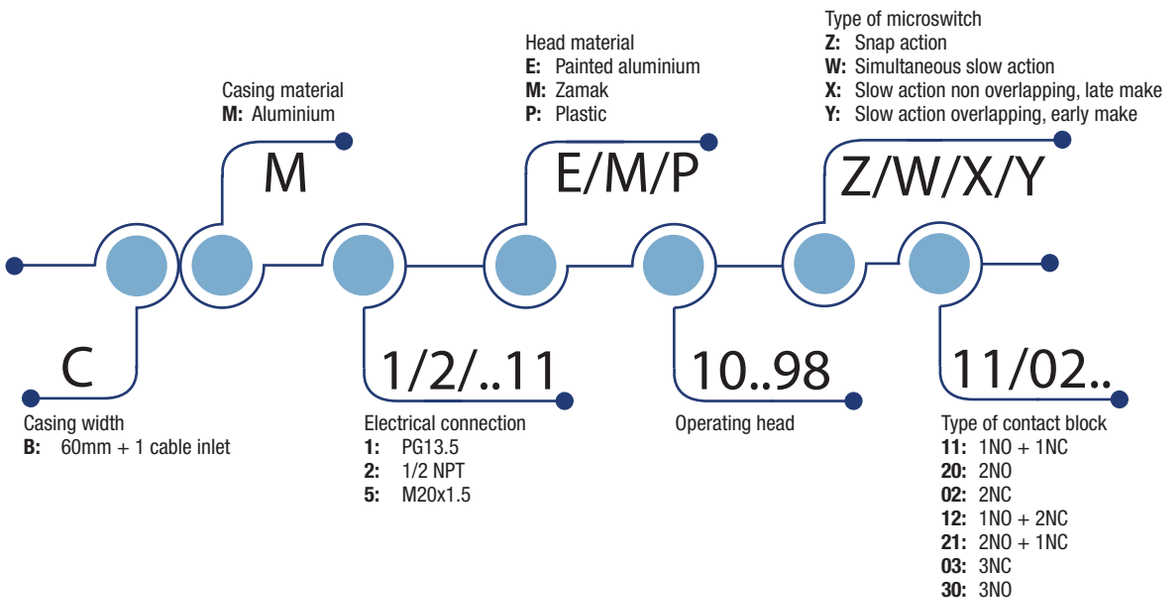
Limit Switches **CM series**

Summary

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

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



HOW IS IT MADE?

01 A variety of actuators
- Plain plunger
- Roller plunger
- Roller lever, adjustable or not, etc.

02 Wide range of heads
- Assembled using 4 x ∅4 screws

03 Casing:
- 60 mm. with dimensions acc. to EN 50041

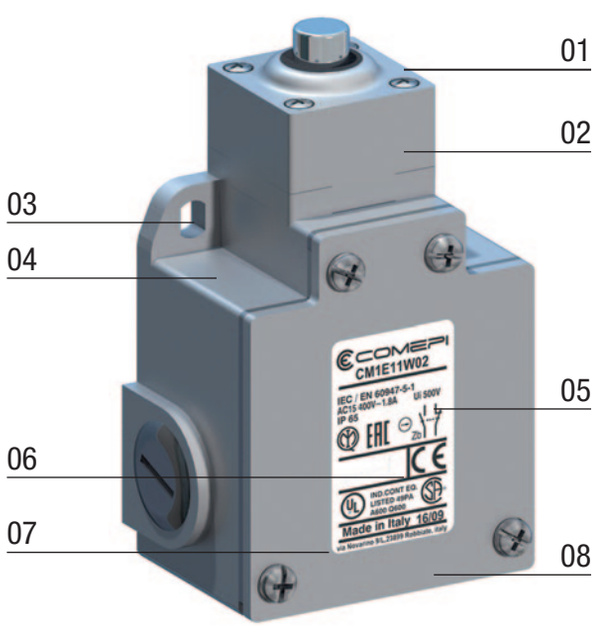
04 Mounting screws
- 2 x M5 screws on top part

05 Cover
- 4 screws 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
- 3 x threaded cable inlets suitable for cable gland



Limit Switches **CM 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.

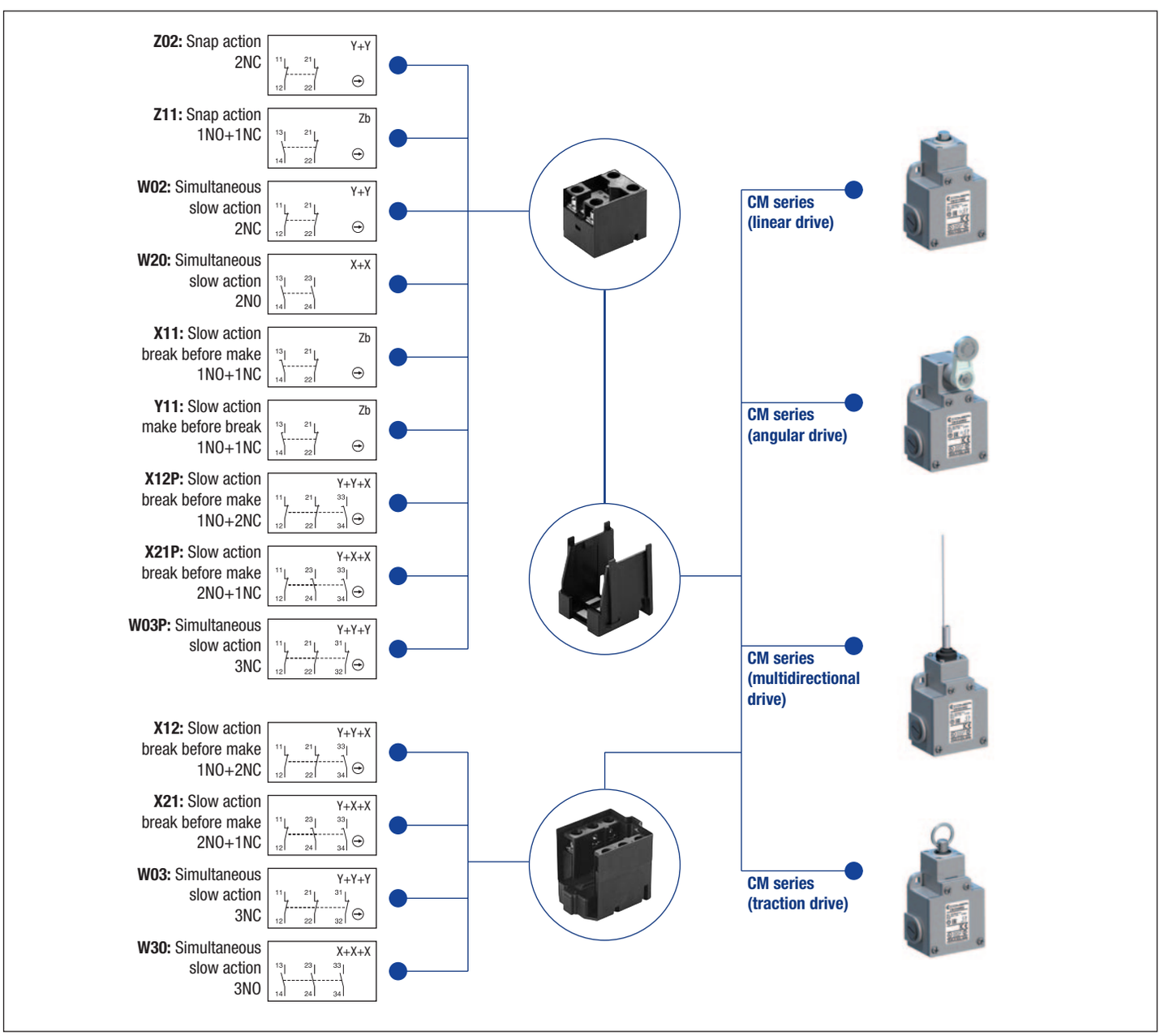
They are purpose-built detection devices thanks to these characteristics:

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

DESCRIPTION

Limit switches, which are made aluminium, are mechanically more resistant and three times lighter than the ones in zinc alloy and they offer a degree of protection of IP66.

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 **CM series**
Technical Data

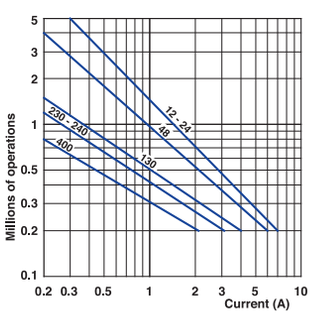
			CM Series
Standards			IEC 60947-5-1 EN 60947-5-1
Certifications - Approvals			UL - CSA - IMQ - EAC - CCC - UKCA
Air temperature near the device			
– during operation		°C	– 25 ... + 70
– for storage		°C	– 30 ... + 80
Mounting positions			All positions are authorised
Protection against electrical shocks (acc. to IEC 61140)			Class I
Degree of protection (according to IEC 60529 and EN 60529)			IP 66*

Electrical Data

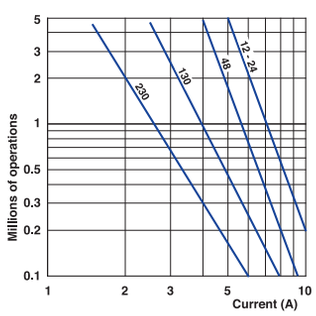
Rated insulation voltage U_i - according to IEC 60947-1 and EN 60947-1 - according to UL 508 and CSA C22-2 n° 14			500 V (degree of pollution 3) (400 V for contacts type Z02) A 600, Q 600
Rated impulse withstand voltage U_{imp} (according to IEC 60947-1 and EN 60947-1)		kV	6
Conventional free air thermal 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 (1.8A for contacts type X12, X21, W03, W30)
I_e / DC-13 (according to IEC 60947-5-1)	24 V - d.c.	A	6 (2.8A for contacts type X12, X21, W03, W30)
	125 V - d.c.	A	0.55
	250 V - d.c.	A	0.4 (0.27A for contacts type X12, X21, W03, W30)
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			M3.5 (+, –) pozidriv 2 screw with cable clamp
Connecting capacity		1 or 2 x mm²	0.34 ... 2.5 (0.34... 1.5 for 3 poles contacts type)
Terminal marking			According to IEC 60947-5-1
Recommended tightening torque			**Metal**
Cover			0,8Nm, max 0,9
Head			0,8Nm, max 0,9
Microswitch			0,8Nm, max 0,9
Mechanical durability			30 millions of operations P11; M13; E11...13; E21...23; E31...33 25 millions of operations M41...75; E41...75 10 millions of operations P91...93; M14; M19; E91...93; E99
Electrical durability (according to IEC 60947-5-1)			Utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves below)

* except for E54, E92, E93, P92, P93, M54: the degree of protection is IP65

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

Limit Switches **CM 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 66*
Rated insulation voltage U_i		500 V (degree of pollution 3) (400V for type Z02)
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 (1.8A for contacts type X12, X21, W03, W30)
I_e / DC-13	24 V - d.c.	6 A (2.8A for contacts type X12, X21, W03, W30)
	125 V - d.c.	0.55 A
	250 V - d.c.	0.4 A (0.27A for contacts type X12, X21, W03, W30)

* except for E54, E92, E93, P92, P93, M54: the degree of protection is IP65

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 X12, X21, W03 and W30	
Utilization categories	A600, Q600

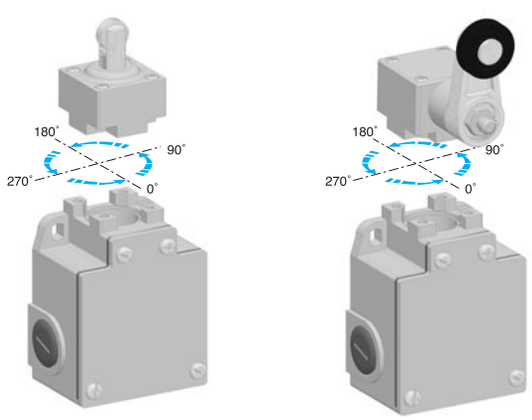
Use 60/75°C copper (Cu) conductor only. Wire rages 14-18 AWG stranded or solid. The terminal tightening torque of 7 lbs-in / 0.78 Nm. Suitable for conduit connection only with use of adapter sleeve optionally provided or recommended by the manufacturer.

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

IMPLEMENTATION

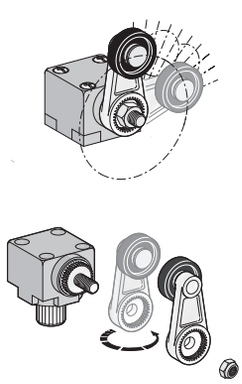
Operating head orientation

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

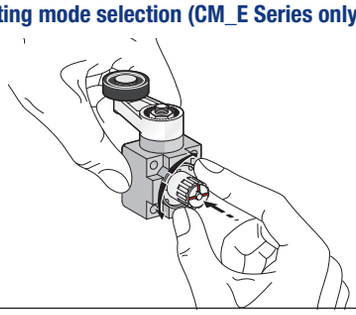


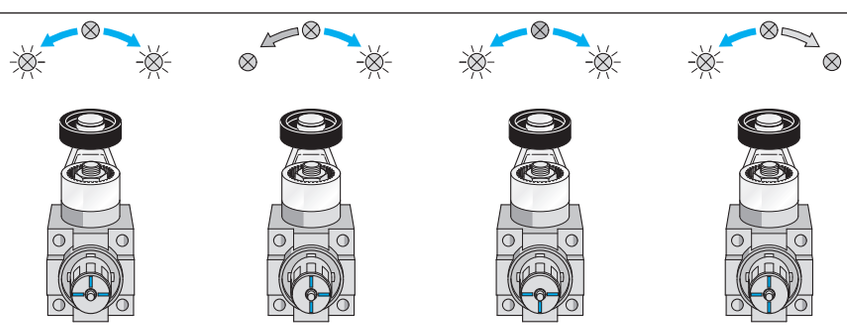
Lever adjustment

The lever of the angular actuators can be adjusted every 9° 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 mode selection (CM_E Series only)





Special Versions

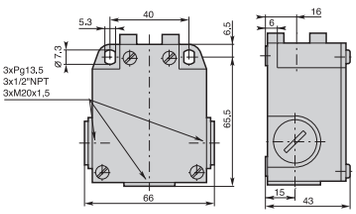
Low Temperature

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: CM1E11Z11 ➧ CM1E1140Z11

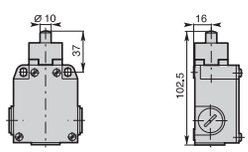
Limit Switches **CM_E series**

Metal Casing IP66 - 60 mm. width

Electrical connection:
CM1: three cable inlets for PG 13,5 Cable Gland
CM2: three cable inlets for 1/2" NPT Cable Gland
CM5: three cable inlets for M20 x 1,5 Cable Gland

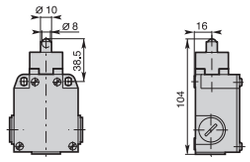


E11 - Stainless steel plain plunger



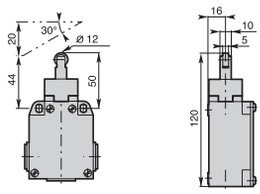
Min. actuating force 30N (45N →)
Weight 265 g

E12 - Stainless steel ball plunger



Min. actuating force 30N (45N →)
Weight 265 g

E13 - Stainless steel Ø12 roller plunger

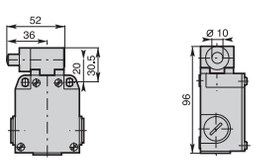


Min. actuating force 22N (40N →)
Weight 270 g

Contact Blocks

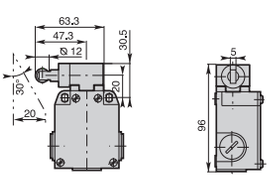
Z11	(1NO + 1NC)	CM•E11Z11	CM•E12Z11	CM•E13Z11
X11	(1NO + 1NC)	CM•E11X11	CM•E12X11	CM•E13X11
Y11	(1NO + 1NC)	CM•E11Y11	CM•E12Y11	CM•E13Y11
W02	(2NC)	CM•E11W02	CM•E12W02	CM•E13W02
W20	(2NO)	CM•E11W20	CM•E12W20	CM•E13W20
Z02	(2NC)	CM•E11Z02	CM•E12Z02	CM•E13Z02
X12	(1NO + 2NC)	CM•E11X12	CM•E12X12	CM•E13X12
X21	(2NO + 1NC)	CM•E11X21	CM•E12X21	CM•E13X21
W03	(3NC)	CM•E11W03	CM•E12W03	CM•E13W03
W30	(3NO)	CM•E11W30	CM•E12W30	CM•E13W30

E21 - Stainless steel lateral plain plunger



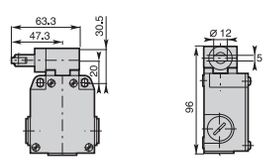
Min. actuating force 30N (50N →)
Weight 285 g

E22 - Stainless steel lateral plunger with Ø12 vertical roller



Min. actuating force 30N (50N →)
Weight 290 g

E23 - Stainless steel lateral plunger with Ø12 horizontal roller



Min. actuating force 30N (50N →)
Weight 290 g

Contact Blocks

Z11	(1NO + 1NC)	CM•E21Z11	CM•E22Z11	CM•E23Z11
X11	(1NO + 1NC)	CM•E21X11	CM•E22X11	CM•E23X11
Y11	(1NO + 1NC)	CM•E21Y11	CM•E22Y11	CM•E23Y11
W02	(2NC)	CM•E21W02	CM•E22W02	CM•E23W02
W20	(2NO)	CM•E21W20	CM•E22W20	CM•E23W20
Z02	(2NC)	CM•E21Z02	CM•E22Z02	CM•E23Z02
X12	(1NO + 2NC)	CM•E21X12	CM•E22X12	CM•E23X12
X21	(2NO + 1NC)	CM•E21X21	CM•E22X21	CM•E23X21
W03	(3NC)	CM•E21W03	CM•E22W03	CM•E23W03
W30	(3NO)	CM•E21W30	CM•E22W30	CM•E23W30

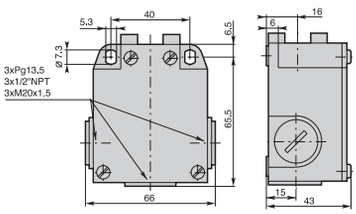
Operation diagrams: page 125 - All dimensions are in mm

Limit Switches **CM_E series**

Metal Casing IP66 - 60 mm. width

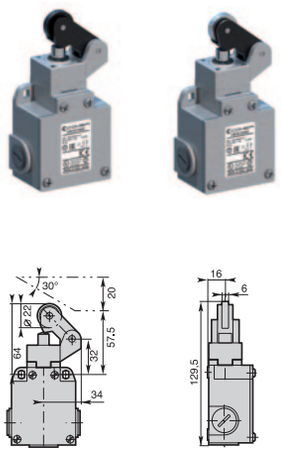
Electrical connection:

CM1: three cable inlets for PG 13,5 Cable Gland
CM2: three cable inlets for 1/2" NPT Cable Gland
CM5: three cable inlets for M20 x 1,5 Cable Gland



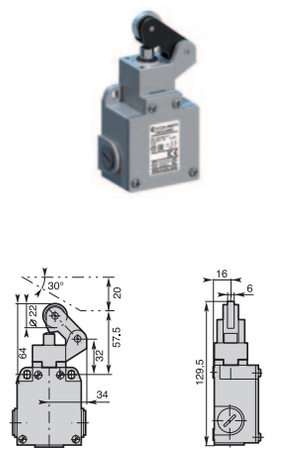
E3• - One way lever

E31: Ø22 nylon roller E32: Ø22 stainless steel roller



Min. actuating force 12N (40N ⇾)
Weight 305 g

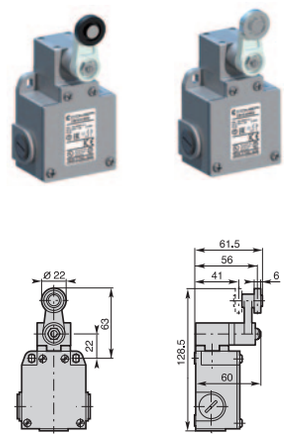
E33 - One way lever Ø22 steel ball bearing



Min. actuating force 12N (40N ⇾)
Weight 305 g

E4• - Ø22 roller lever

E41: Ø22 nylon roller E42: Ø22 stainless steel roller

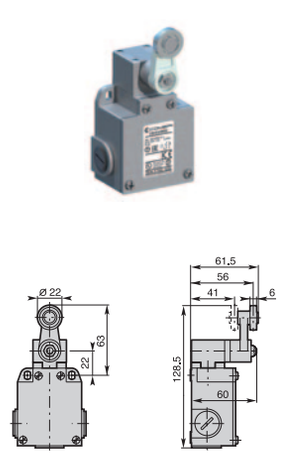


Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 305 g

Contact Blocks

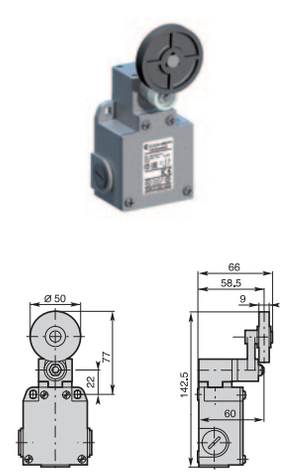
Z11	(1NO + 1NC)	CM•E31Z11	CM•E32Z11	CM•E33Z11	CM•E41Z11	CM•E42Z11
X11	(1NO + 1NC)	CM•E31X11	CM•E32X11	CM•E33X11	CM•E41X11	CM•E42X11
Y11	(1NO + 1NC)	CM•E31Y11	CM•E32Y11	CM•E33Y11	CM•E41Y11	CM•E42Y11
W02	(2NC)	CM•E31W02	CM•E32W02	CM•E33W02	CM•E41W02	CM•E42W02
W20	(2NO)	CM•E31W20	CM•E32W20	CM•E33W20	CM•E41W20	CM•E42W20
Z02	(2NC)	CM•E31Z02	CM•E32Z02	CM•E33Z02	CM•E41Z02	CM•E42Z02
X12	(1NO + 2NC)	CM•E31X12	CM•E32X12	CM•E33X12	CM•E41X12	CM•E42X12
X21	(2NO + 1NC)	CM•E31X21	CM•E32X21	CM•E33X21	CM•E41X21	CM•E42X21
W03	(3NC)	CM•E31W03	CM•E32W03	CM•E33W03	CM•E41W03	CM•E42W03
W30	(3NO)	CM•E31W30	CM•E32W30	CM•E33W30	CM•E41W30	CM•E42W30

E43 - Ø22 roller lever steel ball bearing



Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 305 g

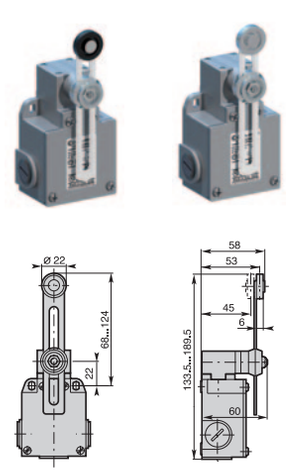
E44 - Ø50 rubber roller lever



Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 315 g

E5• - Adjustable Ø22 roller lever

E51: nylon roller E52: stainless steel roller



Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 325 g

Contact Blocks

Z11	(1NO + 1NC)	CM•E43Z11	CM•E44Z11	CM•E51Z11	CM•E52Z11
X11	(1NO + 1NC)	CM•E43X11	CM•E44X11	CM•E51X11	CM•E52X11
Y11	(1NO + 1NC)	CM•E43Y11	CM•E44Y11	CM•E51Y11	CM•E52Y11
W02	(2NC)	CM•E43W02	CM•E44W02	CM•E51W02	CM•E52W02
W20	(2NO)	CM•E43W20	CM•E44W20	CM•E51W20	CM•E52W20
Z02	(2NC)	CM•E43Z02	CM•E44Z02	CM•E51Z02	CM•E52Z02
X12	(1NO + 2NC)	CM•E43X12	CM•E44X12	CM•E51X12	CM•E52X12
X21	(2NO + 1NC)	CM•E43X21	CM•E44X21	CM•E51X21	CM•E52X21
W03	(3NC)	CM•E43W03	CM•E44W03	CM•E51W03	CM•E52W03
W30	(3NO)	CM•E43W30	CM•E44W30	CM•E51W30	CM•E52W30

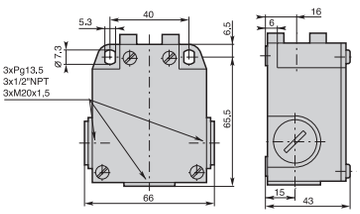
Operation diagrams: page 125 - All dimensions are in mm

Limit Switches **CM_E series**

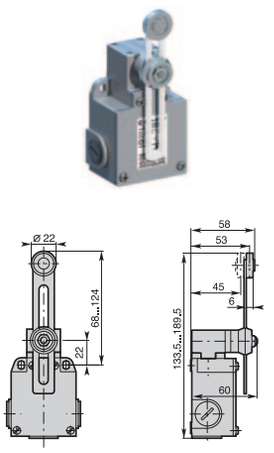
Metal Casing IP66 - 60 mm. width

Electrical connection:

CM1: three cable inlets for PG 13,5 Cable Gland
CM2: three cable inlets for 1/2" NPT Cable Gland
CM5: three cable inlets for M20 x 1,5 Cable Gland

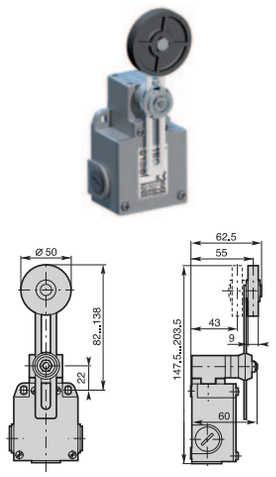


E53 - Adjustable Ø22 roller lever with steel ball bearing



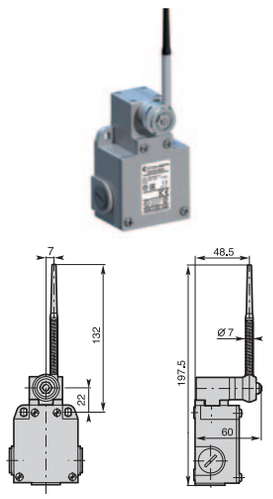
Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 325 g

E54 - Adjustable Ø50 rubber roller lever



Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 330 g

E61 - Nylon actuator with stainless steel spring

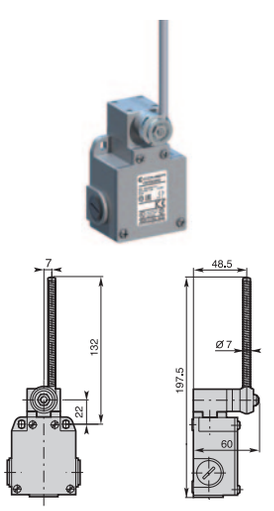


Min. actuating torque 0,15Nm
Weight 330 g

Contact Blocks

Z11	(1NO + 1NC)	CM•E53Z11	CM•E54Z11	CM•E61Z11
X11	(1NO + 1NC)	CM•E53X11	CM•E54X11	CM•E61X11
Y11	(1NO + 1NC)	CM•E53Y11	CM•E54Y11	CM•E61Y11
W02	(2NC)	CM•E53W02	CM•E54W02	CM•E61W02
W20	(2NO)	CM•E53W20	CM•E54W20	CM•E61W20
Z02	(2NC)	CM•E53Z02	CM•E54Z02	CM•E61Z02
X12	(1NO + 2NC)	CM•E53X12	CM•E54X12	CM•E61X12
X21	(2NO + 1NC)	CM•E53X21	CM•E54X21	CM•E61X21
W03	(3NC)	CM•E53W03	CM•E54W03	CM•E61W03
W30	(3NO)	CM•E53W30	CM•E54W30	CM•E61W30

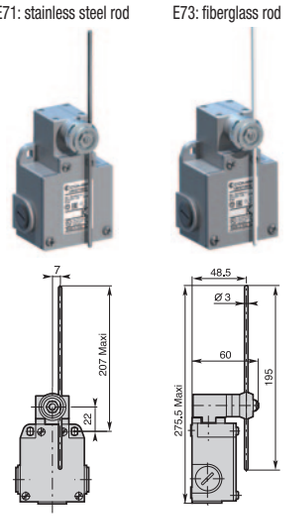
E62 - Stainless steel spring actuator



Min. actuating torque 0,15Nm
Weight 330 g

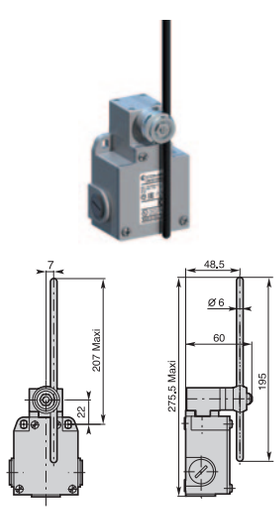
E7• - Adjustable Ø3 rod lever

E71: stainless steel rod E73: fiberglass rod



Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 330 g

E72 - Adjustable Ø6 nylon rod lever



Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 330 g

Contact Blocks

Z11	(1NO + 1NC)	CM•E62Z11	CM•E71Z11	CM•E73Z11	CM•E72Z11
X11	(1NO + 1NC)	CM•E62X11	CM•E71X11	CM•E73X11	CM•E72X11
Y11	(1NO + 1NC)	CM•E62Y11	CM•E71Y11	CM•E73Y11	CM•E72Y11
W02	(2NC)	CM•E62W02	CM•E71W02	CM•E73W02	CM•E72W02
W20	(2NO)	CM•E62W20	CM•E71W20	CM•E73W20	CM•E72W20
Z02	(2NC)	CM•E62Z02	CM•E71Z02	CM•E73Z02	CM•E72Z02
X12	(1NO + 2NC)	CM•E62X12	CM•E71X12	CM•E73X12	CM•E72X12
X21	(2NO + 1NC)	CM•E62X21	CM•E71X21	CM•E73X21	CM•E72X21
W03	(3NC)	CM•E62W03	CM•E71W03	CM•E73W03	CM•E72W03
W30	(3NO)	CM•E62W30	CM•E71W30	CM•E73W30	CM•E72W30

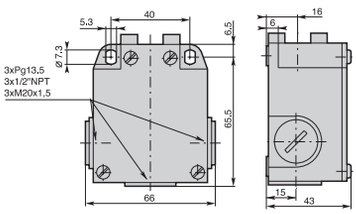
Operation diagrams: page 125 - All dimensions are in mm

Limit Switches **CM_E series**

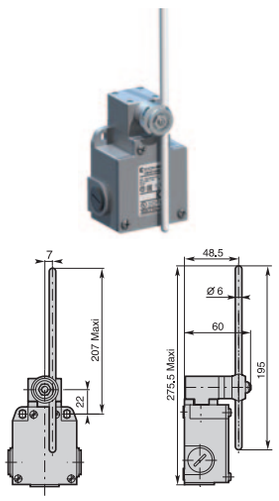
Metal Casing IP66 - 60 mm. width

Electrical connection:

CM1: three cable inlets for PG 13,5 Cable Gland
CM2: three cable inlets for 1/2" NPT Cable Gland
CM5: three cable inlets for M20 x 1,5 Cable Gland

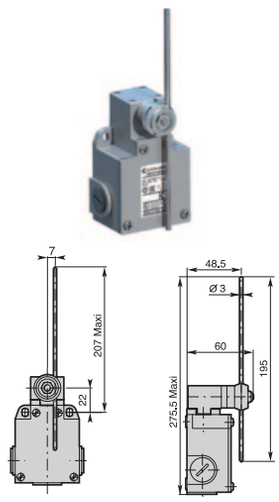


E74 - Adjustable Ø6 fiberglass rod lever



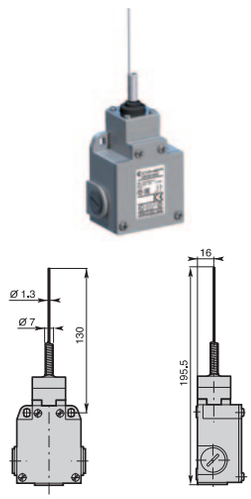
Min. actuating torque 0,15Nm (0,30Nm ⇔)
Weight 330 g

E75 - Adjustable 3x3 square steel rod lever



Min. actuating torque 0,15Nm (0,30Nm ⇔)
Weight 330 g

E91- Stainless steel spring multidirectional actuator

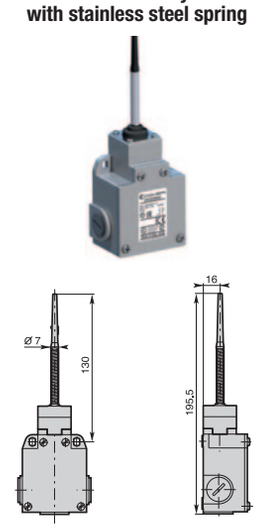


Min. actuating torque 0,18Nm
Weight 265 g

Contact Blocks

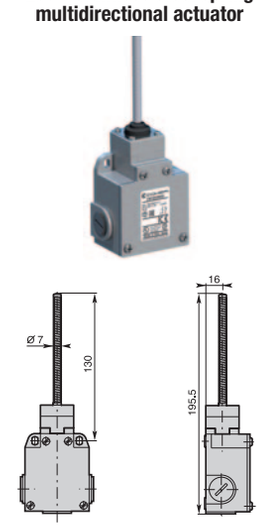
Z11	(1NO + 1NC)	CM•E74Z11	CM•E75Z11	CM•E91Z11
X11	(1NO + 1NC)	CM•E74X11	CM•E75X11	CM•E91X11
Y11	(1NO + 1NC)	CM•E74Y11	CM•E75Y11	CM•E91Y11
W02	(2NC)	CM•E74W02	CM•E75W02	CM•E91W02
W20	(2NO)	CM•E74W20	CM•E75W20	CM•E91W20
Z02	(2NC)	CM•E74Z02	CM•E75Z02	CM•E91Z02
X12	(1NO + 2NC)	CM•E74X12	CM•E75X12	CM•E91X12
X21	(2NO + 1NC)	CM•E74X21	CM•E75X21	CM•E91X21
W03	(3NC)	CM•E74W03	CM•E75W03	CM•E91W03
W30	(3NO)	CM•E74W30	CM•E75W30	CM•E91W30

E92 - Multidirectional nylon actuator with stainless steel spring



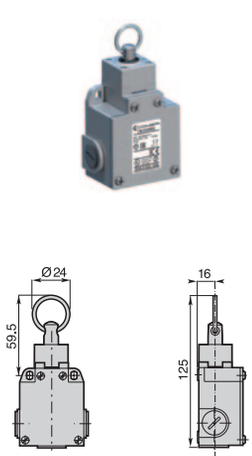
Min. actuating torque 0,18Nm
Weight 265 g

E93 - Stainless steel spring multidirectional actuator



Min. actuating torque 0,18Nm
Weight 270 g

E99 - Pull action with ring



Min. actuating force 25N
Weight 270 g

Contact Blocks

Z11	(1NO + 1NC)	CM•E92Z11	CM•E93Z11	CM•E99Z11A
X11	(1NO + 1NC)	CM•E92X11	CM•E93X11	CM•E99X11A
Y11	(1NO + 1NC)	CM•E92Y11	CM•E93Y11	CM•E99Y11A
W02	(2NC)	CM•E92W02	CM•E93W02	CM•E99W02A
W20	(2NO)	CM•E92W20	CM•E93W20	CM•E99W20A
Z02	(2NC)	CM•E92Z02	CM•E93Z02	
X12	(1NO + 2NC)	CM•E92X12	CM•E93X12	CM•E99X12A
X21	(2NO + 1NC)	CM•E92X21	CM•E93X21	CM•E99X21A
W03	(3NC)	CM•E92W03	CM•E93W03	CM•E99W03A
W30	(3NO)	CM•E92W30	CM•E93W30	CM•E99W30A

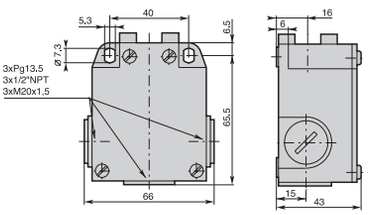
Operation diagrams: page 125 - All dimensions are in mm

Limit Switches **CM_P series**

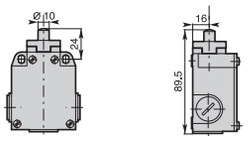
Metal Casing IP66 - 60 mm. width

Electrical connection:

CM1: three cable inlets for PG 13,5 Cable Gland
CM2: three cable inlets for 1/2" NPT Cable Gland
CM5: three cable inlets for M20 x 1,5 Cable Gland

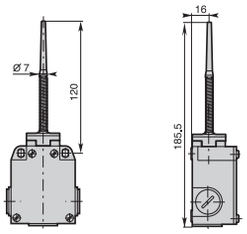


P11 - Plain plunger



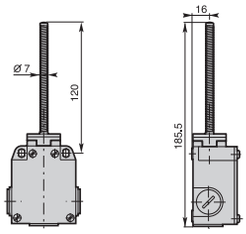
Min. actuating force	**30N (45N →)**
Weight	**245 g**

P92 - Multidirectional nylon actuator with stainless steel spring



Min. actuating torque	**0,18Nm**
Weight	**245 g**

P93 - Stainless steel spring multidirectional actuator



Min. actuating torque	**0,18Nm**
Weight	**250 g**

Contact Blocks

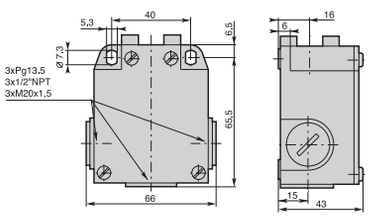
Z11	(1NO + 1NC)	CM•P11Z11	CM•P92Z11	CM•P93Z11
X11	(1NO + 1NC)	CM•P11X11	CM•P92X11	CM•P93X11
Y11	(1NO + 1NC)	CM•P11Y11	CM•P92Y11	CM•P93Y11
W02	(2NC)	CM•P11W02	CM•P92W02	CM•P93W02
W20	(2NO)	CM•P11W20	CM•P92W20	CM•P93W20
Z02	(2NC)	CM•P11Z02	CM•P92Z02	CM•P93Z02
X12	(1NO + 2NC)	CM•P11X12	CM•P92X12	CM•P93X12
X21	(2NO + 1NC)	CM•P11X21	CM•P92X21	CM•P93X21
W03	(3NC)	CM•P11W03	CM•P92W03	CM•P93W03
W30	(3NO)	CM•P11W30	CM•P92W30	CM•P93W30

Operation diagrams: page 125 - All dimensions are in mm

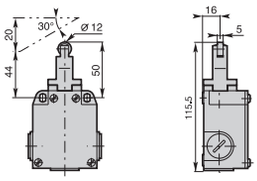
Limit Switches **CM_M series**

Metal Casing IP66 - 60 mm. width

Electrical connection:
CM1: three cable inlets for PG 13,5 Cable Gland
CM2: three cable inlets for 1/2" NPT Cable Gland
CM5: three cable inlets for M20 x 1,5 Cable Gland

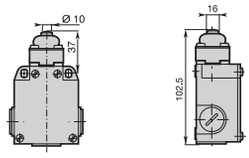


M13 - Steel roller plunger



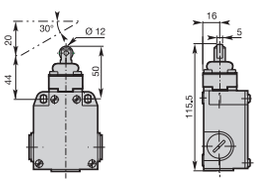
Min. actuating force 22N (40N ⇾)
Weight 290 g

M14 - Plain steel plunger with dust protection cup



Min. actuating force 30N (45N ⇾)
Weight 280 g

M19 - Steel roller plunger with dust protection cup

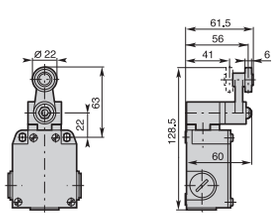


Min. actuating force 22N (40N ⇾)
Weight 290 g

Contact Blocks

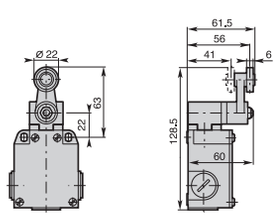
Z11	(1NO + 1NC)	CM•M13Z11	CM•M14Z11	CM•M19Z11
X11	(1NO + 1NC)	CM•M13X11	CM•M14X11	CM•M19X11
Y11	(1NO + 1NC)	CM•M13Y11	CM•M14Y11	CM•M19Y11
W02	(2NC)	CM•M13W02	CM•M14W02	CM•M19W02
W20	(2NO)	CM•M13W20	CM•M14W20	CM•M19W20
Z02	(2NC)	CM•M13Z02	CM•M14Z02	CM•M19Z02
X12	(1NO + 2NC)	CM•M13X12	CM•M14X12	CM•M19X12
X21	(2NO + 1NC)	CM•M13X21	CM•M14X21	CM•M19X21
W03	(3NC)	CM•M13W03	CM•M14W03	CM•M19W03
W30	(3NO)	CM•M13W30	CM•M14W30	CM•M19W30

M41 - Ø22 nylon roller lever



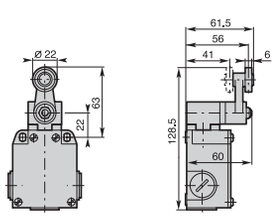
Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 325 g

M42 - Ø22 stainless steel roller lever



Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 325 g

M43 - Ø22 roller lever with steel ball bearing



Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 325 g

Contact Blocks

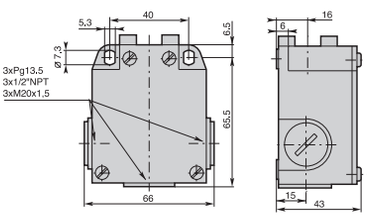
Z11	(1NO + 1NC)	CM•M41Z11	CM•M42Z11	CM•M43Z11
X11	(1NO + 1NC)	CM•M41X11	CM•M42X11	CM•M43X11
Y11	(1NO + 1NC)	CM•M41Y11	CM•M42Y11	CM•M43Y11
W02	(2NC)	CM•M41W02	CM•M42W02	CM•M43W02
W20	(2NO)	CM•M41W20	CM•M42W20	CM•M43W20
Z02	(2NC)	CM•M41Z02	CM•M42Z02	CM•M43Z02
X12	(1NO + 2NC)	CM•M41X12	CM•M42X12	CM•M43X12
X21	(2NO + 1NC)	CM•M41X21	CM•M42X21	CM•M43X21
W03	(3NC)	CM•M41W03	CM•M42W03	CM•M43W03
W30	(3NO)	CM•M41W30	CM•M42W30	CM•M43W30

Operation diagrams: page 125 - All dimensions are in mm

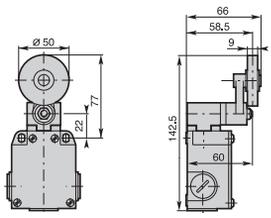
Limit Switches **CM_M series**

Metal Casing IP66 - 60 mm. width

Electrical connection:
CM1: three cable inlets for PG 13,5 Cable Gland
CM2: three cable inlets for 1/2" NPT Cable Gland
CM5: three cable inlets for M20 x 1,5 Cable Gland

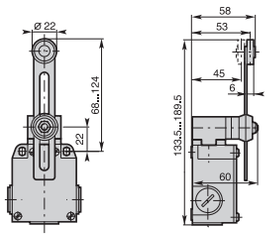


M44 - Ø50 rubber roller lever



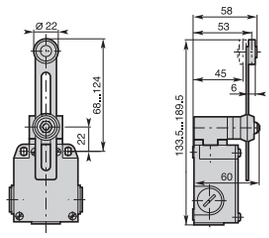
Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 335 g

M51 - Adjustable Ø22 nylon roller lever



Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 345 g

M52 - Adjustable Ø22 stainless steel roller lever

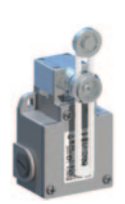


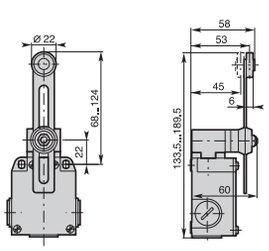
Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 345 g

Contact Blocks

Z11	(1NO + 1NC)	CM•M44Z11	CM•M51Z11	CM•M52Z11
X11	(1NO + 1NC)	CM•M44X11	CM•M51X11	CM•M52X11
Y11	(1NO + 1NC)	CM•M44Y11	CM•M51Y11	CM•M52Y11
W02	(2NC)	CM•M44W02	CM•M51W02	CM•M52W02
W20	(2NO)	CM•M44W20	CM•M51W20	CM•M52W20
Z02	(2NC)	CM•M44Z02	CM•M51Z02	CM•M52Z02
X12	(1NO + 2NC)	CM•M44X12	CM•M51X12	CM•M52X12
X21	(2NO + 1NC)	CM•M44X21	CM•M51X21	CM•M52X21
W03	(3NC)	CM•M44W03	CM•M51W03	CM•M52W03
W30	(3NO)	CM•M44W30	CM•M51W30	CM•M52W30

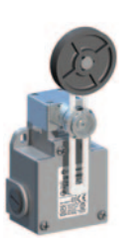
M53 - Adjustable Ø22 roller lever with steel ball bearing

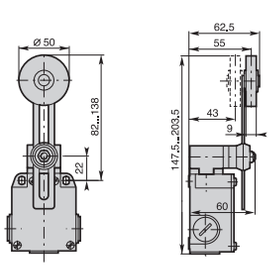




Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 345 g

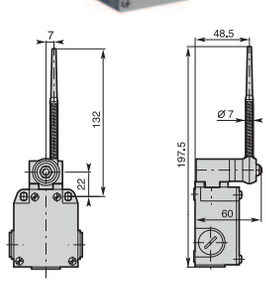
M54 - Adjustable Ø50 rubber roller lever





Min. actuating torque 0,15Nm (0,30Nm ⇾)
Weight 350 g

M61 - Nylon actuator with stainless steel spring



Min. actuating torque 0,15Nm
Weight 350 g

Contact Blocks

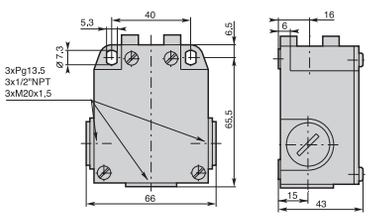
Z11	(1NO + 1NC)	CM•M53Z11	CM•M54Z11	CM•M61Z11
X11	(1NO + 1NC)	CM•M53X11	CM•M54X11	CM•M61X11
Y11	(1NO + 1NC)	CM•M53Y11	CM•M54Y11	CM•M61Y11
W02	(2NC)	CM•M53W02	CM•M54W02	CM•M61W02
W20	(2NO)	CM•M53W20	CM•M54W20	CM•M61W20
Z02	(2NC)	CM•M53Z02	CM•M54Z02	CM•M61Z02
X12	(1NO + 2NC)	CM•M53X12	CM•M54X12	CM•M61X12
X21	(2NO + 1NC)	CM•M53X21	CM•M54X21	CM•M61X21
W03	(3NC)	CM•M53W03	CM•M54W03	CM•M61W03
W30	(3NO)	CM•M53W30	CM•M54W30	CM•M61W30

Operation diagrams: page 125 - All dimensions are in mm

Limit Switches **CM_M series**

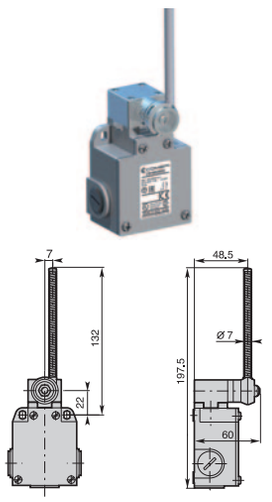
Metal Casing IP66 - 60 mm. width

Electrical connection:
CM1: three cable inlets for PG 13,5 Cable Gland
CM2: three cable inlets for 1/2" NPT Cable Gland
CM5: three cable inlets for M20 x 1,5 Cable Gland



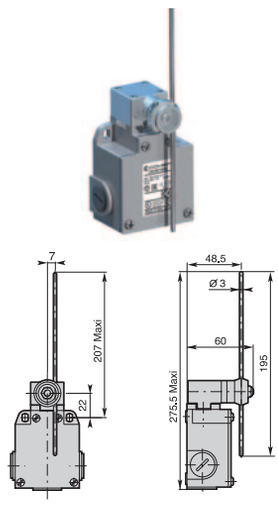
Contact Blocks

M62 - Stainless steel spring actuator



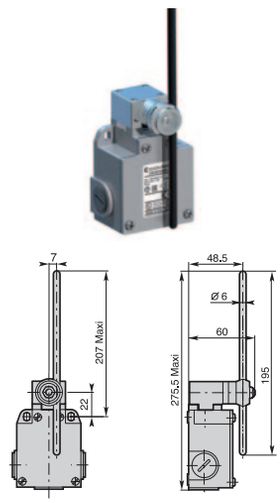
Min. actuating torque 0,15Nm
Weight 350 g

M71- Adjustable Ø3 stainless steel rod lever



Min. actuating torque 0,15Nm (0,30Nm ⊖)
Weight 350 g

M72 - Adjustable Ø6 nylon rod lever

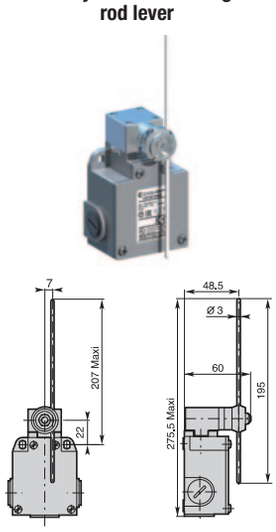


Min. actuating torque 0,15Nm (0,30Nm ⊖)
Weight 350 g

Z11	(1NO + 1NC)	CM•M62Z11	CM•M71Z11	CM•M72Z11
X11	(1NO + 1NC)	CM•M62X11	CM•M71X11	CM•M72X11
Y11	(1NO + 1NC)	CM•M62Y11	CM•M71Y11	CM•M72Y11
W02	(2NC)	CM•M62W02	CM•M71W02	CM•M72W02
W20	(2NO)	CM•M62W20	CM•M71W20	CM•M72W20
Z02	(2NC)	CM•M62Z02	CM•M71Z02	CM•M72Z02
X12	(1NO + 2NC)	CM•M62X12	CM•M71X12	CM•M72X12
X21	(2NO + 1NC)	CM•M62X21	CM•M71X21	CM•M72X21
W03	(3NC)	CM•M62W03	CM•M71W03	CM•M72W03
W30	(3NO)	CM•M62W30	CM•M71W30	CM•M72W30

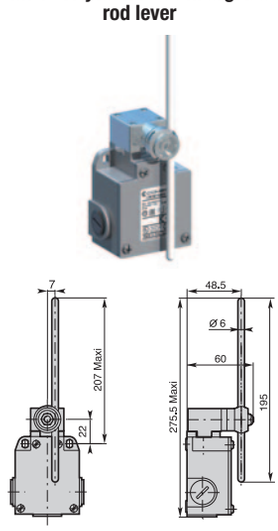
Contact Blocks

M73 - Adjustable Ø3 fiberglass rod lever



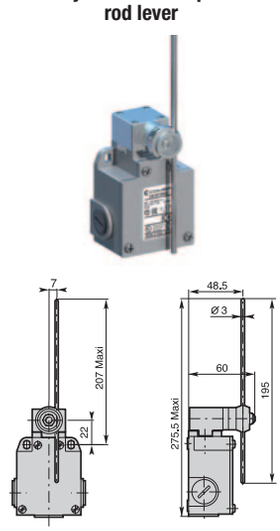
Min. actuating torque 0,15Nm (0,30Nm ⊖)
Weight 350 g

M74 - Adjustable Ø6 fiberglass rod lever



Min. actuating torque 0,15Nm (0,30Nm ⊖)
Weight 350 g

M75 - Adjustable 3x3 square steel rod lever



Min. actuating torque 0,15Nm (0,30Nm ⊖)
Weight 350 g

Z11	(1NO + 1NC)	CM•M73Z11	CM•M74Z11	CM•M75Z11
X11	(1NO + 1NC)	CM•M73X11	CM•M74X11	CM•M75X11
Y11	(1NO + 1NC)	CM•M73Y11	CM•M74Y11	CM•M75Y11
W02	(2NC)	CM•M73W02	CM•M74W02	CM•M75W02
W20	(2NO)	CM•M73W20	CM•M74W20	CM•M75W20
Z02	(2NC)	CM•M73Z02	CM•M74Z02	CM•M75Z02
X12	(1NO + 2NC)	CM•M73X12	CM•M74X12	CM•M75X12
X21	(2NO + 1NC)	CM•M73X21	CM•M74X21	CM•M75X21
W03	(3NC)	CM•M73W03	CM•M74W03	CM•M75W03
W30	(3NO)	CM•M73W30	CM•M74W30	CM•M75W30

Operation diagrams: page 125 - All dimensions are in mm