# Limit Switches - Safety Type Plastic Body IP65 and Metal Body IP66




- High mechanical resistant
- Double Insulation ⧈ (for thermoplastic type)
- Degree of protection IP65 (thermoplastic) IP66 (metal)
- Reinforced UL-V0 thermoplastic fiber-glass body
- 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, CE
- Conform with IEC 947-5-1 (EN 60947-5-1)

## Product Description

They are developed in order to be used for following operations:
For monitoring and protection of industrial machines, without inertia, in which down-time is less than access time to the dangerous area.
Use on sliding or pivoting protectors (covers, cases, doors, grids, etc.).
To protect operators working on dangerous machines, by opening the control circuit. Withdrawal of key by opening the mobile protector, causes immediate stopping of the machine drive.
Specific limit switches ideal for monitoring and protection of light industrial machines without inertia, equipped with angular movement protectors (doors, hinges, rotative covers, grid, etc.).
Detection by the rotative axis or by means of a lever. Opening of the mobile protector guarantees operator protection by immediately stopping the machine drive.
To control the access point of the hazardous area.

## Ordering Key

**PS21S-PS1105-T00**

**Body**
**Cable Gland**
**Contact block**
**Head type**
**Material of body and head**
**Options**

## Description of the key codes

| for Key actuator (key must be ordered separately) Hinge and Wire | | | | | |
|---|---|---|---|---|---|
| PS21S | P | S11 | 05 | T | 00 |
| PS42S | N | S02 | 09 | Y | |
| PS21H | B | T11 | HZ | | |
| PS42H | A | O11 | HS | | |
| | M | T02 | HC | | |
| PS21R | | | N6 | | |
| PS42R | | | N7 | | K0[4] |

| for Key actuator (key must be ordered separately) and Wire | | | | | |
|---|---|---|---|---|---|
| PS31S | P | S11 | 05 | Y | 00 |
| PS43S | N | S02 | | T[5] | |
| | M | T11 | | | |
| PS31R | | O11 | N7 | | |
| PS43R | | T02 | N7 | | K0[4] |
| | | T21 | | | |
| | | T12 | | | |
| | | T03 | | | |

### Cable Gland

| | |
|---|---|
| **M** | M20 |
| **P** | PG13.5 |
| **B** | PG11 |
| **A** | M16 |
| **N** | 1/2 NPT |

### Contact block

| | |
|---|---|
| **O11** | 1NO+1NC overlap slow(+) |
| **S02** | 2NC snap(+) |
| **S11** | 1NO+1NC snap(+) |
| **T02** | 2NC slow(+) |
| **T03** | 3NC slow(+) |
| **T11** | 1NO+1NC slow(+) |
| **T12** | 1NO+2NC slow(+) |
| **T21** | 2NO+1NC slow(+) |

### Material of body and head

| | |
|---|---|
| **T** | Thermoplastic Body and Thermoplastic head |
| **Y** | Metal Body and Thermoplastic head |

### Body

| | |
|---|---|
| **PS21H** | PS 30mm/1.18” (fix 20/22mm/0.79”/0.87”)<br>1 cable inlet for hinge (shaft or pin) |
| **PS42H** | PS 50mm/1.97” (fix 40/42mm/1.57”/1.65”)<br>2 cable inlet for hinge (shaft or pin) |
| **PS21R** | PS 30mm/1.18” (fix 20/22mm/0.79”/0.87”)<br>1 cable inlet for pull wire |
| **PS31R** | PS 40mm/1.57” (fix 30mm/1.18”)<br>1 cable inlet for pull wire |
| **PS42R** | PS 50mm/1.97” (fix 40/42mm/1.57”/1.65”)<br>2 cable inlet for pull wire |
| **PS43R** | PS 60mm/2.36” (fix 40/42mm/1.57”/1.65”)<br>3 cable inlet for pull wire |
| **PS21S** | PS 30mm/1.18” (fix 20/22mm/0.79”/0.87”)<br>1 cable inlet for Key actuator |
| **PS31S** | PS 40mm/1.57” (fix 30mm/1.18”)<br>1 cable inlet for Key actuator |
| **PS42S** | PS 50mm/1.97” (fix 40/42mm/1.57”/1.65”)<br>2 cable inlet for Key actuator |
| **PS43S** | PS 60mm/2.36” (fix 40/42mm/1.57”/1.65”)<br>3 cable inlet for Key actuator |

### Head type

| | |
|---|---|
| **05** | 90° Adj. key head |
| **09** | Fully turnable key head |
| **HC** | Zinc plated steel LEVER |
| **HS** | Stainless steel shaft |
| **HZ** | Zinc plated steel shaft |
| **N6** | Pull wire for simple stop |
| **N7** | Pull wire for emergency stop |

### Options

| | |
|---|---|
| **00** | no option |
| **K0** | with reset button |


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## Technical Data

| | Plastic Body | Metal body |
|---|---|---|
| **Standards** | **IEC 60947-1, IEC 60947-5-1, EN 60947-1, EN 60947-5-1, UL508 and CSA C22-2 n°14** | |
| **Certifications – Approvals** | **UL – CSA** | |
| **Air temperature** near the device | | |
| - during operation | **-25°C…+70°C/-13°F...158°F** | |
| - for storage | **-30°C…+80°C/-22°F...+176°F** | |
| **Climatic withstand** | **According to IEC 68-2-3 and salty mist according to IEC 68-2-11** | |
| **Mounting positions** | **All positions are authorized** | |
| **Shock withstand** (according to IEC 68-2-27 and 60068-2-27) | **10g/0.35oz** Limit switch with **key actuator** | |
| (1/2 sinusoidal shock for 11ms) no change in contact position | **40g/1.41oz** Limit switch for **hinge (pin/shaft) or pull wire (rope)** | |
| **Protection against electrical shocks** (according to IEC 536) | **Class II** | **Class I** |
| **Degree of protection** (according to IEC 529 and EN 60529) | **IP65** | **IP66** |

## Electrical Data

| | | | Plastic Body | Metal body |
|---|---|---|---|---|
| **Rated insulation voltage $U_i$** | | | | |
| -according to IEC 60947-1 and EN 60947-1 | | | **500V** (degree of pollution 3) | **400V** (PS21,PS42), **500V** (PS31,PS43) (degree of pollution 3) |
| -according to UL 508, CSA C22-2 n°14 | | | **A 600 Q600** | **A 300 Q 300** (PS21, PS42) **A 600 Q 600** (PS31, PS43) |
| **Rated impulse withstand voltage $U_{imp}$** (according to IEC 60947-1 and EN 60947-1) | | | **6kV** | |
| **Conventional enclosed thermal current $I_{the}$** (according to IEC 60947-1 and EN 60947-5-1) (θ≤40°C) | | | **10A** | |
| **Short-circuit protection -** gG type fuses | | | **10A** | |
| **Rated operational current** | | | | |
| **$I_e$ / AC-15** | - acc.to IEC 60947-5-1 | 24VAC (50/60 Hz) | **10.0A** | |
| | | 130VAC (50/60 Hz) | **5.5A** | |
| | | 230VAC (50/60 Hz) | **3.1A** | |
| | | 240VAC (50/60 Hz) | **3.0A** | |
| | | 400VAC (50/60 Hz) | **1.8A** | |
| | - acc.to UL 508, CSA C22 n°14 | | **Q 600** | **Q 300** (PS21/42) **Q 600** (PS31/43) |
| **$I_e$ / DC-13** | - acc.to IEC 60947-5-1 | 24VDC | **2.8A** | |
| | | 110VDC | **0.6A** | |
| | | 250VDC | **0.27A** | |
| | - acc.to UL 508, CSA C22 n°14 | | **Q 600** | **Q 300** (PS21/42) **Q 600** (PS31/43) |
| **Electrical durability** (according to IEC 60497-5-1 annex C) | | | Utilization categories AC-15 and DC-13 (see curves and value below) | |
| - max. switching frequency Cycles/h | | | **3600** | |
| - load factor | | | **0.5** | |
| **Connecting data of contact blocks** | | | | |
| Connecting terminals | | | **M3.5 (+,-) pozidriv 2 screw with cable clamp** | |
| Connecting capacity 1 or 2 x mm² / AWG | | | **0.5mm² / AWG 20 to 2.5mm² / AWG 14** | |
| Terminal marking | | | **According to EN 50013** | |
| **Positivity** | | | Contacts with positive opening operation as per IEC 60947-5-1 chapter 3 | |

**Diagram for snap action contact:**

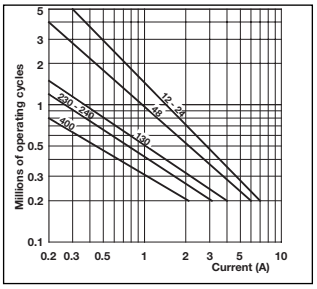
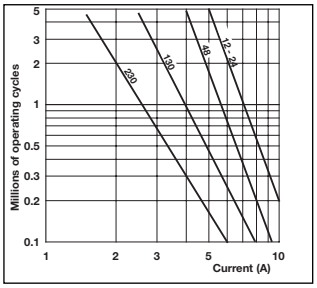



**Diagram for slow action contact:**




**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 |

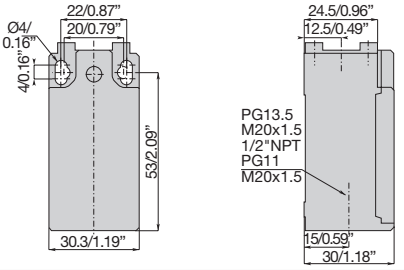

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# Limit Switches - Limit Type (PS21S/H/R)
# Plastic Body IP65

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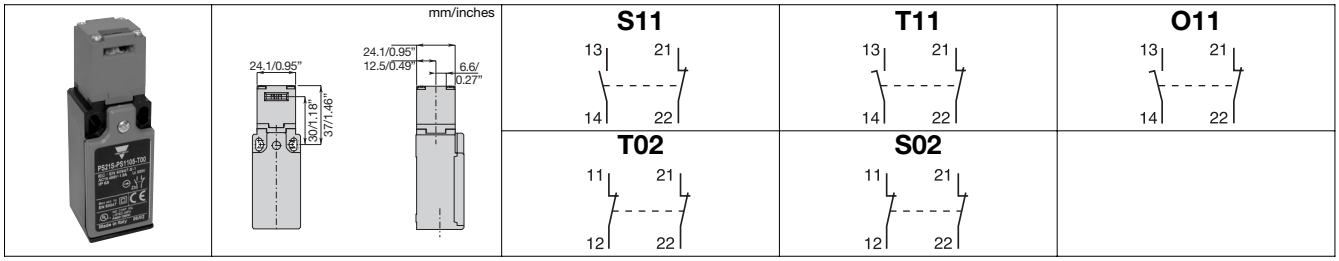
## ● Cable Gland

**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
**B** = one cable inlet PG11 cable gland
**A** = one cable inlet M16x1.5 cable gland

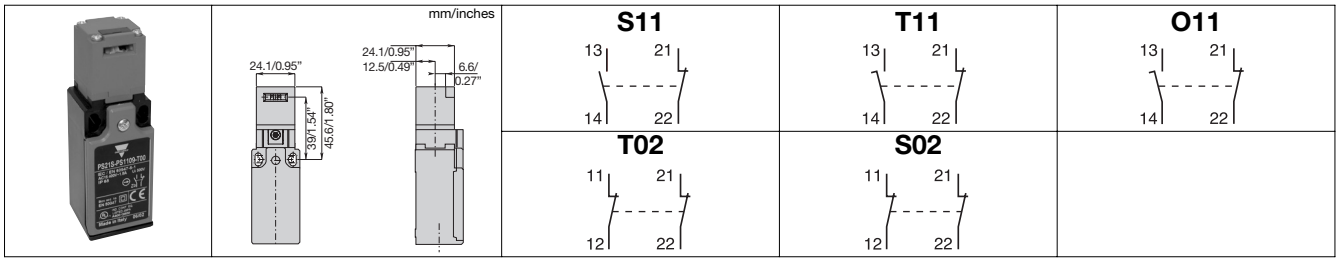



## ▲ Contact block (Zb type)

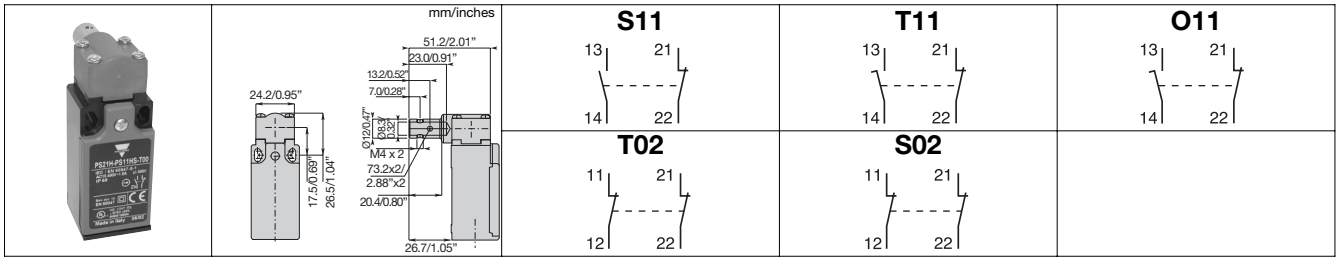
| | | |
|---|---|---|
| **S11** (1NO+1NC) Snap Action | **T11** (1NO+1NC) Non overlapping Slow action | **O11** (1NO+1NC) Overlapping Slow Action |
| **T02** (2NC) Slow Action | **S02** (2NC) Snap Action | |



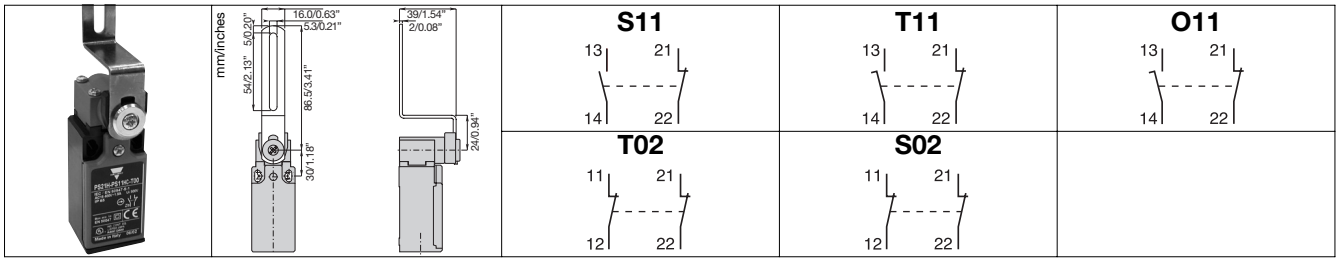

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **90° adjustable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS21S-● ▲05-T00** |
| **Min. force or torque** | 15N / 30Nm | | |
| **Weight** | 78.0g / 2.751oz | | |




| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Fully turnable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS21S-● ▲09-T00** |
| **Min. force or torque** | 15N / 30Nm | | |
| **Weight** | 99.0g / 3.492oz | | |



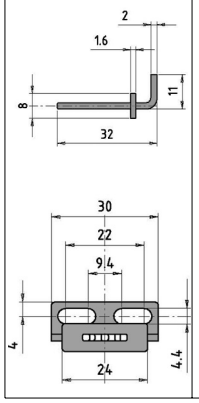
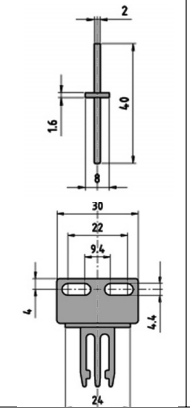
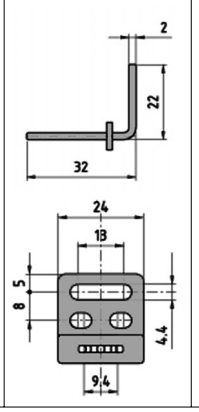
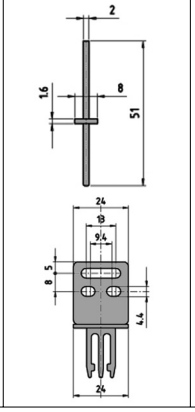
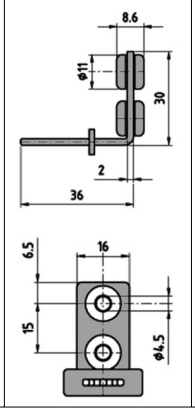
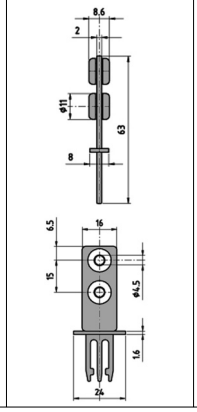
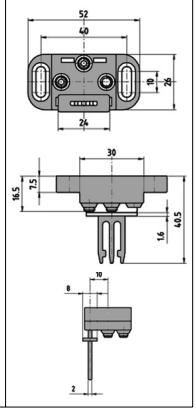

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Shaft for hinge** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** Zinc plated steel | **PS21H-● ▲HZ-T00** |
| **Min. force or torque** | 0.12N / 0.60Nm | Stainless steel | **PS21H-● ▲HS-T00** |
| **Weight** | 98.0g / 3.457oz | | |




| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Zinc plated steel lever** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS21H-● ▲HC-T00** |
| **Min. force or torque** | 0.12N / 0.60Nm | | |
| **Weight** | 117.0g / 4.127oz | | |


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## Operating Key

| | | | | | | |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |
| **K13** Bent Key 22mm/0.87” | **K14** Flat Key 22mm/0.87” | **K15** Bent Key 13mm/0.51” | **K16** Flat Key 13mm/0.51” | **K17** Shock absorbing bent key | **K18** Shock absorbing flat key | **K19** Adjustable joint key |
|  |  |  |  |  |  |  |

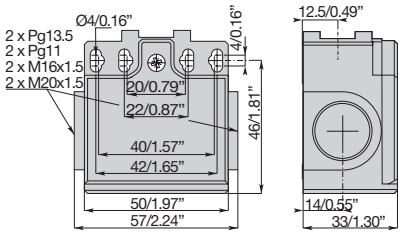
## Accessories for Pull Wire Limit Switches

| | | | |
|---|---|---|---|
|  |  |  |  |
| **OCC 8** Stay Bolt | **MOR 05** Rope Clamp | **RED 05** Rope Eye | **FUN 05** Rope 5mm x 100m 0.20” x 328.08ft |

# Limit Switches - Safety Type (PS42S/H/R)
# Plastic Body IP65

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## ● Cable Gland

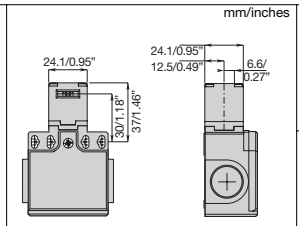



**P** = one cable inlet PG13.5 cable gland
**M** = one cable inlet M20x1.5 cable gland
**N** = one cable inlet 1/2" NPT cable gland
**B** = one cable inlet PG11 cable gland
**A** = one cable inlet M16x1.5 cable gland

## ▲ 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 | **S02** (2NC) Snap Action | |

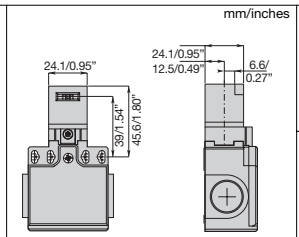





**S11** 13 21 / 14 22 — **T11** 13 21 / 14 22 — **O11** 13 21 / 14 22
**T02** 11 21 / 12 22 — **S02** 11 21 / 12 22

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **90° adjustable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS42S-● ▲05-T00** |
| **Min. force or torque** | 15N / 30Nm | | |
| **Weight** | 114.0g / 4.021oz | | |

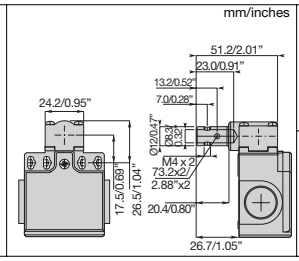





**S11** 13 21 / 14 22 — **T11** 13 21 / 14 22 — **O11** 13 21 / 14 22
**T02** 11 21 / 12 22 — **S02** 11 21 / 12 22

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Fully turnable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS42S-● ▲09-T00** |
| **Min. force or torque** | 15N / 30Nm | | |
| **Weight** | 125.0g / 4.409oz | | |

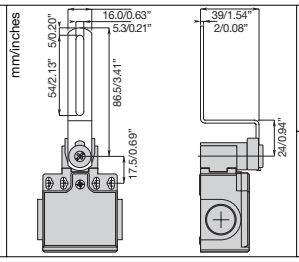





**S11** 13 21 / 14 22 — **T11** 13 21 / 14 22 — **O11** 13 21 / 14 22
**T02** 11 21 / 12 22 — **S02** 11 21 / 12 22

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Shaft for hinge** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** Zinc plated steel | **PS42H-● ▲HZ-T00** |
| **Min. force or torque** | 0.12N / 0.60Nm | Stainless steel | **PS42H-● ▲HS-T00** |
| **Weight** | 128.0g / 4.515oz | | |



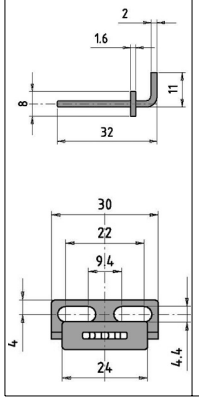
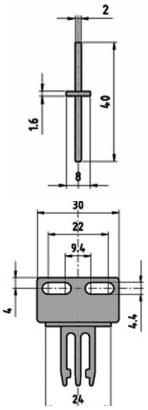
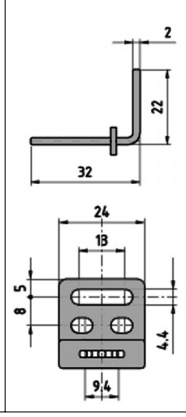
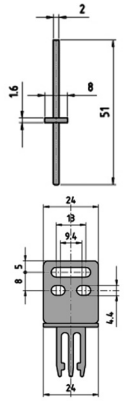
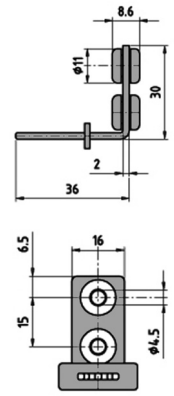
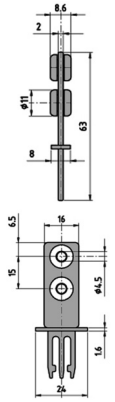
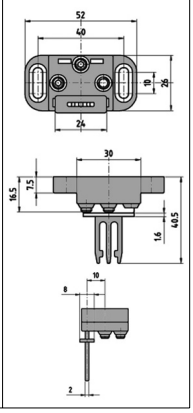



**S11** 13 21 / 14 22 — **T11** 13 21 / 14 22 — **O11** 13 21 / 14 22
**T02** 11 21 / 12 22 — **S02** 11 21 / 12 22

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Zinc plated steel lever** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS42H-● ▲HC-T00** |
| **Min. force or torque** | 0.12N / 0.60Nm | | |
| **Weight** | 152.0g / 5.362oz | | |


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## Operating Key

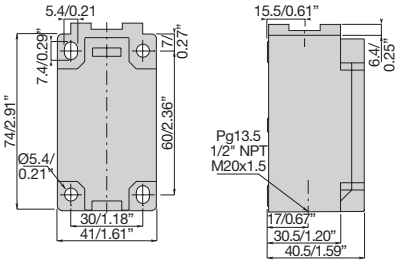
| | | | | | | |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |
| **K13**<br>Bent Key<br>22mm/0.87” | **K14**<br>Flat Key<br>22mm/0.87” | **K15**<br>Bent Key<br>13mm/0.51” | **K16**<br>Flat Key<br>13mm/0.51” | **K17**<br>Shock absorbing bent key | **K18**<br>Shock absorbing flat key | **K19**<br>Adjustable joint key |
|  |  |  |  |  |  |  |

## Accessories for Pull Wire Limit Switches

| | | | |
|---|---|---|---|
|  |  |  |  |
| **OCC 8**<br>Stay bolt | **MOR 05**<br>Rope Clamp | **RED 05**<br>Rope Eye | **FUN 05**<br>Rope 5mm x 100m<br>0.20” x 328.08ft |


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# Limit Switches - Safety Type (PS31S) plastic Body IP65



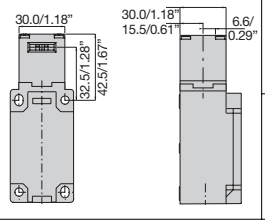

## ● Cable Gland

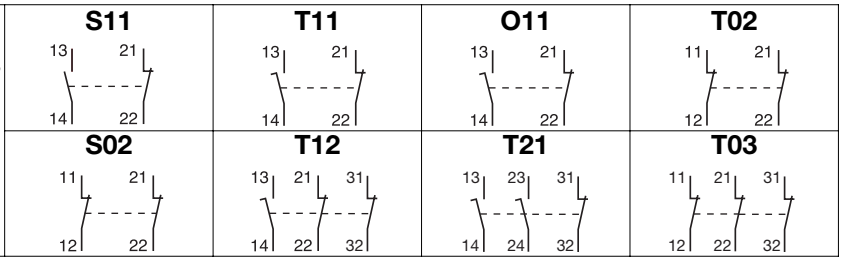
**P** = one cable inlet PG13.5 cable gland
**M** = one cable inlet M20x1.5 cable gland
**N** = one cable inlet 1/2" NPT cable gland

## ▲ 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 |
| **S02** (2NC) Snap action | **T12** (1NO+2NC) Non overlapping Slow action | **T21** (2NO+1NC) Non overlapping Slow action | **T03** (3NC) Simultanous Slow action |






| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50041 /⊖ | **Key operated 90° adjustable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS31S-● ▲05-T00** |
| **Min. force or torque** | 30N / 45Nm | | |
| **Weight** | 158.0g / 5.573oz | | |

## Operating Key



**K35**

Bent Key
13mm/0.51"



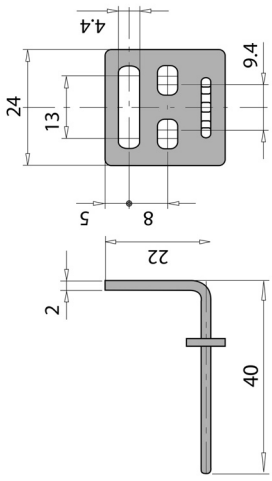
**K36**

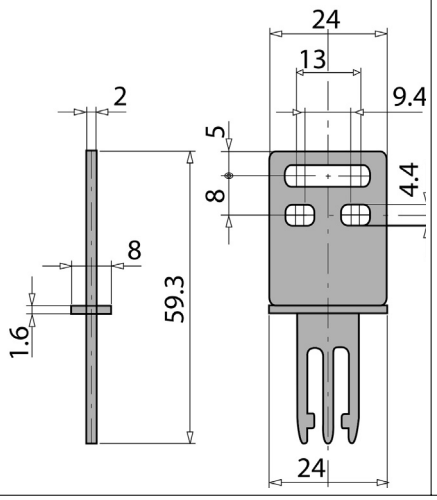
Flat Key
13mm/0.51"

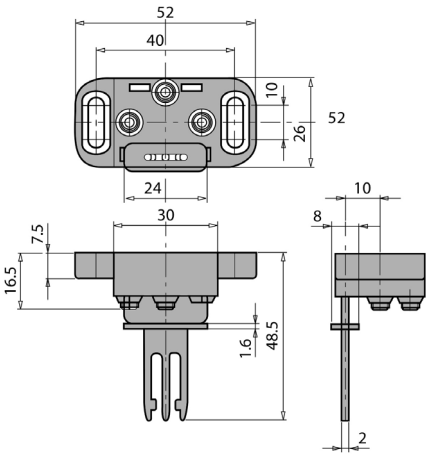


**K39**

Adjustable Joint Key





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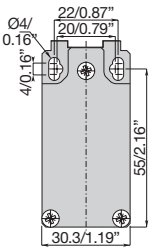
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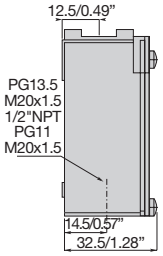
# Limit Switches - Safety Type (PS21S/H/R) Metal Body IP66

CARLO GAVAZZI

## ● 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
**B** = one cable inlet PG11 cable gland
**A** = one cable inlet M16x1.5 cable gland

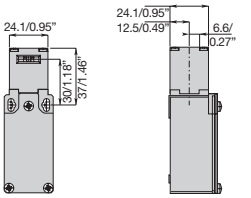



## ▲ Contact block (Zb type)

| | | |
|---|---|---|
| **S11** (1NO+1NC) Snap Action | **T11** (1NO+1NC) Non overlapping Slow action | **O11** (1NO+1NC) Overlapping Slow Action |
| **T02** (2NC) Slow Action | **S02** (2NC) Snap Action | |

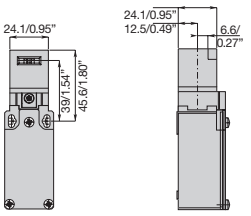





**S11** 13 21 / 14 22 — **T11** 13 21 / 14 22 — **O11** 13 21 / 14 22
**T02** 11 21 / 12 22 — **S02** 11 21 / 12 22

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **90° adjustable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS21S-● ▲05-Y00** |
| **Min. force or torque** | 15N / 30Nm | | |
| **Weight** | 177.0g / 6.243oz | | |

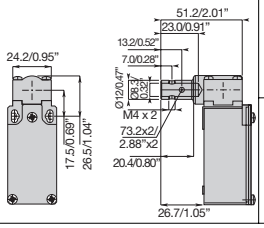





**S11** 13 21 / 14 22 — **T11** 13 21 / 14 22 — **O11** 13 21 / 14 22
**T02** 11 21 / 12 22 — **S02** 11 21 / 12 22

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Fully turnable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS21S-● ▲09-Y00** |
| **Min. force or torque** | 15N / 30Nm | | |
| **Weight** | 195.0g / 6.878oz | | |

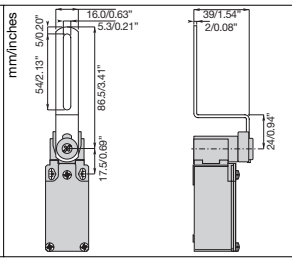





**S11** 13 21 / 14 22 — **T11** 13 21 / 14 22 — **O11** 13 21 / 14 22
**T02** 11 21 / 12 22 — **S02** 11 21 / 12 22

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Shaft for hinge** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** Zinc plated steel | **PS21H-● ▲HZ-Y00** |
| **Min. force or torque** | 0.12N / 0.60Nm | Stainless steel | **PS21H-● ▲HS-Y00** |
| **Weight** | 195.0g / 6.878oz | | |



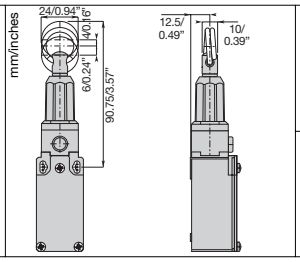


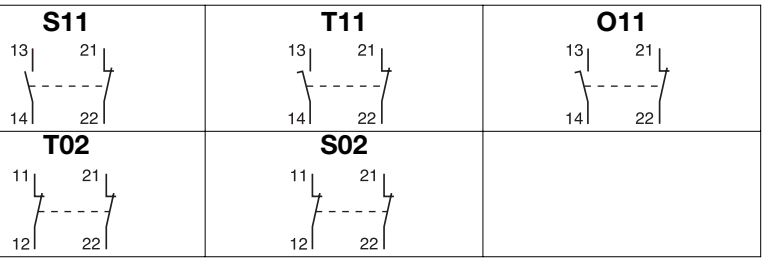

**S11** 13 21 / 14 22 — **T11** 13 21 / 14 22 — **O11** 13 21 / 14 22
**T02** 11 21 / 12 22 — **S02** 11 21 / 12 22

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Zinc plated steel lever** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS21H-● ▲HC-Y00** |
| **Min. force or torque** | 0.12N / 0.60Nm | | |
| **Weight** | 213.0g / 7.513oz | | |


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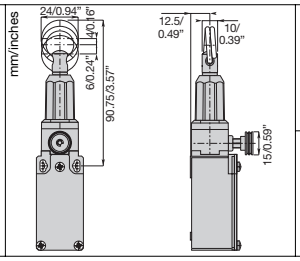


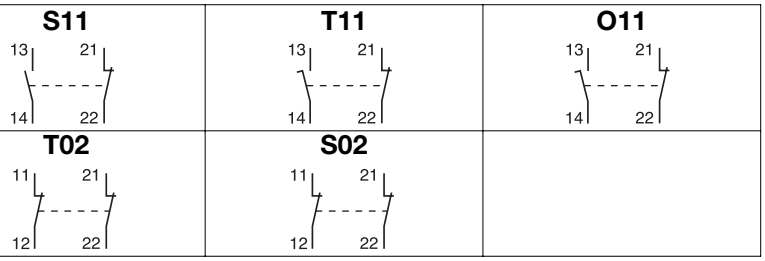



| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | / ⊖ | **Pull wire without reset for simple stop** | |
| **Max. Actuation speed** | - | **Code** | **PS21R-● ▲ N6-Y00** |
| **Max wire lenght** | 6m/19.68ft ÷ 15m/49.21ft | | |
| **Weight** | 226.0g / 7.972oz | | |

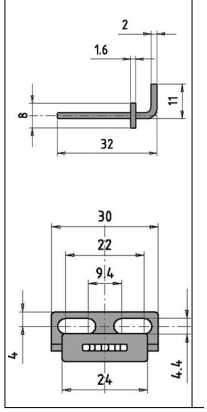
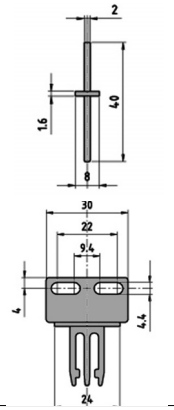
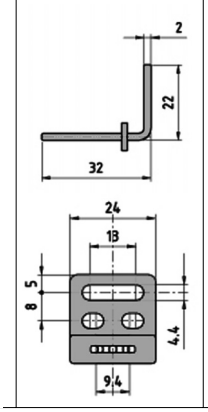
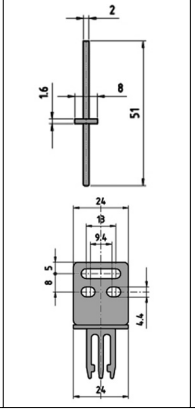
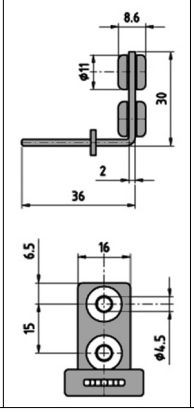
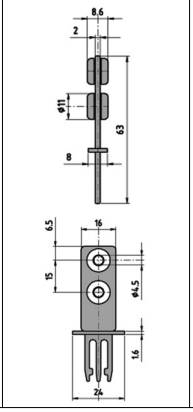
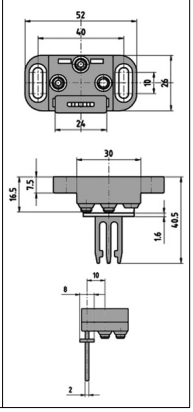





| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Pull wire with reset for emergency stop** | |
| **Max. Actuation speed** | - | **Code** | **PS21R-● ▲ N7-YK0** |
| **Max wire lenght** | 6m/19.68ft ÷ 15m/49.21ft | | |
| **Weight** | 231.0g / 8.148oz | | |

## Operating Key

| | | | | | | |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |
| **K13**<br>Bent Key<br>22mm/0.87” | **K14**<br>Flat Key<br>22mm/0.87” | **K15**<br>Bent Key<br>13mm/0.51” | **K16**<br>Flat Key<br>13mm/0.51” | **K17**<br>Shock absorbing bent key | **K18**<br>Shock absorbing flat key | **K19**<br>Adjustable joint key |
|  |  |  |  |  |  |  |

## Accessories for Pull Wire Limit Switches

| | | | |
|---|---|---|---|
|  |  |  |  |
| **OCC 8**<br>Stay bolt | **MOR 05**<br>Rope Clamp | **RED 05**<br>Rope Eye | **FUN 05**<br>Rope 5mm x 100m<br>0.20” x 328.08ft |

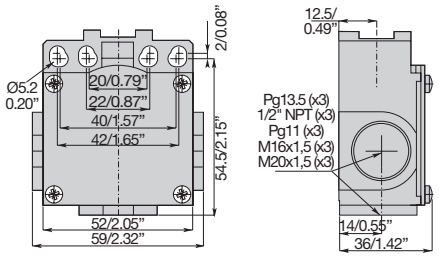


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# Limit Switches - Safety Type (PS42S/H/R)
# Metal Body IP66

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## ● Cable Gland



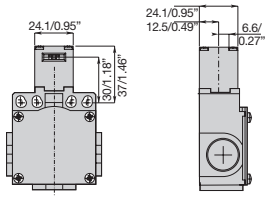

**P** = one cable inlet PG13.5 cable gland
**M** = one cable inlet M20x1.5 cable gland
**N** = one cable inlet 1/2" NPT cable gland
**B** = one cable inlet PG11 cable gland
**A** = one cable inlet M16x1.5 cable gland

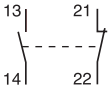
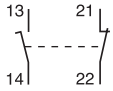
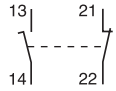
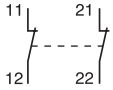
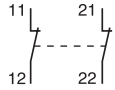
## ▲ Contact block (Zb type)

| | | |
|---|---|---|
| **S11** (1NO+1NC) Snap Action  | **T11** (1NO+1NC) Non overlapping Slow action  | **O11** (1NO+1NC) Overlapping Slow Action  |
| **T02** (2NC) Slow Action  | **S02** (2NC) Snap Action  | |



mm/inches

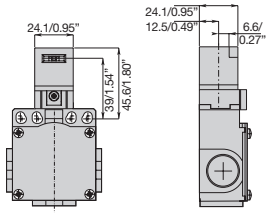


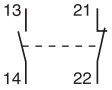
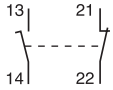
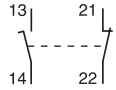
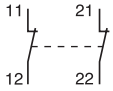
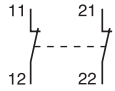

**S11** 
**T11** 
**O11** 
**T02** 
**S02** 

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **90° adjustable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS42S-● ▲05-Y00** |
| **Min. force or torque** | 15N / 30Nm | | |
| **Weight** | 285.0g / 10.053oz | | |



mm/inches

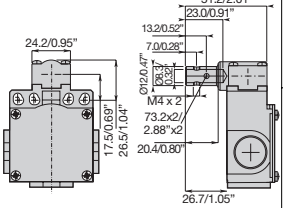


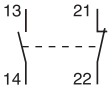
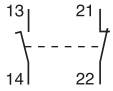
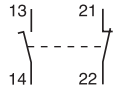
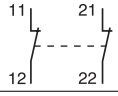
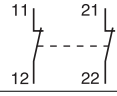

**S11** 
**T11** 
**O11** 
**T02** 
**S02** 

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Fully turnable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS42S-● ▲09-Y00** |
| **Min. force or torque** | 15N / 30Nm | | |
| **Weight** | 296.0g / 10.441oz | | |



mm/inches

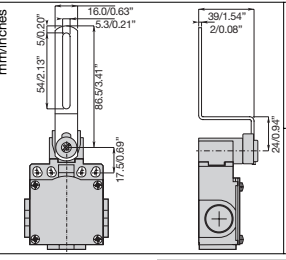


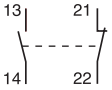
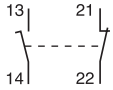
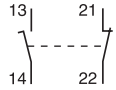
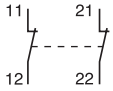
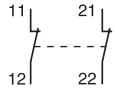

**S11** 
**T11** 
**O11** 
**T02** 
**S02** 

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Shaft for hinge** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** Zinc plated steel | **PS42H-● ▲HZ-Y00** |
| **Min. force or torque** | 0.12N / 0.60Nm | Stainless steel | **PS42H-● ▲HS-Y00** |
| **Weight** | 297.0g / 10.476oz | | |



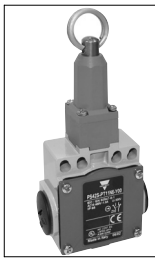
mm/inches

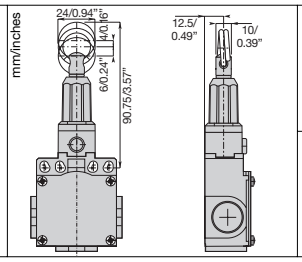


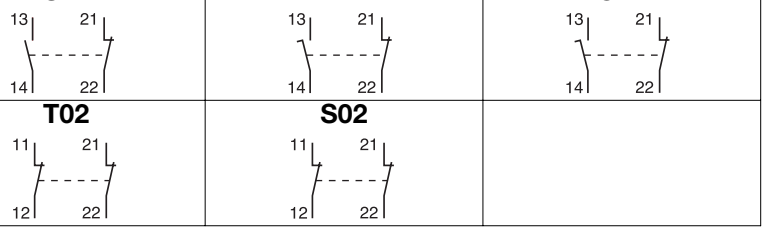

**S11** 
**T11** 
**O11** 
**T02** 
**S02** 

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Zinc plated steel lever** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS42H-● ▲HC-Y00** |
| **Min. force or torque** | 0.12N / 0.60Nm | | |
| **Weight** | 297.0g / 10.476oz | | |

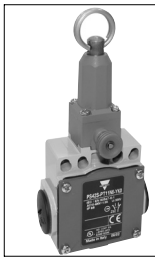

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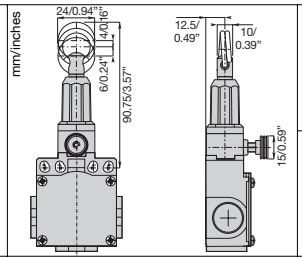


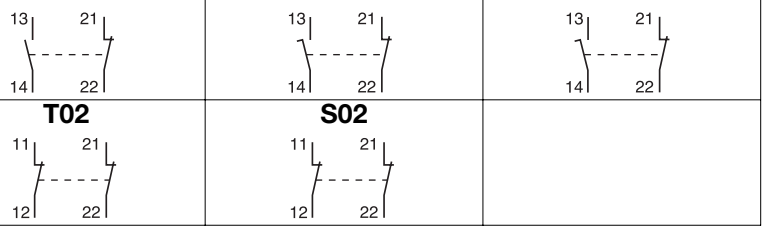



| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | / ⊖ | **Pull wire without reset for simple stop** | |
| **Max. Actuation speed** | - | **Code** | **PS42R-● ▲ N6-Y00** |
| **Max wire lenght** | 6m/19.68ft ÷ 15m/49.21ft | | |
| **Weight** | 292.0g / 10.300oz | | |





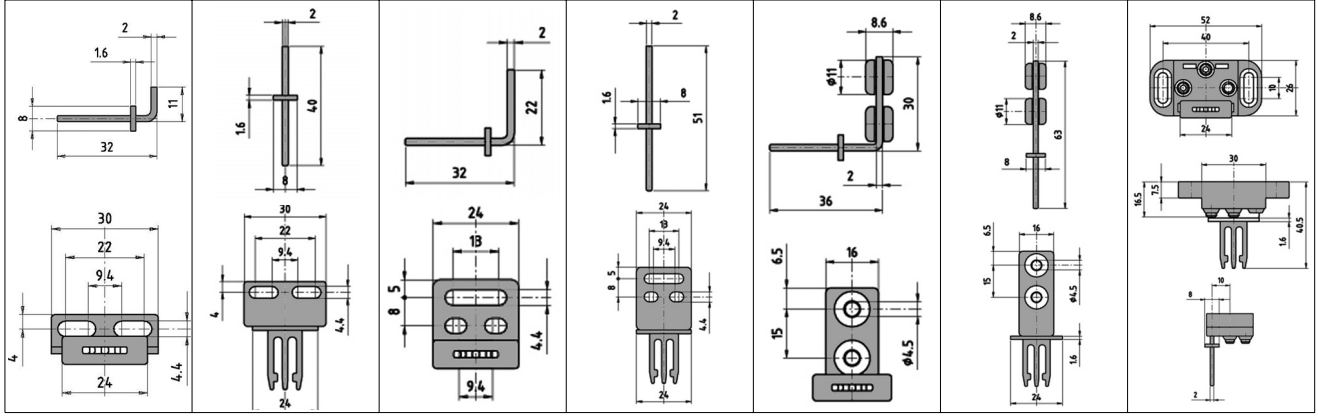




| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50047 /⊖ | **Pull wire with reset for emergency stop** | |
| **Max. Actuation speed** | - | **Code** | **PS42R-● ▲ N7-YK0** |
| **Max wire lenght** | 6m/19.68ft ÷ 15m/49.21ft | | |
| **Weight** | 297.0g / 10.476oz | | |

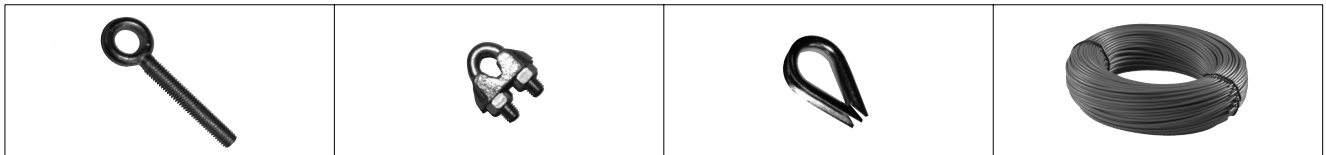
## Operating Key



| K13 | K14 | K15 | K16 | K17 | K18 | K19 |
|---|---|---|---|---|---|---|
| Bent Key 22mm/0.87” | Flat Key 22mm/0.87” | Bent Key 13mm/0.51” | Flat Key 13mm/0.51” | Shock absorbing bent key | Shock absorbing flat key | Adjustable joint key |



## Accessories for Pull Wire Limit Switches



| OCC 8 | MOR 05 | RED 05 | FUN 05 |
|---|---|---|---|
| Stay bolt | Rope Clamp | Rope Eye | Rope 5mm x 100m 0.20” x 328.08ft |



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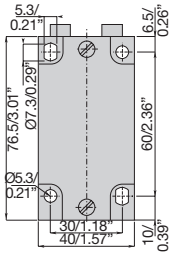
Sensoren

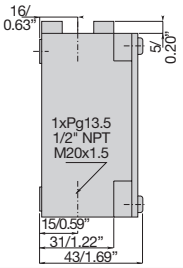
# Limit Switches - Safety Type (PS31S/R) Metal Body IP66

CARLO GAVAZZI

## ● 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

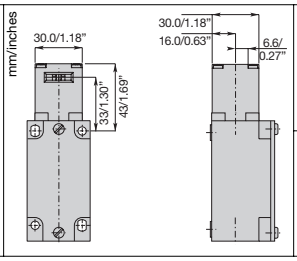



## ▲ Contact block (Zb type)

| | | | |
|---|---|---|---|
| **S11** (1NO+1NC) Snap action | **T11** (1NO+1NC) Non overlapping Slow action | **O11** (1NO+1NC) Overlapping Slow action | **T02** (2NC) Slow Action |
| **S02** (2NC) Snap action | **T12** (1NO+2NC) Non overlapping Slow action | **T21** (2NO+1NC) Non overlapping Slow action | **T03** (3NC) Simultanous Slow action |

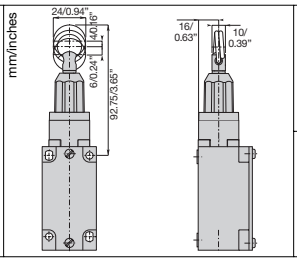





| S11 | T11 | O11 | T02 |
|---|---|---|---|
| S02 | T12 | T21 | T03 |

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50041 /⊖ | **Key operated 90° adjustable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS31S-● ▲05-Y00** |
| **Min. force or torque** | 30N / 45Nm | | |
| **Weight** | 210.0g / 7.408oz | | |

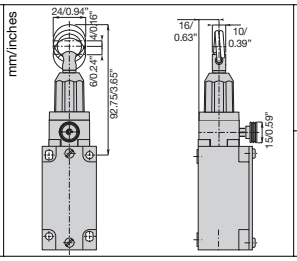





| S11 | T11 | O11 | T02 |
|---|---|---|---|
| S02 | T12 | T21 | T03 |

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50041 /⊖ | **Pull wire without reset for simple stop** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS31R-● ▲N7-Y00** |
| **Min. force or torque** | 16m/52.49ft ÷ 25m/82.02ft | | |
| **Weight** | 268.0g / 9.453oz | | |



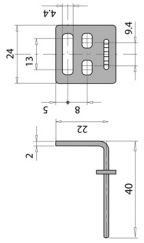



| S11 | T11 | O11 | T02 |
|---|---|---|---|
| S02 | T12 | T21 | T03 |

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50041 /⊖ | **Pull wire with reset for emergency stop** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS31R-● ▲N7-YK0** |
| **Min. force or torque** | 16m/52.49ft ÷ 25m/82.02ft | | |
| **Weight** | 270.0g / 9.524oz | | |

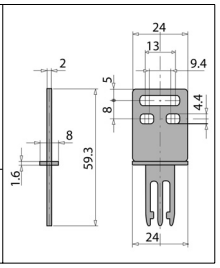
## Operating Key





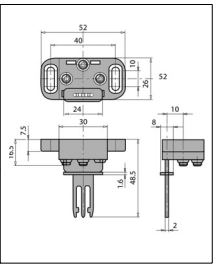
**K35**
Bent Key
13mm/0.51"





**K36**
Flat Key
13mm/0.51"





**K39**
Adjustable Joint Key

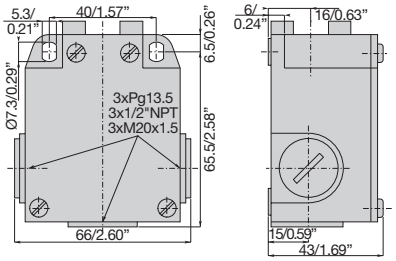

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# Limit Switches - Safety Type (PS43S/R)
# Metal Body IP66

CARLO GAVAZZI

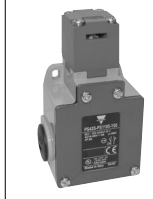
## ● Cable Gland

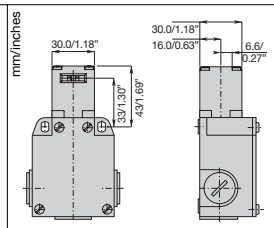
**P** = one cable inlet PG13.5 cable gland
**M** = one cable inlet M20x1.5 cable gland
**N** = one cable inlet 1/2" NPT cable gland




## ▲ Contact block (Zb type)

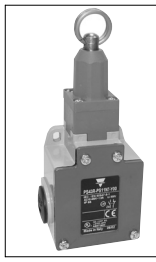
| | | | |
|---|---|---|---|
| **S11** (1NO+1NC) Snap action | **T11** (1NO+1NC) Non overlapping Slow action | **O11** (1NO+1NC) Overlapping Slow action | **T02** (2NC) Slow Action |
| **S02** (2NC) Snap action | **T12** (1NO+2NC) Non overlapping Slow action | **T21** (2NO+1NC) Non overlapping Slow action | **T03** (3NC) Simultanous Slow action |

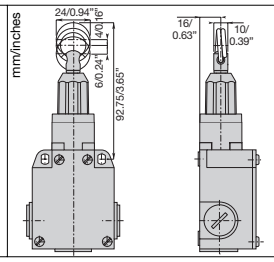





S11 | T11 | O11 | T02
S02 | T12 | T21 | T03

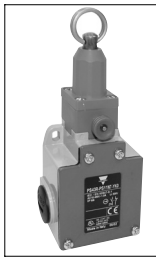
| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50041 /⊖ | **Key operated 90° adjustable head** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS43S-● ▲05-Y00** |
| **Min. force or torque** | 14N / 40Nm | | |
| **Weight** | 227.0g / 8.007oz | | |

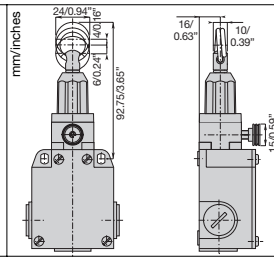





S11 | T11 | O11 | T02
S02 | T12 | T21 | T03

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50041 /⊖ | **Pull wire without reset for simple stop** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS43R-● ▲N7-Y00** |
| **Min. force or torque** | 16m/52.49ft ÷ 25m/82.02ft | | |
| **Weight** | 270.0g / 9.524oz | | |



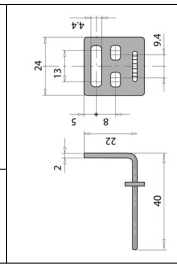



S11 | T11 | O11 | T02
S02 | T12 | T21 | T03

| | | | |
|---|---|---|---|
| **Conformity /⊖ (NC)** | EN 50041 /⊖ | **Pull wire with reset for emergency stop** | |
| **Max. Actuation speed** | 0.5m/s / 1.64ft/s | **Code** | **PS43R-● ▲N7-YK0** |
| **Min. force or torque** | 16m/52.49ft ÷ 25m/82.02ft | | |
| **Weight** | 274.0g / 9.665oz | | |

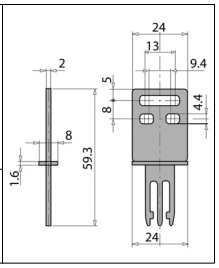
## Operating Key





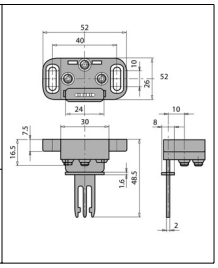

**K35**
Bent Key
13mm/0.51"






**K36**
Flat Key
13mm/0.51"



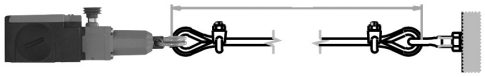



**K39**
Adjustable Joint
Key

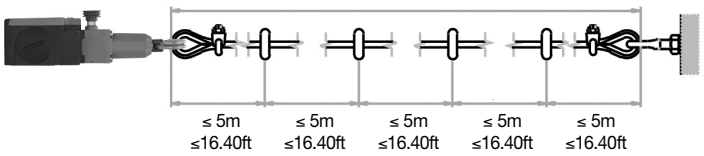

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## Utilization precautions

**Maximum lenght application of pullwire head**

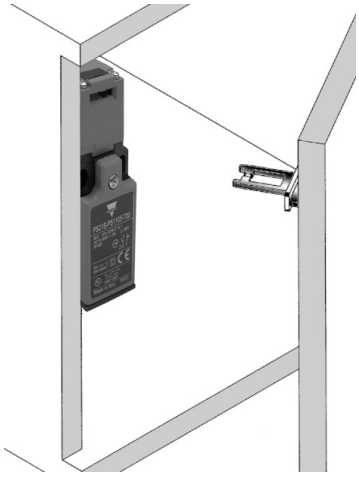


PS21, PS42: 6m/19.70ft max.
PS31, PS43: 16m/52.49ft max.

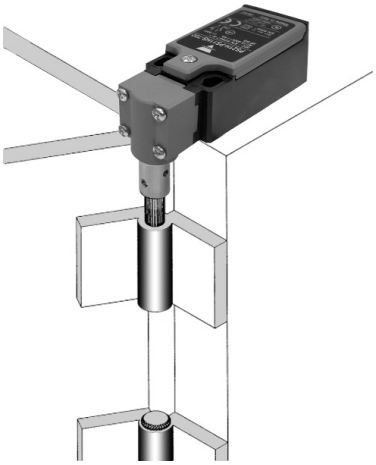



PS21, PS42: 15m/49.21ft max.
PS31, PS43: 25m/82.02ft max.

**Example of applications**



Key actuator type



Head for hinge (by pin)



Head for hinge (by shaft)

## Adjustment

**5 way key actuator head**



## Accessories for Pull Wire Limit Switches

| | | | |
|---|---|---|---|
|  |  |  |  |
| **OCC 8**<br>Stay bolt | **MOR 05**<br>Rope Clamp | **RED 05**<br>Rope Eye | **FUN 05**<br>Rope 5mmx100m<br>0.20” x 328.08ft |


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