

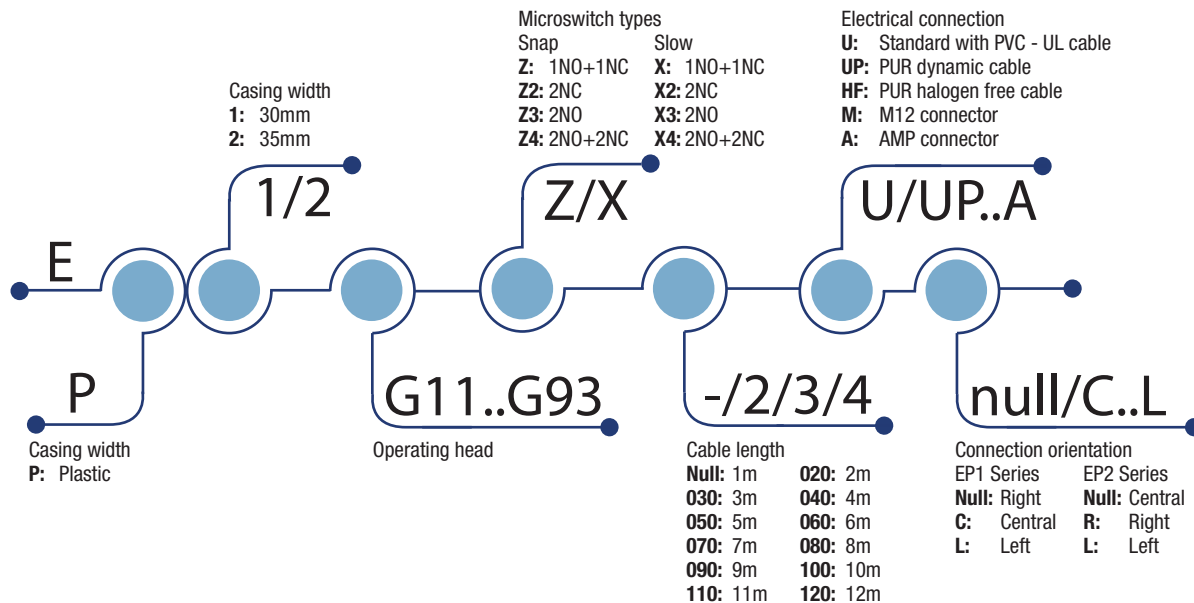
Limit Switches EP series

Summary

APPROVALS: UL 508 / CSA C22-2 N. 14 / IEC 60947-5-1



CB-SCHEME certification according to IEC 60947-5-1



HOW IS IT MADE?

01 A variety of actuators

- Plain plunger
- Roller plunger
- Roller lever, adjustable or not, etc.

02 Wide range of heads

- Assembled using 2 x Ø3 screws or 2 plug

03 Casing:

- 30 or 35 mm. width

04 Mounting screws

- 2 x M4 screws on top part

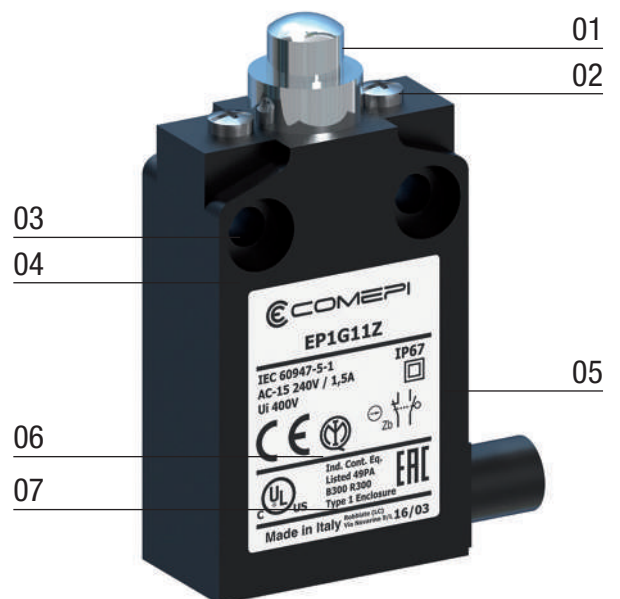
05 Epoxy resin for IP67 protection degree

06 Contact Block

- Positive opening operation
- Snap action or slow action
- Electrically separated contacts

07 Connecting terminals

- Cable: PVC 4 x 0,75 mm²
- Special cables: Halogen Free or Dynamic PUR
- M12 connector
- AMP connector



Limit Switches **EP series**

Description

APPLICATIONS

Easy to use, electromechanical limit switches offer specific qualities:

- Visible operation.
- Able to switch strong currents (up to 10 A conventional thermal current).
- Electrically separated contacts.
- Precise operating points (consistency).
- Immune to electromagnetic disturbances.

They are purpose-built detection devices thanks to these characteristics:

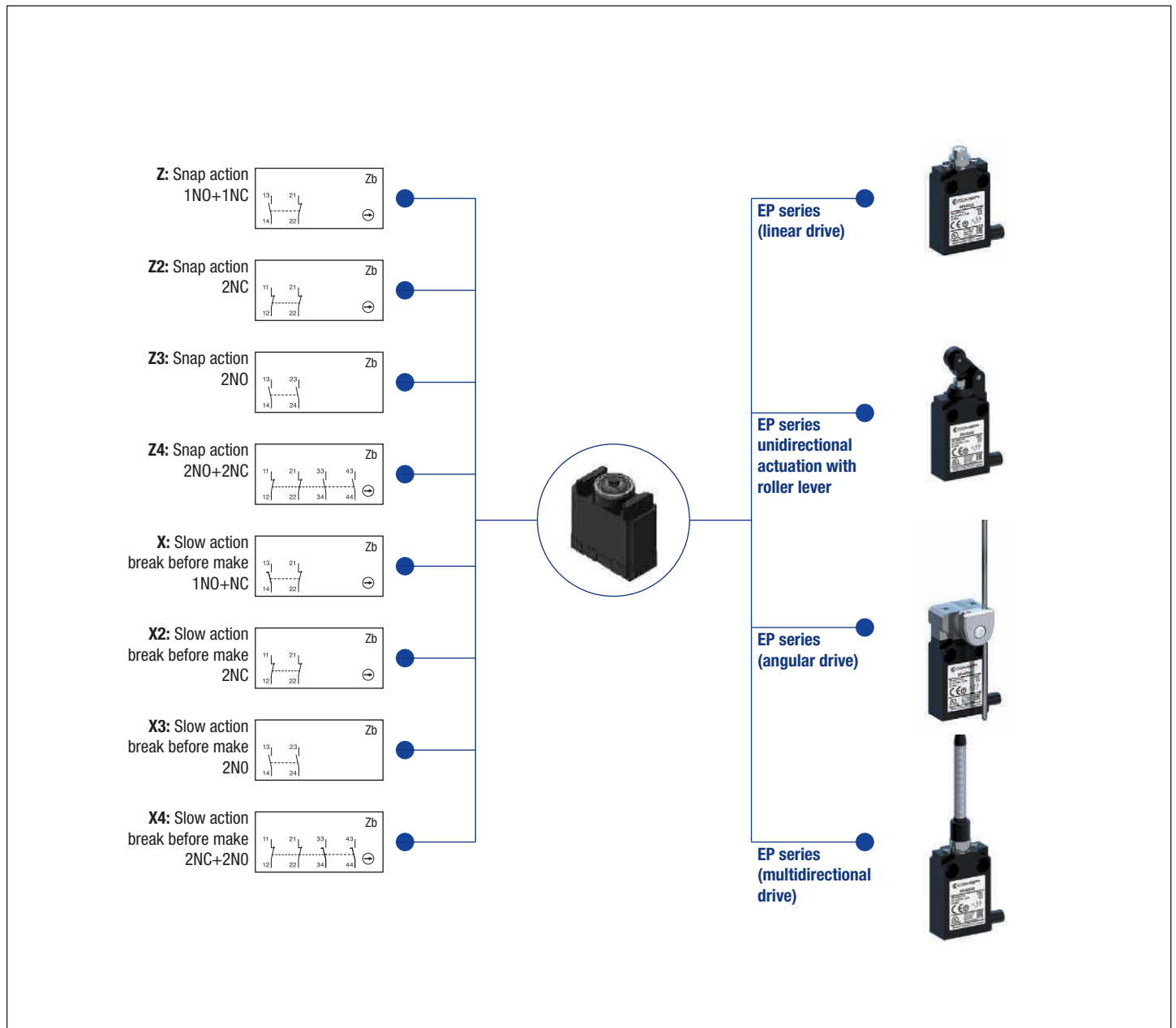
- Presence/absence.
- Positioning and travel limit.
- Objects passing/counting.

DESCRIPTION

These limit switches, made in thermoplastic material, sealed with epoxy resin at the base on the box, offer a degree of protection IP67. The casing come in 2 dimensions: – EP1... 30 mm. width – EP2... 35 mm. width

They comply with the requirements of European Directives (Low Voltage and RoHS) and are conform to European and International Standards.

The CE declaration of these products are available in the download section of website www.comepi.it or by writing to the following email address: tecnico@comepi.it
DDC02 - Limit Switches.



Limit Switches EP series

Technical Data

| | EP Series | |
|---|--------------------------------------|---------------|
| Standards | IEC 60947-5-1 EN 60947-5-1 | |
| Air temperature near the device | | |
| – during operation | °C | – 25 ... + 70 |
| – for storage | °C | – 40 ... + 70 |
| Mounting positions | All positions are authorised | |
| Protection against electrical shocks (acc. to IEC 61140) | Class II | |
| Degree of protection (according to IEC 60529 and EN 60529) | IP 67 - IP 69K | |
| Degree of protection (according to UL50) | Type 1 enclosure (“indoor use only”) | |
| Switching frequency | Cycles/h | 3600 |
| Mechanical durability | 10 millions of operations | |

Electrical data - Electrical connections

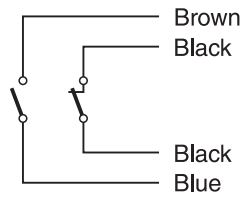
| Code | EP_U | EP_UP | EP_HF | EP_M | EP_A |
|---|--|---|--|---|--------------------------|
| Connection type | 4xAWG18 0,75mm ² PVC Style 2517 | 4xAWG18 dynamic 0,75mm ² PUR style 20668 | 4xAWG18 0,75mm ² Halogen Free PUR style 20668 | M12 connector integrated 4x0,25mm ² | AMP connector integrated |
| Min. bend radius | 49mm | 49mm | 49mm | – | – |
| Rated insulation voltage U _i | 400V | 300V | 300V | 250V | 250V |
| Pollution degree | 3 | 3 | 3 | 3 | 3 |
| Rated impulse withstand voltage U _{imp} | 4kV | 4kV | 4kV | 2.5kV | 2.5kV |
| Conventional free air thermal current I _{th} | 10A | 10A | 10A | 4A | 4A |
| Short circuit current I _{cc} | 1kA | 1kA | 1kA | 1kA | 1kA |
| Short-circuit protection | 10A 500V type gG | 10A 500V type gG | 10A 500V type gG | 4A 500V type gG | 4A 500V type gG |
| AC15 | 24V 120V 240V | 10A 6A 3A | 10A 6A 3A | 10A 6A 3A | 4A 4A 3A |
| DC13 | 24V 125V 250V | 2.8A 0.55A 0.27A | 2.8A 0.55A 0.27A | 2.8A 0.55A 0.27A | 2.8A 0.55A 0.27A |
| Approvals | cULus EAC CCC UKCA | cULus EAC CCC UKCA | cULus EAC CCC UKCA | cULus IMQ EAC CCC UKCA | EAC UKCA |

| Code | X2/X3 | X4 | Z2/Z3 | Z4 |
|---|--|---|--|---|
| Connection type | 4xAWG18 0,75mm ² PVC Style 2517 | 8xAWG22 0,5mm ² PVC Style 2517 | 4xAWG18 0,75mm ² PVC Style 2517 | 8xAWG22 0,5mm ² PVC Style 2517 |
| Min. bend radius | 49mm | 49mm | 49mm | 49mm |
| Rated insulation voltage U _i | 250V | 250V | 250V | 250V |
| Pollution degree | 3 | 3 | 3 | 3 |
| Rated impulse withstand voltage U _{imp} | 2.5kV | 2.5kV | 2.5kV | 2.5kV |
| Conventional free air thermal current I _{th} | 4A | 4A | 4A | 4A |
| Short-circuit protection | 4A 500V type gG | 4A 500V type gG | 4A 500V type gG | 4A 500V Type gG |
| AC15 | 24V 240V | 4A 3A | 4A 3A | 4A 3A |
| DC13 | 24V 250V | 2A 0.4A | 2A 0.4A | 2A / |
| Approvals | cULus EAC CCC UKCA | cULus EAC CCC UKCA | cULus EAC CCC UKCA | cULus EAC CCC UKCA |

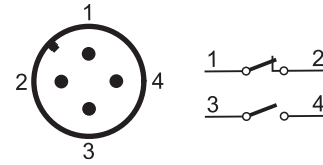
Limit Switches **EP series**

Wiring Diagram

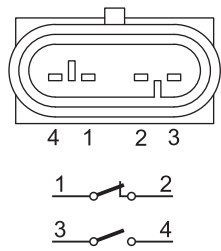
Serie EP_U / EP_UP / EP_HF



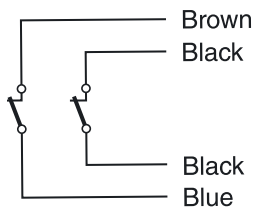
Serie EP_M



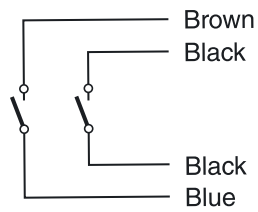
Serie EP_A



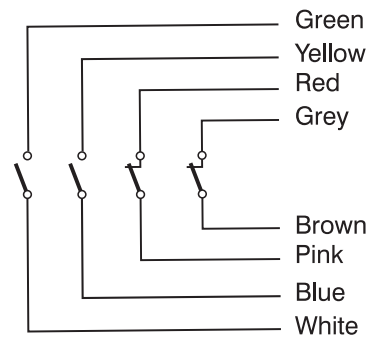
Serie EP_X2 / Z2



Serie EP_X3 / Z3



Serie EP_X4 / Z4



Limit Switches **EP series**

Technical Data



Standard PVC UL cable

All models can be supplied with a standard PVC UL cable.
To order, keep the suffix "U" of the standard
Example: EP1G11ZU



Dynamic PUR cable

A greater flexibility characterize these models compared to the UL standard, while maintaining the same features and the same electrical ratings. Moreover, the external sheath, polyurethane made, guarantees more resistance in stern working environments.
To order add the digit "P" at the end of the UL standard part number.
Example: EP1G11ZU ➔ EP1G11ZUP



Halogen free PUR cable

The absence of halogens guarantees less fumes and toxic gases released in case of fire. Moreover, the external sheath, polyurethane made, guarantees more resistance in stern working environments.
To order add the digit "HF" at the end of the part number.
Example: EP1G11ZHF



M12 connector

All the models can be supplied with M12 connector.
To order replace the "U" suffix of the standard UL version with suffix "M".
Example: EP1G11ZU ➔ EP1G11ZM



AMP connector

All the models can be supplied with AMP connector.
To order replace the "U" suffix of the standard UL version with suffix "A".
Example: EP1G11ZU ➔ EP1G11ZA

Cable connection orientation



Cable connection orientation

For EP1 Series, standard version is supplied with right electrical connection exit.
Available version with left or central exit: add respectively digit "L" or "C" at the end of the complete part number.
Example: EP1G11ZU ➔ EP1G11ZUL



For EP2 Series, standard version is supplied with central electrical connection exit.
Available version with left or right exit: add respectively digit "L" or "R" at the end of the complete part number.
Example: EP2G11ZU ➔ EP2G11ZUR

Limit Switches EP series

Technical Data

Technical data approved by IMQ

| Standards | | Devices conform with international IEC 60947-5-1 and European EN 60947-5-1 standards |
|--|------------------|--|
| Degree of protection | | IP 67 - IP 69K |
| Rated insulation voltage U_i | | 400 V (degree of pollution 3) (250V for M12 connector) |
| Rated impulse withstand voltage U_{imp} | | 4 kV (2.5 kV for M12 connector) |
| Conventional free air thermal current I_{th} | | 10 A (4A for M12 connector) |
| Short-circuit protection - gG (gl) type fuses | | 10 A (4A for M12 connector) |
| Rated operational current | | |
| I_e / AC-15 | 24 V - 50/60 Hz | 10 A (except M12 connector) |
| | 400 V - 50/60 Hz | 3 A (except M12 connector) |
| I_e / DC-13 | 24 V - d.c. | 2.8 A |
| | 250 V - d.c. | 0.27 A |

Technical data approved by UL

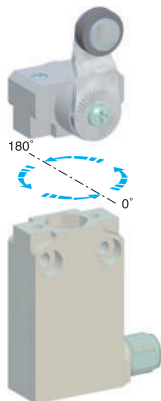
| Standards | | Devices conform with UL 508 |
|--------------------------------|--|--|
| Degree of protection: | | |
| EP Series | | Type 1 enclosure ("indoor use only") |
| EM Series | | Type 4 - 4X - 6 enclosure ("outdoor use raintight - watertight - corrosion resistant") |
| Utilization categories: | | |
| Cable versions | | B300 - R300 (C300-R300) |
| M12 connector versions | | Class-2 |

For the complete list of approved products, contact our technical department

IMPLEMENTATION

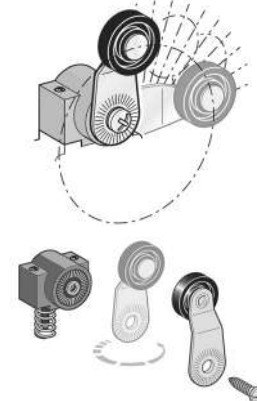
Head orientation (G41... G45)

The head can be rotated every 90°. Recommended tightening torque 0.5 Nm (max 0.8 Nm).

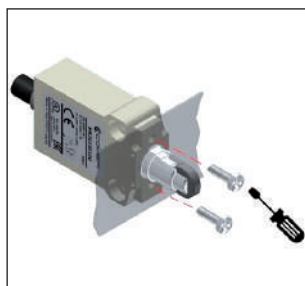


Lever adjustment

The lever of the angular actuators can be adjusted every 10° and round turned in order to obtain the maximum flexibility on the working plan. Recommended tightening torque 0,5 Nm (max 0,8 Nm).



Special Versions



Head installation

Two different solutions are available to fix the head to the body of the switch. The standard solution is made by means of two Ø3 screws. On some models it is possible to order the switch with head fixation by means of two pins. This solution will allow a greater resistance to vibrations when needed and it makes it possible for the end user to install the limit switch directly on a panel as shown in the picture on the side.



Installation of the head every 15°

It is also possible to order a new version of the limit switch where the actuating head it can be rotated every 15°.

For further information please contact our technical office.

Limit Switches **EP1G series**

Pre-wired - Plastic Casing IP67 - 30 mm. width

Electrical connection:

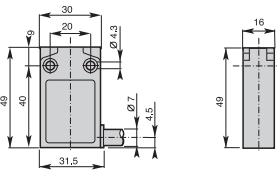
Pre-Wired

Cable: PVC 4 x 0,75 mm²

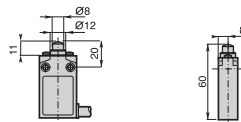
Length: 1 m.

Pre-wired

See page 78 for all the available connection variants



G11 - Plain plunger

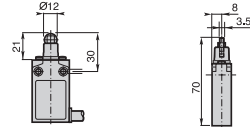


Min. actuating force
Weight

15N (30N ⊖)
125 g

G1• - Roller plunger

G12: metal roller G13: nylon roller

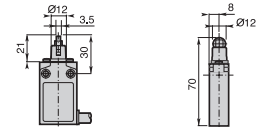


Min. actuating force
Weight

10N (30N ⊖)
130 g

G1• - Cross roller plunger

G14: metal roller G15: nylon roller



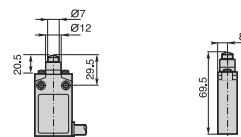
Min. actuating force
Weight

10N (30N ⊖)
130 g

Contact Blocks

| | | | | | |
|--|-----------|-----------|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP1G11ZU | EP1G12ZU | EP1G13ZU | EP1G14ZU | EP1G15ZU |
| Z2 Snap action contacts (2NC) | EP1G11Z2U | EP1G12Z2U | EP1G13Z2U | EP1G14Z2U | EP1G15Z2U |
| Z3 Snap action contacts (2NO) | EP1G11Z3U | EP1G12Z3U | EP1G13Z3U | EP1G14Z3U | EP1G15Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP1G11Z4U | EP1G12Z4U | EP1G13Z4U | EP1G14Z4U | EP1G15Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP1G11XU | EP1G12XU | EP1G13XU | EP1G14XU | EP1G15XU |
| X2 Slow action contacts (2NC) | EP1G11X2U | EP1G12X2U | EP1G13X2U | EP1G14X2U | EP1G15X2U |
| X3 Slow action contacts (2NO) | EP1G11X3U | EP1G12X3U | EP1G13X3U | EP1G14X3U | EP1G15X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP1G11X4U | EP1G12X4U | EP1G13X4U | EP1G14X4U | EP1G15X4U |

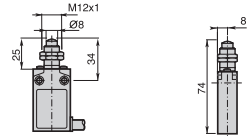
G16 - Plain plunger with dust protection cup



Min. actuating force
Weight

15N (30N ⊖)
130 g

G21 - Plain plunger with fixing nuts

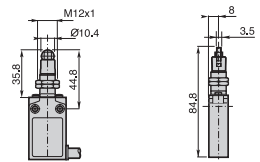


Min. actuating force
Weight

15N (30N ⊖)
140 g

G2• - Roller plunger with fixing nuts

G22: metal roller G23: nylon roller



Min. actuating force
Weight

10N (30N ⊖)
145 g

Contact Blocks

| | | | | |
|--|-----------|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP1G16ZU | EP1G21ZU | EP1G22ZU | EP1G23ZU |
| Z2 Snap action contacts (2NC) | EP1G16Z2U | EP1G21Z2U | EP1G22Z2U | EP1G23Z2U |
| Z3 Snap action contacts (2NO) | EP1G16Z3U | EP1G21Z3U | EP1G22Z3U | EP1G23Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP1G16Z4U | EP1G21Z4U | EP1G22Z4U | EP1G23Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP1G16XU | EP1G21XU | EP1G22XU | EP1G23XU |
| X2 Slow action contacts (2NC) | EP1G16X2U | EP1G21X2U | EP1G22X2U | EP1G23X2U |
| X3 Slow action contacts (2NO) | EP1G16X3U | EP1G21X3U | EP1G22X3U | EP1G23X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP1G16X4U | EP1G21X4U | EP1G22X4U | EP1G23X4U |

Operation diagrams: page 126 - All dimensions are in mm

Limit Switches **EP1G series**

Pre-wired - Plastic Casing IP67 - 30 mm. width

Electrical connection:

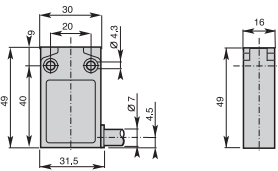
Pre-Wired

Cable: PVC 4 x 0,75 mm²

Length: 1 m.

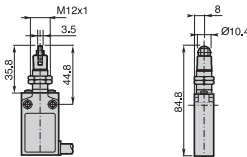
Pre-wired

See page 78 for all the available connection variants



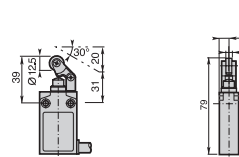
G2• - Cross roller plunger with fixing nuts

G24: metal roller G25: nylon roller



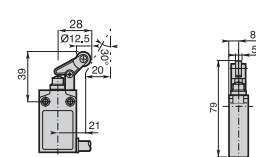
Min. actuating force **10N (30N ⇄)**
Weight **145 g**

G31 - Nylon roller lever



Min. actuating force **7N (24N ⇄)**
Weight **130 g**

G32 - Nylon roller lever

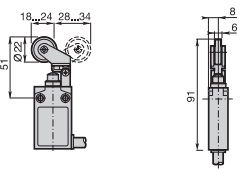


Min. actuating force **7N (24N ⇄)**
Weight **130 g**

Contact Blocks

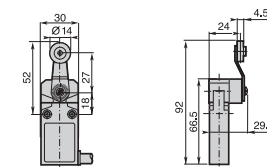
| | | | | |
|--|-----------|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP1G24ZU | EP1G25ZU | EP1G31ZU | EP1G32ZU |
| Z2 Snap action contacts (2NC) | EP1G24Z2U | EP1G25Z2U | EP1G31Z2U | EP1G32Z2U |
| Z3 Snap action contacts (2NO) | EP1G24Z3U | EP1G25Z3U | EP1G31Z3U | EP1G32Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP1G24Z4U | EP1G25Z4U | EP1G31Z4U | EP1G32Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP1G24XU | EP1G25XU | EP1G31XU | EP1G32XU |
| X2 Slow action contacts (2NC) | EP1G24X2U | EP1G25X2U | EP1G31X2U | EP1G32X2U |
| X3 Slow action contacts (2NO) | EP1G24X3U | EP1G25X3U | EP1G31X3U | EP1G32X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP1G24X4U | EP1G25X4U | EP1G31X4U | EP1G32X4U |

G38 - Adjustable nylon roller lever



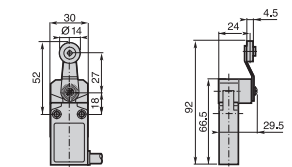
Min. actuating force **7N (24N ⇄)**
Weight **135 g**

G41 - Ø14 nylon roller lever



Min. actuating torque **0,08Nm (0,28Nm ⇄)**
Weight **175 g**

G42 - Ø14 metal roller lever



Min. actuating torque **0,08Nm (0,28Nm ⇄)**
Weight **175 g**

Contact Blocks

| | | | |
|--|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP1G38ZU | EP1G41ZU | EP1G42ZU |
| Z2 Snap action contacts (2NC) | EP1G38Z2U | EP1G41Z2U | EP1G42Z2U |
| Z3 Snap action contacts (2NO) | EP1G38Z3U | EP1G41Z3U | EP1G42Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP1G38Z4U | EP1G41Z4U | EP1G42Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP1G38XU | EP1G41XU | EP1G42XU |
| X2 Slow action contacts (2NC) | EP1G38X2U | EP1G41X2U | EP1G42X2U |
| X3 Slow action contacts (2NO) | EP1G38X3U | EP1G41X3U | EP1G42X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP1G38X4U | EP1G41X4U | EP1G42X4U |

Operation diagrams: page 126 - All dimensions are in mm

Limit Switches **EP1G series**

Pre-wired - Plastic Casing IP67 - 30 mm. width

Electrical connection:

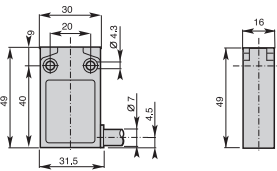
Pre-Wired

Cable: PVC 4 x 0,75 mm²

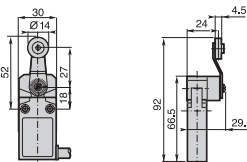
Length: 1 m.

Pre-wired

See page 78 for all the available connection variants

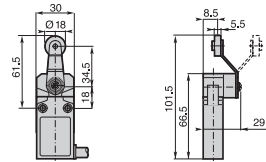


G43 - Ø14 roller lever with ball bearing



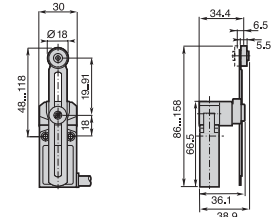
Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **175 g**

G45 - Ø18 nylon roller lever



Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **180 g**

G51 - Adjustable lever with Ø18 nylon roller

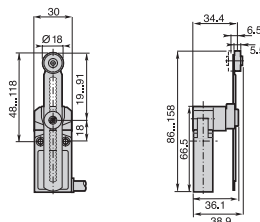


Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **190 g**

Contact Blocks

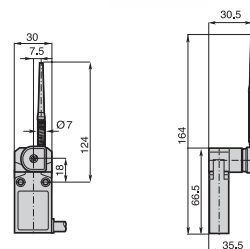
| | | | |
|--|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP1G43ZU | EP1G45ZU | EP1G51ZU |
| Z2 Snap action contacts (2NC) | EP1G43Z2U | EP1G45Z2U | EP1G51Z2U |
| Z3 Snap action contacts (2NO) | EP1G43Z3U | EP1G45Z3U | EP1G51Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP1G43Z4U | EP1G45Z4U | EP1G51Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP1G43XU | EP1G45XU | EP1G51XU |
| X2 Slow action contacts (2NC) | EP1G43X2U | EP1G45X2U | EP1G51X2U |
| X3 Slow action contacts (2NO) | EP1G43X3U | EP1G45X3U | EP1G51X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP1G43X4U | EP1G45X4U | EP1G51X4U |

G5100 - Adjustable toothed lever (step 2 mm) with Ø18 nylon roller



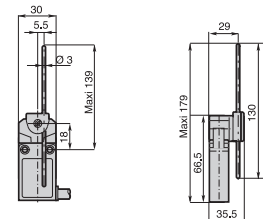
Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **190 g**

G61 - Nylon actuator with stainless steel spring



Min. actuating torque **0,08Nm**
Weight **190 g**

G71 - Adjustable Ø3 stainless steel rod lever



Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **185 g**

Contact Blocks

| | | | |
|--|-------------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP1G5100ZU | EP1G61ZU | EP1G71ZU |
| Z2 Snap action contacts (2NC) | EP1G5100Z2U | EP1G61Z2U | EP1G71Z2U |
| Z3 Snap action contacts (2NO) | EP1G5100Z3U | EP1G61Z3U | EP1G71Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP1G5100Z4U | EP1G61Z4U | EP1G71Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP1G5100XU | EP1G61XU | EP1G71XU |
| X2 Slow action contacts (2NC) | EP1G5100X2U | EP1G61X2U | EP1G71X2U |
| X3 Slow action contacts (2NO) | EP1G5100X3U | EP1G61X3U | EP1G71X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP1G5100X4U | EP1G61X4U | EP1G71X4U |

Limit Switches **EP1G series**

Pre-wired - Plastic Casing IP67 - 30 mm. width

Electrical connection:

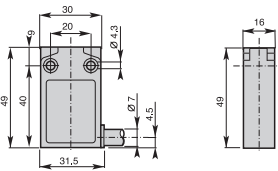
Pre-Wired

Cable: PVC 4 x 0,75 mm²

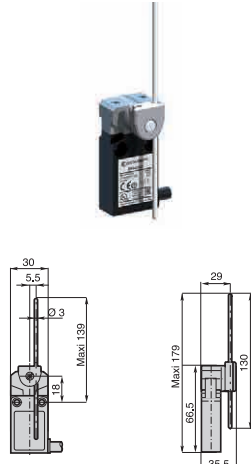
Length: 1 m.

Pre-wired

See page 78 for all the available connection variants

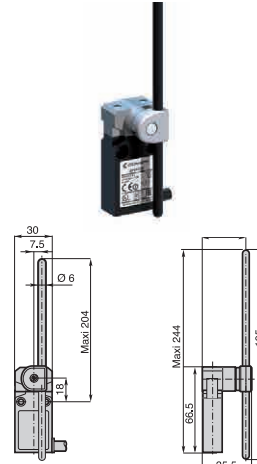


G72 - Adjustable Ø3 fiberglass rod lever



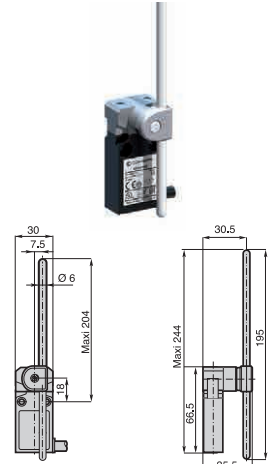
Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **185 g**

G73 - Adjustable Ø6 nylon rod lever



Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **200 g**

G74 - Adjustable Ø6 fiberglass rod lever

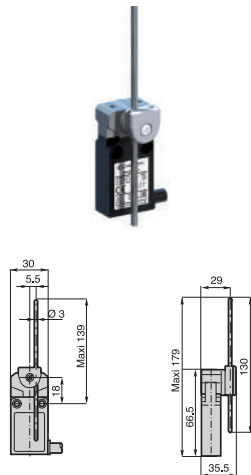


Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **200 g**

Contact Blocks

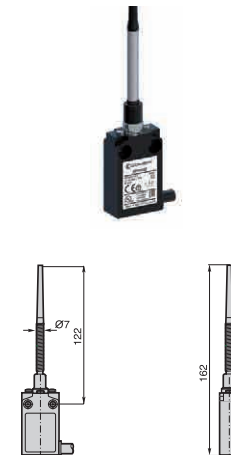
| | | | |
|--|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP1G72ZU | EP1G73ZU | EP1G74ZU |
| Z2 Snap action contacts (2NC) | EP1G72Z2U | EP1G73Z2U | EP1G74Z2U |
| Z3 Snap action contacts (2NO) | EP1G72Z3U | EP1G73Z3U | EP1G74Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP1G72Z4U | EP1G73Z4U | EP1G74Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP1G72XU | EP1G73XU | EP1G74XU |
| X2 Slow action contacts (2NC) | EP1G72X2U | EP1G73X2U | EP1G74X2U |
| X3 Slow action contacts (2NO) | EP1G72X3U | EP1G73X3U | EP1G74X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP1G72X4U | EP1G73X4U | EP1G74X4U |

G75 - Adjustable 3x3 square steel rod lever



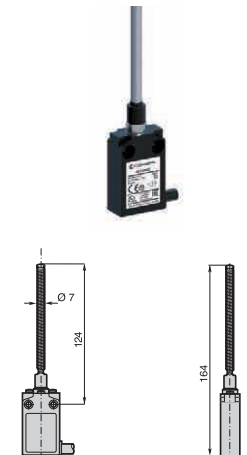
Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **185 g**

G92 - Multidirectional nylon actuator with stainless steel spring



Min. actuating torque **0,10Nm**
Weight **195 g**

G93 - Multidirectional actuator with stainless steel spring



Min. actuating torque **0,10Nm**
Weight **200 g**

Contact Blocks

| | | | |
|--|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP1G75ZU | EP1G92ZU | EP1G93ZU |
| Z2 Snap action contacts (2NC) | EP1G75Z2U | EP1G92Z2U | EP1G93Z2U |
| Z3 Snap action contacts (2NO) | EP1G75Z3U | EP1G92Z3U | EP1G93Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP1G75Z4U | EP1G92Z4U | EP1G93Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP1G75XU | | |
| X2 Slow action contacts (2NC) | EP1G75X2U | | |
| X3 Slow action contacts (2NO) | EP1G75X3U | | |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP1G75X4U | | |

Operation diagrams: page 126 - All dimensions are in mm

Limit Switches **EP2G series**

Pre-wired - Plastic Casing IP67 - 35 mm. width

Electrical connection:

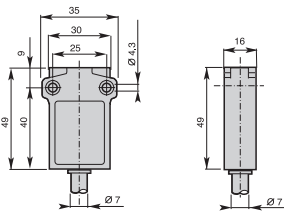
Pre-Wired

Cable: PVC 4 x 0,75 mm²

Length: 1 m.

Pre-wired

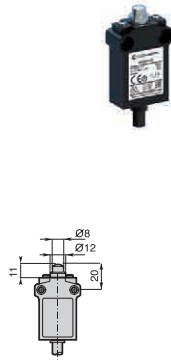
See page 78 for all the available connection variants



Contact Blocks

| | | | | | |
|--|-----------|-----------|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP2G11ZU | EP2G12ZU | EP2G13ZU | EP2G14ZU | EP2G15ZU |
| Z2 Snap action contacts (2NC) | EP2G11Z2U | EP2G12Z2U | EP2G13Z2U | EP2G14Z2U | EP2G15Z2U |
| Z3 Snap action contacts (2NO) | EP2G11Z3U | EP2G12Z3U | EP2G13Z3U | EP2G14Z3U | EP2G15Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP2G11Z4U | EP2G12Z4U | EP2G13Z4U | EP2G14Z4U | EP2G15Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP2G11XU | EP2G12XU | EP2G13XU | EP2G14XU | EP2G15XU |
| X2 Slow action contacts (2NC) | EP2G11X2U | EP2G12X2U | EP2G13X2U | EP2G14X2U | EP2G15X2U |
| X3 Slow action contacts (2NO) | EP2G11X3U | EP2G12X3U | EP2G13X3U | EP2G14X3U | EP2G15X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP2G11X4U | EP2G12X4U | EP2G13X4U | EP2G14X4U | EP2G15X4U |

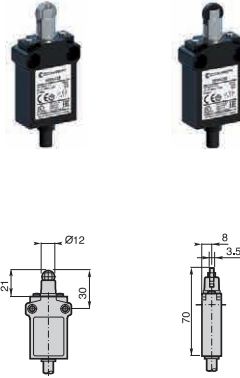
G11 - Plain plunger



Min. actuating force
Weight **15N (30N ⊖)**
125 g

G1 - Roller plunger

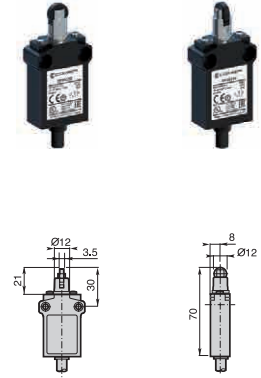
G12: metal roller G13: nylon roller



Min. actuating force
Weight **10N (30N ⊖)**
130 g

G1 - Cross roller plunger

G14: metal roller G15: nylon roller



Min. actuating force
Weight **10N (30N ⊖)**
130 g

G16 - Plain plunger with dust protection cup



Min. actuating force
Weight **15N (30N ⊖)**
130 g

G21 - Plain plunger with fixing nuts

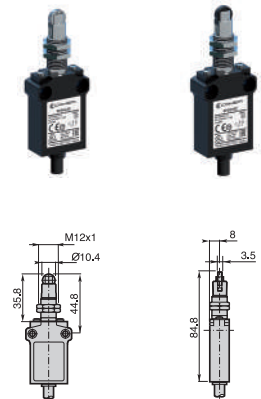
G22: metal roller G23: nylon roller



Min. actuating force
Weight **15N (30N ⊖)**
140 g

G2 - Roller plunger with fixing nuts

G22: metal roller G23: nylon roller



Min. actuating force
Weight **10N (30N ⊖)**
145 g

Contact Blocks

| | | | | |
|--|-----------|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP2G16ZU | EP2G21ZU | EP2G22ZU | EP2G23ZU |
| Z2 Snap action contacts (2NC) | EP2G16Z2U | EP2G21Z2U | EP2G22Z2U | EP2G23Z2U |
| Z3 Snap action contacts (2NO) | EP2G16Z3U | EP2G21Z3U | EP2G22Z3U | EP2G23Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP2G16Z4U | EP2G21Z4U | EP2G22Z4U | EP2G23Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP2G16XU | EP2G21XU | EP2G22XU | EP2G23XU |
| X2 Slow action contacts (2NC) | EP2G16X2U | EP2G21X2U | EP2G22X2U | EP2G23X2U |
| X3 Slow action contacts (2NO) | EP2G16X3U | EP2G21X3U | EP2G22X3U | EP2G23X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP2G16X4U | EP2G21X4U | EP2G22X4U | EP2G23X4U |

Operation diagrams: page 126 - All dimensions are in mm

Limit Switches **EP2G series**

Pre-wired - Plastic Casing IP67 - 35 mm. width

Electrical connection:

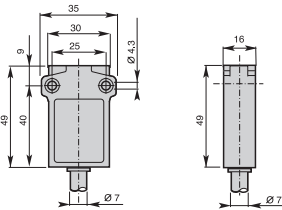
Pre-Wired

Cable: PVC 4 x 0,75 mm²

Length: 1 m.

Pre-wired

See page 78 for all the available connection variants

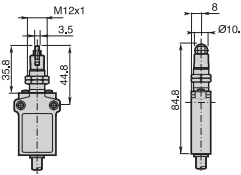


Contact Blocks

| | | | | |
|--|-----------|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP2G24ZU | EP2G25ZU | EP2G31ZU | EP2G32ZU |
| Z2 Snap action contacts (2NC) | EP2G24Z2U | EP2G25Z2U | EP2G31Z2U | EP2G32Z2U |
| Z3 Snap action contacts (2NO) | EP2G24Z3U | EP2G25Z3U | EP2G31Z3U | EP2G32Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP2G24Z4U | EP2G25Z4U | EP2G31Z4U | EP2G32Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP2G24XU | EP2G25XU | EP2G31XU | EP2G32XU |
| X2 Slow action contacts (2NC) | EP2G24X2U | EP2G25X2U | EP2G31X2U | EP2G32X2U |
| X3 Slow action contacts (2NO) | EP2G24X3U | EP2G25X3U | EP2G31X3U | EP2G32X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP2G24X4U | EP2G25X4U | EP2G31X4U | EP2G32X4U |

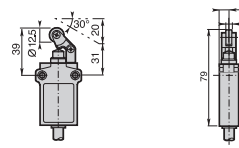
G2• - Cross roller plunger with fixing nuts

G24: metal roller G25: nylon roller



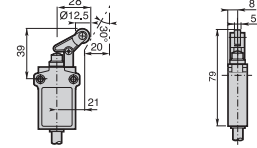
Min. actuating force **10N (30N ⊖)**
Weight **145 g**

G31 - Nylon roller lever



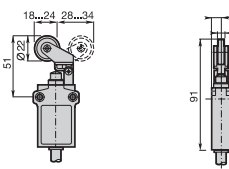
Min. actuating force **7N (24N ⊖)**
Weight **130 g**

G32 - Nylon roller lever



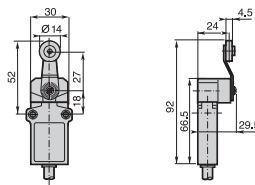
Min. actuating force **7N (24N ⊖)**
Weight **130 g**

G38 - Adjustable nylon roller lever



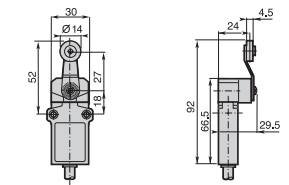
Min. actuating force **7N (24N ⊖)**
Weight **135 g**

G41 - Ø14 nylon roller lever



Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **175 g**

G42 - Ø14 metal roller lever



Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **175 g**

Contact Blocks

| | | | |
|--|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP2G38ZU | EP2G41ZU | EP2G42ZU |
| Z2 Snap action contacts (2NC) | EP2G38Z2U | EP2G41Z2U | EP2G42Z2U |
| Z3 Snap action contacts (2NO) | EP2G38Z3U | EP2G41Z3U | EP2G42Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP2G38Z4U | EP2G41Z4U | EP2G42Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP2G38XU | EP2G41XU | EP2G42XU |
| X2 Slow action contacts (2NC) | EP2G38X2U | EP2G41X2U | EP2G42X2U |
| X3 Slow action contacts (2NO) | EP2G38X3U | EP2G41X3U | EP2G42X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP2G38X4U | EP2G41X4U | EP2G42X4U |

Operation diagrams: page 126 - All dimensions are in mm

Limit Switches **EP2G series**

Pre-wired - Plastic Casing IP67 - 35 mm. width

Electrical connection:

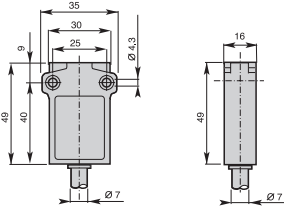
Pre-Wired

Cable: PVC 4 x 0,75 mm²

Length: 1 m.

Pre-wired

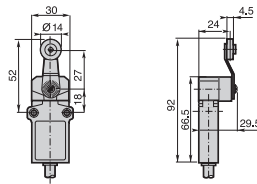
See page 78 for all the available connection variants



Contact Blocks

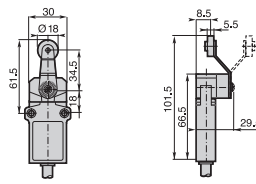
| | | | |
|--|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP2G43ZU | EP2G45ZU | EP2G51ZU |
| Z2 Snap action contacts (2NC) | EP2G43Z2U | EP2G45Z2U | EP2G51Z2U |
| Z3 Snap action contacts (2NO) | EP2G43Z3U | EP2G45Z3U | EP2G51Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP2G43Z4U | EP2G45Z4U | EP2G51Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP2G43XU | EP2G45XU | EP2G51XU |
| X2 Slow action contacts (2NC) | EP2G43X2U | EP2G45X2U | EP2G51X2U |
| X3 Non overlapping slow action contacts (2NO) | EP2G43X3U | EP2G45X3U | EP2G51X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP2G43X4U | EP2G45X4U | EP2G51X4U |

G43 - Ø14 roller lever with ball bearing



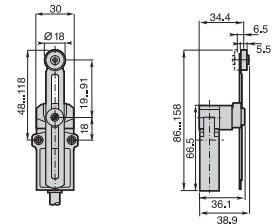
Min. actuating torque **0,08Nm (0,28Nm ⇄)**
Weight **175 g**

G45 - Ø18 nylon roller lever



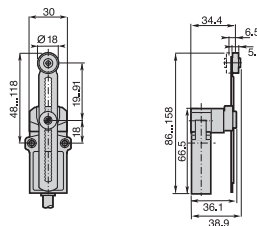
Min. actuating torque **0,08Nm (0,28Nm ⇄)**
Weight **180 g**

G51 - Adjustable lever with Ø18 nylon roller



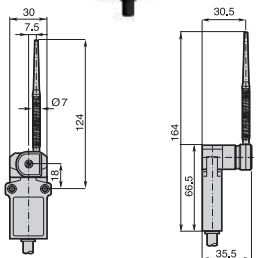
Min. actuating torque **0,08Nm (0,28Nm ⇄)**
Weight **190 g**

G5100 - Adjustable toothed lever (step 2 mm) with Ø18 nylon roller



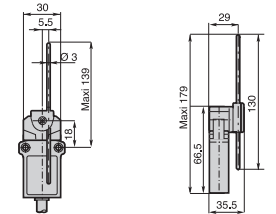
Min. actuating torque **0,08Nm (0,28Nm ⇄)**
Weight **190 g**

G61 - Nylon actuator with stainless steel spring



Min. actuating torque **0,10Nm**
Weight **190 g**

G71 - Adjustable Ø3 stainless steel rod lever



Min. actuating torque **0,08Nm (0,28Nm ⇄)**
Weight **185 g**

Contact Blocks

| | | | |
|--|-------------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP2G5100ZU | EP2G61ZU | EP2G71ZU |
| Z2 Snap action contacts (2NC) | EP2G5100Z2U | EP2G61Z2U | EP2G71Z2U |
| Z3 Snap action contacts (2NO) | EP2G5100Z3U | EP2G61Z3U | EP2G71Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP2G5100Z4U | EP2G61Z4U | EP2G71Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP2G5100XU | EP2G61XU | EP2G71XU |
| X2 Slow action contacts (2NC) | EP2G5100X2U | EP2G61X2U | EP2G71X2U |
| X3 Slow action contacts (2NO) | EP2G5100X3U | EP2G61X3U | EP2G71X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP2G5100X4U | EP2G61X4U | EP2G71X4U |

Operation diagrams: page 126 - All dimensions are in mm

Limit Switches **EP2G series**

Pre-wired - Plastic Casing IP67 - 35 mm. width

Electrical connection:

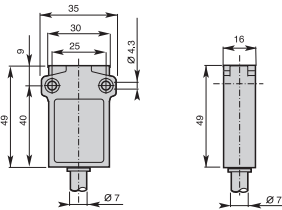
Pre-Wired

Cable: PVC 4 x 0,75 mm²

Length: 1 m.

Pre-wired

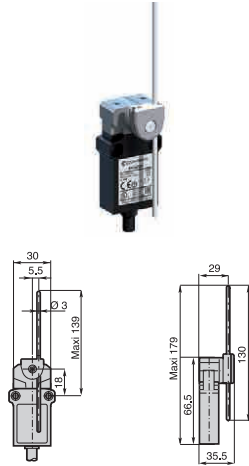
See page 78 for all the available connection variants



Contact Blocks

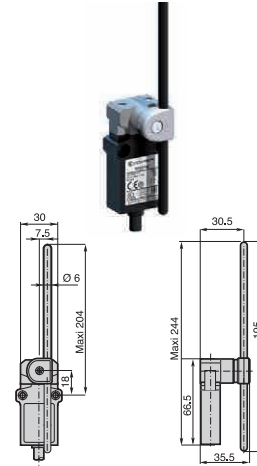
| | | | |
|--|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP2G72ZU | EP2G73ZU | EP2G74ZU |
| Z2 Snap action contacts (2NC) | EP2G72Z2U | EP2G73Z2U | EP2G74Z2U |
| Z3 Snap action contacts (2NO) | EP2G72Z3U | EP2G73Z3U | EP2G74Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP2G72Z4U | EP2G73Z4U | EP2G74Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP2G72XU | EP2G73XU | EP2G74XU |
| X2 Slow action contacts (2NC) | EP2G72X2U | EP2G73X2U | EP2G74X2U |
| X3 Slow action contacts (2NO) | EP2G72X3U | EP2G73X3U | EP2G74X3U |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP2G72X4U | EP2G73X4U | EP2G74X4U |

G72 - Adjustable Ø3 fiberglass rod lever



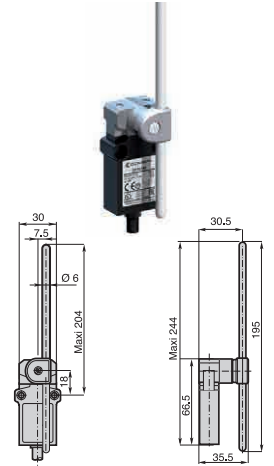
Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **185 g**

G73 - Adjustable Ø6 nylon rod lever



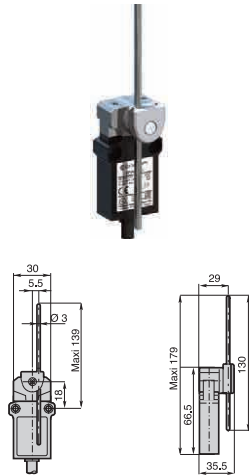
Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **200 g**

G74 - Adjustable Ø6 fiberglass rod lever



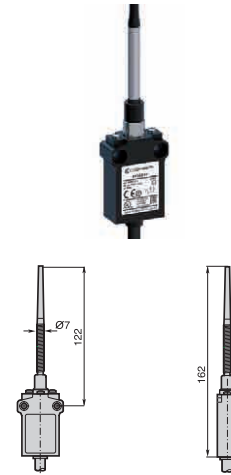
Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **200 g**

G75 - Adjustable 3x3 square steel rod lever



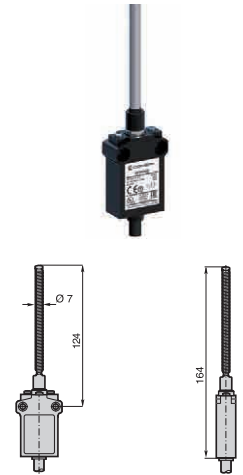
Min. actuating torque **0,08Nm (0,28Nm ⊖)**
Weight **185 g**

G92 - Multidirectional nylon actuator with stainless steel spring



Min. actuating torque **0,12Nm**
Weight **195 g**

G93 - Multidirectional actuator with stainless steel spring



Min. actuating torque **0,12Nm**
Weight **200 g**

Contact Blocks

| | | | |
|--|-----------|-----------|-----------|
| Z Snap action contacts (1NO + 1NC) | EP2G75ZU | EP2G92ZU | EP2G93ZU |
| Z2 Snap action contacts (2NC) | EP2G75Z2U | EP2G92Z2U | EP2G93Z2U |
| Z3 Snap action contacts (2NO) | EP2G75Z3U | EP2G92Z3U | EP2G93Z3U |
| Z4 Snap action contacts (2NC + 2NO) | EP2G75Z4U | EP2G92Z4U | EP2G93Z4U |
| X Non overlapping slow action contacts (1NO + 1NC) | EP2G75XU | | |
| X2 Slow action contacts (2NC) | EP2G75X2U | | |
| X2 Slow action contacts (2NO) | EP2G75X3U | | |
| X4 Non overlapping slow action contacts (2NO + 2NC) | EP2G75X4U | | |