



LIFT DEVICES

2023

Lift Devices

Index



CAR TOP DEVICES



page 8



page 46



page 48



page 44



UNDER CAR DEVICES



page 46



page 48



PIT BOTTOM DEVICES



page 32



page 46



page 48



SHAFT LIFT DEVICES



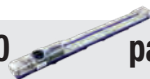
page 32



page 8



page 40



page 50



DOOR SWITCHES



page 12



page 12



page 16



SPEED LIMITERS



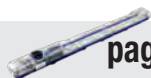
page 28



page 18



ALARM AND CONTROL DEVICES



page 50



page 48



ACCESSORIES



page 52



page 53

Lift Devices

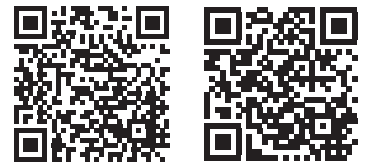
Introduction

APPROVALS:



STANDARDS: EN 81-20 EN 81-50
IEC 60947-5-1
IEC 60947-5-5
EN ISO 13849-1
EN ISO 13849-2

[Download](#)
Instruction sheet – CE declaration



COMEPI Srl has long been manufacturing and marketing products that are widely used in the lift industry. Our high-quality products are the result of over fifty years of expertise and production efficiency that make COMEPI one of the top-performing and strongest realities on the international scene. The MADE IN ITALY spirit has always characterized the company, which designs, manufactures, and assembles their devices, while relying on local suppliers who guarantee quality raw materials suitable for all kinds of applications.

Our designers and engineers' expertise and skill result in the unceasing innovation of our products and support to our customers while studying and realizing customized solutions.

This catalog combines a selection of historical products, largely deployed in the lift industry, and an array of specific devices of recent development. This mix of tradition and innovation makes the COMEPI range one of the richest and most important on the market. However, the product selection in this catalog does not cover all that COMEPI has to offer. Hence, we invite you to refer to our General Catalog and browse our website to learn more.

NEW EUROPEAN LIFT STANDARDS EN 81-20 / EN 81-50

Two new European Standards were released in 2014 to regulate both the construction of lifts and the manufacturing of components to be used in passenger and goods passenger lifts.

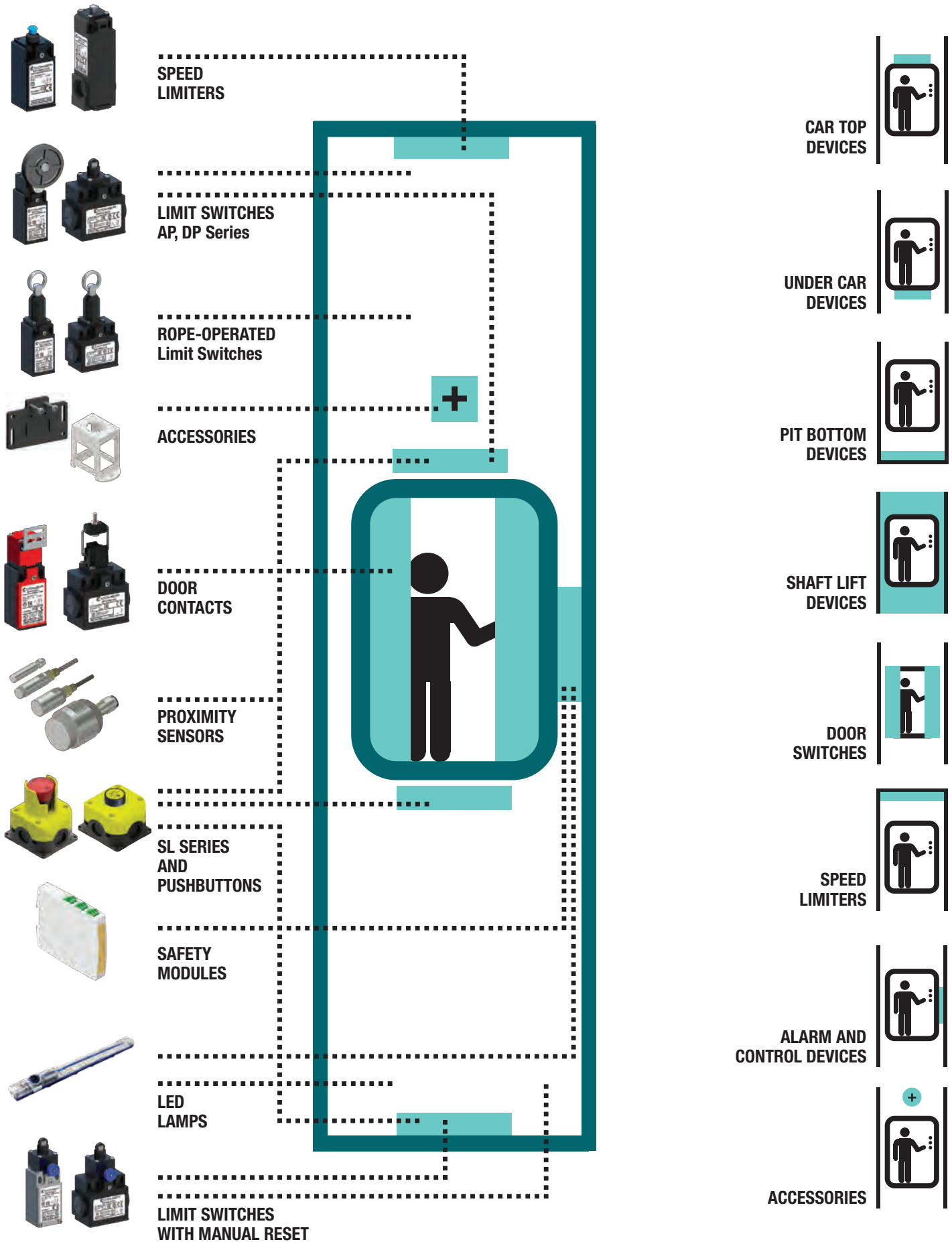
Standard EN 81-20 sets out the technical requirements. Standard EN 81-50 sets out design rules, calculations and the tests of lift components.

The aforesaid two standards came into effect as of 1st September 2017 and remain in force.

The COMEPI products described in this catalog have all been validated and certified according to the current product standards, with special attention to their compliance and requirements concerning applications in passenger and goods passenger lifts.



Lift Devices Positioning



Lift Devices Products

1

Limit switches with thermoplastic enclosures and sized to conform to the EN 50047 standard or with multiple cable inlets. Series AP and DP are definitely an excellent solution in terms of both cost and customization thanks to the wide selection of actuators and contact configurations.

2

Devices to safety check the door position of passenger and goods passenger lifts. Equipped with positive opening and protected operation mechanisms with the IP67 protection degree to ensure reliability and safety in any type of application.

3

Safety devices with separated actuator available in different sizes and with plastic or metal enclosures. They can also be configured with a number of contact versions. These products are the simplest and cheapest solution to safely monitor the condition of doors and guards.

4

Limit switches with plastic casing equipped with a remote reset system made by a solenoid very useful in many applications where the manual consent is required to reset the circuit, but may be difficult to manually unlock the device.

5

A specific limit switch for application in lift speed limiters. It complies with the market size standards. Configuration 1NO+1NC or 2NC. Manual reset.

6

Limit switches with plastic or metal enclosure, equipped with manual reset and diverse configuration for contact and actuator. These devices are ideal whenever applications require manual consent before resetting the control circuit that was cut off following the limit switch actuation.

Limit Switches
30mm - AP Series
50mm - DP Series

1



Limit Switches
AP_T80 Series
DP_T80 Series

2



**Limit Switches with
Separate Actuator**
SP_K10 Series
SM_K10 Series

3



Limit Switches
HP Series

4



Limit Switches
AP1R002 Series

5



Limit Switches
AP_R / AM_R Series
AP_R / DM_R Series

6



Lift Devices Products

7

Rope-operated limit switches that are ideal to ensure the lighting control in the lift car across its whole length.

**Rope-operated
Limit Switches**
AP_T98 e DP_T98

7



8

A wide range of inductive sensors, made according to the most used market standards. ICS inductive sensors are suitable for many applications, including elevators and escalators.

Proximity Sensors

8



9

From 40 years of experience in command units and emergency stops, the new growing product series, with new enclosures and pushbuttons made for the specific lift market.

**SL SERIES
pushbuttons**

9



10

Safety module designed to be used in the lift industry for car leveling with the floor and to control both limit switches and emergency stops. Compliant with the requirements of the LIFT Directive 2014/33/EU and the EN 81-20 and EN 81-50 Standards.

Safety Modules
MS1A31
MS1A20

10

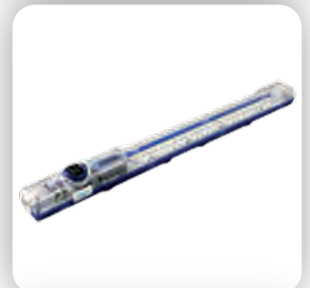


11

LED lamps with clip or magnetic fixing and universal feed.

LED Lamps
IQL Series

11



12

Thermoplastic adaptor to fix 22 mm control units on a DIN bar. It's the ideal solution to use pushbuttons and operating selector switches inside the electrical panels.

DIN Bar Adaptor

12



Limit Switches AP series

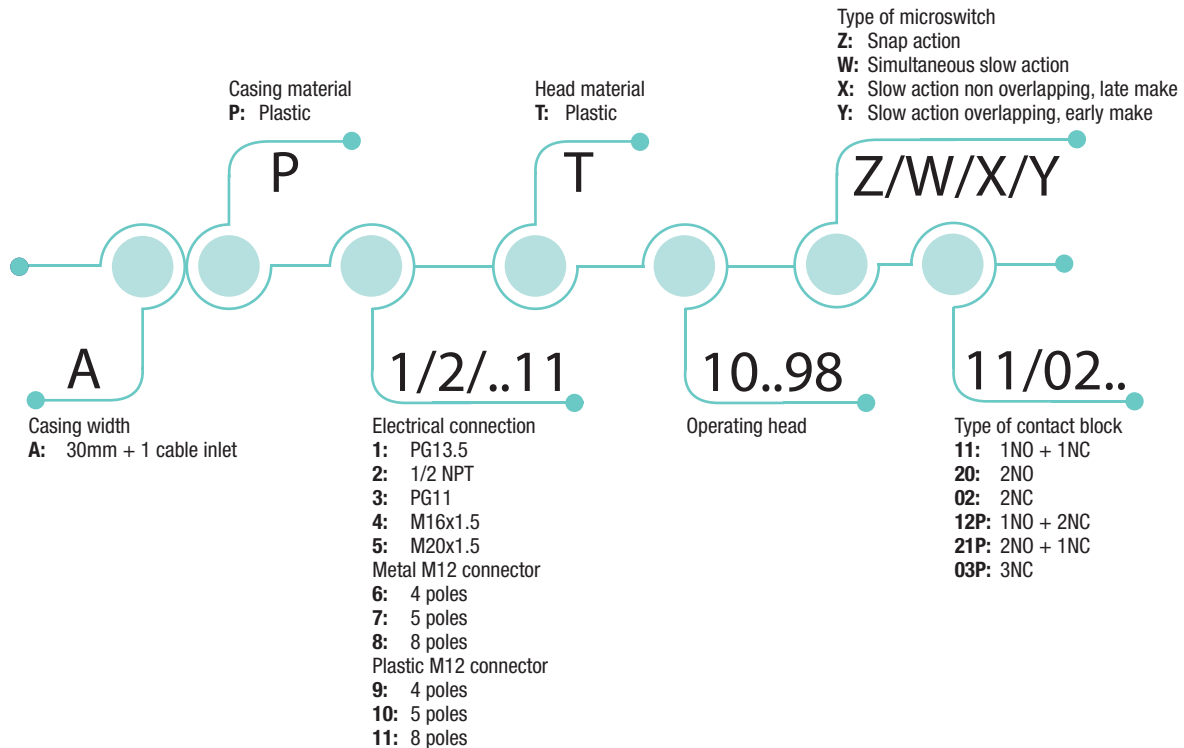
Summary



For more information:



APPROVALS: UL 508 / CSA C22-2 N. 14 / 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 4 x Ø3 screws

03 Casing:

- 30 mm. width with standardized dimensions acc. to EN 50047

04 Mounting screws

- 2 x M4 screws on top part

05 Cover

- 1 screw Ø3 pozidriv 1

06 Contact Block

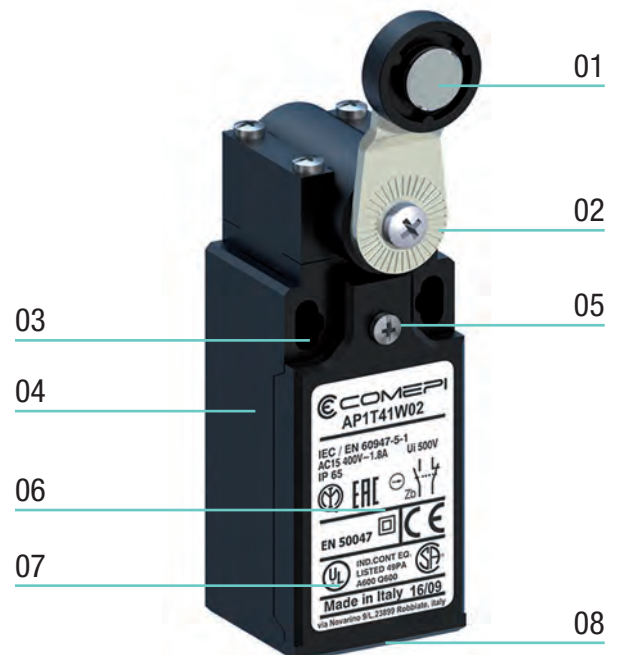
- Positive opening operation
- Snap action or slow action
- Electrically separated contacts

07 Connecting terminals

- Block of 2 contacts: M3.5 (+, -) pozidriv 2 screw
- Block of 3 contacts: M3 (+, -) screw
- Screw head with captive cable clamp
- Markings conform with IEC 60947-1, IEC 60947-5-1 standards

08 Electrical connection

- 1 x threaded cable entry suitable for cable gland, M12 connector or DEUTSCH connector



Limit Switches **AP series**

Description

APPLICATIONS

Easy to use, electromechanical limit switches offer specific qualities:

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

They are in conformity with EN 81-20 and EN 81-50 standards:

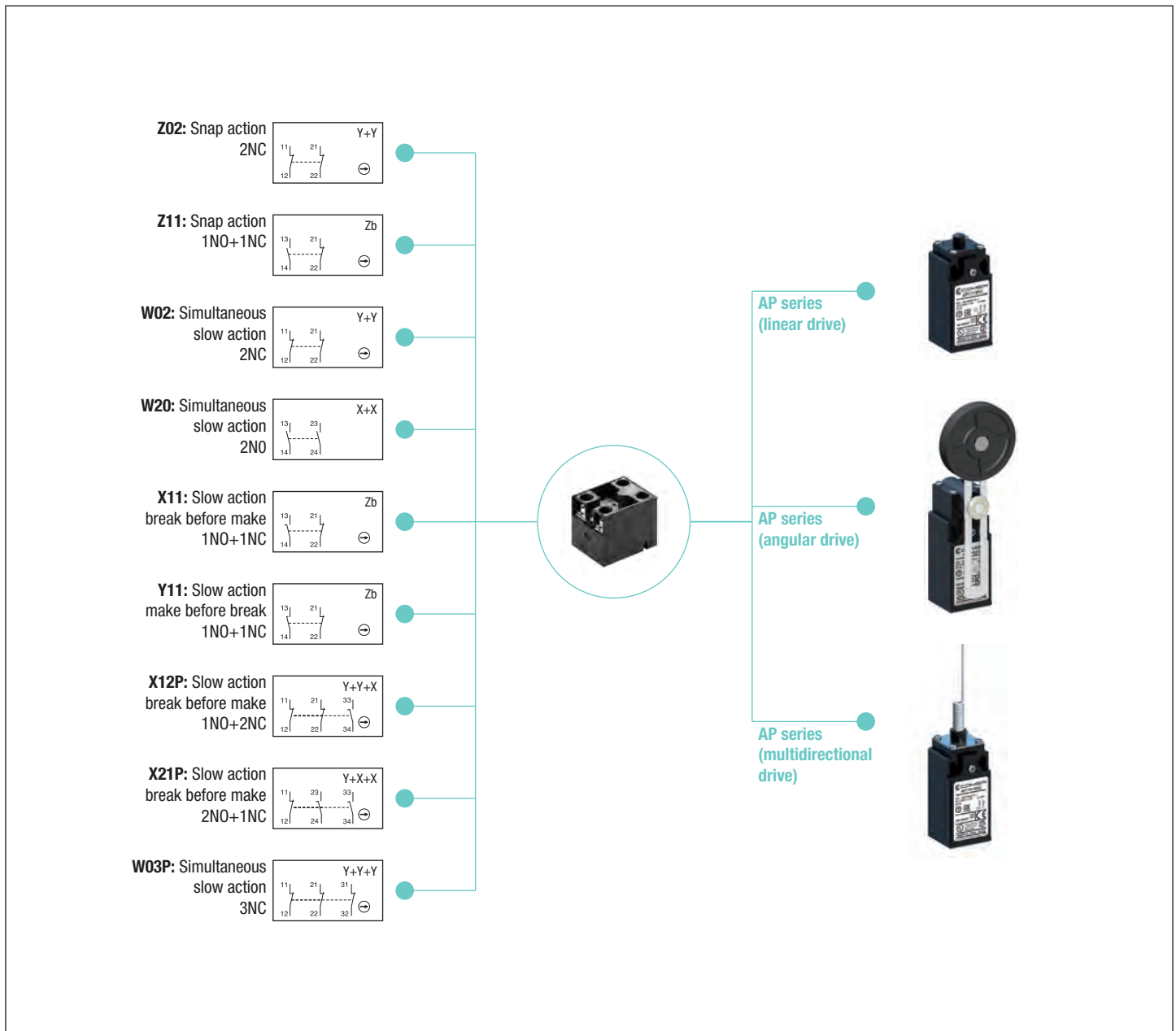
- Safety contacts with positive opening operations according to IEC 60947-5-1 annex K
- Mechanical durability > 10M operations
- IP protection degree > IP 4X

DESCRIPTION

Limit switches, which are made of reinforced UL-V0 thermoplastic fiber-glass, offer double insulation  and a degree of protection of IP65.

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 DP series

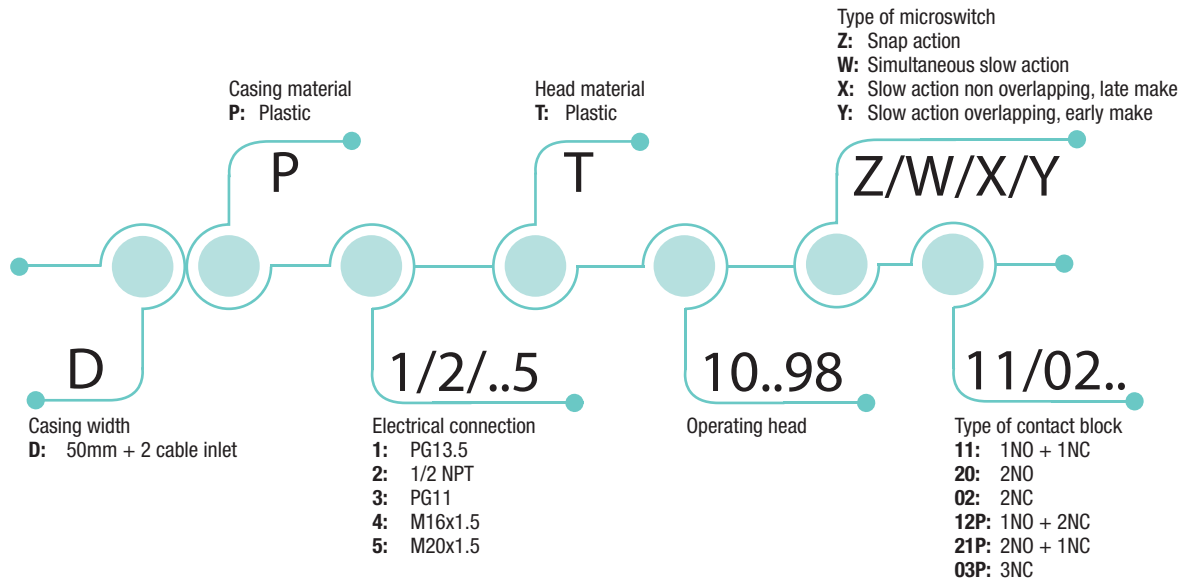
Summary



For more information:



APPROVALS: UL 508 / CSA C22-2 N. 14 / 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 4 x Ø3 screws

03 Casing:

- 50 mm. width

04 Mounting screws

- 2 or 4 x M4 screws on top part

05 Cover

- 1 screw Ø3 pozidriv 1

06 Contact Block

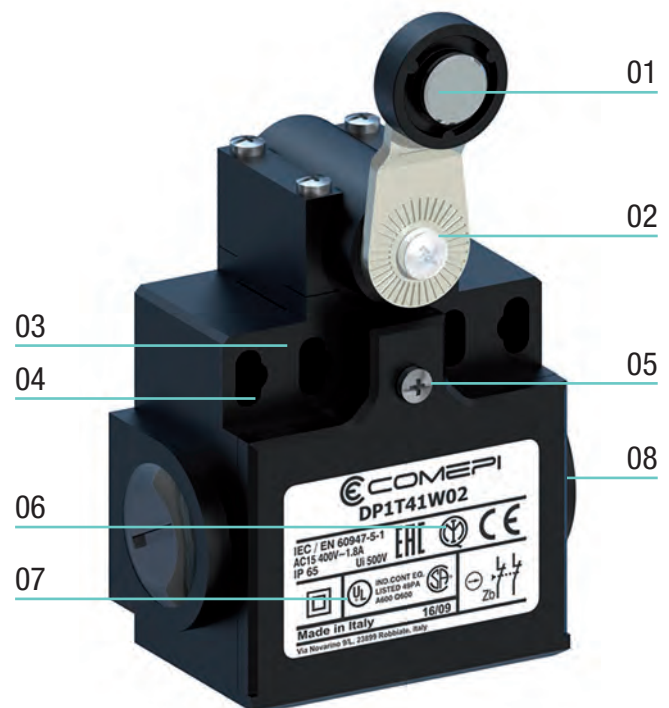
- Positive opening operation
- Snap action or slow action
- Electrically separated contacts

07 Connecting terminals

- Block of 2 contacts: M3.5 (+, -) pozidriv 2 screw
- Block of 3 contacts: M3 (+, -) screw
- Screw head with captive cable clamp
- Markings conform with IEC 60947-1, IEC 60947-5-1 standards

08 Electrical connection

- 2 x threaded cable inlets suitable for cable gland



Limit Switches DP series

Description

APPLICATIONS

Easy to use, electromechanical limit switches offer specific qualities:

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

They are in conformity with EN 81-20 and EN 81-50 standards:

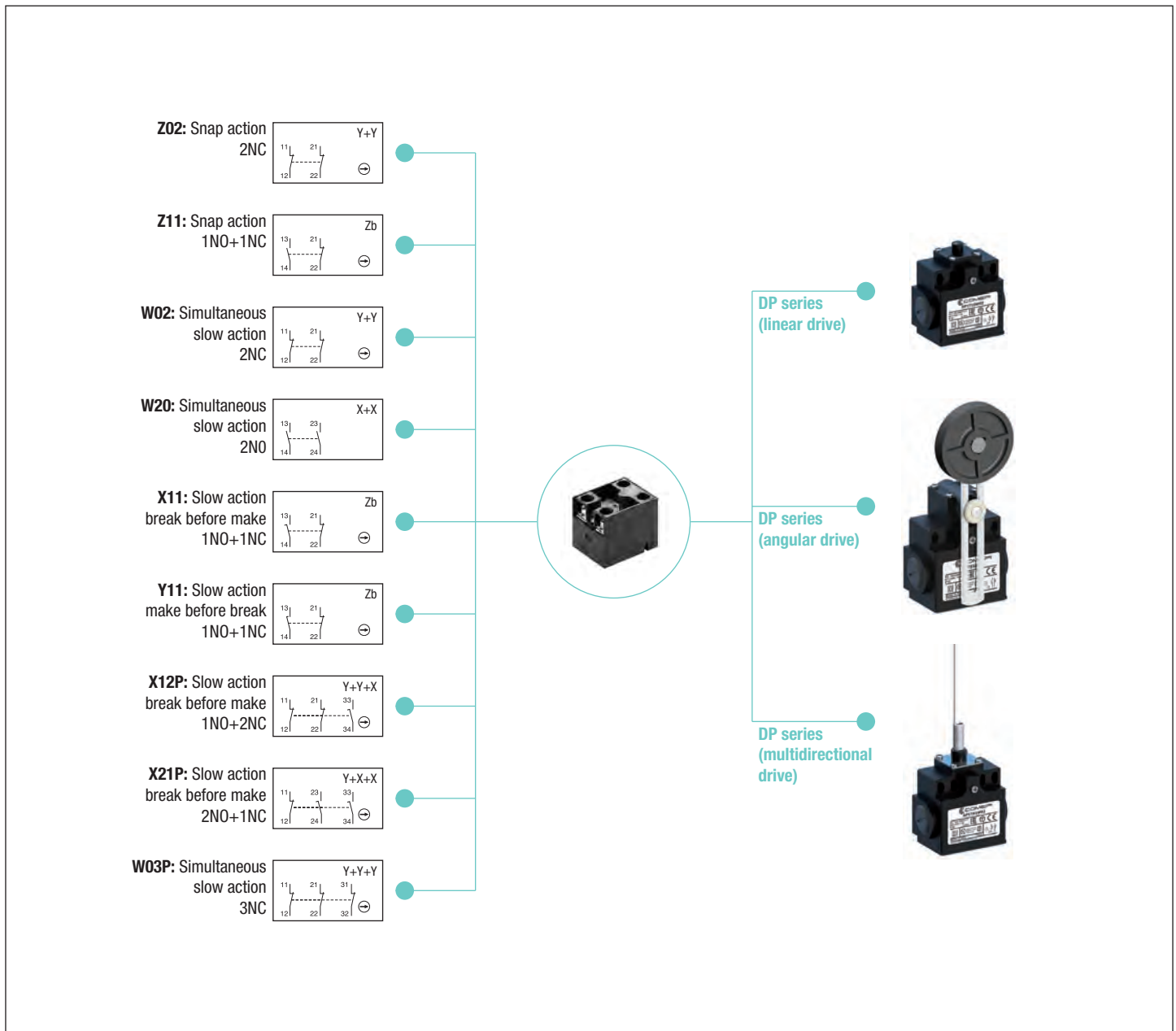
- Safety contacts with positive opening operations according to IEC 60947-5-1 annex K
- Mechanical durability > 10M operations
- IP protection degree > IP 4X

DESCRIPTION

Limit switches, which are made of reinforced UL-V0 thermoplastic fiber-glass, offer double insulation  and a degree of protection of IP65.

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.



Door Switches T_80 Series

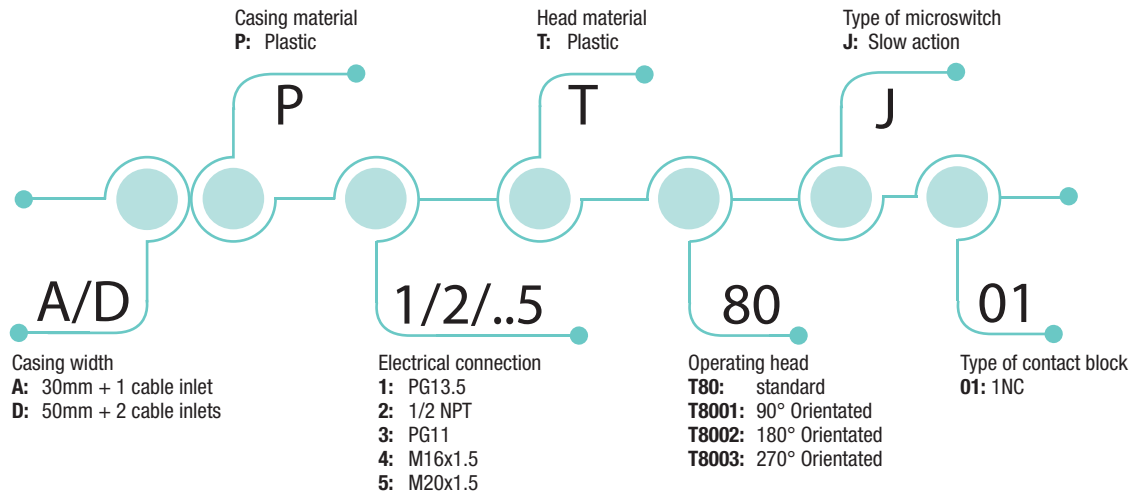
Summary



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



CB Scheme according to IEC 60947-5-1 - Certificate number DK-114686-UL
 UL Certification for FQMW Product category (elevator control and accessories) FILE E518918

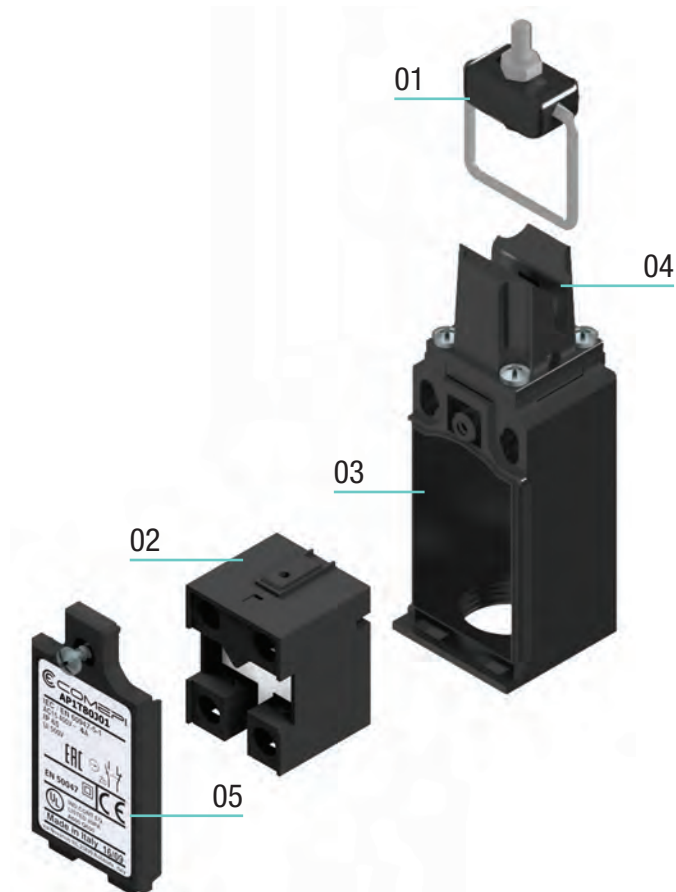


example: AP1T80J01

The feasibility of a code number does not mean the effective actuability of a product. Please contact our sales office.

HOW IS IT MADE?

- 01 Actuator**
 - Adjustable actuator included
- 02 Contact block**
 - Positive opening 1NC
- 03 Casing**
 - Thermoplastic body
 - Size conform to dimensional market standards
- 04 Operating head**
 - 90° orientable
- 05 Label**



DOOR SWITCH

- Suitable for lift applications
- Conform to EN 81-20 and EN 81-50
- Positive opening operations
- 1M operations mechanical durability
- P67
- Suitable for harsh conditions

Door Switches T_80 Series

Description

The T80 device is a door contact particularly indicated for external lifts or emergency lifts, thanks to its high IP67 protection degree. It is conform to EN 81-20 and EN 81-50 standards, also thanks to positive opening, that guarantees the possibility of safely controlling the automatic elevator doors. Easily orientable and highly customizable, this T80 door switch is the best solution for every kind of installation. The adjustable actuator is included with the main device.

They are in conformity with EN 81-20 and EN 81-50 standards:

- Safety contacts with positive opening operations according to IEC 60947-5-1 annex K
- Mechanical durability > 10M operations
- IP protection degree > IP 4X

MAIN APPLICATIONS

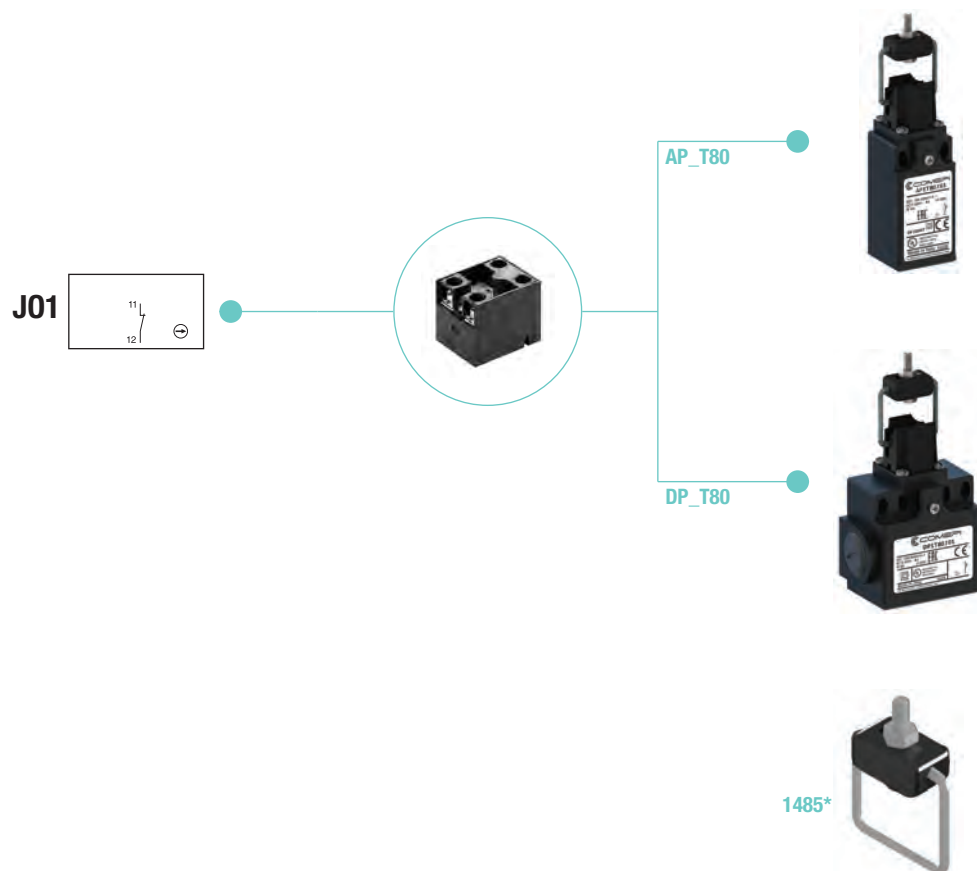
- Emergency lifts
- Fire lifts
- External lifts

DESCRIPTION

Door switch, which are made of reinforced UL-V0 thermoplastic fiber-glass, offer double insulation  and a degree of protection of IP67.

They comply with the requirements of European Directives (Low Voltage, Lift 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
DDC30 - Limit switches for lift applications.



*The actuator is included with the limit switch

Door Switches T_80 Series

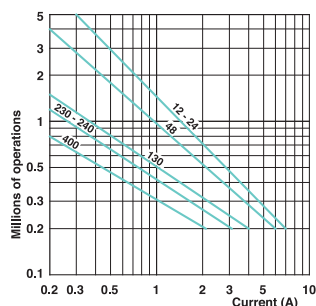
Technical Data

	Lift door switch
Standards	IEC 60947-5-1 EN 60947-5-1
Certifications - Approvals	CE - UL - EAC
Air temperature near the device	
– during operation	°C – 25 ... + 70
– for storage	°C – 30 ... + 80
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)	IP67

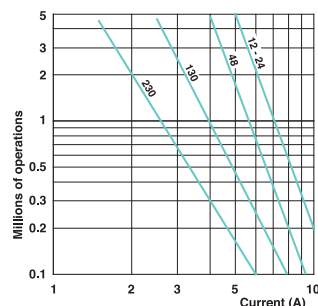
Electrical Data

Rated insulation voltage U_i - according to IEC 60947-1 and EN 60947-1 - according to UL 508 and CSA C22-2 n° 14			500V (pollution degree 3) 415Vac 4A Pilot Duty / 24Vdc 3A Pilot Duty
Rated impulse withstand voltage U_{imp} (according to IEC 60947-1 and EN 60947-1)	kV		6
Conventional free air thermal current I_{th} (according to IEC 60947-5-1) $\theta < 40$ °C	A		10
Short-circuit protection $U_e < 500$ V a.c. - gG (gl) type fuses	A		10
Rated operational current I_e / AC-15 (according to IEC 60947-5-1)	24 V - 50/60 Hz 120 V - 50/60 Hz 400 V - 50/60 Hz	A A A	10 6 4
I_e / DC-13 (according to IEC 60947-5-1)	24 V - d.c. 125 V - d.c. 250 V - d.c.	A A A	6 0.55 0.4
Switching frequency	Cycles/h		3600
Load factor			0.5
Resistance between contacts	m Ω		25
Connecting terminals			M3.5 (+, -) pozidriv 2 screw with cable clamp (M3 for 3 poles contacts type)
Terminal for protective conductor			–
Recommended tightening torque			Plastic 0,5Nm, max 0,8 0,5Nm, max 0,8 0,8Nm, max 0,9
Connecting capacity	1 or 2 x mm ²		0.34 ... 2.5 (0.34... 1.5 for 3 poles contacts type)
Terminal marking			According to IEC 60947-5-1
Mechanical durability			1 millions of operations
Electrical durability (according to IEC 60947-5-1)			Utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves below)

AC-15 - Snap action



AC-15 - Slow action



	DC-13	Snap action	Slow action
		Power breaking for a durability of 5 million operating cycles	
Voltage	24 V	9.5 W	12 W
Voltage	48 V	6.8 W	9 W
Voltage	110 V	3.6 W	6 W

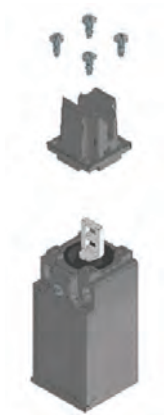
Door Switches T_80 Series

Technical Data

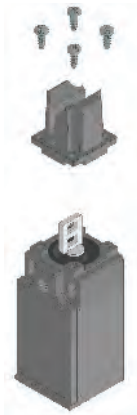
IMPLEMENTATION

Operating head orientation

The head can be rotated each 90°. Recommended tightening torque 0,5 Nm (max 0,8 Nm).



AP•T80J01
DP•T80J01



AP•T8001J01
DP•T8001J01



AP•T8002J01
DP•T8002J01



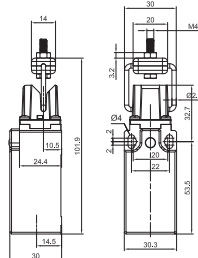
AP•T8003J01
DP•T8003J01

Electrical connection:

- AP1: one cable inlet for PG 13,5 Cable Gland
- AP2: one cable inlet by 1/2" NPT Plastic Adapter
- AP3: one cable inlet for PG11 Cable Gland
- AP4: one cable inlet for M16 x 1,5 Cable Gland
- AP5: one cable inlet for M20 x 1,5 Cable Gland

- DP1: two cable inlet for PG 13,5 Cable Gland
- DP2: two cable inlet by 1/2" NPT Plastic Adapter
- DP3: two cable inlet for PG11 Cable Gland
- DP4: two cable inlet for M16 x 1,5 Cable Gland
- DP5: two cable inlet for M20 x 1,5 Cable Gland

AP - Plastic 30mm

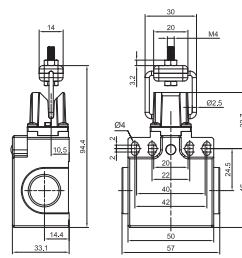


Conformity EN50047

Min. actuating force
Weight

10N (20N ⇄)
70 g

DP - Plastic 50mm



Min. actuating force
Weight

10N (20N ⇄)
75 g

Contact Blocks

J01 (1NC)

AP•T80J01

DP•T80J01

Limit Switches with separate actuator

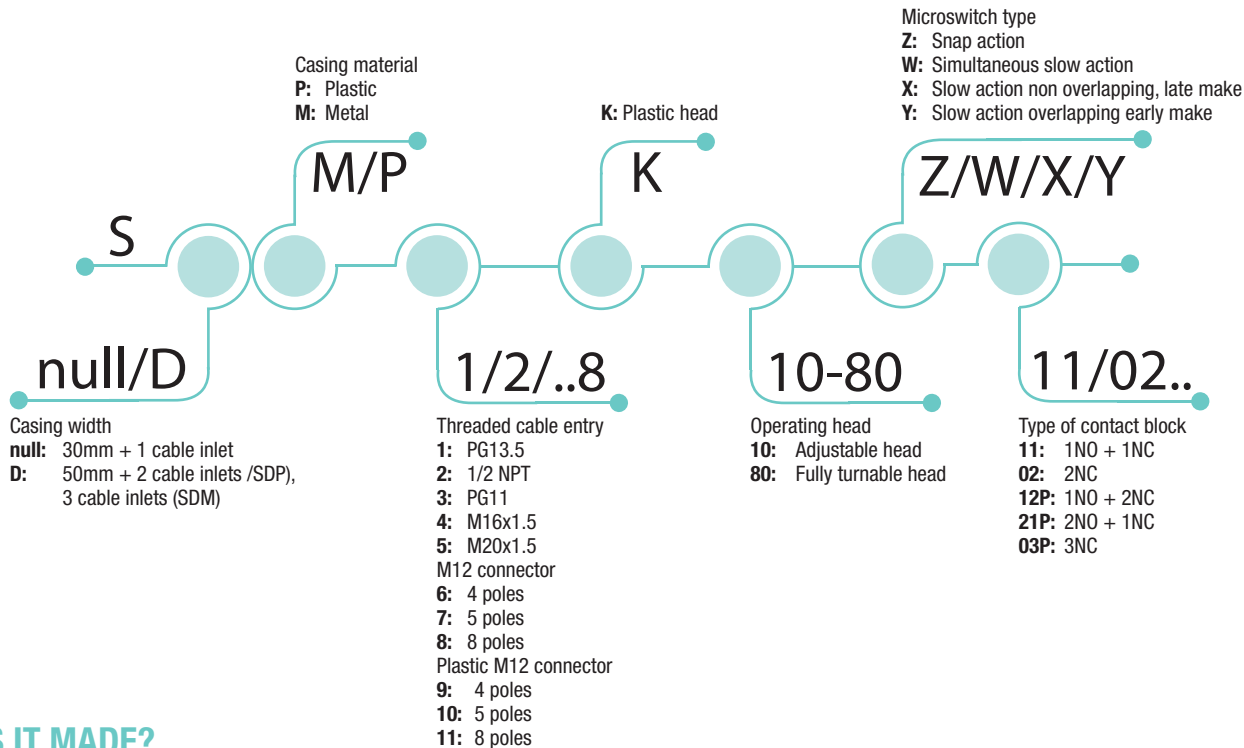
Summary



For more information:



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



HOW IS IT MADE?

01 A variety of operating inox keys:

- Flat / Bent
- Shock absorbing
- Adjustable

02 Fixed or turnable head

03 Casing:

- SP/SM with dimensions acc. to EN 50047

04 Mounting screws

- 2 x M4 screws on top part for SP/SM series
- 2 or 4 x M4 screws on top part for SDP/SDM series

05 Cover

- 1 screw $\varnothing 3$ pozidriv 1 for SP/SDP series
- 3 screws $\varnothing 3$ pozidriv 1 for SM series
- 4 screws $\varnothing 3$ pozidriv 1 for SDM series

06 Contact Block

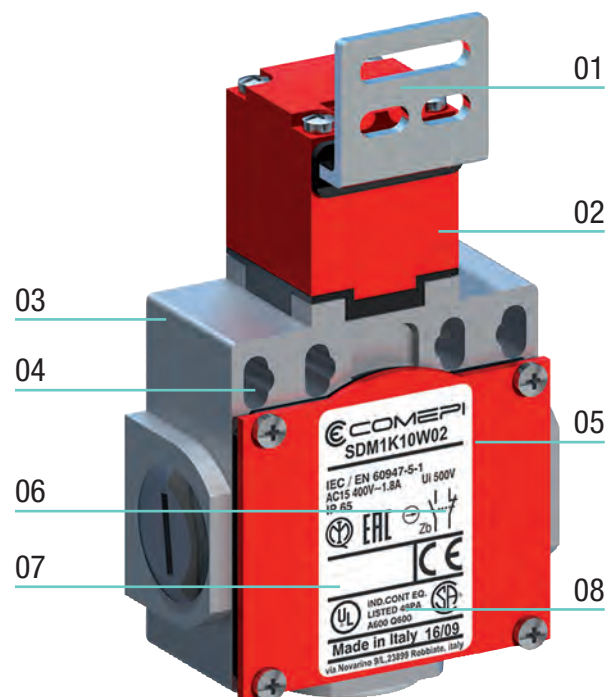
- Positive opening operation
- Snap action or slow action
- Electrically separated contacts

07 Connecting terminals

- 2 poles microswitch: M3.5 (+, -) pozidriv 2 screws
- 3 poles microswitch: M3 (+, -) screws
- Screw head with captive cable clamp
- Markings conform with IEC 60947-1, IEC 60947-5-1 standard

08 Electrical connection

- 1 x threaded cable inlet suitable for cable gland (SP/SM)
- 2 x threaded cable inlets suitable for cable gland (SDP)
- 3 x threaded cable inlets suitable for cable gland (SDM)
- 1 x M12 connector for pre-wired solutions (SP/SM)



example: SDM1K10W02. The feasibility of a code number does not mean the effective actuability of a product. Please contact our sales office.

Limit Switches with separate actuator

Description

APPLICATIONS

Easy to use, the limit switches with small latch (key) offer specific qualities:

- Capability for strong current switching (conventional thermal current 10 A).
- Opening guaranteed of the "N.C." contact(s) when the small latch is withdrawn from the limit switch.
- Contact blocks with dependent action and positive opening operation of the "N.C." normally closed contact(s) (symbol ⊕).
- Electrically separated contacts.
- Precision on operation positions (consistency).
- Immunity to electromagnetic disturbances.

These specific features make the limit switches ideal for monitoring and protection of industrial machines without inertia in which downtime is less than access time to the dangerous area. Use on sliding or pivoting protectors (covers, cases, doors, grids, etc.).

- They contribute to protection of operators working on dangerous machines, by opening the control circuit. Withdrawal of the small latch (key) by opening the mobile protector causes immediate stopping of the machine drive.
- They comply with the requirements of European Directives (Low Voltage and Machines Directive) and are conform to European and international standards.

They are in conformity with EN 81-20 and EN 81-50 standards:

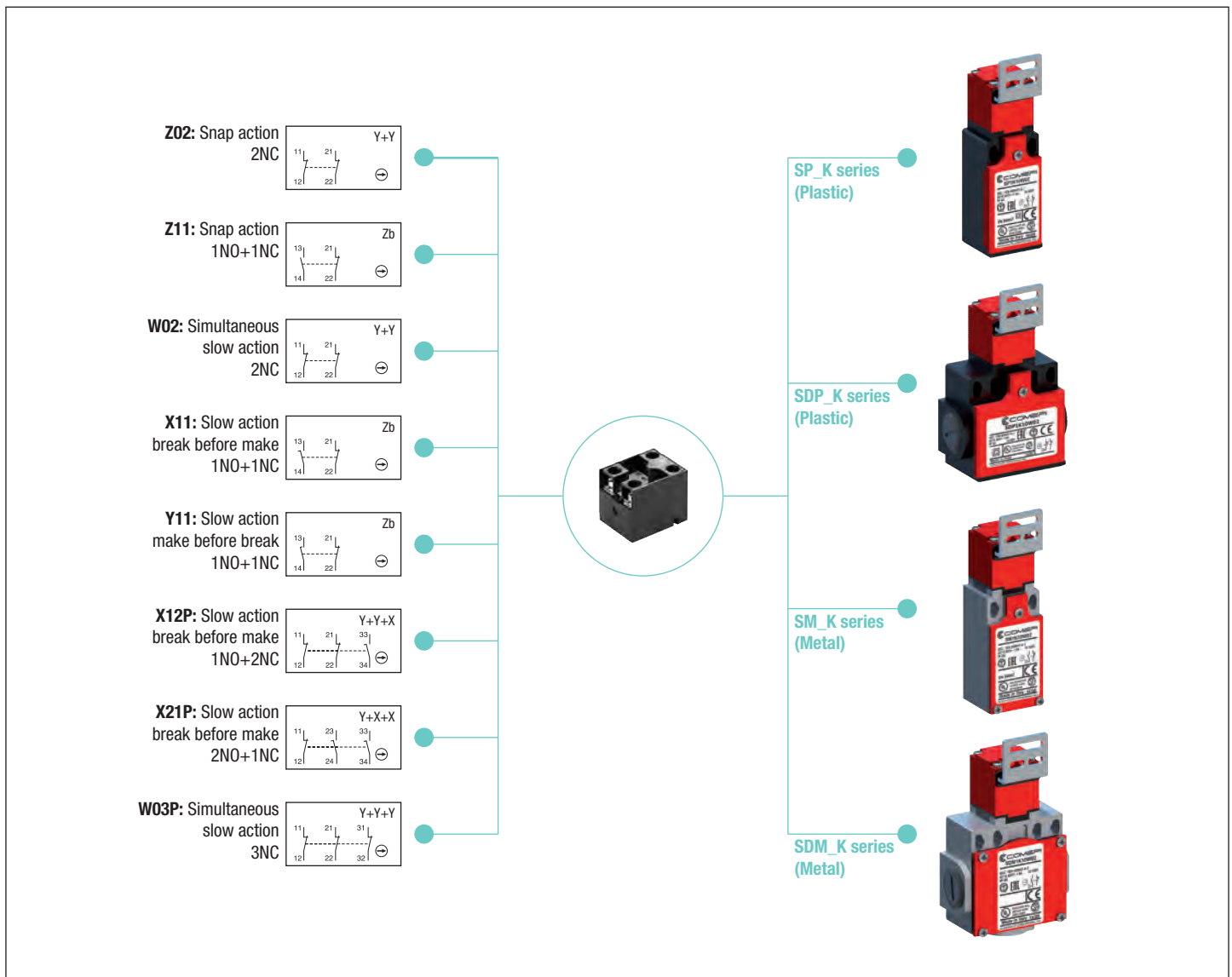
- Safety contacts with positive opening operations according to IEC 60947-5-1 annex K
- Mechanical durability > 10M operations
- IP protection degree > IP 4X

DESCRIPTION

Safety limit switches with small latch (key) of SP/SDP series are made of fibre-glass reinforced UL-V0 thermoplastic material, and they offer double insulation □ and a degree of protection IP65. Safety limit switches of SM/SDM series are made of painted zamack and have a degree of protection IP66. All models are equipped with 1NO+1NC, 2NC, 1NO+2NC, 2NO+1NC or 3NC contact blocks with positive opening operation of the "N.C." contact(s).

They comply with the requirements of European Directives (Low Voltage, Machinery 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 DDC 03 - Safety Limit Switches.



Speed Limiter Devices **HP series**

Summary

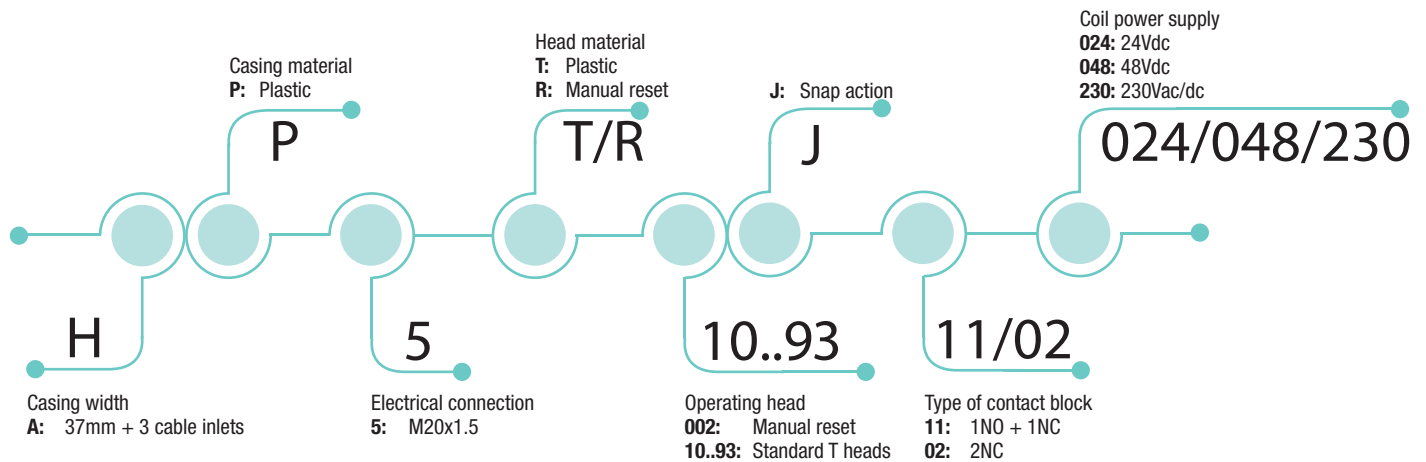


APPROVALS: UL 508 / CSA C22-2 N. 14 / IEC 60947-5-1



CB Scheme according to IEC 60947-5-1

UL Certification for FQMW Product category (elevator control and accessories) FILE E518918



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 4 x Ø3 screws

03 Casing:

- 37 mm. width with standardized dimensions acc. to EN 50047

04 Mounting screws

- 2 x M4 screws on top part

05 Cover

- latch closure

06 Coil

- the limit switch is equipped with an electromagnet that allows it to be re-enabled remotely

07 Contact Block

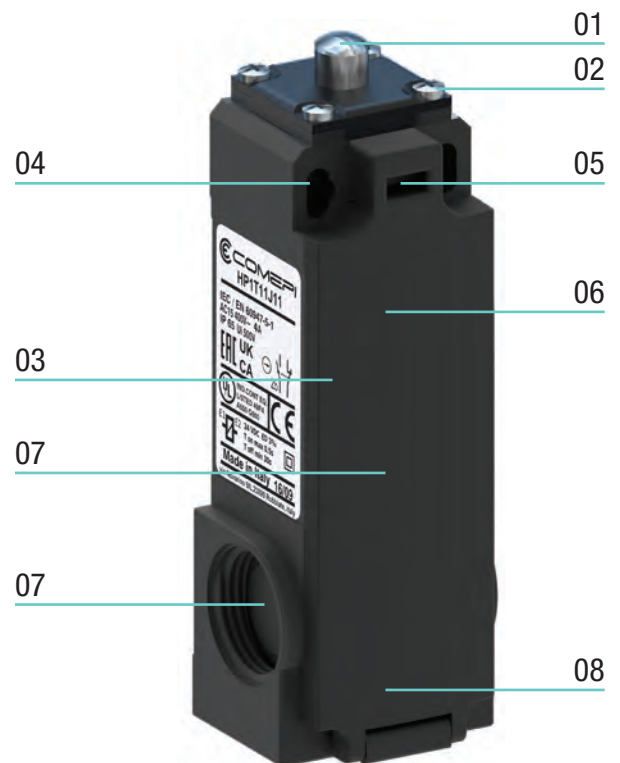
- Positive opening operation
- Snap action or slow action
- Electrically separated contacts

08 Connecting terminals

- Block of 2 contacts: M3.5 (+, -) pozidriv 2 screw
- Screw head with captive cable clamp
- Markings conform with IEC 60947-1, IEC 60947-5-1 standards

09 Electrical connection

- 3 x threaded cable entry M20x1.5 suitable for cable gland or M12 connector



Speed Limiter Devices **HP series**

Description

APPLICATIONS

Limit switches with plastic casing equipped with a remote reset system made by a solenoid very useful in many applications where the manual consent is required to reset the circuit, but may can be difficult to manually unlock the device


Easy to use, electromechanical limit switches offer specific qualities:

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

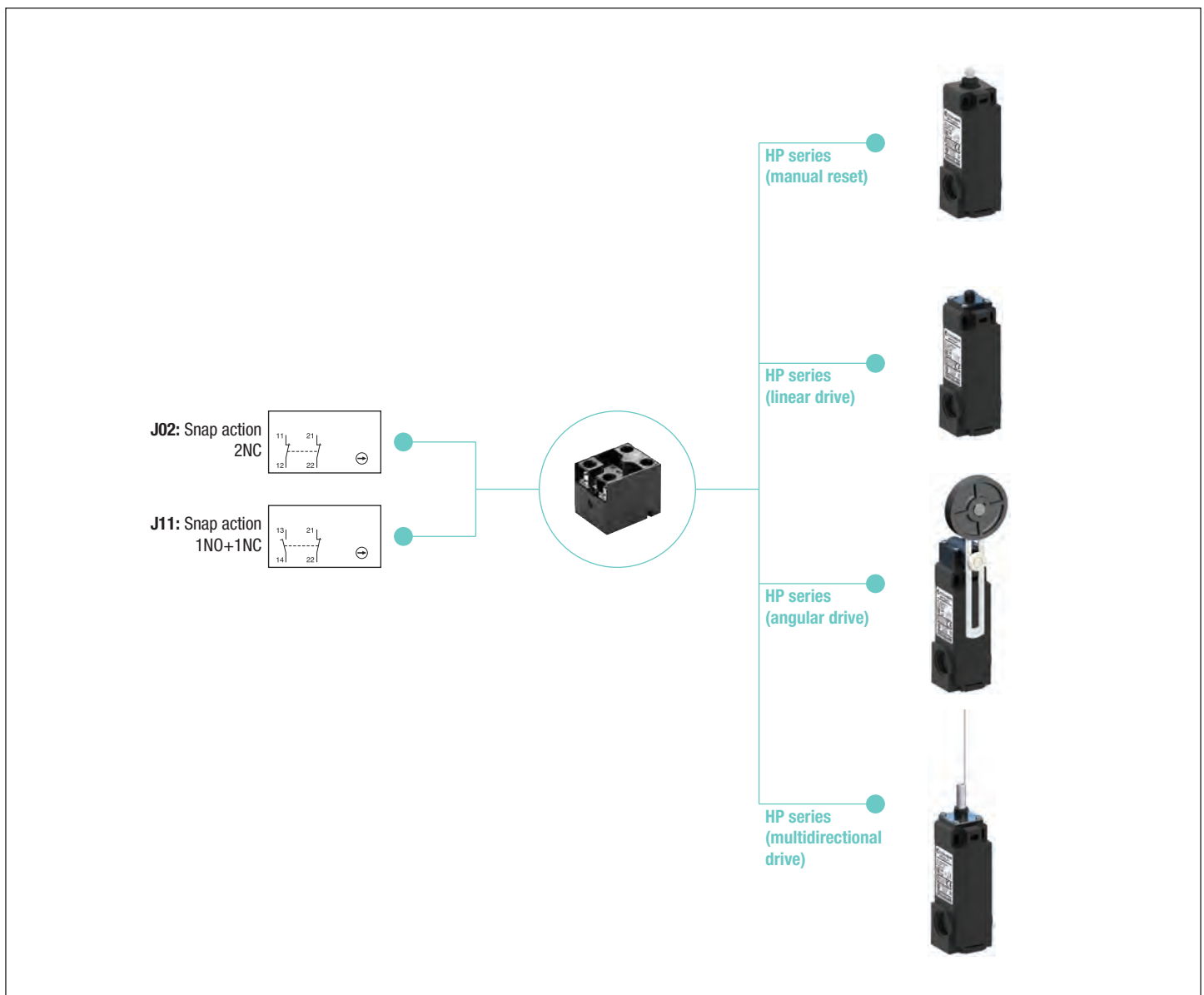
They are in conformity with EN 81-20 and EN 81-50 standards:

- Safety contacts with positive opening operations according to IEC 60947-5-1 annex K
- Mechanical durability > 10M operations
- IP protection degree > IP 4X

DESCRIPTION

Limit switches, which are made of reinforced UL-V0 thermoplastic fiber-glass, offer double insulation  and a degree of protection of IP65. They comply with the requirements of European Directives (Low Voltage, Lift 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
DCC31 - Remote Reset Limit Switches.



Speed Limiter Devices **HP series**

Technical Data

	HP Series	
Standards	IEC 60947-5-1 - EN 60945-5-1 EN 81-20 EN 81-50	
Certifications - Approvals	CE - UL	
Air temperature near the device		
– during operation	°C	– 25 ... + 70
– for storage	°C	– 30 ... + 80
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 65	

Electrical Data

Rated insulation voltage U_i - according to IEC 60947-1 and EN 60947-1 - according to UL 508 and CSA C22-2 n° 14			500V (J11) – 400V (J02) A600 Q600 (J11) – A300 Q300 (J02)
Pollution degree			3
Rated impulse withstand voltage U_{imp} (according to IEC 60947-1 and EN 60947-1)	kV		6
Conventional free air thermal current I_{th} (according to IEC 60947-5-1) $\theta < 40$ °C	A		10
Short-circuit protection $U_e < 500$ V a.c. - gG (gl) type fuses	A		4
Rated conditional short-circuit current (according to IEC 60947-5-1)	kA		1
Rated operational current			
I_e / AC-15 (according to IEC 60947-5-1)	400 V - 50/60 Hz	A	4
I_e / DC-13 (according to IEC 60947-5-1)	24 V - 50/60 Hz	A	3
Solenoid supply voltage	24Vac/dc or 230Vac		+/-10%
Solenoid ON time			Min. 0,2s – Max. 0,5s WARNING: do not supply the solenoid for an higher time than 0,5s
Solenoid OFF time			Min. 30s
Switching frequency			Max. 119 operations/hour
Resistance between contacts	m Ω		25
Connecting terminals			M3.5 (+, -) pozidriv 2 screws with cable clamp
Recommended tightening torque			Plastic
Head			0,5Nm – max. 0,8Nm
Microswitch and solenoid			0,8Nm – max. 0,9Nm
Connecting capacity	1 or 2 x mm ²		0,75 ... 2,5
Terminal markings			According to IEC 60947-5-1
Mechanical durability			50.000 operations
B10d			100.000 operations (NC contacts)

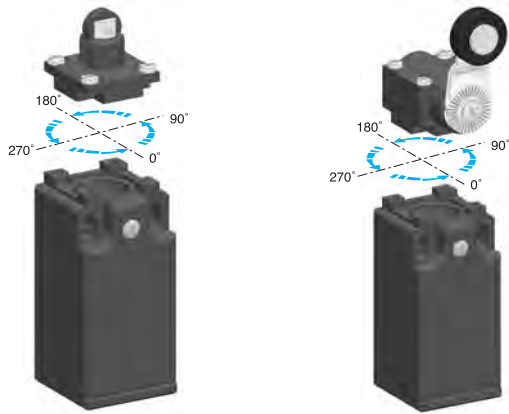
Speed Limiter Devices **HP series**

Technical Data

IMPLEMENTATION

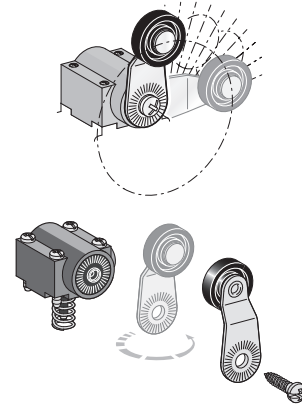
Operating head orientation

The head can be rotated each 90°. Recommended tightening torque 0,5 Nm (max 0,8 Nm).



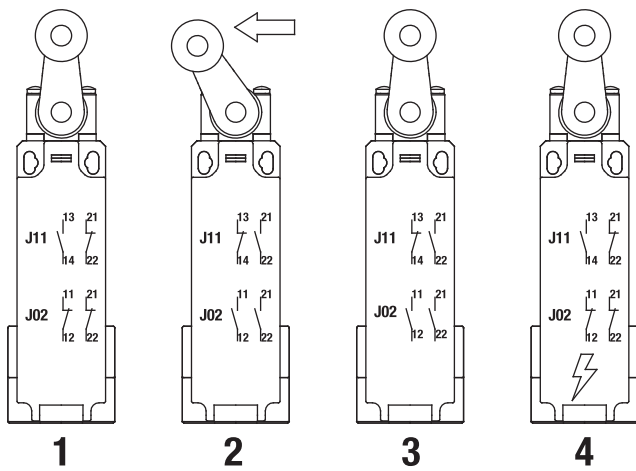
Lever adjustment

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).



OPERATING PRINCIPLE

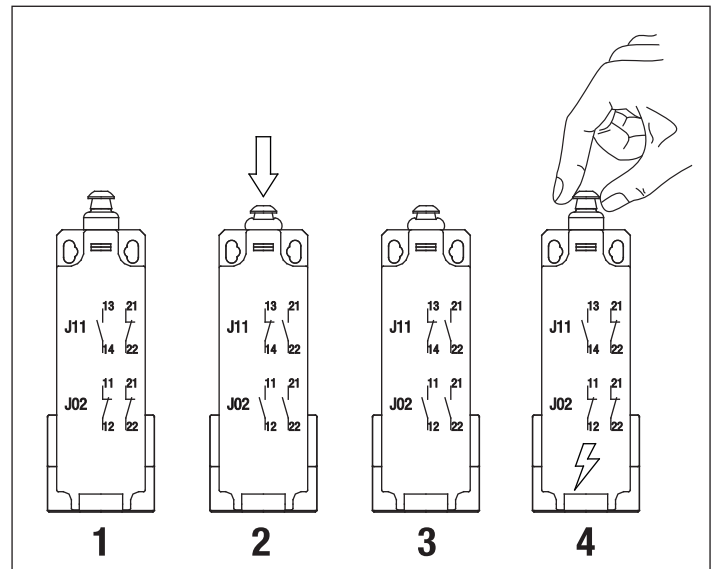
Standard versions



1. Limit switch not actuated
2. Activation
3. Limit switch actuated and comutation*
4. Reset by solenoid

* NC contact with positive opening according to IEC 60947-5-1 annex K

MANUAL RESET R002



1. Limit switch not actuated
2. Activation
3. Limit switch actuated and comutation*
4. Reset by solenoid or manual

For further informations, please contact our technical department.

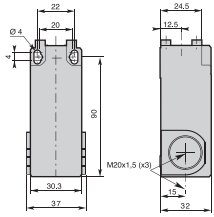
Limit Switches **HP series**

Double insulation - Plastic casing IP65 - 37 mm. width

Electrical connection:

HP5: Three cable inlet for M20 x 1,5 Cable Gland

N.B. solenoid supply voltage must be added at the end of each item code
Example: HP5T14J11-024

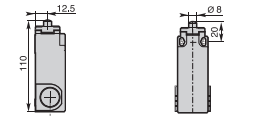


Contact Blocks

J11 (1NO + 1NC)
J02 (2NC)

T1• - Plain plunger

T10: nylon plunger T11: metal plunger

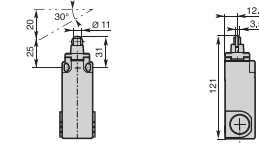


Conformity EN50047
Min. actuating force
Weight

15N (30N ⇄)
70 g

T1• - Roller plunger

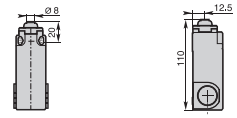
T12: metal roller T13: nylon roller



Conformity EN50047
Min. actuating force
Weight

12N (30N ⇄)
75 g

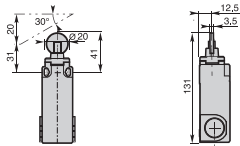
T14 - Metal plunger with dust protection cup



Conformity EN50047
Min. actuating force
Weight

15N (30N ⇄)
70 g

T16 - Nylon roller plunger

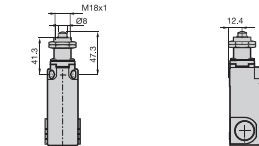


Min. actuating force
Weight

15N (30N ⇄)
80 g

T21• - Plain plunger

T21: M18x1 fixing nuts T2101: M12x1 fixing nuts

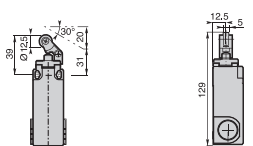


Min. actuating force
Weight

15N (30N ⇄)
80 g

T3• - Plastic roller lever

T30: on plastic plunger T31: on metal plunger



Conformity EN50047
Min. actuating force
Weight

7N (24N ⇄)
75 g

Contact Blocks

J11 (1NO+1NC)
J02 (2NC)

HP•T16J11
HP•T16J02

HP•T21J11
HP•T21J02

HP•T2101J11
HP•T2101J02

HP•T30J11
HP•T30J02

HP•T31J11
HP•T31J02

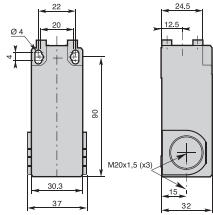
Limit Switches HP series

Double insulation - Plastic casing IP65 - 37 mm. width

Electrical connection:

HP5: Three cable inlet for M20 x 1,5 Cable Gland

N.B. solenoid supply voltage must be added at the end of each item code
Example: HP5T14J11-024

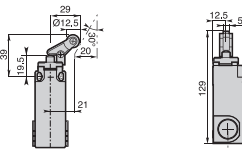


Contact Blocks

J11 (1NO + 1NC)
J02 (2NC)

T3• - Plastic roller lever

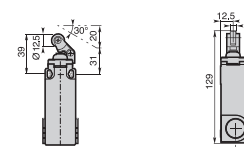
T32: on metal plunger T34: on plastic plunger



Min. actuating force
Weight

7N (24N ⊖)
80 g

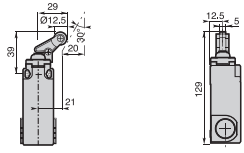
T35 - Plastic roller lever on metal plunger with dust protection cup



Conformity EN50047
Min. actuating force
Weight

7N (24N ⊖)
75 g

T36 - Plastic roller lever on metal plunger with dust protection cup

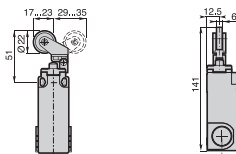


Min. actuating force
Weight

7N (24N ⊖)
80 g

J11 (1NO + 1NC)	HP•T32J11	HP•T34J11	HP•T35J11	HP•T36J11
J02 (2NC)	HP•T32J02	HP•T34J02	HP•T35J02	HP•T36J02

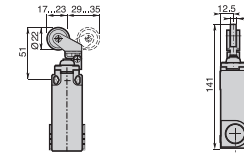
T38 - Adjustable plastic roller lever on metal plunger



Conformity EN50047
Min. actuating force
Weight

7N (24N ⊖)
80 g

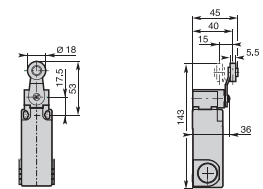
T39 - Adjustable plastic roller lever on metal plunger with dust protection cup



Conformity EN50047
Min. actuating force
Weight

7N (24N ⊖)
80 g

T41 - Ø 18 nylon roller lever



Conformity EN50047
Min. actuating torque
Weight

0,10Nm (0,32Nm ⊖)
95 g

Contact Blocks

J11 (1NO+1NC)	HP•T38J11	HP•T39J11	HP•T41J11
J02 (2NC)	HP•T38J02	HP•T39J02	HP•T41J02

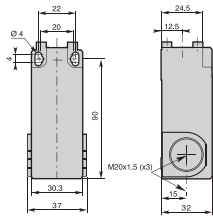
Limit Switches **HP series**

Double insulation - Plastic casing IP65 - 37 mm. width

Electrical connection:

HP5: Three cable inlet for M20 x 1,5 Cable Gland

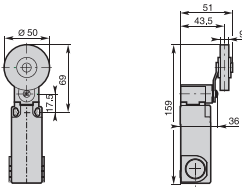
N.B. solenoid supply voltage must be added at the end of each item code
Example: HP5T14J11-024



Contact Blocks

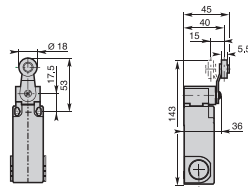
J11 (1NO+1NC)
J02 (2NC)

T42 - Ø 50 rubber roller lever



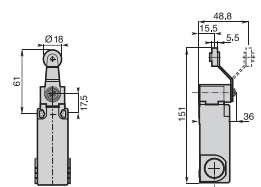
Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 115 g

T43 - Ø 18 metal roller lever



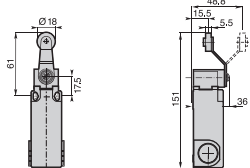
Conformity EN50047
Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 100 g

T45 - Ø 18 nylon roller lever



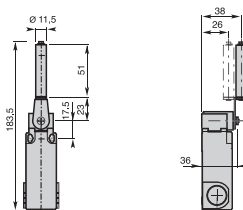
Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 95 g

T46 - Ø 18 metal roller lever



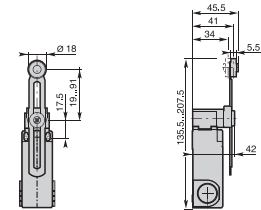
Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 100 g

T48 - Ceramic rod lever



Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 100 g

T51 - Adjustable lever with Ø 18 nylon roller



Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 100 g

Contact Blocks

J11 (1NO+1NC)
J02 (2NC)

HP•T46J11
HP•T46J02

HP•T48J11
HP•T48J02

HP•T51J11
HP•T51J02

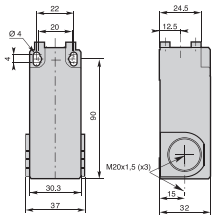
Limit Switches **HP series**

Double insulation - Plastic casing IP65 - 37 mm. width

Electrical connection:

HP5: Three cable inlet for M20 x 1,5 Cable Gland

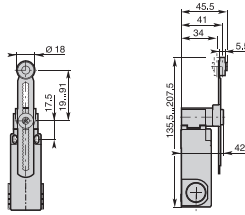
N.B. solenoid supply voltage must be added at the end of each item code
Example: HP5T14J11-024



Contact Blocks

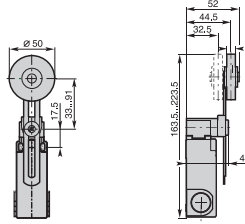
J11 (1NO+1NC)
J02 (2NC)

T5100 - Adjustable toothed lever (step 2 mm) with Ø 18 nylon roller



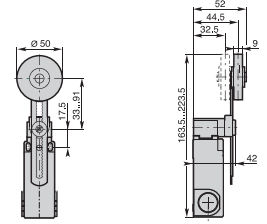
Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 105 g

T52 - Adjustable lever with Ø 50 rubber roller



Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 125 g

T5200 - Adjustable toothed lever (step 2 mm) with Ø 50 rubber roller



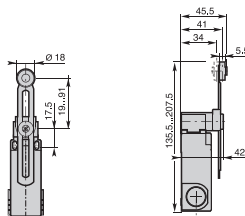
Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 125 g

HP•T5100J11
HP•T5100J02

HP•T52J11
HP•T52J02

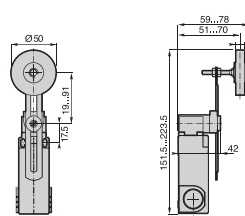
HP•T5200J11
HP•T5200J02

T53 - Adjustable lever with Ø 18 metal roller



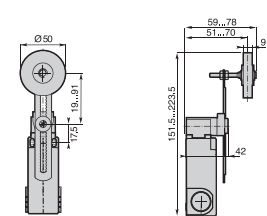
Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 110 g

T55 - Adjustable lever with adjustable Ø 50 rubber roller



Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 130 g

T5500 - Adjustable toothed lever (step 2 mm) with adjustable Ø 50 rubber roller



Min. actuating torque 0,10Nm (0,32Nm ⇄)
Weight 130 g

Contact Blocks

J11 (1NO+1NC)
J02 (2NC)

HP•T53J11
HP•T53J02

HP•T55J11
HP•T55J02

HP•T5500J11
HP•T5500J02

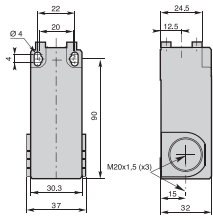
Limit Switches **HP series**

Double insulation - Plastic casing IP65 - 37 mm. width

Electrical connection:

HP5: Three cable inlet for M20 x 1,5 Cable Gland

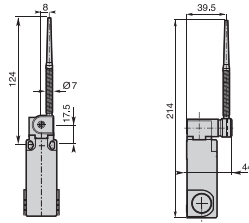
N.B. solenoid supply voltage must be added at the end of each item code
Example: HP5T14J11-024



Contact Blocks

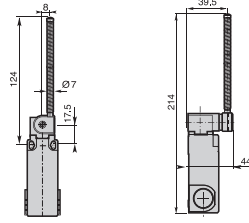
J11 (1NO+1NC)
J02 (2NC)

T61 - Nylon actuator with stainless steel spring



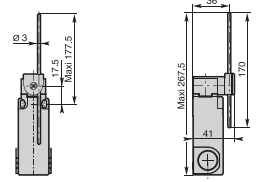
Min. actuating torque **0,10Nm**
Weight **105 g**

T62 - Stainless steel spring actuator



Min. actuating torque **0,10Nm**
Weight **105 g**

T71 - Adjustable Ø 3 rod lever with stainless steel rod



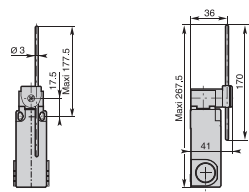
Min. actuating torque **0,10Nm (0,32Nm ⊖)**
Weight **105 g**

HP•T61J11
HP•T61J02

HP•T62J11
HP•T62J02

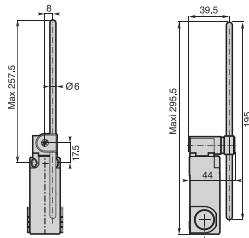
HP•T71J11
HP•T71J02

T72 - Adjustable Ø 3 rod lever with fiberglass rod



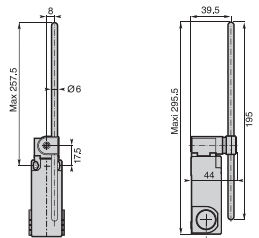
Min. actuating torque **0,10Nm (0,32Nm ⊖)**
Weight **105 g**

T73 - Adjustable Ø 6 rod lever with nylon rod



Min. actuating torque **0,10Nm (0,32Nm ⊖)**
Weight **115 g**

T74 - Adjustable Ø 6 rod lever with fiberglass rod



Min. actuating torque **0,10Nm (0,32Nm ⊖)**
Weight **115 g**

Contact Blocks

J11 (1NO+1NC)
J02 (2NC)

HP•T72J11
HP•T72J02

HP•T73J11
HP•T73J02

HP•T74J11
HP•T74J02

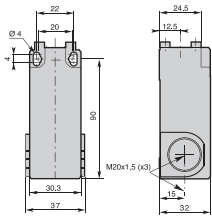
Limit Switches **HP series**

Double insulation - Plastic casing IP65 - 37 mm. width

Electrical connection:

HP5: Three cable inlet for M20 x 1,5 Cable Gland

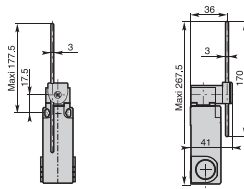
N.B. solenoid supply voltage must be added at the end of each item code
Example: HP5T14J11-024



Contact Blocks

J11 (1NO+1NC)
J02 (2NC)

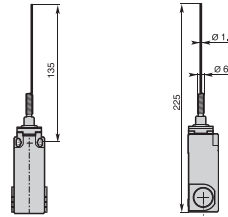
T75 - Adjustable 3x3 square steel rod lever



Min. actuating torque **0,10Nm (0,32Nm ⊖)**
Weight **105 g**

HP•T75J11
HP•T75J02

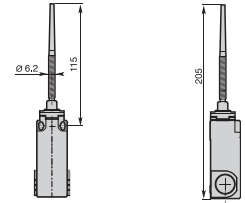
T91 - Stainless steel spring multidirectional actuator



Min. actuating torque **0,12Nm**
Weight **80 g**

HP•T91J11
HP•T91J02

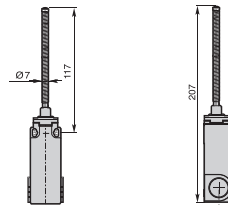
T92 - Multidirectional nylon actuator with stainless steel spring



Min. actuating torque **0,12Nm**
Weight **85 g**

HP•T92J11
HP•T92J02

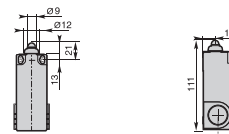
T93 - Stainless steel spring multidirectional actuator



Min. actuating torque **0,12Nm**
Weight **90 g**

HP•T93J11
HP•T93J02

R002 - Nylon plain plunger with manual reset



Min. actuating force **15N**
Weight **115 g**

HP•R002J11
HP•R002J02

Contact Blocks

J11 (1NO+1NC)
J02 (2NC)

Speed Limiter Devices R002 series

Summary



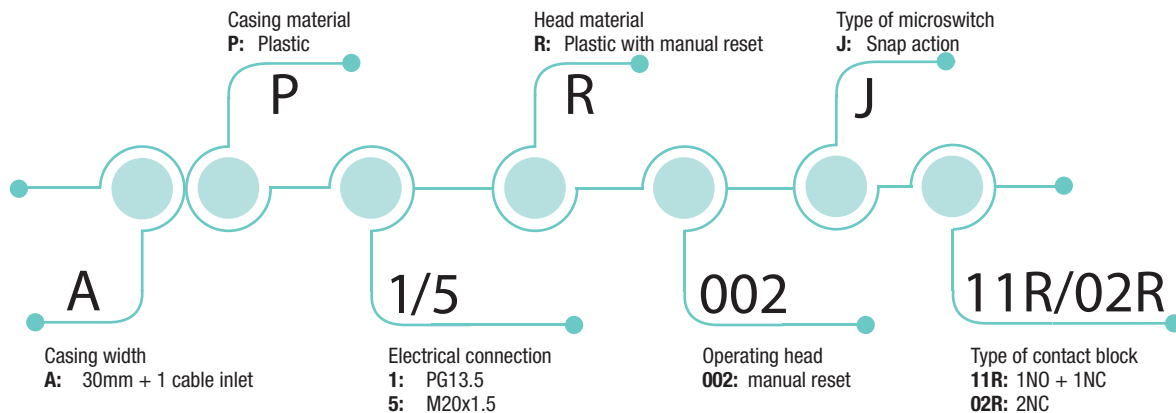
APPROVALS: UL 508 / CSA C22-2 N. 14 / IEC 60947-5-1



CB Scheme according to IEC 60947-5-1

UL Certification for FQMW Product category (elevator control and accessories)

CB scheme according to IEC 60947-5-1



HOW IS IT MADE?

01 A variety of actuators

- Plain plunger with manual reset

02 Wide range of heads

- Assembled using 4 x Ø3 screws

03 Casing:

- 30 mm. width with standardized dimensions acc. to EN 50047

04 Mounting screws

- 2 x M4 screws on top part

05 Cover

- 1 screw Ø3 pozidriv 1

06 Contact Block

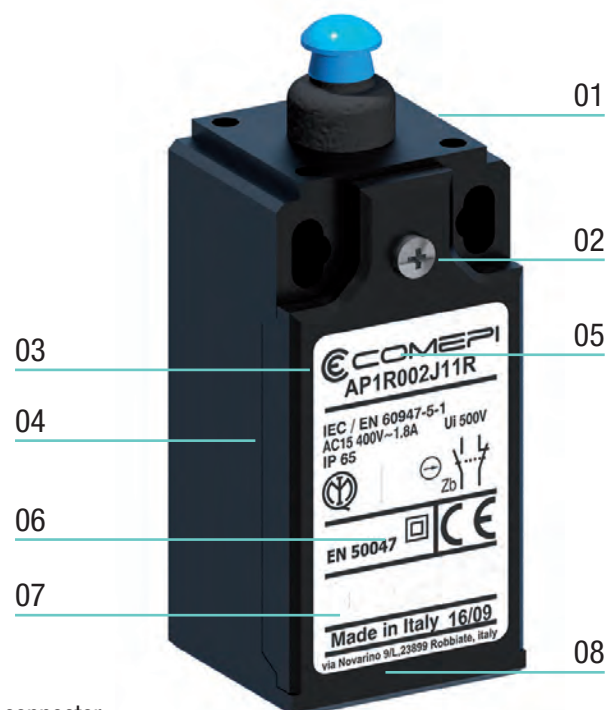
- Positive opening operation
- Snap action or slow action
- Electrically separated contacts

07 Connecting terminals

- Block of 2 contacts: M3.5 (+, -) pozidriv 2 screw
- Screw head with captive cable clamp
- Markings conform with IEC 60947-1, IEC 60947-5-1 standards

08 Electrical connection

- 1 x threaded cable entry suitable for cable gland, M12 connector or DEUTSCH connector



Speed Limiter Devices **R002 series**

Summary

APPLICATIONS

A specific limit switch for application in lift speed limiters. It complies with the market size standards. Configuration 1NO+1NC or 2NC. Manual reset.

Easy to use, electromechanical limit switches offer specific qualities:

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

They are in conformity with EN 81-20 and EN 81-50 standards:

- Safety contacts with positive opening operations according to IEC 60947-5-1 annex K
- Mechanical durability > 10M operations
- IP protection degree > IP 4X

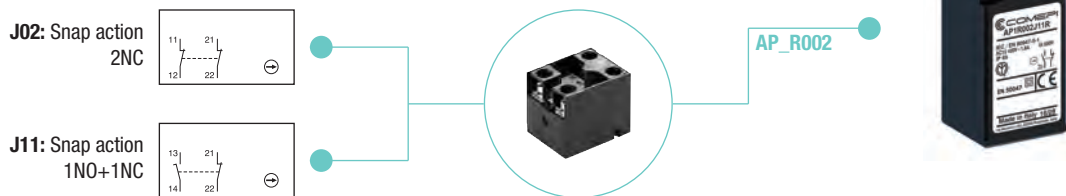
DESCRIPTION

The switch has been designed specifically for applications on over-speed devices; by actuating the plunger until the operating position P1, the electrical contacts switch and simultaneously the plunger reaches position P2 automatically.

The device is restored by pulling the blue plunger until the free position P0. The switch can be supplied with 1NO + 1NC contacts (AP.R002J11R) or with 2NC contacts (AP.R002J02R); all the NC contacts have positive opening operation.

They comply with the requirements of European Directives (Low Voltage, Lift 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.



Speed Limiter Devices **R002 series**

Technical Data

	R002 Series	
Standards	IEC 60947-5-1 - EN 60945-5-1 EN 81-20 EN 81-50	
Certifications - Approvals	CE - UL	
Air temperature near the device		
– during operation	°C	– 25 ... + 70
– for storage	°C	– 30 ... + 80
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 65	

Electrical Data

Rated insulation voltage U_i - according to IEC 60947-1 and EN 60947-1 - according to UL 508 and CSA C22-2 n° 14			500V (J11R) – 400V (J02R) A600 Q600 (J11R) – A300 Q300 (J02R)
Pollution degree			3
Rated impulse withstand voltage U_{imp} (according to IEC 60947-1 and EN 60947-1)	kV		6
Conventional free air thermal current I_{th} (according to IEC 60947-5-1) $\theta < 40$ °C	A		10
Short-circuit protection $U_e < 500$ V a.c. - gG (gl) type fuses	A		4
Rated conditional short-circuit current (according to IEC 60947-5-1)	kA		1
Rated operational current			
I_e / AC-15 (according to IEC 60947-5-1)	400 V - 50/60 Hz	A	4
I_e / DC-13 (according to IEC 60947-5-1)	24 V - 50/60 Hz	A	3
Switching frequency			Max. 3600 operations/hour
Resistance between contacts	m Ω		25
Connecting terminals			M3.5 (+, -) pozidriv 2 screws with cable clamp
Recommended tightening torque			Plastic
Head and cover			0,5Nm – max. 0,8Nm
Microswitch and solenoid			0,8Nm – max. 0,9Nm
Connecting capacity	1 or 2 x mm ²		0,75 ... 2,5
Terminal markings			According to IEC 60947-5-1
Mechanical durability			1.000.000 operations
B10d			2.000.000 operations (NC contacts)

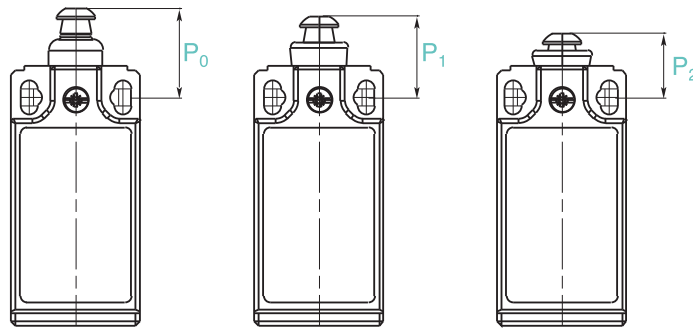
Speed Limiter Devices **R002 series**

Technical Data

OPERATING SCHEME

Description

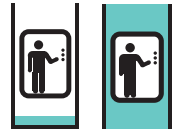
The switch has been designed specifically for applications on over-speed devices; by actuating the plunger until the operating position P1, the electrical contacts switch and simultaneously the plunger reaches position P2 automatically. The device is restored by pulling the blue plunger until the free position P0. The switch can be supplied with 1NO+1NC contacts (AP•R002J11R) or with 2NC contacts (AP•R002J02R); all the NC contacts have positive opening operation.



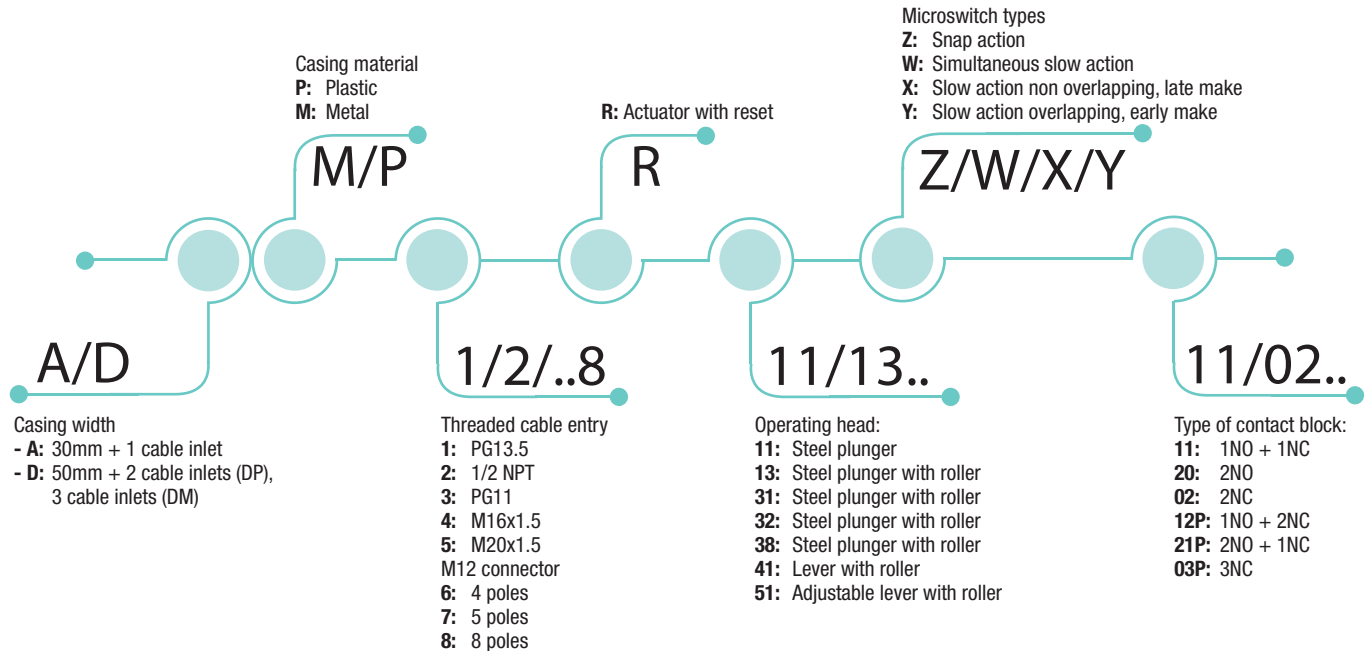
For further informations, please contact our technical department.

Safety Limit Switches with reset

Summary



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



HOW IS IT MADE?

01 Casing

- AP/AM with dimensions acc. to EN 50047

02 Mounting the casing

- 2 x M4 screws on top part for AP/AM series
- 2 or 4 x M4 screws on top part for DP/DM series

03 Contact Block

- Positive opening operation
- Snap action or slow action
- Contacts are electrically separated

04 Connecting terminals

- Block of 2 contacts: M3.5 (+, -) pozidriv 2 screws
- Block of 3 contacts: M3 (+, -) screws
- Screw head with captive cable clamp
- Markings conform with IEC 60947-1, IEC 60947-5-1 standard

05 Reset

- Manual reset button

06 A variety of operating heads

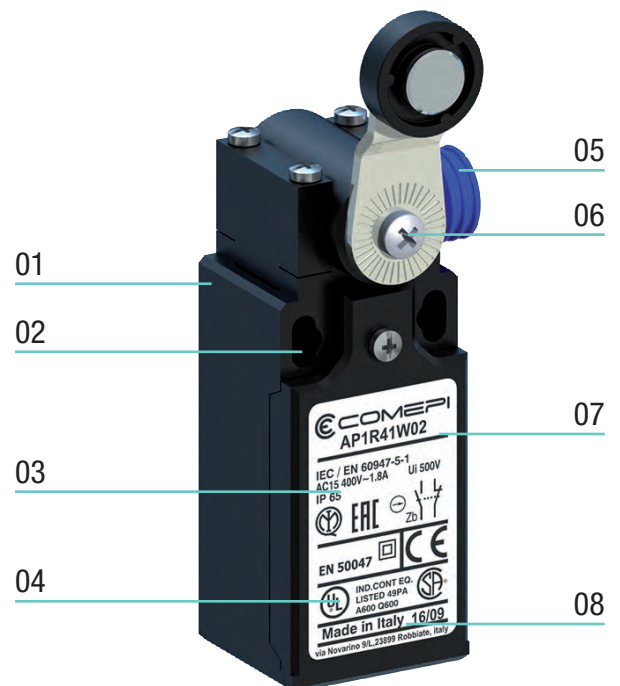
- Metal plunger
- Metal plunger and nylon roller
- Nylon roller lever
- Other levers available upon request

07 Cover

- 1 screw 3 pozidriv 1 for AP/DP series
- 3 screws 3 pozidriv 1 for AM series
- 4 screws 3 pozidriv 1 for DM series

08 Electrical connection

- 1 x threaded cable inlet suitable for cable gland (SP/SM)
- 2 x threaded cable inlets suitable for cable gland (SDP)
- 3 x threaded cable inlets suitable for cable gland (SDM)
- 1 x M12 connector for pre-wired solutions (SP/SM)



Safety Limit Switches with reset

Description

APPLICATIONS

Easy to use, the limit switches for safety applications with latch and manual reset offer specific qualities:

- Visible operation (fault memorisation).
- Capability for strong current switching (conventional thermal current 10 A).
- Contact blocks with positive opening operation of the "N.C." normally closed contact(s) (symbol \ominus).
- Electrically separated contacts.
- Precision on operating positions (consistency).
- Immunity to electromagnetic disturbances.

They are in conformity with EN 81-20 and EN 81-50 standards:

- Safety contacts with positive opening operations according to IEC 60947-5-1 annex K
- Mechanical durability > 10M operations
- IP protection degree > IP 4X

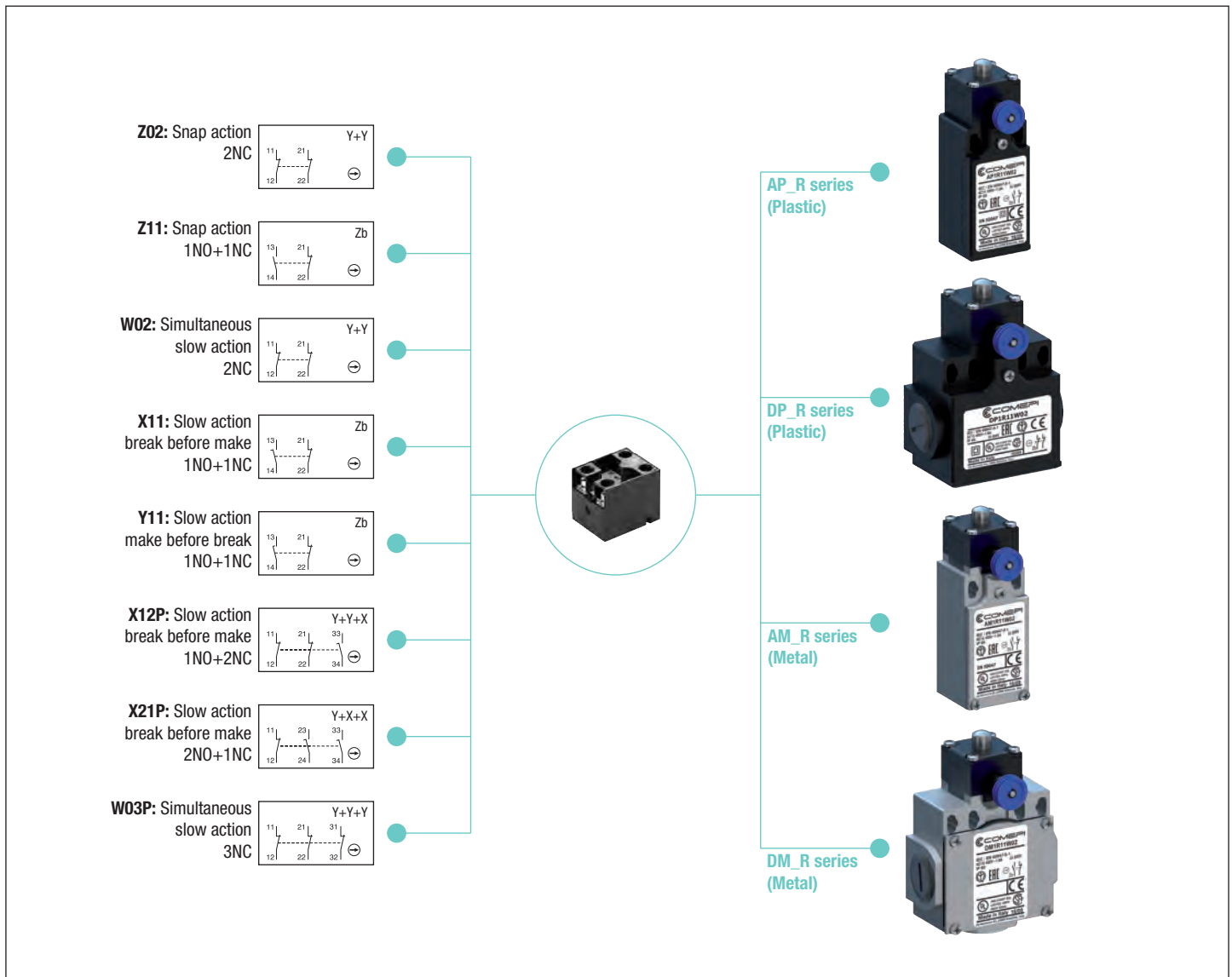
These specific features make the limit switches ideal for detection and monitoring of faults in hoisting machines, electric lifts, freight elevators, escalators, conveyor belts, etc. They comply with the requirements of European Directives (Low Voltage and Machines Directives) and are conform to European and international standards.

DESCRIPTION

Limit switches with latch and manual reset are equipped with operating heads with plunger, roller plunger or roller lever, used to detect rectilinear or angular movements. AP/DP series are made of fibre-glass reinforced UL-V0 thermoplastic material, they offer double insulation and a degree of protection IP65. AM/DM series are made of zinc alloy (zamack) and have a degree of protection IP66. Limit switches with latch and manual reset are equipped with 1NO+1NC, 2NC, 1NO+2NC, 2NO+1NC or 3NC contact blocks with positive opening operation of the "N.C." contact(s). After actuating the control device and overshooting the latching point, the N.C. safety contact(s) remain in the open position. Return to the initial operating state takes place by voluntary action on the reset button.

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.



Safety Limit Switches with reset

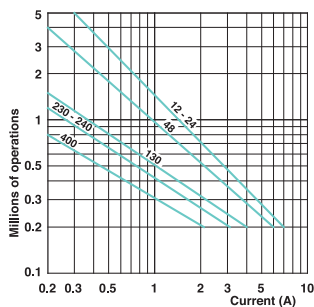
Technical Data

	AP / DP Series	AM / DM Series
Standards	IEC 60947-5-1 EN 60947-5-1	
Certifications - Approvals	UL - CSA - IMQ - EAC - CCC	
Air temperature near the device		
- during operation	- 25 ... + 70	
- for storage	- 30 ... + 80	
Mounting positions	All positions are authorized	
Protection against electrical shocks (acc. to IEC 61140)	Class II	Class I
Degree of protection (according to IEC 60529 and EN 60529)	IP 65	IP 66

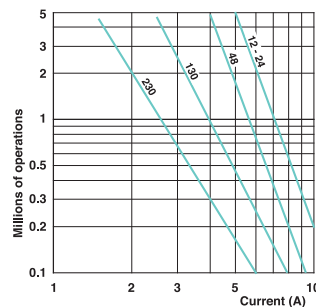
Electrical Data

Rated insulation voltage U_i - according to IEC 60947-1 and EN 60947-1 - according to UL 508 and CSA C22-2 n° 14	500 V (degree of pollution 3) (400 V for contacts type Z02, X12P, X21P, W03P) A 600, Q 600 (A 300, Q 300 for AM/DM series and contacts type X12P, X21P, W03P)	
Rated impulse withstand voltage U_{imp} (according to IEC 60947-1 and EN 60947-1)	kV	6
Conventional free air thermal current I_{th} (according to IEC 60947-5-1) $\theta < 40$ °C	A	10
Short-circuit protection $U_e < 500$ V a.c. - gG (gl) type fuses	A	10
Rated operational current I_e / AC-15 (according to IEC 60947-5-1)	24 V - 50/60 Hz A 120 V - 50/60 Hz A 400 V - 50/60 Hz A	10 6 4
I_e / DC-13 (according to IEC 60947-5-1)	24 V - d.c. A 125 V - d.c. A 250 V - d.c. A	6 0.55 0.4
Switching frequency	Cycles/h	3600
Load factor		0.5
Resistance between contacts	m	25
Connecting terminals	M3.5 (+, -) pozidriv 2 screw with cable clamp (M3 for 3 poles contacts type)	
Terminal for protective conductor	-	
Recommended tightening torque		M3.5 (+, -) pozidriv 2 screw with cable clamp
Cover	Plastic 0,5Nm, max 0,8	Metal 0,8Nm, max 0,9
Head	0,5Nm, max 0,8	0,8Nm, max 0,9
Microswitch	0,8Nm, max 0,9	0,8Nm, max 0,9
Connecting capacity	1 or 2 x mm ²	0.34 ... 2.5 (0.34... 1.5 for 3 poles contacts type)
Terminal marking	According to IEC 60947-5-1	
Mechanical durability	1 million of operations	
Electrical durability (according to IEC 60947-5-1)	Utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves below)	
B10d	1 million of operations	

AC-15 - Snap action



AC-15 - Slow action



DC-13		Snap action	Slow action
		Power breaking for a durability of 5 million operating cycles	
Voltage	24 V	9.5 W	12 W
Voltage	48 V	6.8 W	9 W
Voltage	110 V	3.6 W	6 W

For further informations, please contact our technical department.

Safety Limit Switches with reset

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 65 (AP/DP series) , IP 66 (AM/DM series)	
Rated insulation voltage U_i	500 V (degree of pollution 3) (400V for type Z02, X12P, X21P, W03P)	
Rated impulse withstand voltage U_{imp}	6 kV	
Conventional free air thermal current I_{th}	10 A	
Short-circuit protection - gG (gl) type fuses	10 A	
Rated operational current		
I_e / AC-15	24 V - 50/60 Hz	10 A
	400 V - 50/60 Hz	4 A
I_e / DC-13	24 V - d.c.	6 A
	125 V - d.c.	0.55 A
	250 V - d.c.	0.4 A

Technical data approved by UL

Standards	Devices conform with UL 508
Contact blocks type Z11, X11, Y11, W02 and Z02	A600, Q600
Utilization categories	(A300, Q300 when installed in AM/DM series)

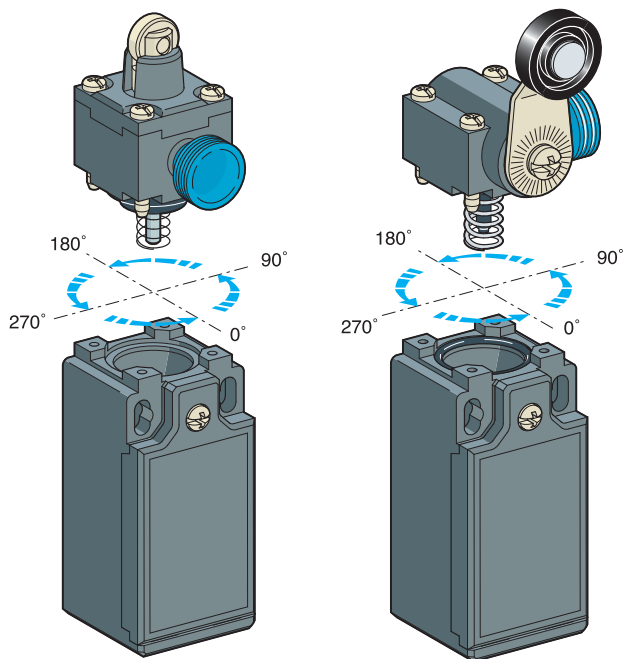
Contact blocks type X12P, X21P and W03P	A300, Q300
Utilization categories	A300, Q300
Use 60/75°C copper (Cu) conductor only. Wire rages 14-18 AWG stranded or solid. The terminal tightening torque of 7 lbs-in / 0.78 Nm. Suitable for conduit connection only with use of adapter sleeve optionally provided or recommended by the manufacturer.	

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

IMPLEMENTATION

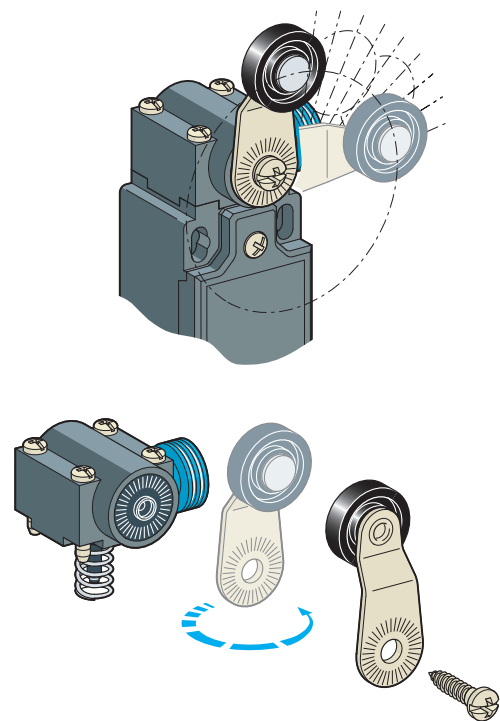
Operating head orientation

The head can be rotated each 90°. Recommended tightening torque 0,5 Nm (max 0,8 Nm).



Lever adjustment

The lever of the head model R41 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).



Safety Limit Switches with reset **AP_R series**

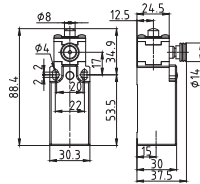
Polymeric casing. Polymer head. 30 mm width. 1 cable inlet - IP65 □

Electrical connection:

Replace the symbol “●” with the number of the thread desired

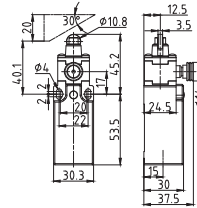
- 1: Cable gland PG 13.5
- 2: Cable gland 1/2" NPT (with adapter)
- 3: Cable gland PG 11
- 4: Cable gland M16 x 1,5
- 5: Cable gland M20 x 1,5
- 6: M12 4 poles connector
- 7: M12 5 poles connector
- 8: M12 8 poles connector

R11 Steel plunger with reset



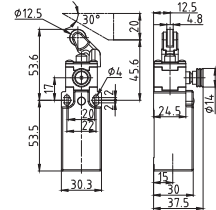
Min. actuating force	15 N (30N ⊖)
Weight	90 g
Operating diagram	Page 102

R13 Steel plunger with nylon roller with reset



Min. actuating force	12 N (30N ⊖)
Weight	90 g
Operating diagram	Page 102

R31 Steel plunger with nylon roller with reset



Min. actuating force	7 N (24N ⊖)
Weight	95 g
Operating diagram	Page 102

Contact Blocks

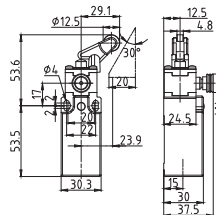
Z11 (1NO+1NC)	AP●R11Z11	AP●R13Z11	AP●R31Z11
X11 (1NO+1NC)	AP●R11X11	AP●R13X11	AP●R31X11
Y11 (1NO+1NC)	AP●R11Y11	AP●R13Y11	AP●R31Y11
W02 (2NC)	AP●R11W02	AP●R13W02	AP●R31W02
Z02 (2NC)	AP●R11Z02	AP●R13Z02	AP●R31Z02
X12P (1NO+2NC)	AP●R11X12P	AP●R13X12P	AP●R31X12P
X21P (2NO+1NC)	AP●R11X21P	AP●R13X21P	AP●R31X21P
W03P (3NC)	AP●R11W03P	AP●R13W03P	AP●R31W03P

Electrical connection:

Replace the symbol “●” with the number of the thread desired

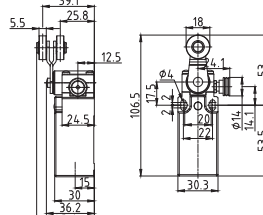
- 1: Cable gland PG 13.5
- 2: Cable gland 1/2" NPT (with adapter)
- 3: Cable gland PG 11
- 4: Cable gland M16 x 1,5
- 5: Cable gland M20 x 1,5
- 6: M12 4 poles connector
- 7: M12 5 poles connector
- 8: M12 8 poles connector

R32 Steel plunger with nylon roller with reset



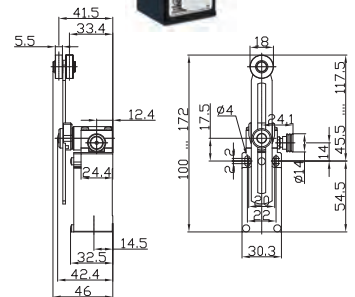
Min. actuating force	7 N (24N ⊖)
Weight	95 g
Operating diagram	Page 102

R41 Lever with nylon roller with reset



Min. actuating torque	0,10 Nm (0,32 Nm ⊖)
Weight	95 g
Operating diagram	Page 102

R51 Adjustable lever with nylon roller with reset



Min. actuating torque	0,10 Nm (0,32 Nm ⊖)
Weight	105 g
Operating diagram	Page 102

Contact Blocks

Z11 (1NO+1NC)	AP●R32Z11	AP●R41Z11	AP●R51Z11
X11 (1NO+1NC)	AP●R32X11	AP●R41X11	AP●R51X11
Y11 (1NO+1NC)	AP●R32Y11	AP●R41Y11	AP●R51Y11
W02 (2NC)	AP●R32W02	AP●R41W02	AP●R51W02
Z02 (2NC)	AP●R32Z02	AP●R41Z02	AP●R51Z02
X12P (1NO+2NC)	AP●R32X12P	AP●R41X12P	AP●R51X12P
X21P (2NO+1NC)	AP●R32X21P	AP●R41X21P	AP●R51X21P
W03P (3NC)	AP●R32W03P	AP●R41W03P	AP●R51W03P

Safety Limit Switches with reset DP_R series

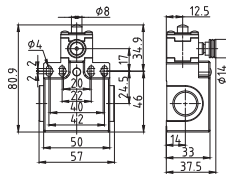
Polymeric casing. Polymer head. 50 mm width. 2 cable inlets - IP65

Electrical connection:

Replace the symbol "●" with the number of the thread desired

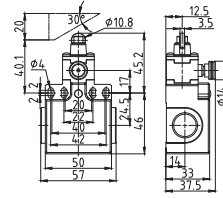
- 1: Cable gland PG 13.5
- 2: Cable gland 1/2" NPT (with adapter)
- 3: Cable gland PG 11
- 4: Cable gland M16 x 1,5
- 5: Cable gland M20 x 1,5

R11 Steel plunger with reset



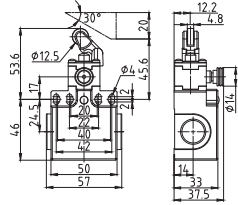
Min. actuating force	15 N (30N ⊖)
Weight	120 g
Operating diagram	Page 102

R13 Steel plunger with nylon roller with reset



Min. actuating force	12 N (30N ⊖)
Weight	120 g
Operating diagram	Page 102

R31 Steel plunger with nylon roller with reset



Min. actuating force	7 N (24N ⊖)
Weight	125 g
Operating diagram	Page 102

Contact Blocks

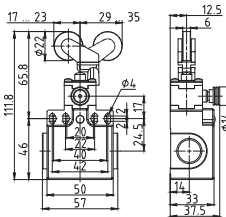
Z11 (1NO+1NC)	DP●R11Z11	DP●R13Z11	DP●R31Z11
X11 (1NO+1NC)	DP●R11X11	DP●R13X11	DP●R31X11
Y11 (1NO+1NC)	DP●R11Y11	DP●R13Y11	DP●R31Y11
W02 (2NC)	DP●R11W02	DP●R13W02	DP●R31W02
Z02 (2NC)	DP●R11Z02	DP●R13Z02	DP●R31Z02
X12P (1NO+2NC)	DP●R11X12P	DP●R13X12P	DP●R31X12P
X21P (2NO+1NC)	DP●R11X21P	DP●R13X21P	DP●R31X21P
W03P (3NC)	DP●R11W03P	DP●R13W03P	DP●R31W03P

Electrical connection:

Replace the symbol "●" with the number of the thread desired

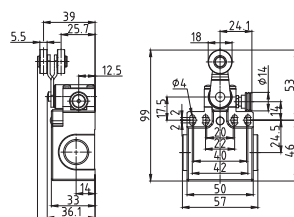
- 1: Cable gland PG 13.5
- 2: Cable gland 1/2" NPT (with adapter)
- 3: Cable gland PG 11
- 4: Cable gland M16 x 1,5
- 5: Cable gland M20 x 1,5

R38 Steel plunger with nylon roller with reset



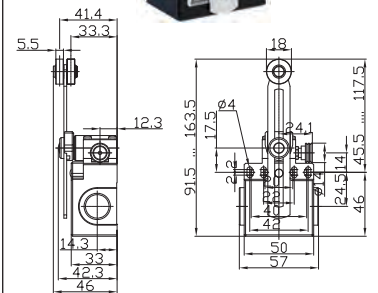
Min. actuating force	7 N (24N ⊖)
Weight	125 g
Operating diagram	Page 102

R41 Lever with nylon roller with reset



Min. actuating torque	0,10 Nm (0,32 Nm ⊖)
Weight	125 g
Operating diagram	Page 102

R51 Adjustable lever with nylon roller with reset



Min. actuating torque	0,10 Nm (0,32 Nm ⊖)
Weight	125 g
Operating diagram	Page 102

Contact Blocks

Z11 (1NO+1NC)	DP●R38Z11	DP●R41Z11	DP●R51Z11
X11 (1NO+1NC)	DP●R38X11	DP●R41X11	DP●R51X11
Y11 (1NO+1NC)	DP●R38Y11	DP●R41Y11	DP●R51Y11
W02 (2NC)	DP●R38W02	DP●R41W02	DP●R51W02
Z02 (2NC)	DP●R38Z02	DP●R41Z02	DP●R51Z02
X12P (1NO+2NC)	DP●R38X12P	DP●R41X12P	DP●R51X12P
X21P (2NO+1NC)	DP●R38X21P	DP●R41X21P	DP●R51X21P
W03P (3NC)	DP●R38W03P	DP●R41W03P	DP●R51W03P

Safety Limit Switches with reset **DM_R series**

Metal casing. Polymer head. 50 mm width. 3 cable inlets - IP66

Electrical connection:

Replace the symbol "•" with the number of the thread desired

1: Cable gland PG 13.5

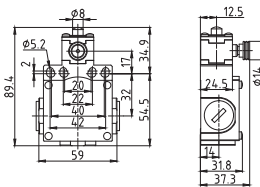
2: Cable gland 1/2" NPT (with adapter)

3: Cable gland PG 11

4: Cable gland M16 x 1,5

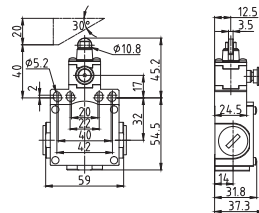
5: Cable gland M20 x 1,5

R11 Steel plunger with reset



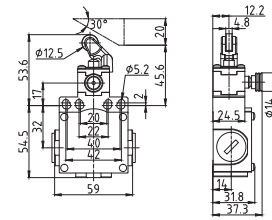
Min. actuating force	15 N (30N ⊖)
Weight	245 g
Operating diagram	Page 102

R13 Steel plunger with nylon roller with reset



Min. actuating force	12 N (30N ⊖)
Weight	245 g
Operating diagram	Page 102

R31 Steel plunger with nylon roller with reset



Min. actuating force	7 N (24N ⊖)
Weight	250 g
Operating diagram	Page 102

Contact Blocks

Z11 (1NO+1NC)	DM•R11Z11	DM•R13Z11	DM•R31Z11
X11 (1NO+1NC)	DM•R11X11	DM•R13X11	DM•R31X11
Y11 (1NO+1NC)	DM•R11Y11	DM•R13Y11	DM•R31Y11
W02 (2NC)	DM•R11W02	DM•R13W02	DM•R31W02
Z02 (2NC)	DM•R11Z02	DM•R13Z02	DM•R31Z02
X12P (1NO+2NC)	DM•R11X12P	DM•R13X12P	DM•R31X12P
X21P (2NO+1NC)	DM•R11X21P	DM•R13X21P	DM•R31X21P
W03P (3NC)	DM•R11W03P	DM•R13W03P	DM•R31W03P

Electrical connection:

Replace the symbol "•" with the number of the thread desired

1: Cable gland PG 13.5

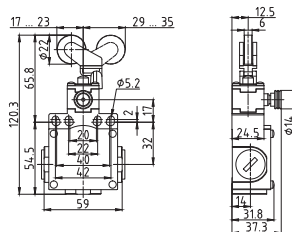
2: Cable gland 1/2" NPT (with adapter)

3: Cable gland PG 11

4: Cable gland M16 x 1,5

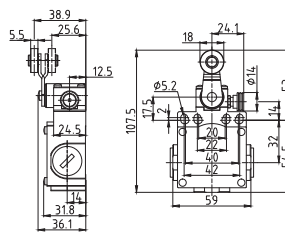
5: Cable gland M20 x 1,5

R38 Steel plunger with nylon roller with reset



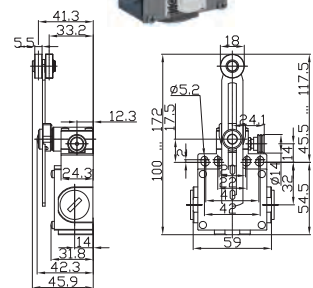
Min. actuating force	7 N (24N ⊖)
Weight	250 g
Operating diagram	Page 102

R41 Lever with nylon roller with reset



Min. actuating torque	0,10 Nm (0,32 Nm ⊖)
Weight	250 g
Operating diagram	Page 102

R51 Adjustable lever with nylon roller with reset



Min. actuating torque	0,10 Nm (0,32 Nm ⊖)
Weight	250 g
Operating diagram	Page 102

Contact Blocks

Z11 (1NO+1NC)	DM•R38Z11	DM•R41Z11	DM•R51Z11
X11 (1NO+1NC)	DM•R38X11	DM•R41X11	DM•R51X11
Y11 (1NO+1NC)	DM•R38Y11	DM•R41Y11	DM•R51Y11
W02 (2NC)	DM•R38W02	DM•R41W02	DM•R51W02
Z02 (2NC)	DM•R38Z02	DM•R41Z02	DM•R51Z02
X12P (1NO+2NC)	DM•R38X12P	DM•R41X12P	DM•R51X12P
X21P (2NO+1NC)	DM•R38X21P	DM•R41X21P	DM•R51X21P
W03P (3NC)	DM•R38W03P	DM•R41W03P	DM•R51W03P

Rope-operated Limit Switches T98 series

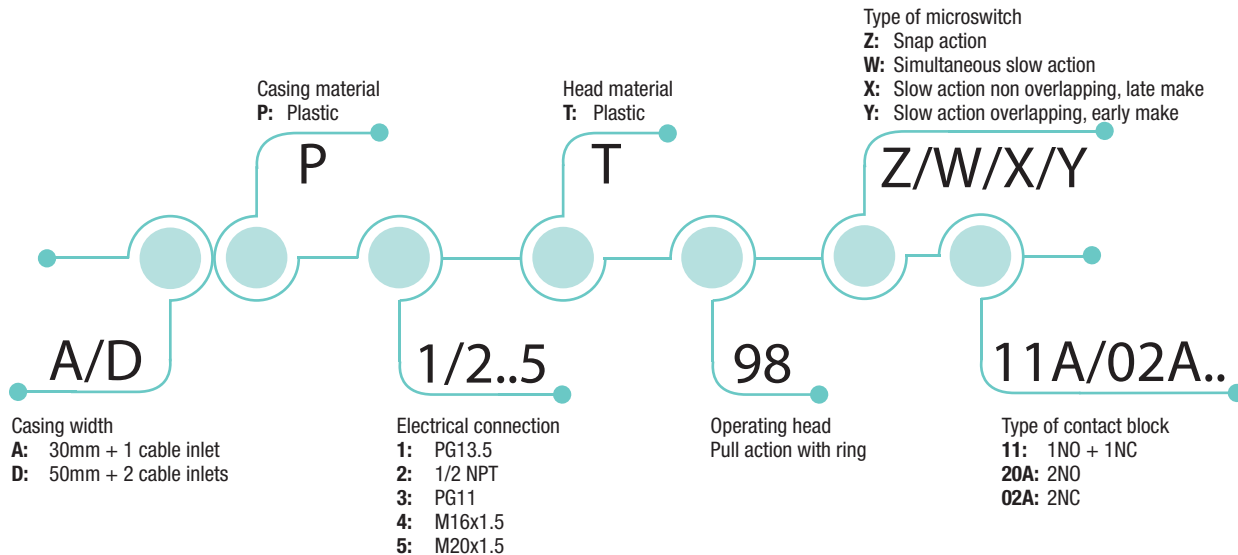
Summary



For more information:



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



HOW IS IT MADE?

01 A variety of actuators

- Pull action with ring

02 Wide range of heads

- Assembled using 4 x Ø3 screws

03 Casing:

- 30 mm. width with standardized dimensions acc. to EN 50047 (AP)
- 50 mm. width (DP)

04 Mounting screws

- 2 x M4 screws on top part (AP)
- 2 or 4 x M4 screws on top part (DP)

05 Cover

- 1 screw Ø3 pozidriv 1

06 Contact Block

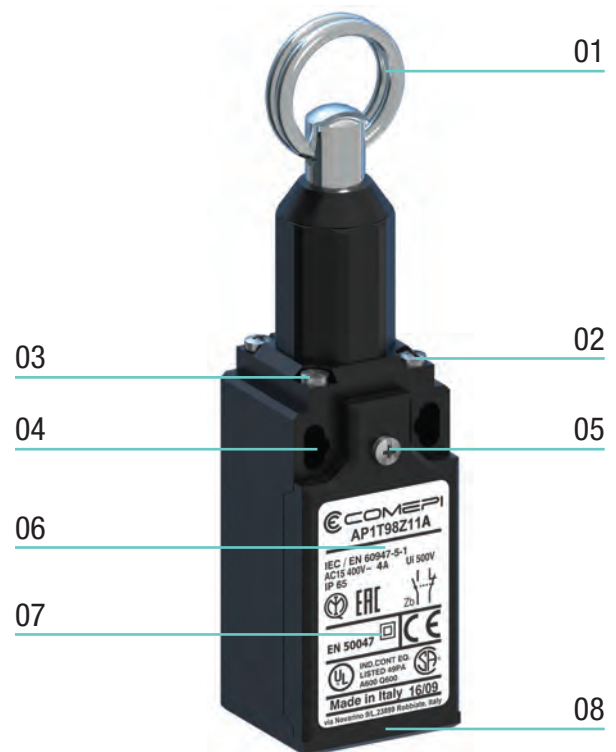
- Positive opening operation
- Snap action or slow action
- Electrically separated contacts

07 Connecting terminals

- Block of 2 contacts: M3.5 (+, -) pozidriv 2 screw
- Screw head with captive cable clamp
- Markings conform with IEC 60947-1, IEC 60947-5-1 standards

08 Electrical connection

- 1 x threaded cable entry suitable for cable gland or M12 connector (AP)
- 2 x threaded cable entry suitable for cable gland (DP)



Rope-operated Limit Switches **T98 series**

Description

APPLICATIONS

Easy to use, electromechanical limit switches offer specific qualities:

- Visible operation.
- Able to switch strong currents (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:

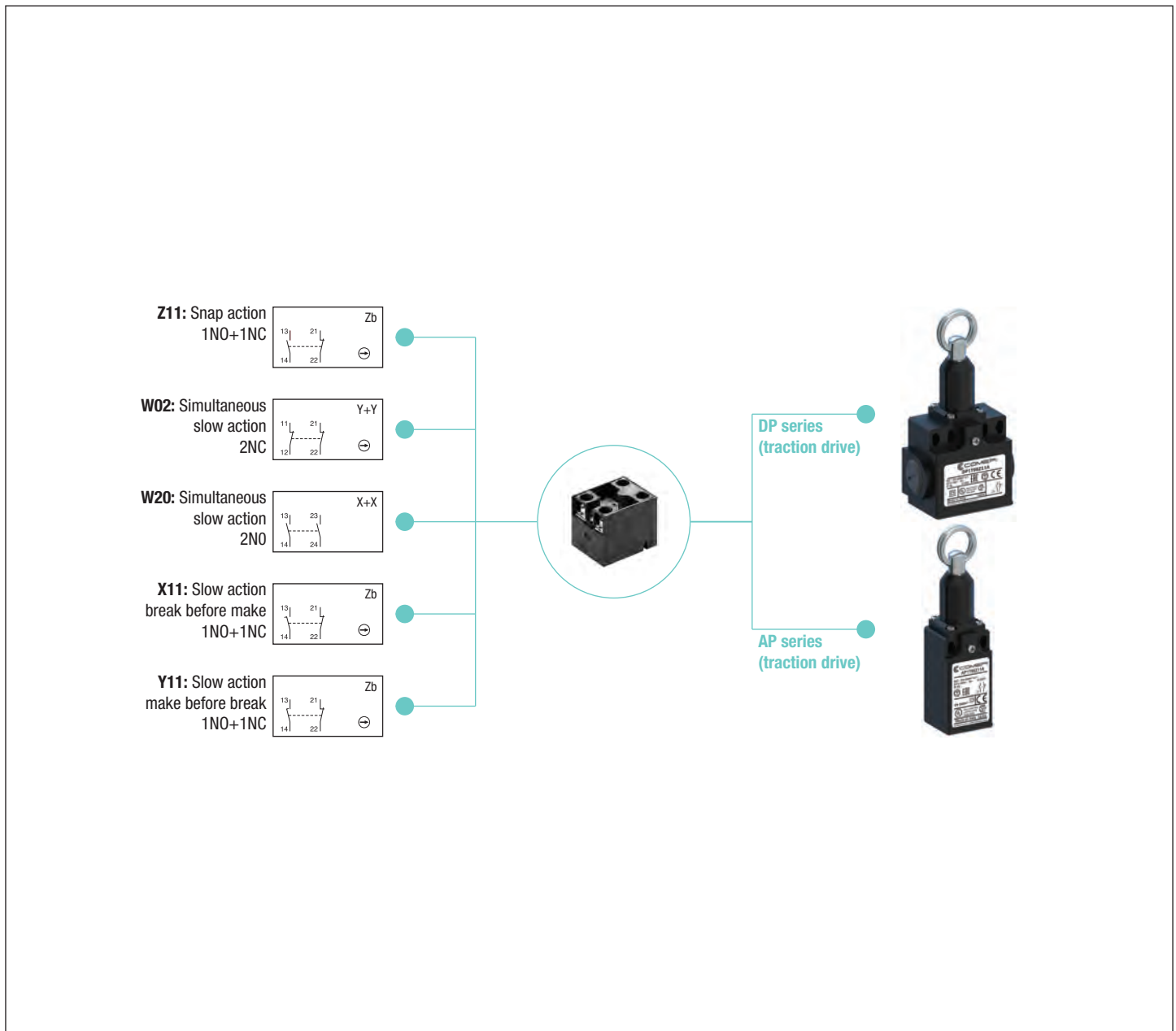
- Presence/absence.
- Positioning and travel limit.
- Objects passing/counting.

DESCRIPTION

Limit switches, which are made of reinforced UL-V0 thermoplastic fiber-glass, offer double insulation  and a degree of protection of IP65.

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.



Rope-operated Limit Switches **T98 series**

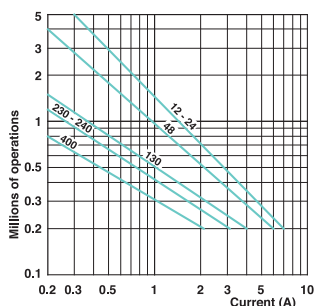
Technical Data

		AP-DP_T98 Series
Standards		IEC 60947-5-1 EN 60947-5-1
Certifications - Approvals		UL - CSA - IMQ - EAC - CCC
Air temperature near the device		
– during operation	°C	– 25 ... + 70
– for storage	°C	– 30 ... + 80
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 65

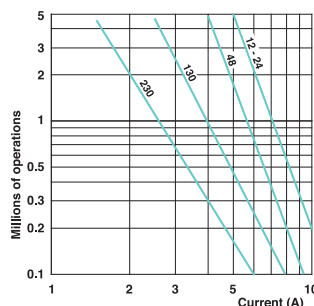
Electrical Data

Rated insulation voltage U_i - according to IEC 60947-1 and EN 60947-1 - according to UL 508 and CSA C22-2 n° 14		500 V (degree of pollution 3) (400 V for contacts type Z02, X12P, X21P, W03P) A 600, Q 600 (A 300, Q 300 for contacts type X12P, X21P, W03P)	
Rated impulse withstand voltage U_{imp} (according to IEC 60947-1 and EN 60947-1)	kV	6	
Conventional free air thermal current I_{th} (according to IEC 60947-5-1) $\theta < 40$ °C	A	10	
Short-circuit protection $U_e < 500$ V a.c. - gG (gl) type fuses	A	10	
Rated operational current I_e / AC-15 (according to IEC 60947-5-1)	24 V - 50/60 Hz A 120 V - 50/60 Hz A 400 V - 50/60 Hz A	10 6 4	
I_e / DC-13 (according to IEC 60947-5-1)	24 V - d.c. A 125 V - d.c. A 250 V - d.c. A	6 0.55 0.4	
Switching frequency	Cycles/h	3600	
Load factor		0.5	
Resistance between contacts	m Ω	25	
Connecting terminals		M3.5 (+, -) pozidriv 2 screw with cable clamp (M3 for 3 poles contacts type)	
Terminal for protective conductor		-	
Recommended tightening torque		Plastic 0,5Nm, max 0,8 0,5Nm, max 0,8 0,8Nm, max 0,9	
Connecting capacity	1 or 2 x mm ²	0.34 ... 2.5 (0.34... 1.5 for 3 poles contacts type)	
Terminal marking		According to IEC 60947-5-1	
Mechanical durability		15 millions of operations	T10...12; T21; T2101; T30...34; T38
		10 millions of operations	T13; T41...48; T51...55; T61...75
		>5 millions of operations	T14; T35; T36; T39; T91...93; T98
Electrical durability (according to IEC 60947-5-1)		Utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves below)	

AC-15 - Snap action



AC-15 - Slow action



DC-13		Snap action	Slow action
		Power breaking for a durability of 5 million operating cycles	
Voltage	24 V	9.5 W	12 W
Voltage	48 V	6.8 W	9 W
Voltage	110 V	3.6 W	6 W

Rope-operated Limit Switches **T98 series**

Technical Data

Technical data approved by IMQ

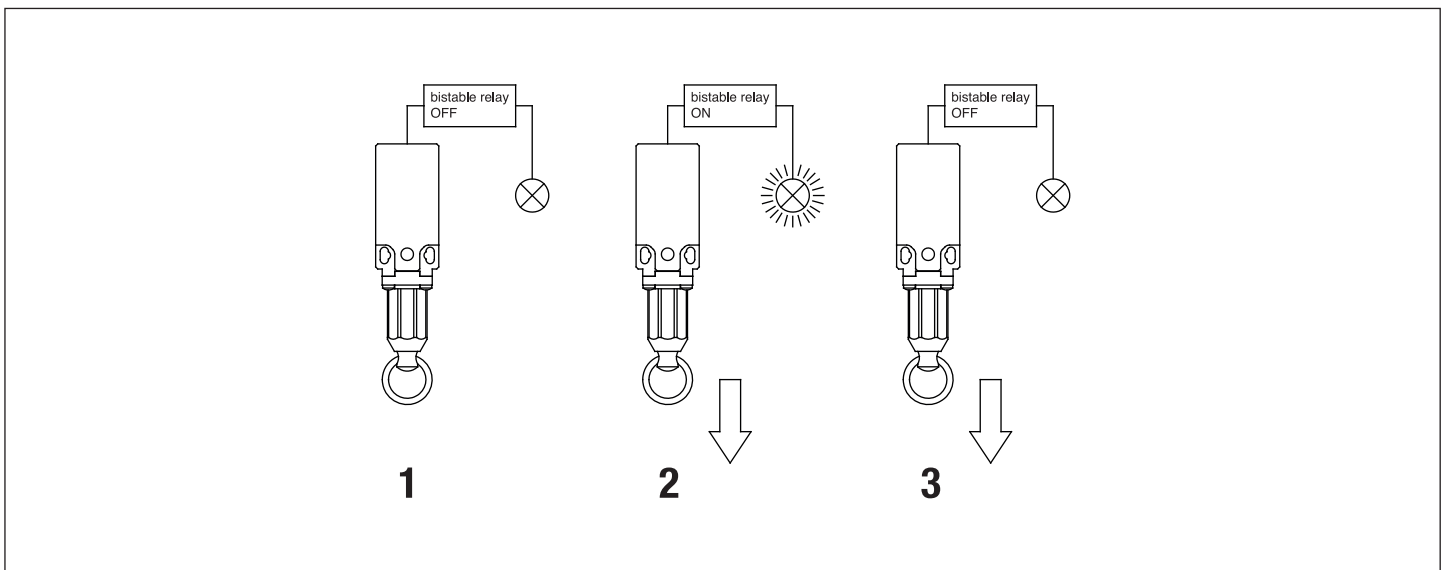
Standards	Devices conform with international IEC 60947-5-1 and European EN 60947-5-1 standards	
Degree of protection	IP 65	
Rated insulation voltage U_i	500 V (degree of pollution 3) (400V for type Z02, X12P, X21P, W03P)	
Rated impulse withstand voltage U_{imp}	6 kV	
Conventional free air thermal current I_{th}	10 A	
Short-circuit protection - gG (gl) type fuses	10 A	
Rated operational current		
I_B / AC-15	24 V - 50/60 Hz	10 A
	400 V - 50/60 Hz	4 A
I_B / DC-13	24 V - d.c.	6 A
	125 V - d.c.	0.55 A
	250 V - d.c.	0.4 A

Technical data approved by UL

Standards	Devices conform with UL 508
Contact blocks type Z11, X11, Y11, W02 and Z02	
Utilization categories	A600, Q600
Contact blocks type X12P, X21P and W03P	
Utilization categories	A300, Q300
Use 60/75°C copper (Cu) conductor only. Wire rages 14-18 AWG stranded or solid. The terminal tightening torque of 7 lbs-in / 0.78 Nm. Suitable for conduit connection only with use of adapter sleeve optionally provided or recommended by the manufacturer.	

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

OPERATING PRINCIPLE



1. Limit switch not actuated, light off
2. Pull the rope to activate the light
3. Pull again the rope to switch the light off

For further informations, please contact our technical department.

Proximity Sensors

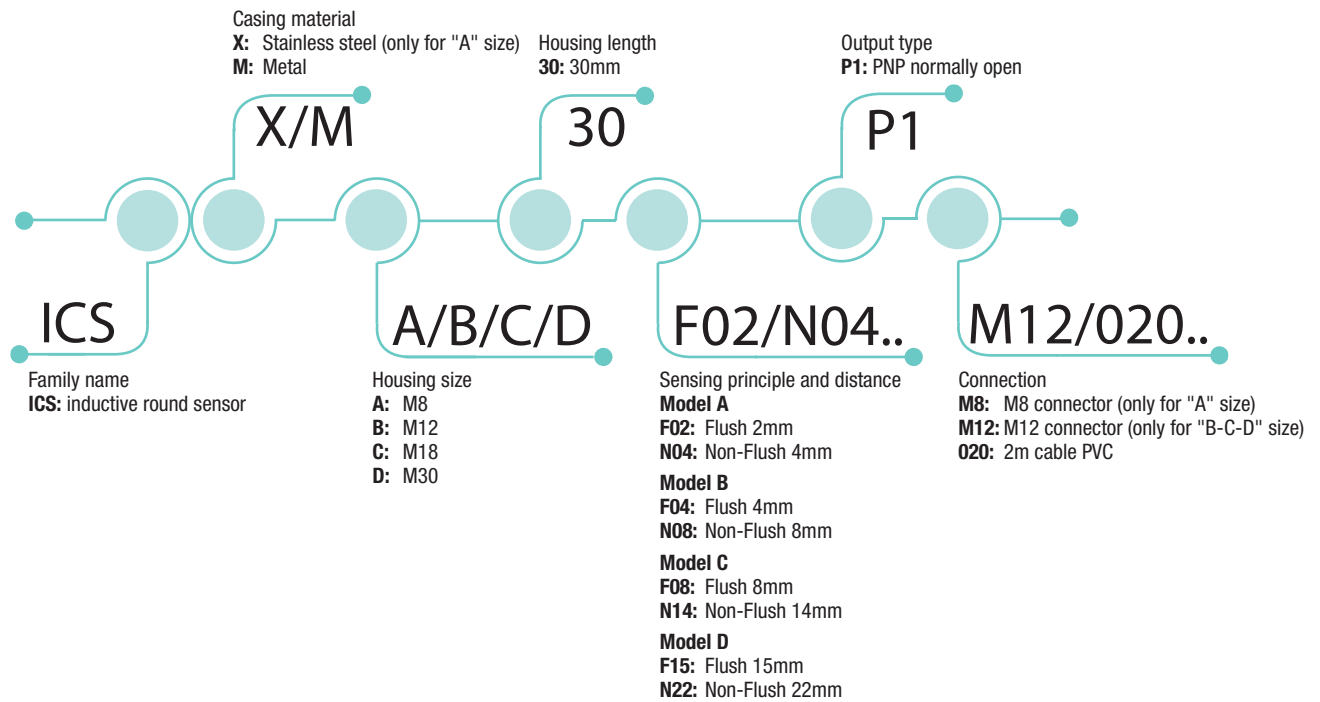
Summary



For more information:



APPROVALS: UL 508 | **UL CATEGORY:** NRKH FILE: E506808



HOW IS IT MADE?

01 Sensing face

- Flush
- Non-flush

02 Fixing

- Easy mounting
- Two nuts for sensor fixing
- Four sizes for sensor: M8, M12, M18, M30

03 Signalling

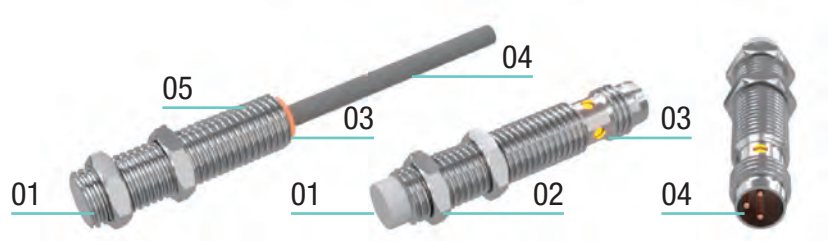
- Yellow LED visible from every angle
- Flashing output: short circuit or overload indication

04 Connection

- M8 connector
- M12 connector
- 2m cable PVC

05 Main features

- Accurate sensing and suitable for fast speed operations
- Assured traceability and best application control
- Environmentally friendly potting material



Proximity Sensors

Description

APPLICATIONS

Machine tool

- CNC machine tool.
- Drill machine.

Inductive sensors are used to check the tool position when changing the tool or to verify the component moved to the correct location.

Agriculture

- Thanks to its excellent quality and to the complete product range, ICS series is particularly suitable for the agricultural and earth-moving sectors.

Material handling systems

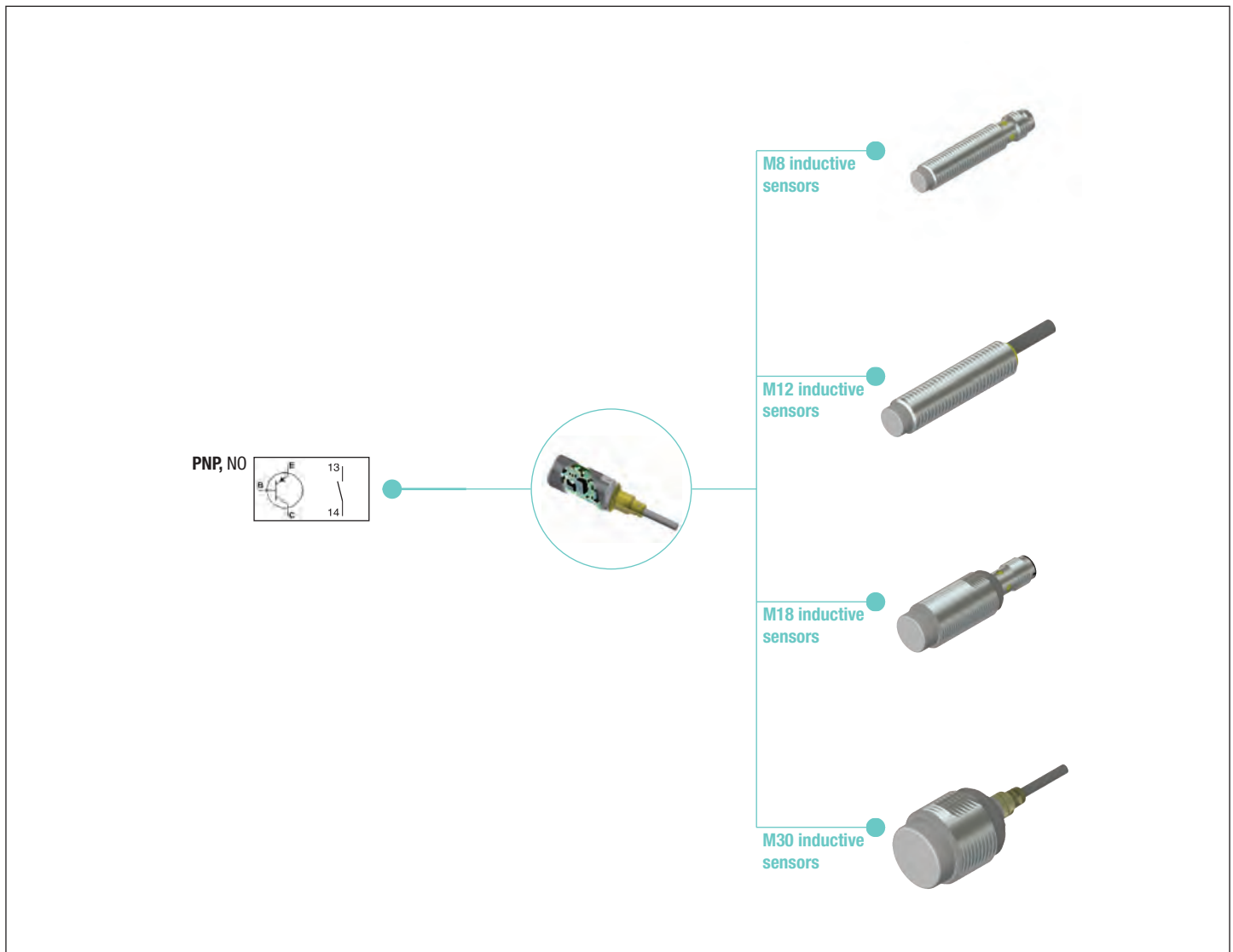
- In these systems it is mandatory to ensure the automation and reliable flow of goods. Inductive sensors are critical to obtaining the higher productivity and quality from the automated process.

DESCRIPTION

The robust and highly reliable ICS series is now available in increased operating distance. In M8, M12, M18 and M30 stainless steel or nickel plated brass housings. These sensors are extremely accurate and represent the best choice for non-contact detection of metallic targets at a distance up to 40 mm, the largest sensing distance available on the market for an inductive sensor. The powerful design of ICS offers the ideal solution in demanding installation conditions typical of industrial environments. The eco-friendly high performance potting material protects the electronic components and provides increased reliability with higher resistance to mechanical stress and vibrations than the traditional proximity sensors. ICS inductive proximity sensors thanks to an operating distance up to 3 times the standard, allows to position the sensor at a higher distance from a metal target. The result is an increased sensor's lifetime especially when the metal target has greater tolerances, being the sensor well protected. All the sensors are rated to IP67 and the mechanical design of the back part ensures an excellent sealing against water and humidity penetration. Thanks to the built in microcontroller, all sensors are individually compensated to ensure repeatable and highly accurate operation over the whole temperature range, granting the sensing distance between -25 and +70°C (-13° to +158°F).

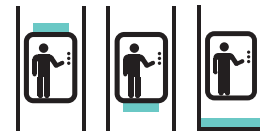
They comply with the requirements of European Directives (Low Voltage and RoHS) and are conform to European and International Standards.

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
DDC12 - Proximity sensors



Enclosures with pushbuttons

Summary



For more information:



APPROVALS: IEC 60947-5-5 / EN ISO 13850



DESCRIPTION AND APPLICATION

The new SL series of specific enclosures for lift applications, begins with our new E-STOP devices with integrated protection. This device is equipped with our ECX 4580 mushroom pushbutton (twist to release) suitable and certified for emergency stop use according to IEC 60947-5-5 and EN ISO 13850 standards. The SL E-STOP is also equipped with different contact block configurations, to make available a ready to use solution for every application. This E-STOP box is widely used in lift applications and is usually located car top, under car or pit bottom. The integrated protection allows also the use with foot and protect the pushbutton from damages caused by trampling.

After this one many other specific variant had been added, including new operators and multiple units enclosures.

MAIN FEATURES

- IP65 – IP67 protection degree
- NC contacts with positive opening operations according to IEC 60947-5-1 ANNEX K
- Integrated protection for the emergency stop pushbutton
- Possible to fix the enclosure without open the cover

They comply with the requirements of European Directives (Low Voltage, Machinery 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
DDC 33 - SL series E-STOP devices.

HOW IS IT MADE?

01 Cover with robust enclosure protection

02 Protected by breakages, from 1 to 3 operators even in case of actuat made by foot

03 IP65 protection degree

04 In conformity with EN 60947-5-5

05 Maybe equipped with E-STOP

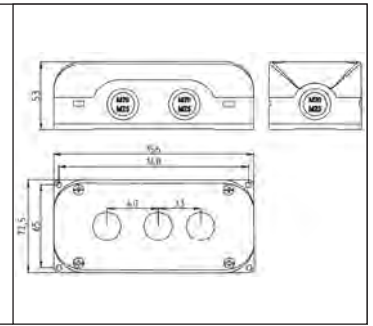
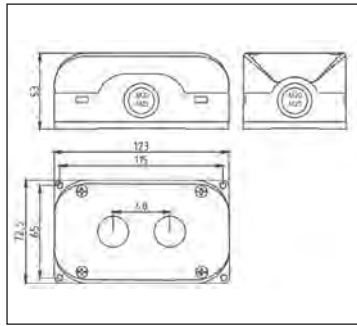
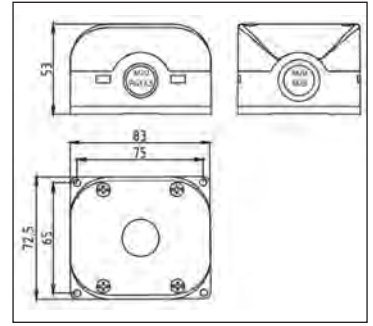
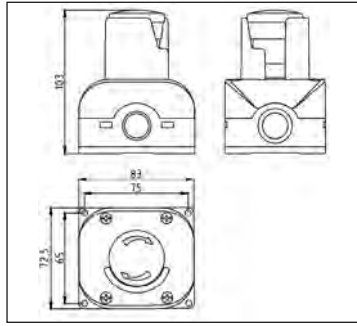
06 Possible to fix by screws or magnets *



* By ordering GRCA001 Fixing Kit

Enclosures with pushbuttons

Description



TECHNICAL FEATURES

Standards

IEC 60947-5-1 / IEC 60947-5-5

Room temperature

– operation

– 25 ... + 70 °C

– storage

–40 ... + 80 °C

Degree of protection (according to IEC 60529 and EN 60529)

Up to IP 65 and IP69K

Material

Polycarbonate fiberglass V0 PC/ABS plastic enclosure

Container color

Black

Cover colors Gray

RAL yellow/grey

Enclosures with pushbuttons

SL series in thermoplastic ABS V0 - IP65















Extended pushbutton \varnothing 30 mm.
black color "LAMP"



Flush pushbutton \varnothing 30 mm.
black color "LAMP"

TECHNICAL FEATURES

Container size	72.5x83x h. 53 mm	72.5x83xh. 53 mm
Housing material	Thermoplastic ABS V0	Glass fiber reinforced polycarbonate
Construction form	Rectangular	Rectangular
No. holes	1	1
Operator	 ECX4110-01	 ECX4110-01
Functionality	LAMP	LAMP
Mounted contacts	1 N.O.	1 N.O.
Housing color	 Black	 Black
Cover color	 Grey RAL 7035	 Grey RAL 7035
Operating temperature	-25°...+70°C	-25°...+70°C
Storage	-40°...+80°C	-40°...+80°C
Degree of protection	IP65	IP65
Standards	IEC 60947-5-1	IEC 60947-5-1
Approvals	  	  
Mechanical life	1M	1M

CODE

h. 53 mm. with ECX4110-01

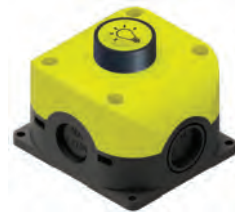
SL113-011-G

h. 53 mm. with ECX4100-01

SL113-061-G

Enclosures with pushbuttons

SL series in thermoplastic ABS V0 - IP65















**Flush pushbutton \varnothing 30 mm.
yellow color "LAMP"**



**Mushroom pushbutton \varnothing 33 mm.
yellow color "ALARM"**

TECHNICAL FEATURES

Container size	72.5x83x h. 53 mm	72.5x83xh. 53 mm
Housing material	Thermoplastic ABS V0	Thermoplastic ABS V0
Construction form	Rectangular	Rectangular
No. holes	1	1
Operator	 ECX 4139-02	 ECX 4139-02
Functionality	LAMP	ALARM
Mounted contacts	1 N.O.	1 N.O.
Housing color	 Black	 Black
Cover color	 Yellow	 Yellow
Operating temperature	-25°...+70°C	-25°...+70°C
Storage	-40°...+80°C	-40°...+80°C
Degree of protection	IP65	IP65
Standards	IEC 60947-5-1	IEC 60947-5-1
Approvals	  	  
Mechanical life	1M	1M

CODE

h. 53 mm. with ECX 4103-01
h. 53 mm. with ECX 4139-02

SL112-051-G

SL112-041-G

Enclosures with pushbuttons

SL series in thermoplastic ABS V0 - IP65















**Mushroom pushbutton \varnothing 33 mm.
yellow color "ALARM" integrated
protection**



**Mushroom emergency
stop pushbutton \varnothing 40 mm.
red color "STOP"**

TECHNICAL FEATURES

Container size	72.5x83x h. 53 mm	72.5x83xh. 53 mm
Housing material	Thermoplastic ABS V0	Thermoplastic ABS V0
Construction form	Rectangular	Rectangular
No. holes	1	1
Operator	 ECX 4139-02	 ECX 4580
Functionality	ALARM	EMERGENCY STOP
Mounted contacts	1 N.O.	1 N.O.
Housing color	 Black	 Black
Cover color	 Yellow	 Yellow
Operating temperature	-25°...+70°C	-25°...+70°C
Storage	-40°...+80°C	-40°...+80°C
Degree of protection	IP65	IP65
Standards	IEC 60947-5-1	IEC 60947-5-1 / IEC 60947-5-5
Approvals	  	  
Mechanical life	1M	300k

CODE

h. 53 mm. with ECX 4139-02

SL112-031-G

h. 53 mm. with ECX 4580

SL112-02*-G

SL 112-02•-G

2=1NC

3=1NO5=2NC

6=1NO+2NC

7=2NO+1NC

A=3NC

Enclosures with pushbuttons

SL series in thermoplastic ABS V0 - IP65















Mushroom emergency stop pushbutton \varnothing 40 mm. red color "STOP" integrated protection



Mushroom emergency stop pushbutton \varnothing 40 mm. red color "STOP"

TECHNICAL FEATURES

Container size	72.5x83x h. 53 mm	72.5x83xh. 53 mm
Housing material	Thermoplastic ABS V0	Thermoplastic ABS V0
Construction form	Rectangular	Rectangular
No. holes	1	1
Operator	 ECX 4580	 ECX 4581
Functionality	EMERGENCY STOP	EMERGENCY STOP
Mounted contacts	MORE VERSIONS	MORE VERSIONS
Housing color	 Black	 Black
Cover color	 Yellow	 Yellow
Operating temperature	-25°...+70°C	-25°...+70°C
Storage	-40°...+80°C	-40°...+80°C
Degree of protection	IP65	IP65
Standards	IEC 60947-5-1 / IEC 60947-5-5	IEC 60947-5-1 / IEC 60947-5-5
Approvals	  	  
Mechanical life	300k	300k

CODE

h. 53 mm. with ECX 4580

SL112-07•-G

h. 53 mm. with ECX 4581

SL112-08•-G

2=1NC

3=1NO

5=2NC

6=1NO+2NC

7=2NO+1NC

A=3NC

Enclosures with pushbuttons

SL series in thermoplastic ABS V0 - IP65


















**2 Flush pushbuttons \varnothing 30 mm.
white and black colors with arrow**



**Two-way flush pushbutton
white and black colors with arrow
and selector switch 0-1**

TECHNICAL FEATURES

Container size	72.5x123x h.53 mm	72.5x123x h.53 mm
Housing material	Thermoplastic ABS V0	Thermoplastic ABS V0
Construction form	Rectangular	Rectangular
No. holes	2	2
Operator	<ul style="list-style-type: none">  ECX 4109/B  ECX4109-01 	<ul style="list-style-type: none">  ECX 4300   ECX 4658/BN
Functionality	UP-DOWN	0/1-UP-DOWN
Mounted contacts	4109/B 1N.O. / ECX4109-01 1N.O.	ECX 4300 1N.O. + 1N.C. / ECX 4658/BN 2N.O.
Housing color	 Black	 Black
Cover color	 Yellow	 Yellow
Operating temperature	-25°...+70°C	-25°...+70°C
Storage	-40°...+80°C	-40°...+80°C
Degree of protection	IP65	IP65
Standards	IEC 60947-5-1	IEC 60947-5-1
Approvals	  	  
Mechanical life	1M	1M

CODE

h. 53 mm. with ECX4109/B, ECX4109-01

SL112-014-G

h. 53 mm. with ECX 4300, ECX 4658/BN

SL112-04B-G

Enclosures with pushbuttons

SL series in thermoplastic ABS V0 - IP65













Mushroom emergency stop pushbutton Ø 40 mm.
red color "STOP" and
Flush pushbutton Ø 30 mm.
black color "LAMP"



Mushroom emergency stop pushbutton Ø 40 mm.
red color "STOP" and
Flush pushbutton Ø 30 mm.
yellow color "LAMP"

TECHNICAL FEATURES

Container size	72.5x123x h.53 mm	72.5x123x h.53 mm
Housing material	Thermoplastic ABS V0	Thermoplastic ABS V0
Construction form	Rectangular	Rectangular
No. holes	2	2
Operator	 ECX 4581  ECX4100-01	 ECX 4581  ECX4103-01
Functionality	STOP	ON
Mounted contacts	ECX 4581 1N.C. / ECX4100-01 1N.O.	ECX 4581 1N.C. - ECX4100-01 1N.O.
Housing color	● Black	● Black
Cover color	● Yellow	● Yellow
Operating temperature	-25°...+70°C	-25°...+70°C
Storage	-40°...+80°C	-40°...+80°C
Degree of protection	IP65	IP65
Standards	IEC 60947-5-1 / IEC 60947-5-5	IEC 60947-5-1 / IEC 60947-5-5
Approvals	  	  
Mechanical life	300k/1M	300k/1M

CODE

h. 53 mm. with ECX 4581, ECX4100-01
h. 53 mm. with ECX 4581, ECX4103-01

SL112-033-G

SL112-053-G

Enclosures with pushbuttons

SL series in thermoplastic ABS V0 - IP65



2 pilot light red and green colors



2 flush pushbuttons white and black colors with arrow and selector switch 0-1

TECHNICAL FEATURES

Container size	72.5x123x h.53 mm	72.5x123x h.53 mm
Housing material	Thermoplastic ABS V0	Thermoplastic ABS V0
Construction form	Rectangular	Rectangular
No. holes	2	3
Operator	<ul style="list-style-type: none"> ● ECX 2051-24L ● ECX 2052-24L 	<ul style="list-style-type: none"> ● ECX 4300 ⬆ ECX 4109/B ⬇ ECX4109-01
Functionality	SIGNAL	0/1-UP-DOWN
Mounted contacts	-	ECX 4300 1N.O. + 1N.C. ECX 4109/B 1N.O. ECX4109-01 1N.O.
Housing color	● Black	● Black
Cover color	● Yellow	● Yellow
Operating temperature	-25°....+70°C	-25°....+70°C
Storage	-40°...+80°C	-40°...+80°C
Degree of protection	IP65	IP65
Standards	IEC 60947-5-1	IEC 60947-5-1
Approvals		
Mechanical life	N.A.	1M

CODE

h. 53 mm. with ECX 2051-24L, ECX 2052-24L

SL112-0224L-G

h. 53 mm. with ECX 4300, 4109/B, ECX4109-01

SL312-02A-G

Enclosures with pushbuttons

SL series in thermoplastic ABS V0 - IP65



**Mushroom emergency stop pushbutton \varnothing 40 mm.
red color "STOP" and 2 flush pushbuttons white and black colors
with arrow**

TECHNICAL FEATURES

Container size	72.5x156x h.53 mm
Housing material	Thermoplastic ABS V0
Construction form	Rectangular
No. holes	1
Operator	<ul style="list-style-type: none"> ● ECX 4580 ● ECX 4300 ⬆ ECX 4109/B ⬇ ECX4109-01
Functionality	EMERGENCY STOP-UP-DOWN
Mounted contacts	<ul style="list-style-type: none"> ECX 4580 1N.C. ECX 4109/B 1N.O. ECX4109-01 1N.O.
Housing color	● Black
Cover color	● Yellow
Operating temperature	-25° ...+70°C
Storage	-40° ...+80°C
Degree of protection	IP65
Standards	IEC 60947-5-1 / IEC 60947-5-5
Approvals	
Mechanical life	300k/1M

CODE

h. 53 mm. with ECX 4580, ECX 4109/B, ECX4109-01

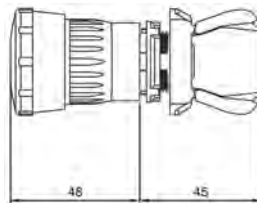
SL312-017-G

Command Units \varnothing 22

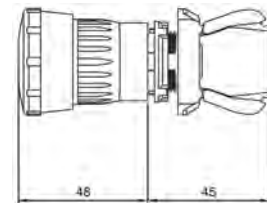
Plastic series - Non-illuminated momentary pushbuttons



Mushroom emergency stop pushbutton



Mushroom emergency stop pushbutton with green vision for status indication



TECHNICAL FEATURES

Mounting diameter	22 mm	22 mm
Operator diameter	40 mm	40 mm
Body material	Thermoplastic	Thermoplastic
Construction form	Mushroom 40 mm	Mushroom 40 mm
Mounting panel thickness	Min. 1 mm - Max. 6 mm	Min. 1 mm - Max. 6 mm
Functionality	With latch – Twist to release	With latch – Twist to release
Operating temperature	-25° ...+70°C	-25° ...+70°C
Degree of protection	IP65	IP65
Colors	●	●
Standards	IEC 60947-5-1	IEC 60947-5-1 IEC 60947-5-5
Approvals	CE UL508 EAC UK CA	CE UL508 EAC UK CA
Mechanical durability	300k	300k
Fixing ring	Included	Included
Compatible support bases	ECX 4029	ECX 4029
Compatible contacts	see page 60	see page 60
Compatible LED units	N.A.	N.A.

CODE

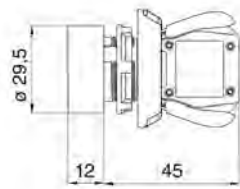
●	ECX 4580	
●		ECX 4581

Command Units \varnothing 22

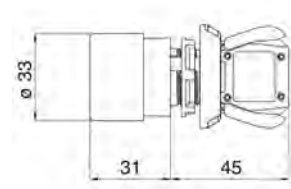
Plastic series - Non-illuminated momentary pushbuttons



Flush pushbutton



Mushroom pushbutton \varnothing 33mm



TECHNICAL FEATURES

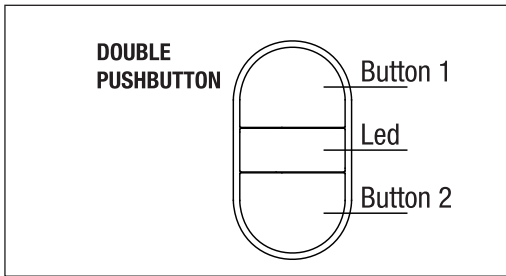
Mounting diameter	22 mm	22 mm
Operator diameter	29.5 mm	33 mm
Body material	Thermoplastic	Thermoplastic
Construction form	Flush	Mushroom 33 mm
Mounting panel thickness	Min. 1 mm - Max. 6 mm	Min. 1 mm - Max. 6 mm
Functionality	Impulse	Impulse
Operating temperature	-25° ... +70°C	-25° ... +70°C
Degree of protection	IP65	IP65
Colors		
Standards	IEC 60947-5-1	IEC 60947-5-1
Approvals		
Mechanical durability	1M	1M
Fixing ring	Included	Included
Compatible support bases	ECX 4029	ECX 4029
Compatible contacts	see page 60	see page 60
Compatible LED units	N.A.	N.A.

CODE

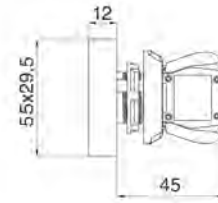
Up - white button	ECX 4109/B	
Up - white button	ECX 4108/B	
Down - black button	ECX 4109-01	
Down - black button	ECX 4108-01	
Light - black button	ECX 4100-01	
Light - yellow button	ECX 4103-01	
Alarm - yellow button	ECX 4103-02	
Enable - blue button	ECX 4101-01	
Enable - blue button	ECX 4101-02	
Light - yellow mushroom		ECX 4139-01
Alarm - yellow mushroom		ECX 4139-02

Command Units \varnothing 22

Plastic series - Double pushbuttons



Double pushbutton



TECHNICAL FEATURES

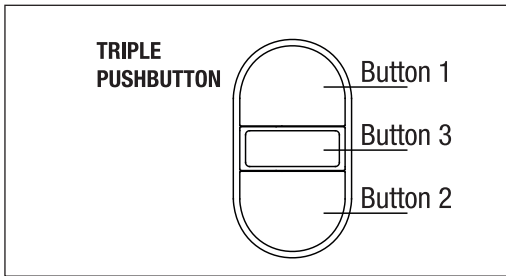
Mounting diameter	22 mm
Operator diameter	55x29.5
Body material	Thermoplastic
Construction form	Rectangular
Mounting panel thickness	Min. 1 mm - Max. 6 mm
Functionality	Impulse
Operating temperature	-25° ... +70°C
Degree of protection	IP65
Colors	
Standards	IEC 60947-5-1
Approvals	
Mechanical durability	1M
Fixing ring	Included
Compatible support bases	ECX 4029
Compatible contacts	see page 60
Compatible LED units	see page 61

CODE

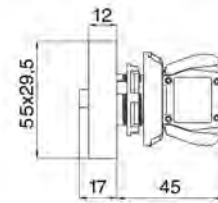
Enable - alarm	ECX 4659-YBU
Enable - light	ECX 4661-NBU
Alarm - light	ECX 4660-NY
Up - down	ECX 4658-BN
Up - down	ECX 4658-BN01

Command Units \varnothing 22

Plastic series - Triple pushbuttons



Triple pushbutton



TECHNICAL FEATURES

Mounting diameter	22 mm
Operator diameter	55x29.5
Body material	Thermoplastic
Construction form	Rectangular
Mounting panel thickness	Min. 1 mm - Max. 6 mm
Functionality	Impulse
Operating temperature	-25° ... +70°C
Degree of protection	IP65
Colors	
Standards	IEC 60947-5-1
Approvals	
Mechanical durability	1M
Fixing ring	Included
Compatible support bases	ECX 4029
Compatible contacts	see page 60
Compatible LED units	N.A.

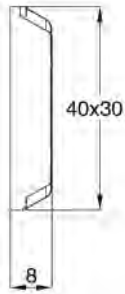
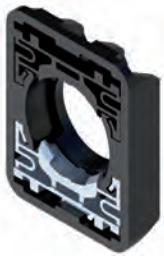
CODE

Enable - alarm - light	ECX 4662-NYBU
Up - alarm - down	ECX 4663-NBY

Command Units \varnothing 22

Plastic series - Fixing base, contact elements and quick coupling LED unit

Support base



TECHNICAL FEATURES

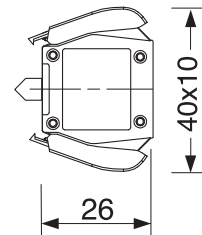
Compatibility	with ECX 4000 series operators
Dimension	40x30 mm
Thickness	8 mm
Material	thermoplastic
Ambient temperatures	-25....+70°C
Prescriptions	Manual hooking release by screwdriver
Colors	●

Assembly and use precautions on page 000

CODI

ECX 4029



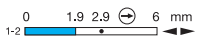
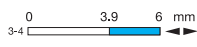
Quick latch contact elements (IP20)



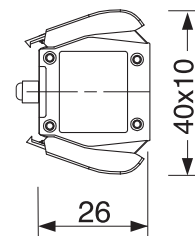
Positive opening	IEC 60947-5-1	Positive opening on all NC contacts
Rated insulation voltage U_i	IEC 60947-1 and EN 60947-1 UL 508 and CSA C22-2 n° 14	690V (degree of pollution 3) A600, Q300
Rated impulse withstand voltage U_{imp}	IEC 60947-1 and EN 60947-1	8 kV
Conditional short-circuit current	IEC 60947-1 and EN 60947-1	1 kA
Conventional free air thermal current I_{th}	IEC 60947-5-1 and EN 60947-5-1 $\theta < 40^\circ\text{C}$	10 A
Short-circuit protection U_e	< 500 V. a.c. – gG (gl) type fuses	10 A
Corrente nominale di funzionamento	IEC 60947-5-1	
	I_e / AC-15:	
	24 V - 50/60 Hz	10 A
	240 V - 50/60 Hz	6 A
	400 V - 50/60 Hz	4 A
	I_e / DC-13:	
	24 V - d.c	2,8 A
	125 V - d.c.	0,55 A
	250 V - d.c	0,27 A
Switching frequency	3600 cycles/h	
Resistance between contacts	$\leq 25 \text{ m}\Omega$	
Protection degree IEC 60529 and EN 60529	IP 20	
Connecting terminals	On screw with non loosable plate clamp 1 or 2 conductors - 0,5 ...2,5 mm ²	






Command Units \varnothing 22

Plastic series - Fixing base, contact elements and quick coupling LED unit

DESCRIPTION				
Color				
Operation diagram	Red	Green		
Actuation force for positive opening				
	2,1N / 15N	2,6N		
CODE	ECX 1030N	ECX 1040N		

Quick latch led units



COLOR	12V AC/DC	24V AC/DC	110V AC/DC	230V AC/DC
	ECX 3051N-12L	ECX 3051N-24L	ECX 3051N-110L	ECX 3051N-230L
	ECX 3052N-12L	ECX 3052N-24L	ECX 3052N-110L	ECX 3052N-230L
	ECX 3053N-12L	ECX 3053N-24L	ECX 3053N-110L	ECX 3053N-230L
	ECX 3054N-12L	ECX 3054N-24L	ECX 3054N-110L	ECX 3054N-230L
	ECX 3055N-12L	ECX 3055N-24L	ECX 3055N-110L	ECX 3055N-230L



For the SL series the contacts and LED units are fixed directly on the bottom of the case.
To order them replace the digit "N" with the digit "R"
Example: ECX 1040R

Safety modules **MS1A31 - MS1A20 series**

Summary



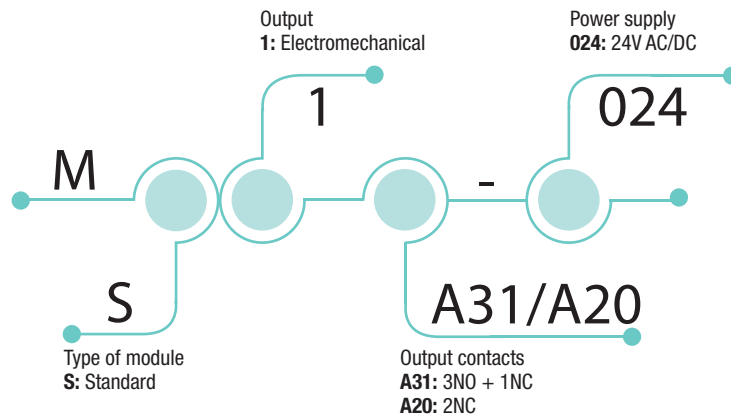
For more information:



APPROVALS: UL 508 / CSA C22-2 N. 14 / EN 81-20 EN 81-50 / EN ISO 13849-1



2014/33/UE Lift directive - According EN 81-20 EN 81-50
2006/42/CE Machinery directive - According EN ISO 13849-1



HOW IS IT MADE?

01 Casing

- Indelible laser marking
- Plastic casing (IP40)
- Standard dimension 18 x 90 mm.

02 DIN rail mounting

03 Output contacts

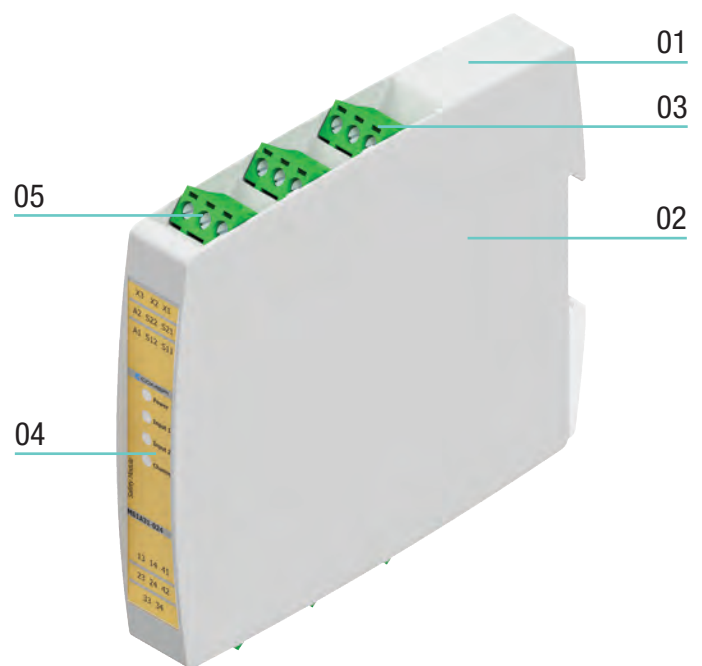
- Electromechanical
- NO for safety purpose
- NC for auxiliary signal

04 LED indicators for status, supply and diagnostic

- Power
- Input 1
- Input 2
- Channels

05 Electrical connection

- IP20 terminal blocks
- 1 or 2 x 0,75... 1,5 mm²
- detachable coded terminals



Safety modules MS1A31 - MS1A20 series

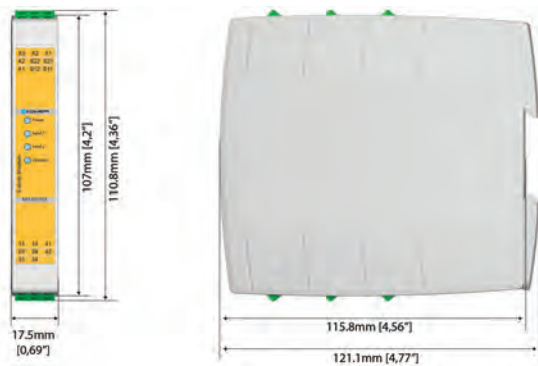
Description

DESCRIPTION


MS1A31-024 and MS1A20-024 are safety modules approved and designed both for machinery directive and lift directive. These devices are widely used in elevator safety circuits to check the correct position of the cabin within the unlocking area, as required by the standards in forces.

They comply with the requirements of European Directives (Low Voltage, EMC, Lift, Machinery 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
DDC 08 - Safety Modules.

DIMENSIONS




MS1A20-024



- X1-X2: manual start / automatic start
- X1-X3: monitored manual start S11-S12: channel 1 NO input
- S21-S22: channel 2 NO input
- A1: power supply 24 Vdc (+)/Vac(-)
- A2: power supply 24 Vdc (-)/Vac(-)
- 13-14: NO safety output
- 23-24: NO safety output

MS1A31-024



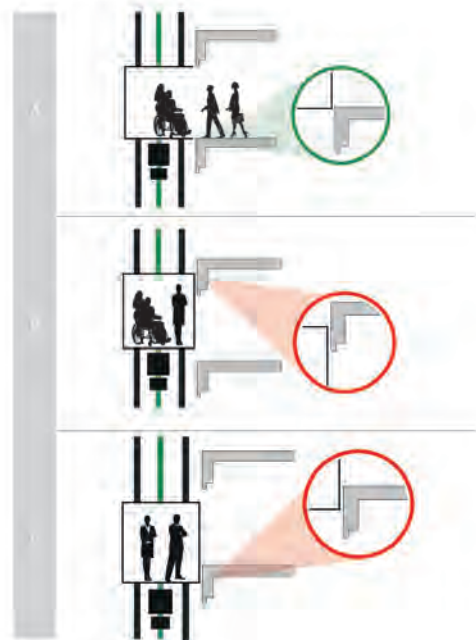
- X1-X2: manual start / automatic start
- X1-X3: monitored manual start S11-S12: channel 1 NO input
- S21-S22: channel 2 NO input
- A1: power supply 24 Vdc (+)/Vac(-)
- A2: power supply 24 Vdc (-)/Vac(-)
- 13-14: NO safety output
- 23-24: NO safety output
- 33-34: NO safety output
- 41-42: NC auxiliary output

OPERATING PRINCIPLE

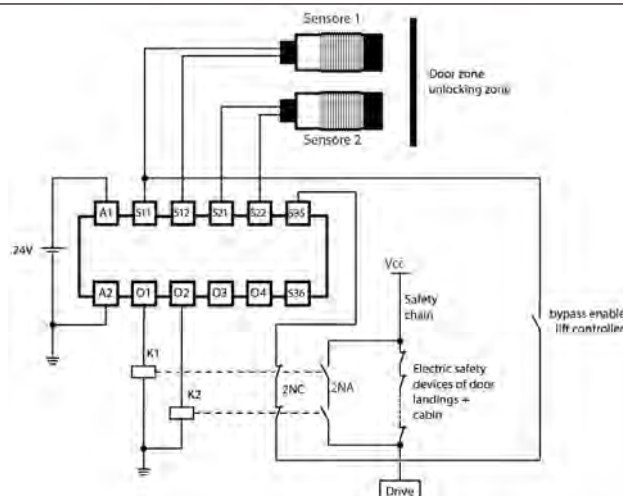
The module checks the correct position of the cabin within the area of unlock.

The emergency exits must be connected to the landing door circuits and at the doors of the cabin, in order to bypass the exits when the lift does located inside the release area

The auxiliary output must be connected to the lift controller board, to check its status when the cabin is located in the unlocking area

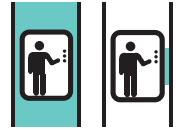


FLOOR LEVELLING CONNECTION SCHEME

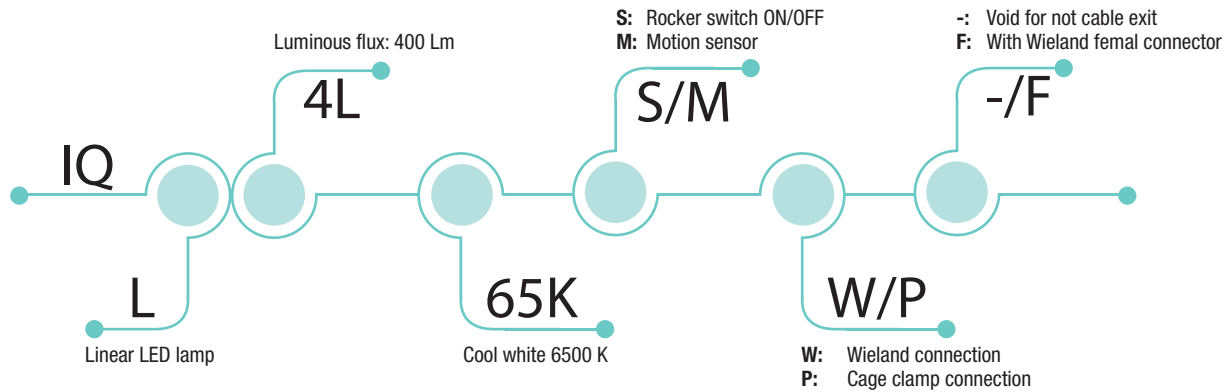


Led Lamp **IQL series**

Summary



APPROVALS:



example: **IQL4L65KMW**

MAIN FEATURES

- 01 Universal use**
 - Wide voltage range 24V-265V AC/DC
- 02 Motion sensor**
 - Movement sensor with 5 minute setting
- 03 Rocker switch on/off**
- 04 Connection options**
 - Wieland plug or cage clamp connection
- 05 Push to release**
 - Applicable to every connection type
- 06 Mounting**
 - Integrated magnets or plastic clips (provided)
- 07 Daisy chain**
 - Max 16 lamps AC / max 8 lamps DC



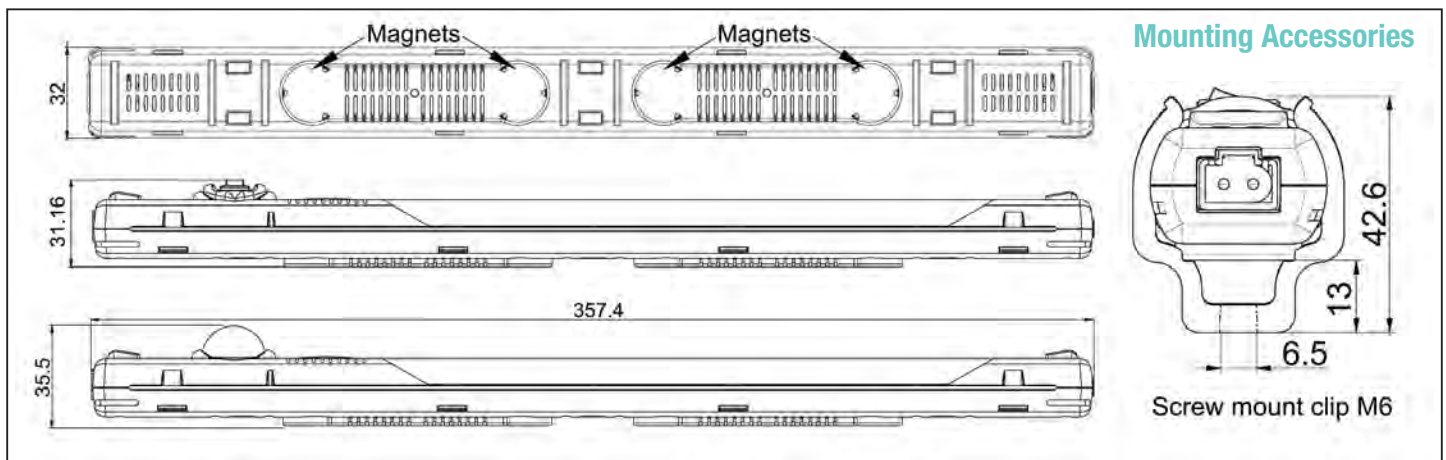
Led Lamp **IQL series**

Description

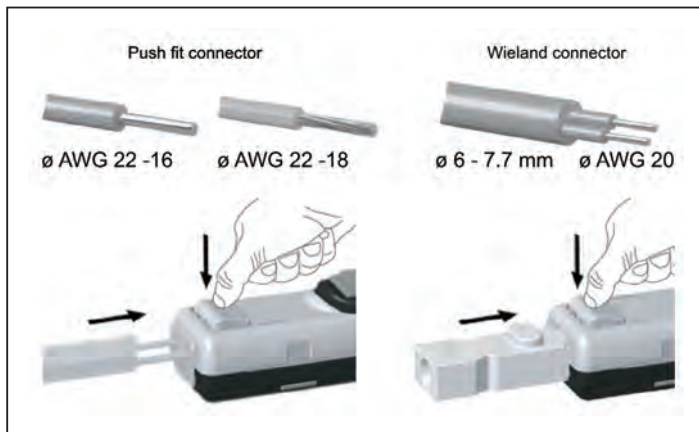
HIGH PERFORMANCE

- Light output 400Lm
- Protection degree IP20
- Operating range fro -30°C to +70°C
- Life time: 40000 hours
- Power consumption: 4W
- Wide voltage range 24V-265V AC/DC
- LED lamp type, 120° angle
- Light color: Cool white
- Temperature: 6500 K

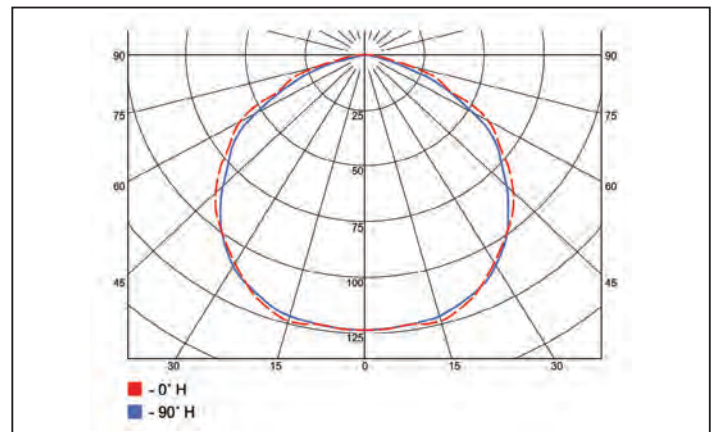
Dimensions



Mounting



Light distribution curve



Din Bar Adaptor **ECX 2572**

Description



For more information:

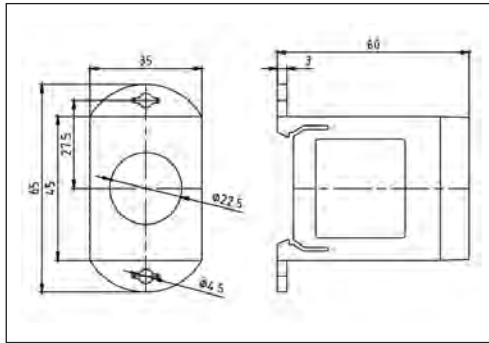


DESCRIPTION

ECX 2572 DIN rail adapter is easy to install and unistall. The quick and reliable hooking makes it possible to mount this accessory directly in the electrical panel. This useful accessory is widely used in electrical panel for lifts and goods lifts.

APPLICATION

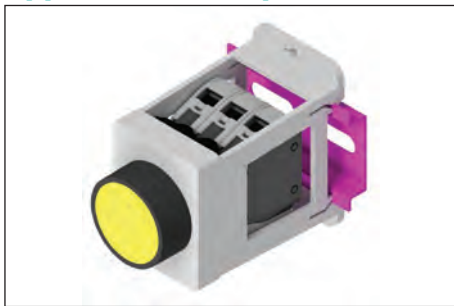
Adapter for installing 22mm buttons directly on DIN bar.
Compatibility with Comepi ecx 4000 and ecx 1000 series contact blocks.



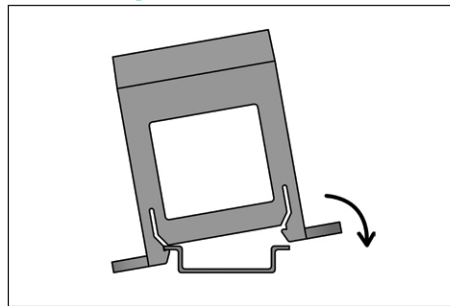
Code

ECX 2572

Application example



Assembly

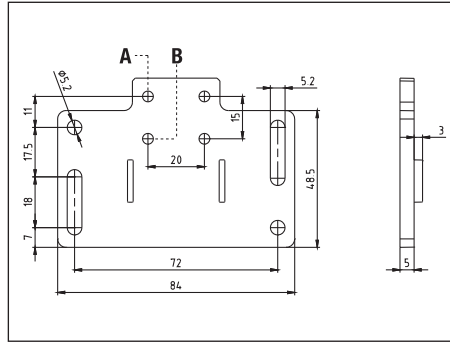
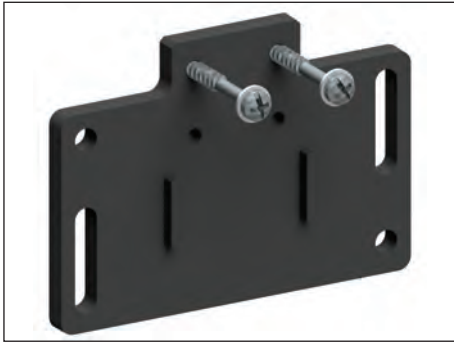


Disassembly

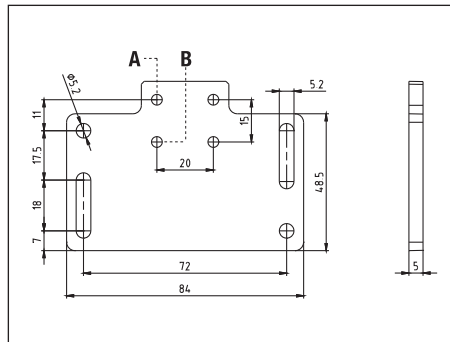


Platelets and Accessories

Description



Code
GR2149

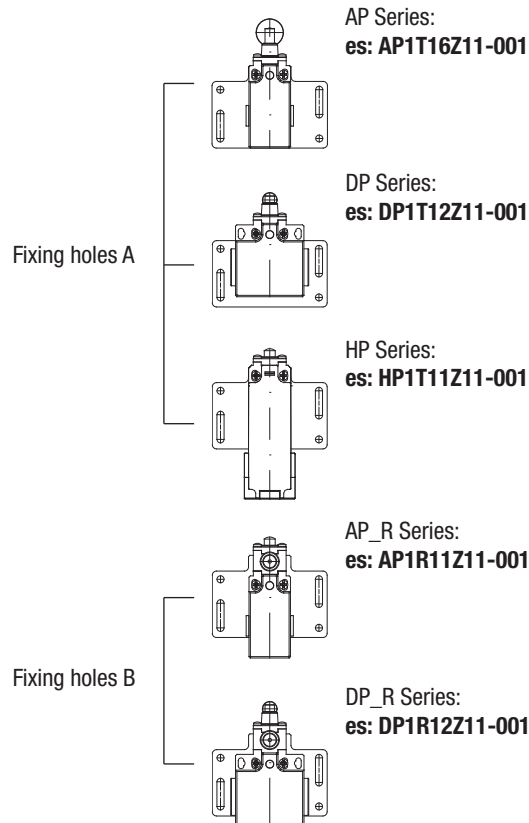


Code
GR2150

- for heads "T" use holes "A", for heads "R" use holes "B"
- screws and washers included in the kit






COMPLETE KIT




To order the complete kit (limit switch + fixing plate), add digits -001 to the limit switch code



Limit Switches **HP series**




Diagrams

					
Operating head types	T10 - T11 - T14 T21 - T2101	T12 - T13 - T16	T30 - T31 - T32 T34 - T35 - T36	T38 - T39	T41÷46 T51÷55 T5100÷5500 T71÷75
Max actuation speed [m/s]	0,5	0,3	1,0	1,0	1,5
J11 SNAP ACTION (1NO + 1NC)	 0 1,3 2,5 4,1 4,5 mm	 0 4,7 7,6 7,8 mm	 0 9,0 14,5 17,5 mm	 0 15,0 23,2 27,5 mm	 0 31° 47° 62°
J02 SNAP ACTION (2NC)	 0 1,3 2,4 4,0 4,5 mm	 0 4,5 7,4 7,8 mm	 0 8,6 13,1 17,5 mm	 0 14,6 22,8 27,5 mm	 0 30° 46° 62°

			
Operating head types	T61 - T62	T91 - T92 - T93	R002
Max actuation speed [m/s]	1,5	1,0	
J11 SNAP ACTION (1NO + 1NC)	 0 31° 62°	 0 23°	 0 1,3 2,5 4,1 4,5 mm
J02 SNAP ACTION (2NC)	 0 17° 30° 62°	 0 22°	 0 1,3 2,4 4,0 4,5 mm

Limit Switches **AP series**

Diagrams

			
Operating head types	R002	T80	T98
Max actuation speed [m/s]	1,0	0,5	0,5
J11 SNAP ACTION (1NO + 1NC)	 0 1,3 2,5 4,1 4,5 mm		 0 0,9 2,0 5,6 mm
J02 SNAP ACTION (2NC)	 0 1,3 2,4 4,0 4,5 mm		 0 1,0 5,6 mm 1,9
J01 SNAP ACTION (1NC)		 11-12 0 3 4 ∞	 0 2,0 5,6 mm 0,6
			X11 SLOW ACTION (1NO + 1NC)
			 0 2,0 5,6 mm 0,6
			W02 SLOW ACTION (2NC)
			 0 2,0 5,6 mm
			W20 SLOW ACTION (2NO)
			 0 1,8 5,6 mm

Safety Devices Diagrams

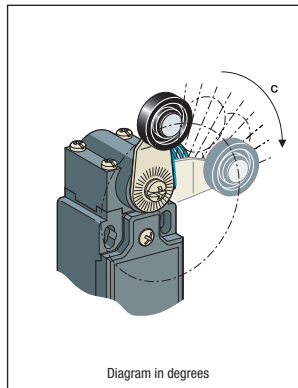
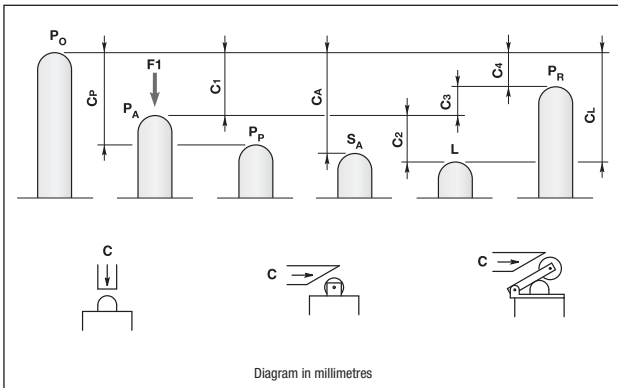


Diagram for snap action contacts:

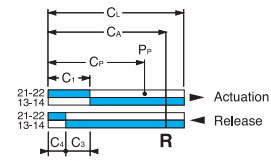
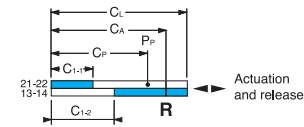


Diagram for non-overlapping slow action contacts:



P₀ Free position: position of the switch actuator when no external force is exerted on it.

P_A Operating position: position of the switch actuator, under the effect of force F₁, when the contacts leave their initial free position.

P_P Positive opening position: position of the switch actuator from which positive opening is ensured.

S_A Latching point: point of no return of the switch actuator beyond which the opened status of the NC contacts is maintained. Unlocking will only occur after deliberate action on the reset button.

L Max. travel position: maximum acceptable travel position of the switch actuator.

P_R Release position: position of the switch actuator when the contacts return to their initial free position.

C₁ Pre-travel: distance between the free position P₀ and the operating position P_A.

C_P Positive opening travel: minimum travel of the switch actuator, from the free position, to ensure positive opening operation of the normally closed contact.

C_A Latching travel: distance between the free positions P₀ and the latching point S_A.

C₂ Over-travel: distance between the operating position P_A and the max. travel position L.

C_L Max. travel: distance between the free position P₀ and the max. travel position L.

C₃ Differential travel (C₁-C₄): travel difference of the switch actuator between the operating position P_A and the release position P_R.

C₄ Release travel: distance between the release position P_R and the free position P₀.

Note: for slow action contacts, C₃ = 0, C₁₋₁ = pre-travel of contact 21-22, C₁₋₂ = pre-travel of contact 13-14

- ▶ Actuation
- ◀ Release
- Contact closed
- Contact opened
- Positive opening operation
- R Latching point S_A

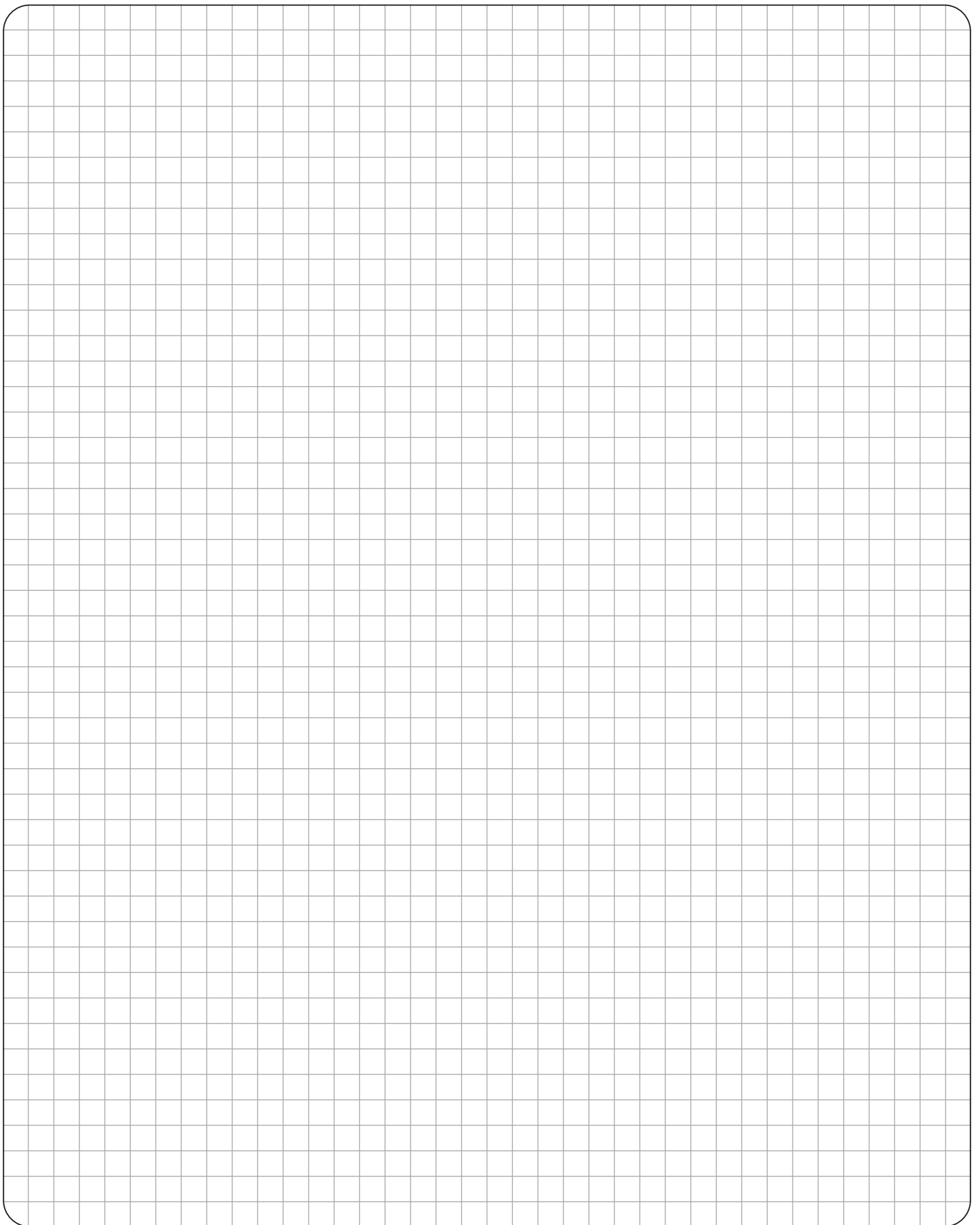
		R11 Steel plunger with reset	R13 Steel plunger with nylon roller with reset	R31-R32 Steel plunger with nylon roller with reset	R38 Steel plunger with nylon roller with reset	R41-R51 Lever with nylon roller with reset
Z11: Snap action 1NO+1NC						
X11: Slow action break before make 1NO+1NC						
Y11: Slow action make before break 1NO+1NC						
W02: Simultaneous slow action 2NC						
Z02: Snap action 2NC						
X12P: Slow action break before make 1NO+2NC						
X21P: Slow action break before make 2NO+1NC						
W03P: Simultaneous slow action 3NC						

Notes

A large, empty grid area for taking notes, consisting of a 30x30 grid of small squares. The grid is contained within a rounded rectangular border.



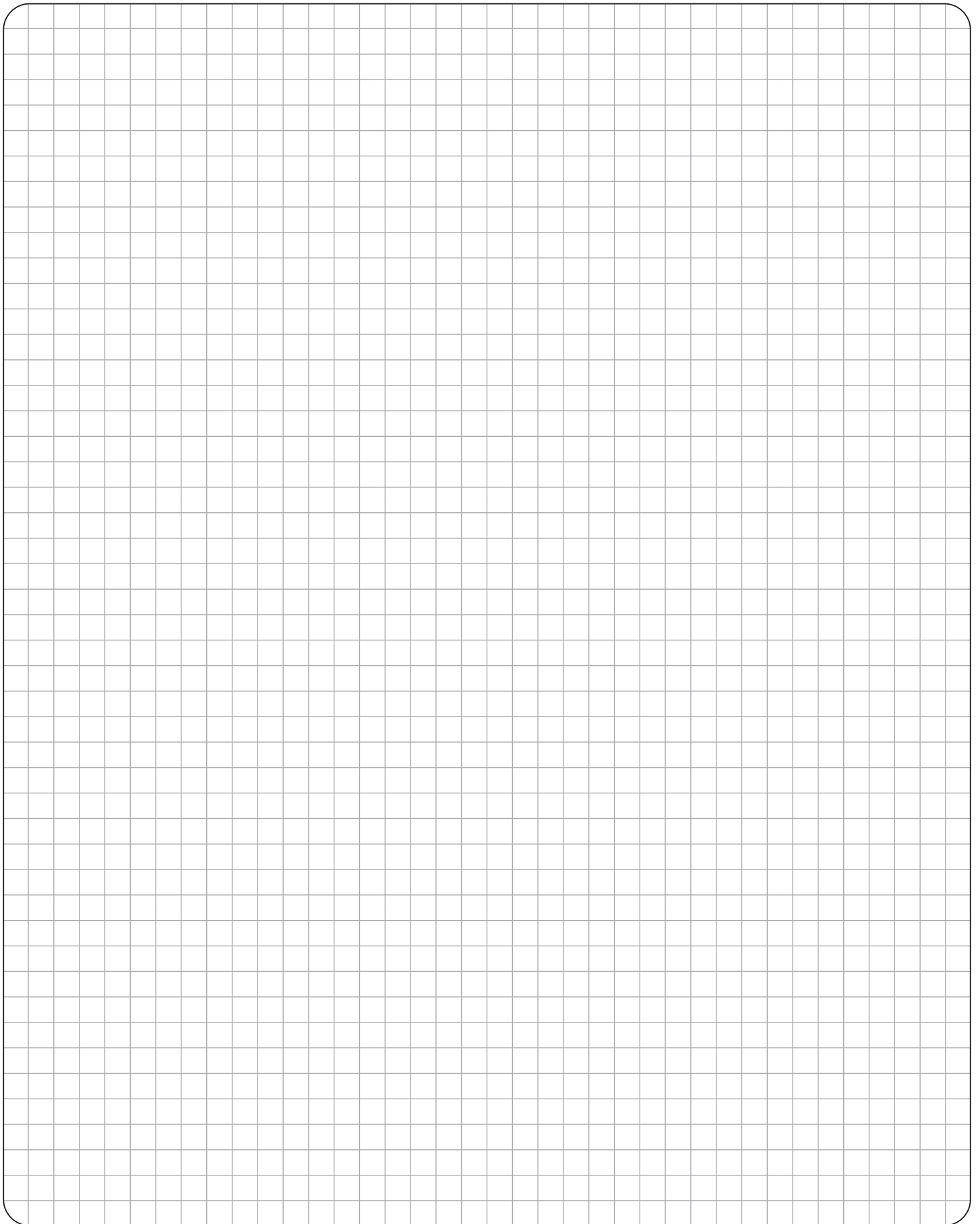
Notes

A large rectangular area with rounded corners, filled with a fine grid of light gray lines, intended for taking notes.

Notes

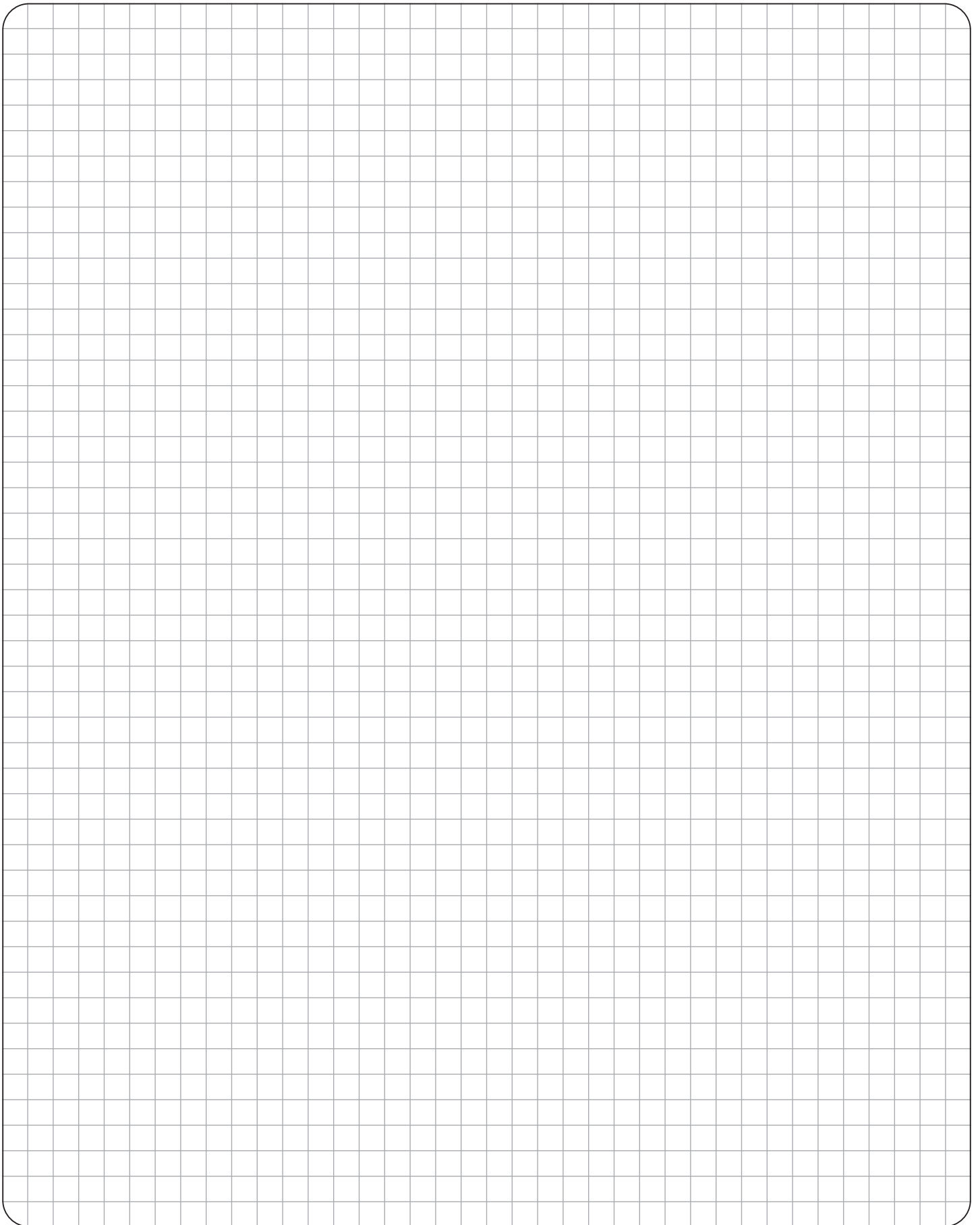
A large grid area for taking notes, consisting of a 30x30 grid of small squares. The grid is contained within a rounded rectangular border.

Notes





Notes



COMEPI AROUND THE WORLD

Comepi products are available all over the world, the company supplies 76 countries in 5 continents. Our focus on flexibility translates into the ability to create solutions where the market requires new application needs. Comepi has a network of agents and importers, supported by local distributors. This organization ensures global presence and support.



23899 Robbiate
(Lecco) Italy
Via Novarino 9/L
tel. +039 990 6408
+039 990 6203
comepi@comepi.it
comepi.eu

 **COMEPI**



CAT150-SC0923-PX