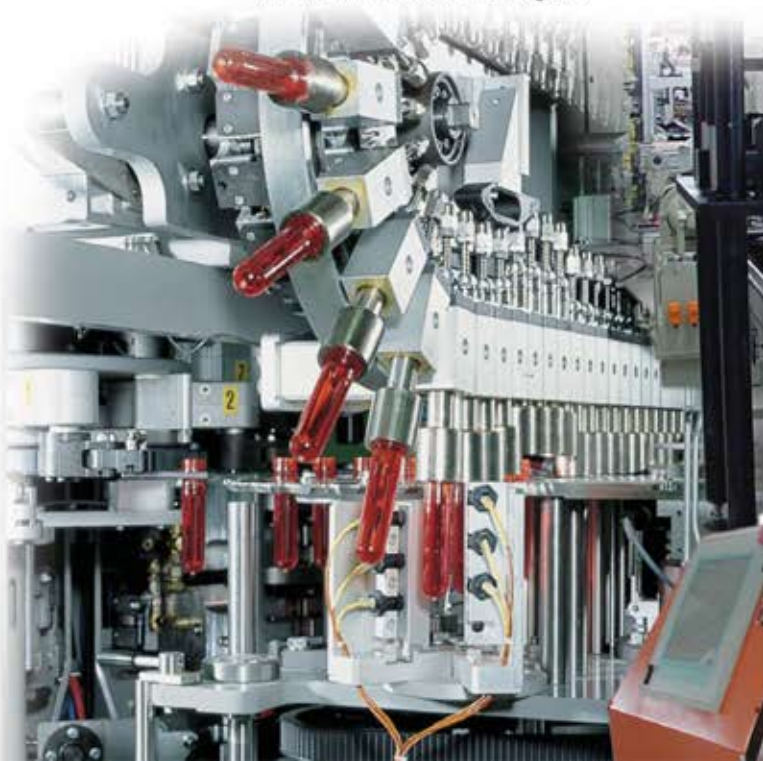
Specifications are subject to change without notice. Pictures are just an example.
For special features and/or customization, please ask to our sales network.

Cable gland

PS 21 L-P S11 PO-T 00



- P** = cable inlet PG13.5 cable gland
- B** = cable inlet PG11 cable gland
- M** = cable inlet M20x1.5 cable gland
- A** = cable inlet M16x1.5 cable gland
- N** = cable inlet 1/2" NPT cable gland



Limit Switches

Limit Switch - Limit Type Metal Body

- High mechanical resistance
- Degree of protection IP66
- Zinc alloy (Zamack) or 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
- Conform with IEC 947-5-1 (EN 60947-5-1)



Body

PS 21 L-P S11 PO-M 00



(1) L = General Purpose

Cable gland

PS 21 L-P S11 PO-M 00



- P** = cable inlet PG13.5 cable gland
- B** = cable inlet PG11 cable gland
- M** = cable inlet M20x1.5 cable gland
- A** = cable inlet M16x1.5 cable gland
- N** = cable inlet 1/2" NPT cable gland

Contact block

PS 21 L-P S11 PO-M 00

For all the bodies

S11	1NO + 1NC Snap Action Contacts	31-22 13-14 21-22 13-14
T11	1NO + 1NC Non overlapping Slow Action Contacts	21-22 13-14
O11	1NO + 1NC Overlapping Slow Action Contacts	21-22 13-14
T02	2NC Slow Action Contacts	31-12 23-24
T20	2NO Slow Action Contacts	13-14 23-24
S02	2NC Snap Action Contacts	31-12 23-24

Only for PS31

T12	1NO + 2NC Non overlapping Slow Action Contacts	31-12 13-14
T21	2NO + 1NC Non overlapping Slow Action Contacts	31-12 13-14
T03	3NC Simultaneous Slow Action Contacts	31-12 13-14
T30	3NO Simultaneous Slow Action Contacts	13-14 23-24



Limit Switch - Prewired Type Plastic and Metal Body

- Double Insulation □ (for thermoplastic type)
- 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
- UL, CSA
- Conform with IEC 947-5-1 (EN 60947-5-1)

Body

PS 21 M-C S11 P0-T 00



(1) M = Miniature

(2) M = Metal

T = Thermoplastic



Contact block

PS 21 M-C S11 P0-T 00

For all the bodies

S11	1NO + 1NC Snap Action Contacts	
T11	1NO + 1NC Non overlapping Slow Action Contacts	

Options

PS 21 M-C S11 P0-T 00

- 00** Standard type
1m PVC cable 4x0.75mm² (Plastic Type)
1m PVC cable 5x0.75mm² (Metal Type)

Others cable lenght

02	2m	07	7m
03	3m	08	8m
04	4m	09	9m
05	5m	10	10m
06	6m		



Limit Switch - Safety Type Plastic and Metal Body



- Double Insulation \square (for thermoplastic type)
- High mechanical resistant
- Degree of protection IP65 (thermoplastic) IP66 (metal)
- Reinforced UL-V0 thermoplastic fiber-glass body
- Zinc alloy (Zamack) or aluminium body
- Positive Opening Operation \rightarrow
- 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
- Conform with IEC 947-5-1 (EN 60947-5-1)

Body

PS 21 S-P S11 05-T 00

	PS31 (Plastic or Metal) width 40mm (fixing interaxe 30mm) 1 cable inlet	
	PS21 (Plastic or Metal) width 30mm (fixing interaxe 20/22mm) 1 cable inlet	
	PS42 (Plastic or Metal) width 50mm (fixing interaxe 40/42mm) 2 cable inlet (Plastic) 3 cable inlet (Metal)	
	PS43 (Only Metal) width 60mm (fixing interaxe 40/42mm) 3 cable inlet	

- (1) **S** = Key Actuator
R = Pull Wire (rope)
Y = Metal
- H** = Hinge (pin or shaft)
K = With Pull Button Reset
T = Thermoplastic

Cable gland

PS 21 S-P S11 05-T 00



- P** = cable inlet PG13.5 cable gland
B = cable inlet PG11 cable gland
M = cable inlet M20x1.5 cable gland
A = cable inlet M16x1.5 cable gland
N = cable inlet 1/2" NPT cable gland

Contact block

PS 21 S-P S11 05-T 00

For all the bodies

S11	1NO + 1NC Snap Action Contacts	
T11	1NO + 1NC Non overlapping Slow Action Contacts	
O11	1NO + 1NC Overlapping Slow Action Contacts	
T02	2NC Slow Action Contacts	
T20	2NO Slow Action Contacts	
S02	2NC Snap Action Contacts	

Only for PS31 and PS43

T12	1NO + 2NC Non overlapping Slow Action Contacts	
T21	2NO + 1NC Non overlapping Slow Action Contacts	
T03	3NC Simultaneous Slow Action Contacts	
T30	3NO Simultaneous Slow Action Contacts	

Accessories for heads type 05 and 09

Operating keys for 05 and 09 heads - only for PS21 and PS42






























K13		Bent key 22mm	K17		Shock absorbing bent key
K14		Flat key 22mm	K18		Shock absorbing flat key
K15		Bent key 13mm	K19		Adjustable joint key
K16		Flat key 13mm			

Operating keys for 05 head - only for PS31 and PS43

K35		Bent key 22mm	K39		Adjustable joint key
K36		Flat key 22mm			

Head

PS 21 L-P S11 PO-M 00

PLUNGER TYPE		LEVER TYPE		SAFETY TYPE	
P0 	Metal plain PLUNGER for all the bodies	RT 	Roller LEVER for all the bodies	05 09 	Key operated 90° adjustable head PSxxS
P0¹ 	Metal plain PLUNGER with fixing nuts PSxxM	BR BE 	Roller internal bent LEVER Roller external bent LEVER PS21L PS42L PSxxM	HC 	Zinc plated steel lever PS21H PS42H
PH 	Metal plain PLUNGER with dust protection cup PS21L PS31L PS42L PSxxM	W0 	LEVER with rubber roller Ø50 PS21L PS31L PS42L PS43L	HZ HS 	Zinc plated steel shaft Stainless steel shaft PS21H PS42H
PR¹ 	Metal roller PLUNGER with fixing nuts PSxxM	R1 	Adjustable LEVER with nylon roller PS21L PS31L PS42L PS43L PSxxM	N6 N7 N7⁴ 	Pull action with ring (25N) PS21R PS42R Pull wire without reset for simple stop PSxxR
PR 	Roller PLUNGER for all the bodies	W1 	Adjustable LEVER with rubber roller Ø50 PS21L PS31L PS42L PS43L PSxxM		Pull wire with reset for emergency stop PSxxR
P9¹ 	Metal cross roller PLUNGER with fixing nuts PSxxM	LA² LG³ 	Adjustable rod LEVER (170mm) PS21L PS31L PS42L PS43L PSxxM	WITH PULL BUTTON RESET	
RH 	Plastic roller lever on metal PLUNGER (left side) PS21L PS31L PS42L PS43L	SHAFT TYPE			
RJ 	Plastic roller lever on metal PLUNGER with dust protection cup (left side) PS21L PS31L PS42L	LS 	Stainless steel spring multidirectional actuator (117mm) PS21L PS31L PS42L PS43L PSxxM	PR 	Steel plunger with nylon roller PS21K PS42K
RV 	Plastic roller lever on metal PLUNGER (right side) PS21L	LP 	Multidirectional nylon actuator with stainless steel spring (115mm) PS21L PS31L PS42L PS43L PSxxM	R3 	Steel plunger with nylon roller PS21K PS42K
RW 	Plastic roller lever on metal PLUNGER with dust protection cup (right side) PS21L	LW 	Stainless steel spring multidirectional actuator (cat Whisker - 135mm) PS21L PS31L PS42L PS43L PSxxM	LR 	Steel plunger with nylon roller PS42K
LR 	Adjustable plastic roller lever on metal PLUNGER (left side) PS21L PS42L PS42K			RT 	Lever with nylon roller PS21K PS42K

1 - With 0L code on options. 2 - Stainless steel rod Ø3. 3 - Fiberglass rod Ø6. 4 - With K0 code on options.

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

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