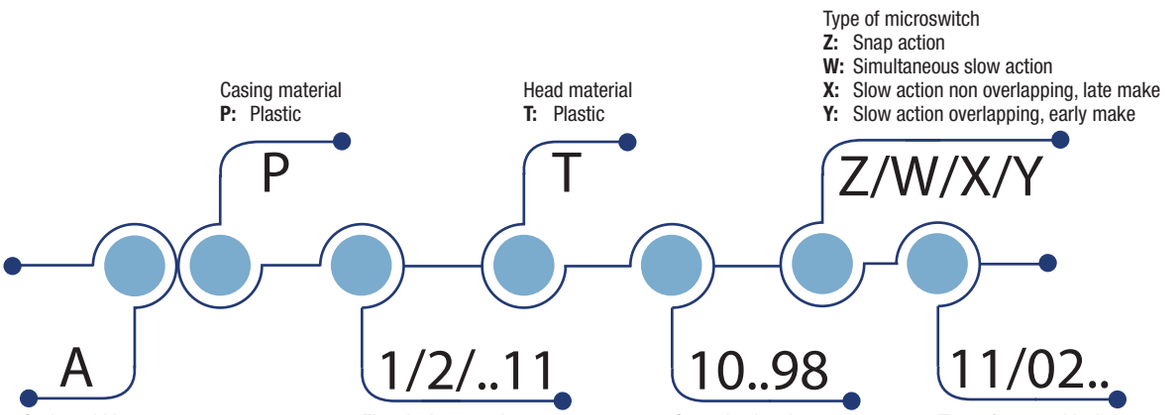
Limit Switches **AP series**

Summary

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

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



Casing material
P: Plastic

Head material
T: Plastic

Type of microswitch
Z: Snap action
W: Simultaneous slow action
X: Slow action non overlapping, late make
Y: Slow action overlapping, early make

Casing width
A: 30mm + 1 cable inlet

Electrical connection
1: PG13.5
2: 1/2 NPT
3: PG11
4: M16x1.5
5: M20x1.5
Metal M12 connector
6: 4 poles
7: 5 poles
8: 8 poles
Plastic M12 connector
9: 4 poles
10: 5 poles
11: 8 poles

Operating head

Type of contact block

11:	1NO + 1NC
20:	2NO
02:	2NC
12P:	1NO + 2NC
21P:	2NO + 1NC
03P:	3NC

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 ∅3 screws

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

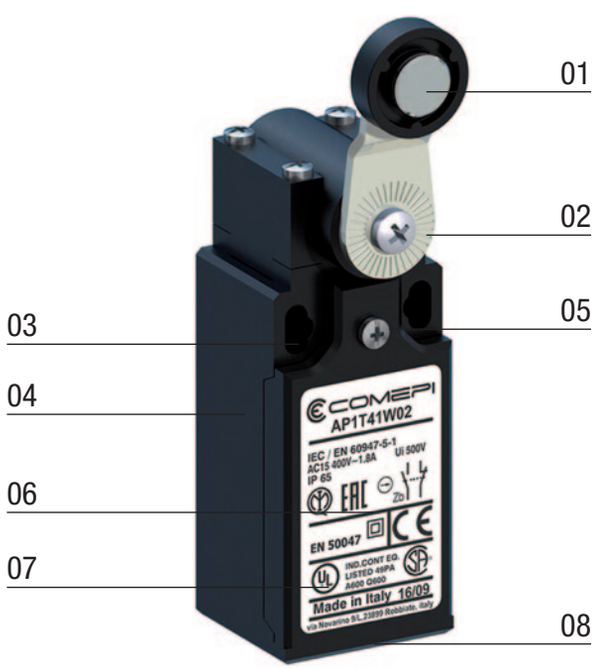
04 Mounting screws
- 2 x M4 screws on top part

05 Cover
- 1 screw ∅3 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.

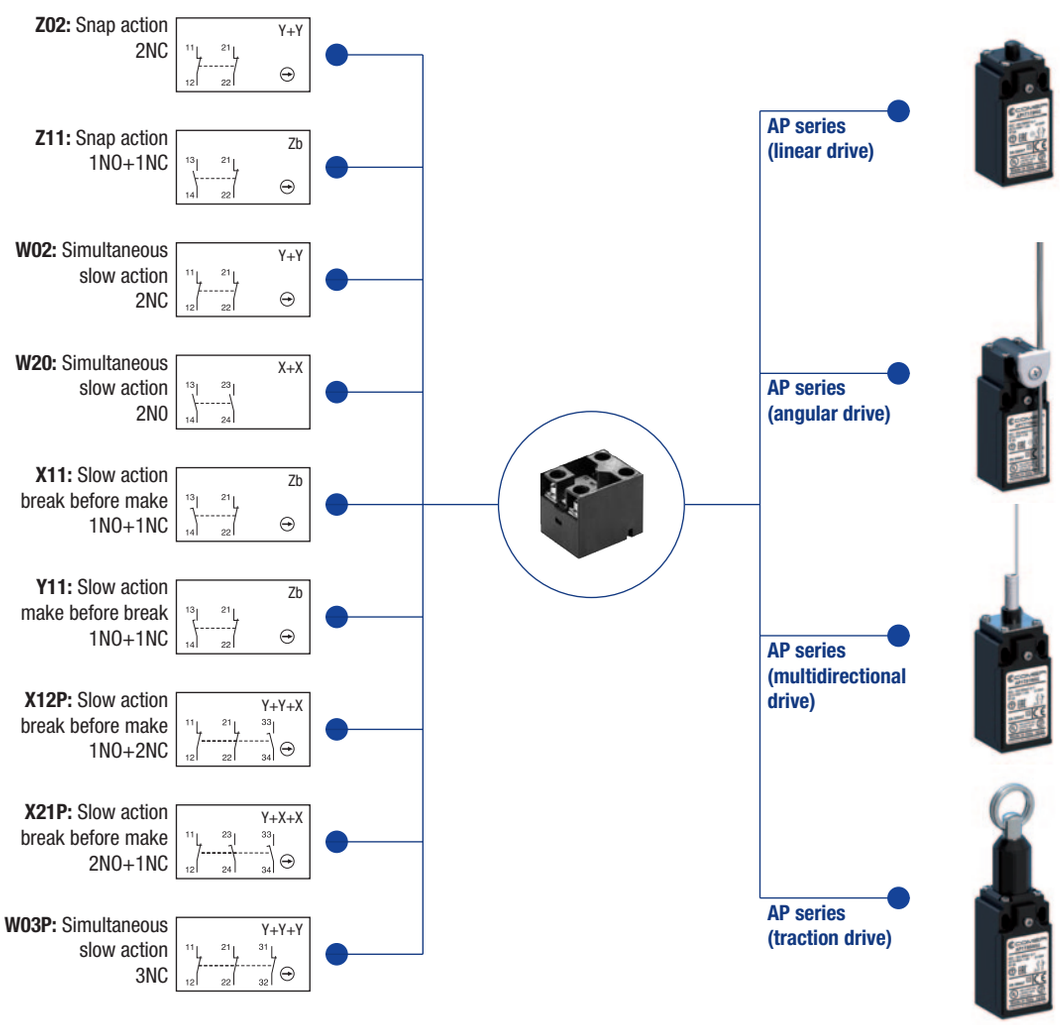
They are purpose-built detection devices thanks to these characteristics:

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

DESCRIPTION

Limit switches, which are made of reinforced UL-VO 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.



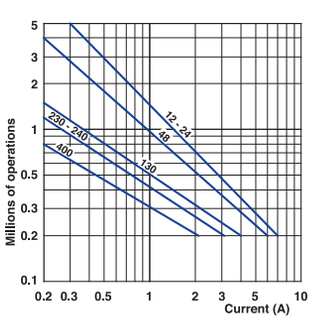
Limit Switches **AP series**
Technical Data

			AP Series
Standards			IEC 60947-5-1 EN 60947-5-1
Certifications - Approvals			UL - CSA - IMQ - EAC - CCC - UKCA
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)			IP65 (for all models) - IP67 (only for operating heads from 10 to 39)

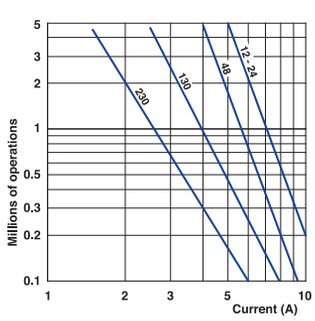
Electrical Data

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	10
	120 V - 50/60 Hz	A	6
	400 V - 50/60 Hz	A	4
I_e / DC-13 (according to IEC 60947-5-1)	24 V - d.c.	A	6
	125 V - d.c.	A	0.55
	250 V - d.c.	A	0.4
Switching frequency		Cycles/h	3600
Load factor			0.5
Resistance between contacts		mΩ	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**
Cover			0,5Nm, max 0,8
Head			0,5Nm, max 0,8
Microswitch			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

COMEPI

Limit Switches **AP 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_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

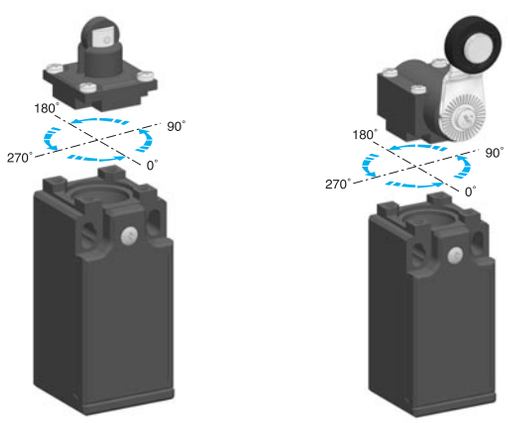
Standards	Devices conform with UL 508
Contact blocks type Z11, X11, Y11, W02 and Z02	
Utilization categories	A600, Q600
Contact blocks type X12P, X21P and W03P	
Utilization categories	A300, Q300

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.

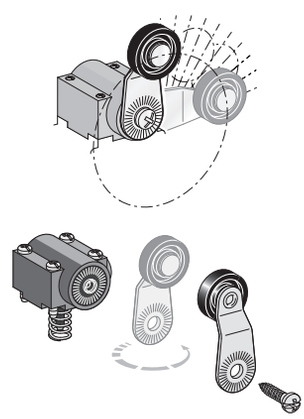
For the complete list of approved products, contact our technical department

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).



Special Versions

Metal actuators
The operating heads used in plastic limit switches AP and DP series have the same dimensions of the ones used in the corresponding metal AM and DM series. It is therefore possible to supply “mixed” versions, that is:
- plastic operating head on metal casing
- metal operating head on plastic casing

Low Temperature
The limit switches for low temperature applications are useful for refrigerated cells or equipments where the air operational temperature is very low. These devices, made in special materials, are able to extend the operational temperature range down to -40°C, maintaining mechanical performances intact.
To order add the digits “40” following the operating head indication in part number.
For example: AP1T10Z11 ⏵ AP1T1040Z11

Manual reset operating head
Limit switches equipped with special operating head with manual reset button.

For more information:

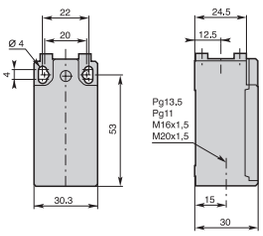
For further informations, please contact our technical department.

Limit Switches **AP_T series**

Double insulation - Plastic casing IP65 - 30 mm. width

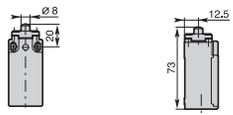
Electrical connection:

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
AP6: 4 poles M12 metal connector
AP7: 5 poles M12 metal connector
AP8: 8 poles M12 metal connector
AP9: 4 poles M12 plastic connector
AP10: 5 poles M12 plastic connector
AP11: 8 poles M12 plastic connector



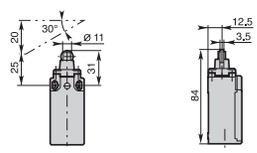
Contact Blocks

T1• - Plain plunger
T10: nylon plunger T11: metal plunger



Conformity EN50047
Min. actuating force **15N (30N ⇾)**
Weight **70 g**

T1• - Roller plunger
T12: metal roller T13: nylon roller



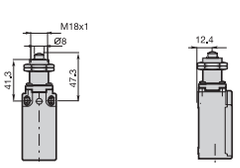
Conformity EN50047
Min. actuating force **12N (30N ⇾)**
Weight **75 g**

T14 - Metal plunger with dust protection cup

Conformity EN50047
Min. actuating force **15N (30N ⇾)**
Weight **70 g**

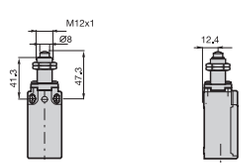
Z11	(1NO + 1NC)	AP•T10Z11	AP•T11Z11	AP•T12Z11	AP•T13Z11	AP•T14Z11
X11	(1NO + 1NC)	AP•T10X11	AP•T11X11	AP•T12X11	AP•T13X11	AP•T14X11
Y11	(1NO + 1NC)	AP•T10Y11	AP•T11Y11	AP•T12Y11	AP•T13Y11	AP•T14Y11
W02	(2NC)	AP•T10W02	AP•T11W02	AP•T12W02	AP•T13W02	AP•T14W02
W20	(2NO)	AP•T10W20	AP•T11W20	AP•T12W20	AP•T13W20	AP•T14W20
Z02	(2NC)	AP•T10Z02	AP•T11Z02	AP•T12Z02	AP•T13Z02	AP•T14Z02
X12P	(1NO + 2NC)	AP•T10X12P	AP•T11X12P	AP•T12X12P	AP•T13X12P	AP•T14X12P
X21P	(2NO + 1NC)	AP•T10X21P	AP•T11X21P	AP•T12X21P	AP•T13X21P	AP•T14X21P
W03P	(3NC)	AP•T10W03P	AP•T11W03P	AP•T12W03P	AP•T13W03P	AP•T14W03P

T21 - Plain plunger with M18x1 fixing nuts



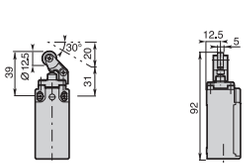
Min. actuating force **15N (30N ⇾)**
Weight **80 g**

T2101 - Plain plunger with M12x1 fixing nuts



Min. actuating force **15N (30N ⇾)**
Weight **80 g**

T3• - Plastic roller lever
T30: on plastic plunger T31: on metal plunger



Conformity EN50047
Min. actuating force **7N (24N ⇾)**
Weight **75 g**

Contact Blocks

Z11	(1NO + 1NC)	AP•T21Z11	AP•T2101Z11	AP•T30Z11	AP•T31Z11
X11	(1NO + 1NC)	AP•T21X11	AP•T2101X11	AP•T30X11	AP•T31X11
Y11	(1NO + 1NC)	AP•T21Y11	AP•T2101Y11	AP•T30Y11	AP•T31Y11
W02	(2NC)	AP•T21W02	AP•T2101W02	AP•T30W02	AP•T31W02
W20	(2NO)	AP•T21W20	AP•T2101W20	AP•T30W20	AP•T31W20
Z02	(2NC)	AP•T21Z02	AP•T2101Z02	AP•T30Z02	AP•T31Z02
X12P	(1NO + 2NC)	AP•T21X12P	AP•T2101X12P	AP•T30X12P	AP•T31X12P
X21P	(2NO + 1NC)	AP•T21X21P	AP•T2101X21P	AP•T30X21P	AP•T31X21P
W03P	(3NC)	AP•T21W03P	AP•T2101W03P	AP•T30W03P	AP•T31W03

Operation diagrams: page 123 - All dimensions are in mm

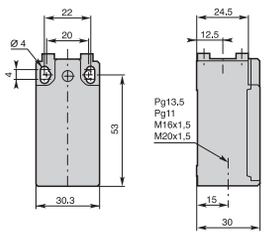
COMEPI

Limit Switches **AP_T series**

Double insulation - Plastic casing IP65 - 30 mm. width

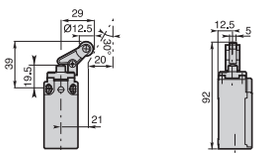
Electrical connection:

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
AP6: 4 poles M12 metal connector
AP7: 5 poles M12 metal connector
AP8: 8 poles M12 metal connector
AP9: 4 poles M12 plastic connector
AP10: 5 poles M12 plastic connector
AP11: 8 poles M12 plastic connector



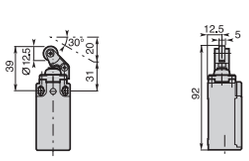
T3• - Plastic roller lever

T32: on metal plunger T34: on plastic plunger



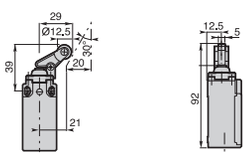
Min. actuating force 7N (24N ⇾)
Weight 80 g

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



Conformity EN50047
Min. actuating force 7N (24N ⇾)
Weight 75 g

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

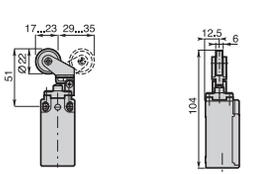


Min. actuating force 7N (24N ⇾)
Weight 80 g

Contact Blocks

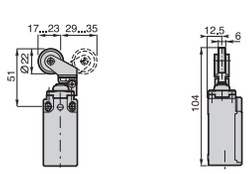
Z11	(1NO + 1NC)	AP•T32Z11	AP•T34Z11	AP•T35Z11	AP•T36Z11
X11	(1NO + 1NC)	AP•T32X11	AP•T34X11	AP•T35X11	AP•T36X11
Y11	(1NO + 1NC)	AP•T32Y11	AP•T34Y11	AP•T35Y11	AP•T36Y11
W02	(2NC)	AP•T32W02	AP•T34W02	AP•T35W02	AP•T36W02
W20	(2NO)	AP•T32W20	AP•T34W20	AP•T35W20	AP•T36W20
Z02	(2NC)	AP•T32Z02	AP•T34Z02	AP•T35Z02	AP•T36Z02
X12P	(1NO + 2NC)	AP•T32X12P	AP•T34X12P	AP•T35X12P	AP•T36X12P
X21P	(2NO + 1NC)	AP•T32X21P	AP•T34X21P	AP•T35X21P	AP•T36X21P
W03P	(3NC)	AP•T32W03P	AP•T34W03P	AP•T35W03P	AP•T36W03P

T38 - Adjustable plastic roller lever on metal plunger



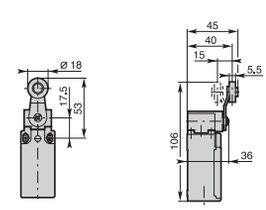
Conformity EN50047
Min. actuating force 7N (24N ⇾)
Weight 80 g

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



Conformity EN50047
Min. actuating force 7N (24N ⇾)
Weight 80 g

T41 - Ø 18 nylon roller lever



Conformity EN50047
Min. actuating torque 0,10Nm (0,32Nm ⇾)
Weight 95 g

Contact Blocks

Z11	(1NO + 1NC)	AP•T38Z11	AP•T39Z11	AP•T41Z11
X11	(1NO + 1NC)	AP•T38X11	AP•T39X11	AP•T41X11
Y11	(1NO + 1NC)	AP•T38Y11	AP•T39Y11	AP•T41Y11
W02	(2NC)	AP•T38W02	AP•T39W02	AP•T41W02
W20	(2NO)	AP•T38W20	AP•T39W20	AP•T41W20
Z02	(2NC)	AP•T38Z02	AP•T39Z02	AP•T41Z02
X12P	(1NO + 2NC)	AP•T38X12P	AP•T39X12P	AP•T41X12P
X21P	(2NO + 1NC)	AP•T38X21P	AP•T39X21P	AP•T41X21P
W03P	(3NC)	AP•T38W03P	AP•T39W03P	AP•T41W03P

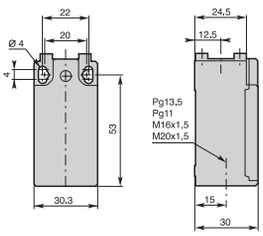
Operation diagrams: page 123 - All dimensions are in mm

Limit Switches **AP_T series**

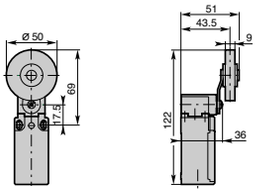
Double insulation - Plastic casing IP65 - 30 mm. width

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
AP6: 4 poles M12 metal connector
AP7: 5 poles M12 metal connector
AP8: 8 poles M12 metal connector
AP9: 4 poles M12 plastic connector
AP10: 5 poles M12 plastic connector
AP11: 8 poles M12 plastic connector

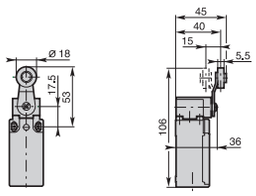


T42 - Ø 50 rubber roller lever



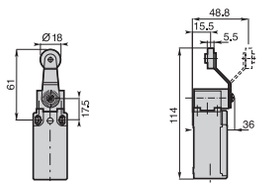
Min. actuating torque 0,10Nm (0,32Nm ⇾)
Weight 115 g

T43 - Ø 18 metal roller lever



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

T45 - Ø 18 nylon roller lever

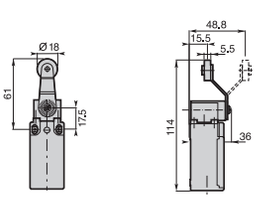


Min. actuating torque 0,10Nm (0,32Nm ⇾)
Weight 95 g

Contact Blocks

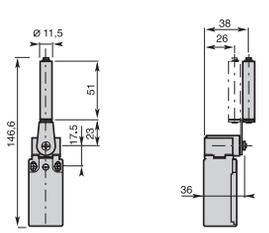
Z11	(1NO + 1NC)	AP•T42Z11	AP•T43Z11	AP•T45Z11
X11	(1NO + 1NC)	AP•T42X11	AP•T43X11	AP•T45X11
Y11	(1NO + 1NC)	AP•T42Y11	AP•T43Y11	AP•T45Y11
W02	(2NC)	AP•T42W02	AP•T43W02	AP•T45W02
W20	(2NO)	AP•T42W20	AP•T43W20	AP•T45W20
Z02	(2NC)	AP•T42Z02	AP•T43Z02	AP•T45Z02
X12P	(1NO + 2NC)	AP•T42X12P	AP•T43X12P	AP•T45X12P
X21P	(2NO + 1NC)	AP•T42X21P	AP•T43X21P	AP•T45X21P
W03P	(3NC)	AP•T42W03P	AP•T43W03P	AP•T45W03P

T46 - Ø 18 metal roller lever



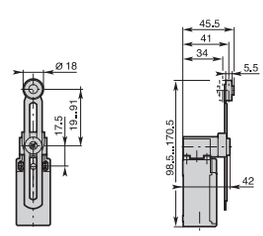
Min. actuating torque 0,10Nm (0,32Nm ⇾)
Weight 100 g

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

Z11	(1NO + 1NC)	AP•T46Z11	AP•T48Z11	AP•T51Z11
X11	(1NO + 1NC)	AP•T46X11	AP•T48X11	AP•T51X11
Y11	(1NO + 1NC)	AP•T46Y11	AP•T48Y11	AP•T51Y11
W02	(2NC)	AP•T46W02	AP•T48W02	AP•T51W02
W20	(2NO)	AP•T46W20	AP•T48W20	AP•T51W20
Z02	(2NC)	AP•T46Z02	AP•T48Z02	AP•T51Z02
X12P	(1NO + 2NC)	AP•T46X12P	AP•T48X12P	AP•T51X12P
X21P	(2NO + 1NC)	AP•T46X21P	AP•T48X21P	AP•T51X21P
W03P	(3NC)	AP•T46W03P	AP•T48W03P	AP•T51W03P

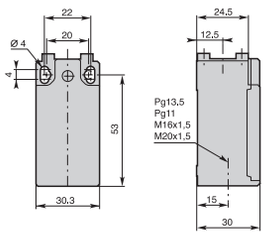
Operation diagrams: page 123 - All dimensions are in mm

Limit Switches **AP_T series**

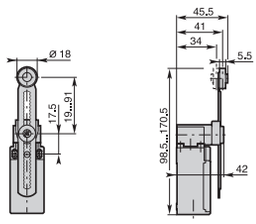
Double insulation - Plastic casing IP65 - 30 mm. width

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
AP6: 4 poles M12 metal connector
AP7: 5 poles M12 metal connector
AP8: 8 poles M12 metal connector
AP9: 4 poles M12 plastic connector
AP10: 5 poles M12 plastic connector
AP11: 8 poles M12 plastic connector

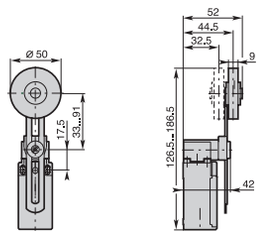


T5100 - Adjustable toothed lever (step 2 mm) with Ø 18 nylon roller



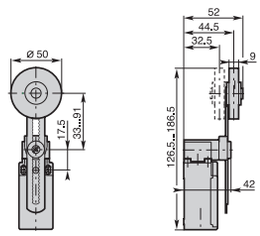
Min. actuating torque 0,10Nm (0,32Nm ⇔)
Weight 105 g

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

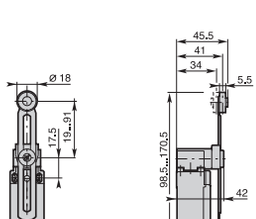


Min. actuating torque 0,10Nm (0,32Nm ⇔)
Weight 125 g

Contact Blocks

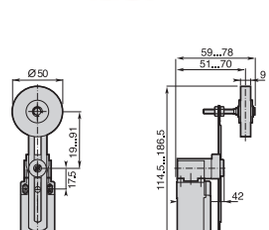
Z11	(1NO + 1NC)	AP•T5100Z11	AP•T52Z11	AP•T5200Z11
X11	(1NO + 1NC)	AP•T5100X11	AP•T52X11	AP•T5200X11
Y11	(1NO + 1NC)	AP•T5100Y11	AP•T52Y11	AP•T5200Y11
W02	(2NC)	AP•T5100W02	AP•T52W02	AP•T5200W02
W20	(2NO)	AP•T5100W20	AP•T52W20	AP•T5200W20
Z02	(2NC)	AP•T5100Z02	AP•T52Z02	AP•T5200Z02
X12P	(1NO + 2NC)	AP•T5100X12P	AP•T52X12P	AP•T5200X12P
X21P	(2NO + 1NC)	AP•T5100X21P	AP•T52X21P	AP•T5200X21P
W03P	(3NC)	AP•T5100W03P	AP•T52W03P	AP•T5200W03P

T53 - Adjustable lever with Ø 18 metal roller



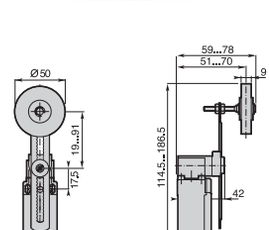
Min. actuating torque 0,10Nm (0,32Nm ⇔)
Weight 110 g

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

Z11	(1NO + 1NC)	AP•T53Z11	AP•T55Z11	AP•T5500Z11
X11	(1NO + 1NC)	AP•T53X11	AP•T55X11	AP•T5500X11
Y11	(1NO + 1NC)	AP•T53Y11	AP•T55Y11	AP•T5500Y11
W02	(2NC)	AP•T53W02	AP•T55W02	AP•T5500W02
W20	(2NO)	AP•T53W20	AP•T55W20	AP•T5500W20
Z02	(2NC)	AP•T53Z02	AP•T55Z02	AP•T5500Z02
X12P	(1NO + 2NC)	AP•T53X12P	AP•T55X12P	AP•T5500X12P
X21P	(2NO + 1NC)	AP•T53X21P	AP•T55X21P	AP•T5500X21P
W03P	(3NC)	AP•T53W03P	AP•T55W03P	AP•T5500W03P

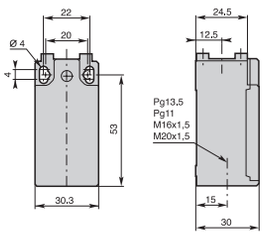
Operation diagrams: page 123 - All dimensions are in mm

Limit Switches **AP_T series**

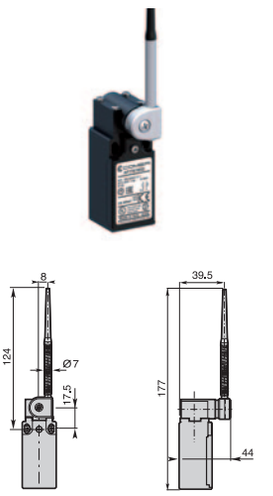
Double insulation - Plastic casing IP65 - 30 mm. width

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
AP6: 4 poles M12 metal connector
AP7: 5 poles M12 metal connector
AP8: 8 poles M12 metal connector
AP9: 4 poles M12 plastic connector
AP10: 5 poles M12 plastic connector
AP11: 8 poles M12 plastic connector

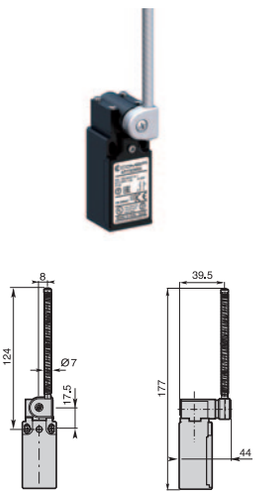


T61 - Nylon actuator with stainless steel spring



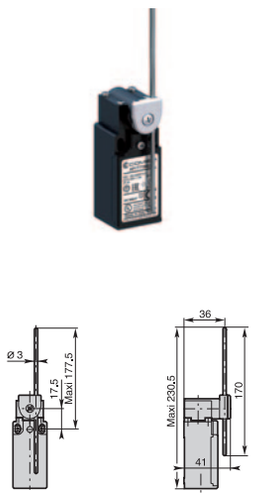
Min. actuating torque 0,10Nm
Weight 105 g

T62 - Stainless steel spring actuator



Min. actuating torque 0,10Nm
Weight 105 g

T71 - Adjustable Ø 3 rod lever with stainless steel rod

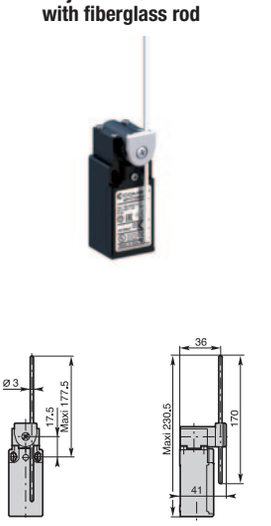


Min. actuating torque 0,10Nm (0,32Nm ⊖)
Weight 105 g

Contact Blocks

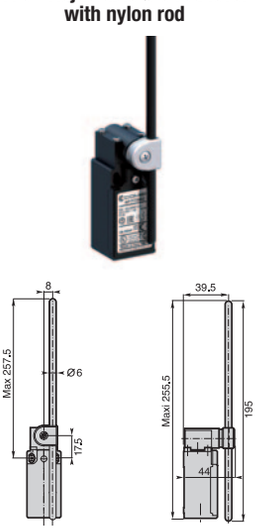
Z11	(1NO + 1NC)	AP•T61Z11	AP•T62Z11	AP•T71Z11
X11	(1NO + 1NC)	AP•T61X11	AP•T62X11	AP•T71X11
Y11	(1NO + 1NC)	AP•T61Y11	AP•T62Y11	AP•T71Y11
W02	(2NC)	AP•T61W02	AP•T62W02	AP•T71W02
W20	(2NO)	AP•T61W20	AP•T62W20	AP•T71W20
Z02	(2NC)	AP•T61Z02	AP•T62Z02	AP•T71Z02
X12P	(1NO + 2NC)	AP•T61X12P	AP•T62X12P	AP•T71X12P
X21P	(2NO + 1NC)	AP•T61X21P	AP•T62X21P	AP•T71X21P
W03P	(3NC)	AP•T61W03P	AP•T62W03P	AP•T71W03P

T72 - Adjustable Ø 3 rod lever with fiberglass rod



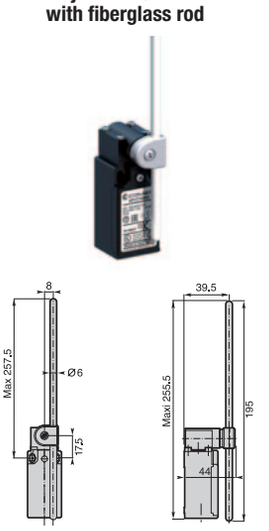
Min. actuating torque 0,10Nm (0,32Nm ⊖)
Weight 105 g

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

Z11	(1NO + 1NC)	AP•T72Z11	AP•T73Z11	AP•T74Z11
X11	(1NO + 1NC)	AP•T72X11	AP•T73X11	AP•T74X11
Y11	(1NO + 1NC)	AP•T72Y11	AP•T73Y11	AP•T74Y11
W02	(2NC)	AP•T72W02	AP•T73W02	AP•T74W02
W20	(2NO)	AP•T72W20	AP•T73W20	AP•T74W20
Z02	(2NC)	AP•T72Z02	AP•T73Z02	AP•T74Z02
X12P	(1NO + 2NC)	AP•T72X12P	AP•T73X12P	AP•T74X12P
X21P	(2NO + 1NC)	AP•T72X21P	AP•T73X21P	AP•T74X21P
W03P	(3NC)	AP•T72W03P	AP•T73W03P	AP•T74W03P

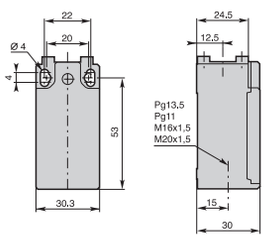
Operation diagrams: page 123 - All dimensions are in mm

Limit Switches **AP_T series**

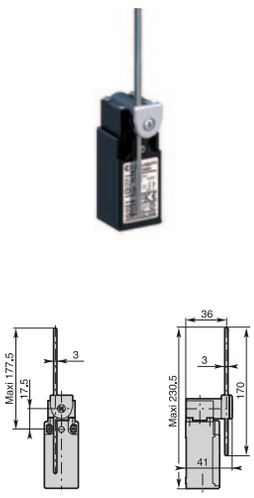
Double insulation - Plastic casing IP65 - 30 mm. width

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
AP6: 4 poles M12 metal connector
AP7: 5 poles M12 metal connector
AP8: 8 poles M12 metal connector
AP9: 4 poles M12 plastic connector
AP10: 5 poles M12 plastic connector
AP11: 8 poles M12 plastic connector

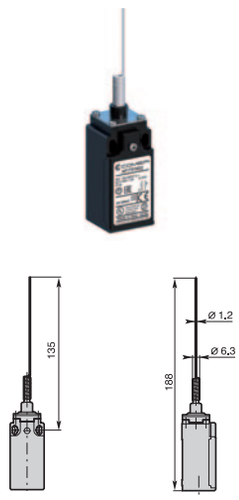


T75 - Adjustable 3x3 square steel rod lever



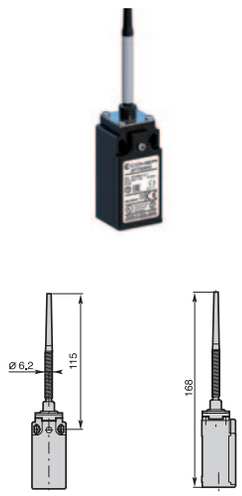
Min. actuating torque 0,10Nm (0,32Nm ⊖)
Weight 105 g

T91 - Stainless steel spring multidirectional actuator



Min. actuating torque 0,12Nm
Weight 80 g

T92 - Multidirectional nylon actuator with stainless steel spring

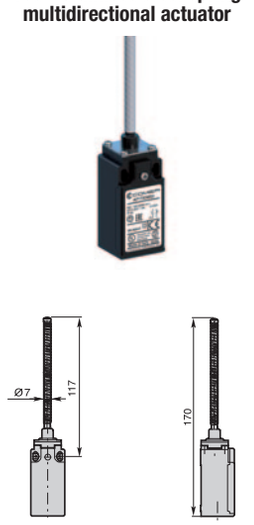


Min. actuating torque 0,12Nm
Weight 85 g

Contact Blocks

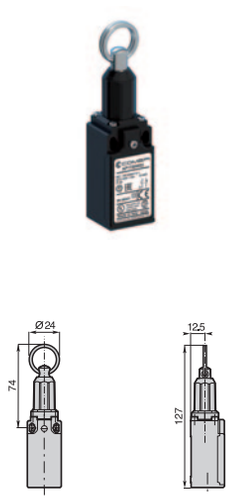
Z11	(1NO + 1NC)	AP•T75Z11	AP•T91Z11	AP•T92Z11
X11	(1NO + 1NC)	AP•T75X11	AP•T91X11	AP•T92X11
Y11	(1NO + 1NC)	AP•T75Y11	AP•T91Y11	AP•T92Y11
W02	(2NC)	AP•T75W02	AP•T91W02	AP•T92W02
W20	(2NO)	AP•T75W20	AP•T91W20	AP•T92W20
Z02	(2NC)	AP•T75Z02	AP•T91Z02	AP•T92Z02
X12P	(1NO + 2NC)	AP•T75X12P	AP•T91X12P	AP•T92X12P
X21P	(2NO + 1NC)	AP•T75X21P	AP•T91X21P	AP•T92X21P
W03P	(3NC)	AP•T75W03P	AP•T91W03P	AP•T92W03P

T93 - Stainless steel spring multidirectional actuator



Min. actuating torque 0,12Nm
Weight 90 g

T98 - Pull action with ring



Min. actuating force 15N
Weight 115 g

Contact Blocks

Z11	(1NO + 1NC)	AP•T93Z11	AP•T98Z11A
X11	(1NO + 1NC)	AP•T93X11	AP•T98X11A
Y11	(1NO + 1NC)	AP•T93Y11	AP•T98Y11A
W02	(2NC)	AP•T93W02	AP•T98W02A
W20	(2NO)	AP•T93W20	AP•T98W20A
Z02	(2NC)	AP•T93Z02	
X12P	(1NO + 2NC)	AP•T93X12P	
X21P	(2NO + 1NC)	AP•T93X21P	
W03P	(3NC)	AP•T93W03P	

Operation diagrams: page 123 - All dimensions are in mm