# Series CGA angular grippers

## Magnetic
## Sizes 10, 16, 20, 25, 32

- Compact design
- Flexible mounting
- Optional mounting adaptors


**Series CGA angular grippers are available in 5 different sizes. The gripper opens and closes at angles between -10° and +30°. The proximity switches can be inserted in the U-shaped grooves on the body.**
**Grippers Series CGA have mounting holes on three sides which provide flexibility in installation.**

For an easier installation the gripper can also be equipped with an optional installation adaptor mod. C-CGP (female) or L-CGP (male).

## GENERAL DATA

| | |
|---|---|
| **Model** | CGA-10; CGA-16; CGA-20; CGA-25; CGA-32 |
| **Bore sizes** | Ø 10; Ø 16; Ø 20; Ø 25; Ø 32 |
| **Type of operation** | double-acting |
| **Operating pressure** | 1.5 ÷ 7 bar |
| **Operating temperature** | 0 ÷ 80°C |
| **Max. operating frequency** | 180 cycles/min |
| **Lubrication** | lever section - lubrication required on sliding section |
| **Grip moment - closed M (Ncm)** | 1,6xP 8xP 17xP 34xP 61xP P = operating pressure (bar) |
| **Grip moment - open M ( Ncm )** | 2,6xP 11xP 23xP 43xP 81xP |
| **Effective gripping force F (N)** | F = M/L x0,85 L = distance of gripping point (cm) |
| **Length of la. gripping point L (cm)** | 3,0 4,0 6,0 7,0 8,5 |
| **Weight (g)** | Ø 10 = 40 Ø 16 = 100 Ø 20 = 200 Ø 25 = 330 Ø 32 = 540 |
| **Lever open / closed angles** | -10°÷ +30° |
| **Port sizes** | M5 (CGA-10 M3) |
| **Magnet** | magnet for proximity sensors in piston |
| **Fluid** | filtered air, without lubrication. If lubricated air is used, it is recommended to use oil ISOVG32. Once applied the lubrication should never be interrupted. |

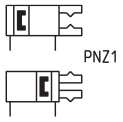
## CODING EXAMPLE

| CGA | - | 20 |
|---|---|---|

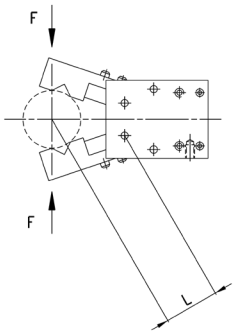
| | | |
|---|---|---|
| CGA | SERIES | PNEUMATIC SYMBOL<br>PNZ1 |
| 20 | SIZES<br>10 = ø 10 mm<br>16 = ø 16 mm<br>20 = ø 20 mm<br>25 = ø 25 mm<br>32 = ø 32 mm | |

## PNEUMATIC SYMBOLS

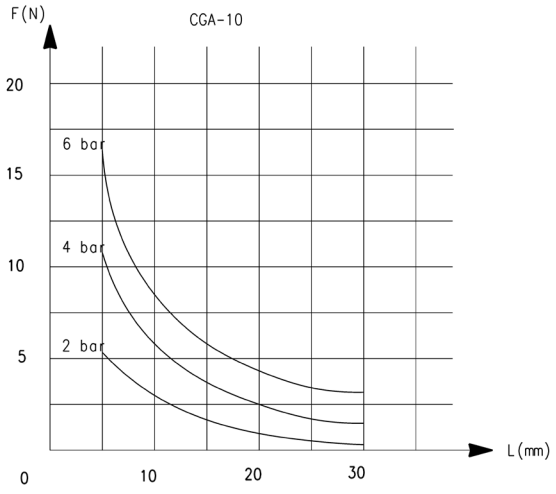
The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.




## CLOSING GRIPPING FORCE - CHARACTERISTICS

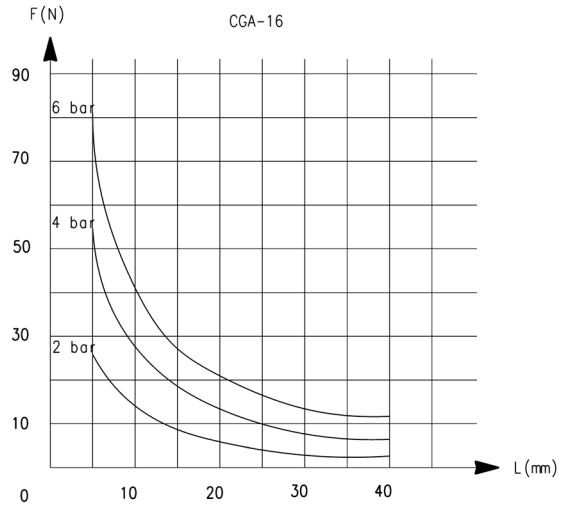



L = Length of gripping point
F = Gripping force

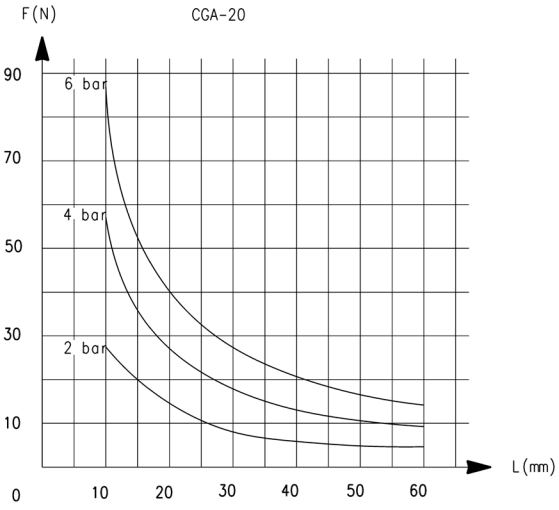



L = Length of gripping point
F = Gripping force

## CLOSING GRIPPING FORCE - CHARACTERISTICS

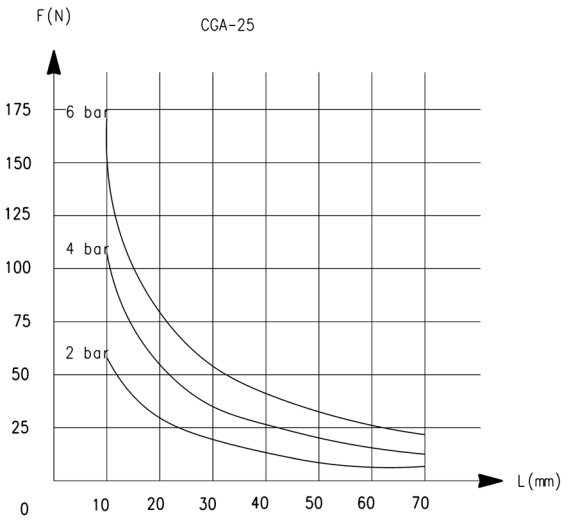



L = Length of gripping point
F = Gripping force

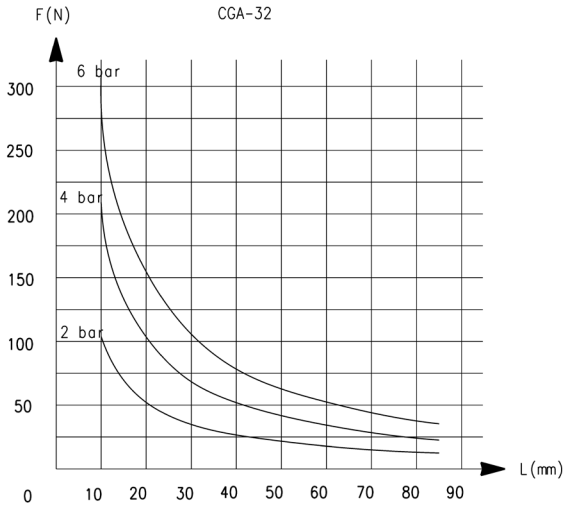



L = Length of gripping point
F = Gripping force

## CLOSING GRIPPING FORCE - CHARACTERISTICS



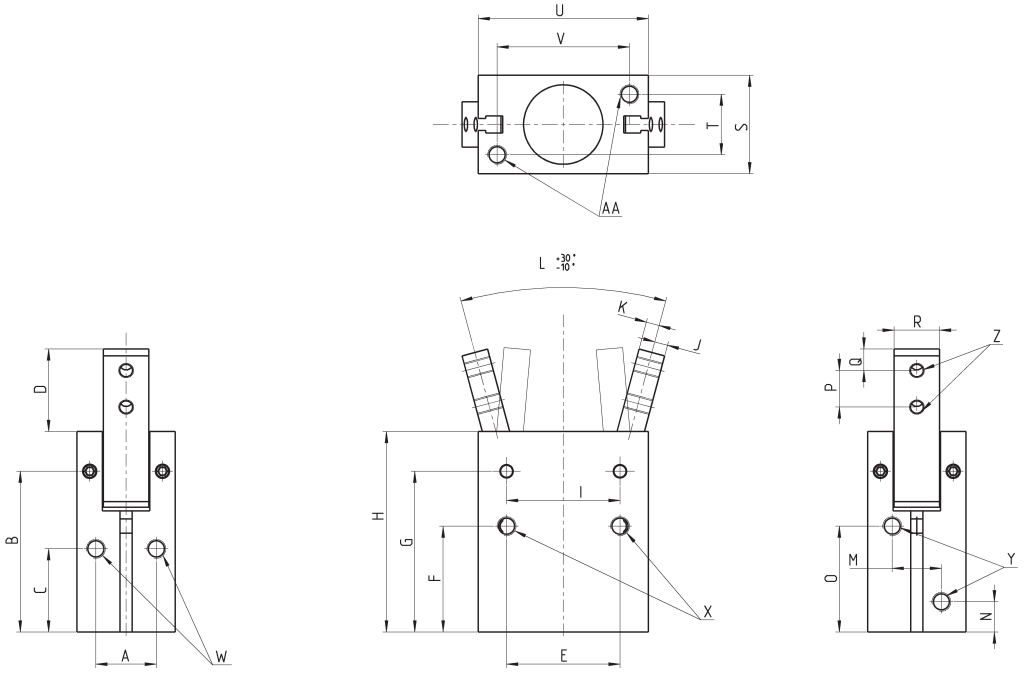

L = Length of gripping point
F = Gripping force




L = Length of gripping point
F = Gripping force

1
MOVEMENT

## Angular grippers Series CGA




Y = port connection
Z = claw mounting-holes
X.W.AA = Mounting holes

DIMENSIONS

| Mod. | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CGA-10** | 10 | 30,5 | 15,5 | 15,7 | 18 | 20 | 30,5 | 36,5 | 14 | 2,5 | 1,5 | 0° | 10 | 7,5 | 19 | 6 | 3 | 7 | 16 | 10 | 23 | 17 |
| **CGA-16** | 14 | 38 | 21 | 17,5 | 24 | 25,5 | 38 | 45,5 | 24 | 3 | 3 | 0° | 12 | 7,5 | 25,5 | 8 | 3 | 9 | 22 | 14 | 34 | 26 |
| **CGA-20** | 16 | 42,5 | 22 | 22 | 30 | 28 | 42,5 | 53 | 30 | 3,5 | 3,5 | 0° | 13 | 8 | 28 | 10 | 4 | 12 | 26 | 16 | 45 | 35 |
| **CGA-25** | 20 | 48,5 | 24,5 | 26 | 36 | 31,5 | 48,5 | 61 | 36 | 4,5 | 4,5 | 0° | 18 | 9 | 31 | 12 | 5 | 14 | 32 | 20 | 52 | 40 |
| **CGA-32** | 26 | 54 | 30 | 30 | 44 | 37,5 | 45 | 68 | 42 | 5 | 5 | 0° | 24 | 10 | 33,5 | 14 | 6 | 18 | 40 | 26 | 60 | 46 |

DIMENSIONS

| Mod. | X thread | X depth | Y thread | Y depth | W thread | W depth | Z thread | Z depth | AA thread | AA depth |
|---|---|---|---|---|---|---|---|---|---|---|
| **CGA-10** | M3 | 7 | M3 | - | M3 | - | M3 | - | M3 | 5 |
| **CGA-16** | M4 | 11 | M5 | - | M4 | - | M3 | - | M4 | 7 |
| **CGA-20** | M5 | 13 | M5 | - | M5 | - | M4 | - | M5 | 8 |
| **CGA-25** | M6 | 15 | M5 | - | M6 | - | M5 | - | M6 | 10 |
| **CGA-32** | M6 | 20 | M5 | - | M6 | - | M6 | - | M6 | 10 |

# Series CGSN
# 180° angular grippers

New version

## Magnetic
Sizes: ø 16, 20, 25, 32 mm

- High flexibility during installation
- Steel gripping fingers resistant to corrosion
- Wide working area

Series CGSN grippers guarantee precision and flexibility during installation. Each gripper has calibrated holes on the base and side for very precise positioning. Installation is made even easier due to the availability of male and female mounting brackets (Mod. C-CGP female or L-CGP male).

**A permanent magnet within the gripper is able to send, through proximity switches (Series CSC and CSD) inserted in the grooves on the body, electrical signals to indicate the position of the gripping fingers.**
**The link mechanism used ensures a high gripping force.**

## GENERAL DATA

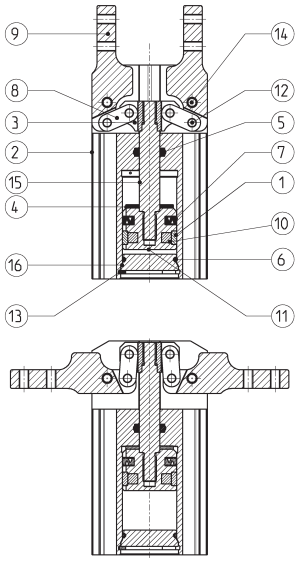
| | | | | | |
|---|---|---|---|---|---|
| **Operation** | double effect | | | | |
| **Working pressure** | 1 bar ÷ 7 bar | | | | |
| **Working temperature** | -10°C ÷ 60°C | | | | |
| **Max operating frequency** | 100 cylcles/min | | | | |
| **Lubrication** | lubrication is required on sliding section only | | | | |
| **Lever open/close angles** | -1° / + 180° (tolerance ±3°) | | | | |
| **Repeatability** | ± 0.2 mm | | | | |
| **Air ports** | M5x0.8 | | | | |
| **Fluid** | Filtered air without lubrication. If lubricated air is used, it is recommended to use oil ISO VG32. Once applied, lubrication should never be interrupted. | | | | |
| **Bore sizes (mm)** | 16 | 20 | 25 | 32 | |
| **Weight(g)** | 140 | 255 | 430 | 740 | |
| **Theoretical gripping moment [M] (N·mm)** | 1230xP | 2350xP | 4540xP | 9680xP | [ P = pressure (MPa) ] |
| **Max length of gripping point [L] (mm)** | 80 | 100 | 120 | 140 | |
| **Effective gripping force [F] (N)** | F = M/L x 0.9 (value with the fingers in parallel position) | | | | |
| **Example with P = 0.5MPa and L max** | F = 7N | F = 10N | F = 17N | F = 30N | |

## CODING EXAMPLE

| CGSN | - | 20 |
|---|---|---|

| | | |
|---|---|---|
| CGSN | SERIES | PNEUMATIC SYMBOL<br>PNZ1<br>See the following pages |
| 20 | SIZES<br>16 = ø 16 mm<br>20 = ø 20 mm<br>25 = ø 25 mm<br>32 = ø 32 mm | |

## Series CGSN Gripper - construction



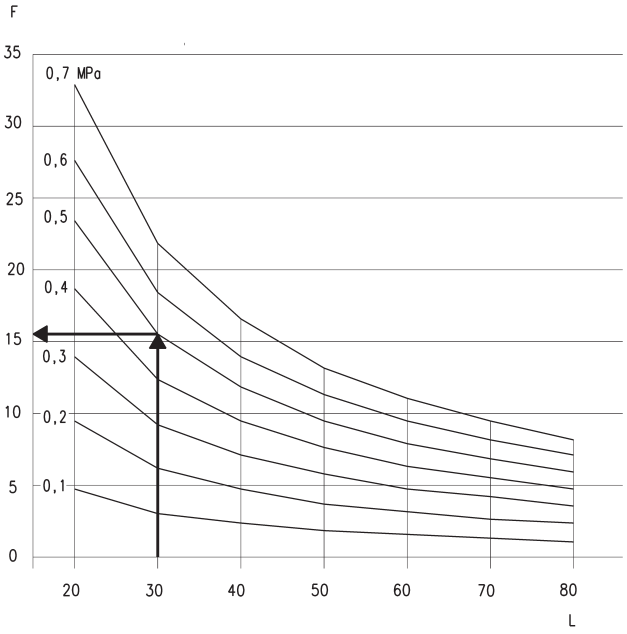

| PARTS | MATERIALS |
|---|---|
| **1 = Piston guide ring** | Polyacetalic |
| **2 = Body** | Aluminium |
| **3 = T-shackle** | Stainless steel |
| **4 = Bumper seal** | TPU |
| **5 = Rod seal** | HNBR |
| **6 = Head seal** | NBR |
| **7 = Piston seal** | HNBR |
| **8 = Connecting rod lever** | Stainless steel |
| **9 = Finger lever** | Stainless steel |
| **10 = Magnet** | Plastoferrite |
| **11 = Piston** | Aluminium |
| **12 = Needle** | Steel |
| **13 = Seeger** | Steel |
| **14 = Pin** | Steel |
| **15 = Rod** | Steel |
| **16 = Head** | Polyacetal POM |

## Criteria to choose the most suitable size: 1) GRIPPING FORCE ANALYSIS

The choice of the most suitable gripper has to be carried out according to the weight of the object that has to be moved. It is suggested that the selected model develops a gripping force at least 20 times higher than the weight of the object. In case of great acceleration or impact during the moving of the object, it is necessary to supply a wider margin.

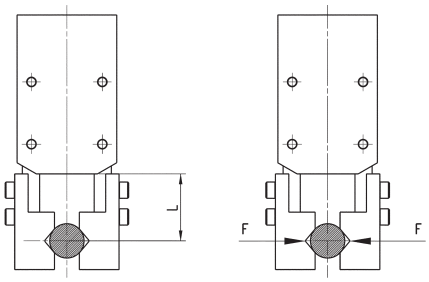
EXAMPLE OF CALCULATION (see the diagram on the right)
Weight of the object to be moved (Kg) = 0.06
Coefficient of safety = 20
Gripping moment L (mm) = 30
Working pressure (MPa) = 0.5
F = gripping force
Fmin [min. required gripping force ] = 0,06kg x 20 x 9.8m/s² = 12N (minimum).

Through the diagrams “Effective Gripping force” we deduce from the above mentioned conditions tha the gripping force with the mod. CGSN-16 is 16N, that is 26 times the weight of the object.
The condition requiring that grip force is at least 20 times higher than the set gripping force is thus satisfied.




DRAWING LEGEND:
L = Gripping moment (mm)
F = Finger push (N)

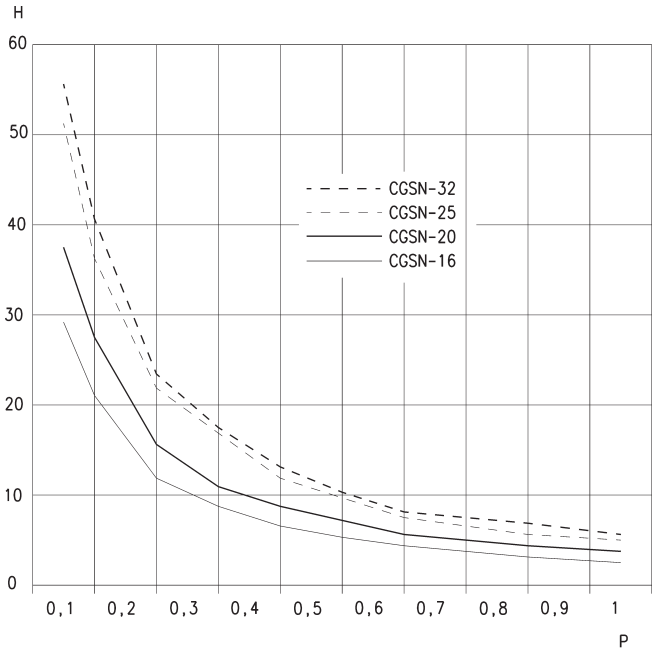
EFFECTIVE GRIPPING FORCE (F)
The shown gripping force corresponds to the gripping force of a finger when all fingers (or accessories) are in contact with the load.

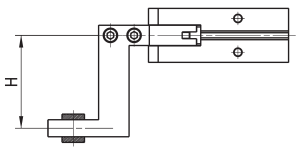



## Criteria to choose the most suitable size: 2) GRIPPING MOMENT ANALYSIS

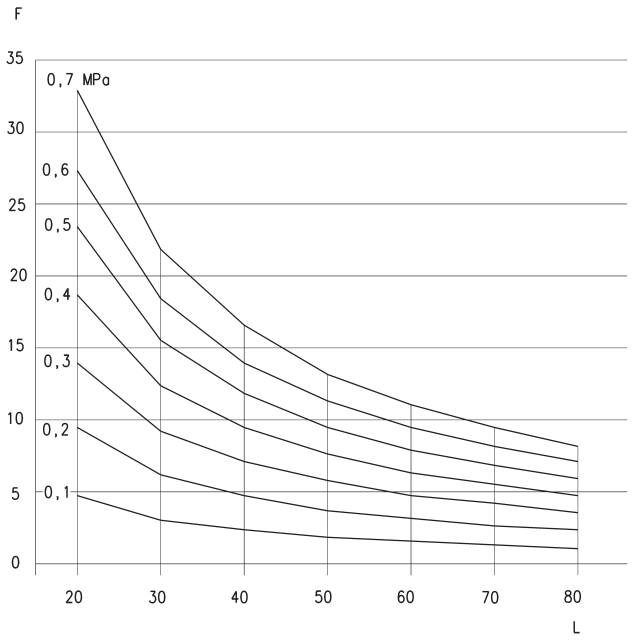
LEGEND:
H = Gripping arm (mm)
P = Pressure (MPa)

The load has to be maintained within the distance field from the gripper barycentre (H) for a certain set pressure.
If the load is outside the recommended field for a certain pressure, the product durability can be compromised.



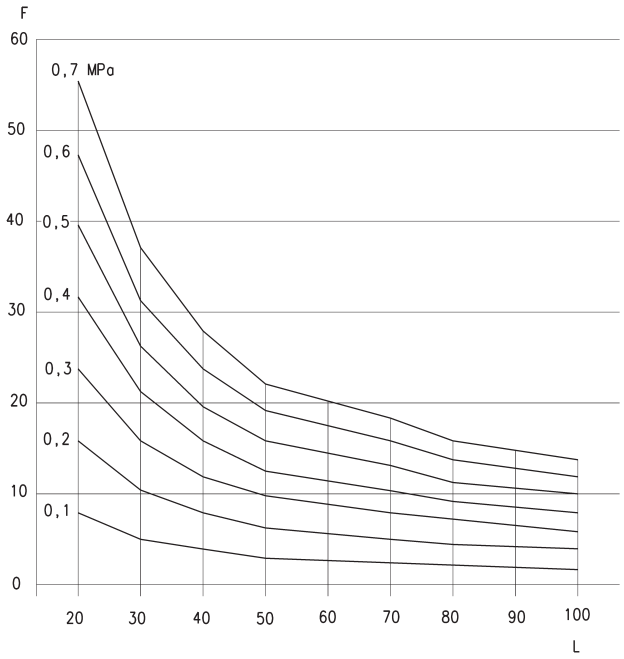



## Diagrams to choose the most suitable gripper size




CGSN-16

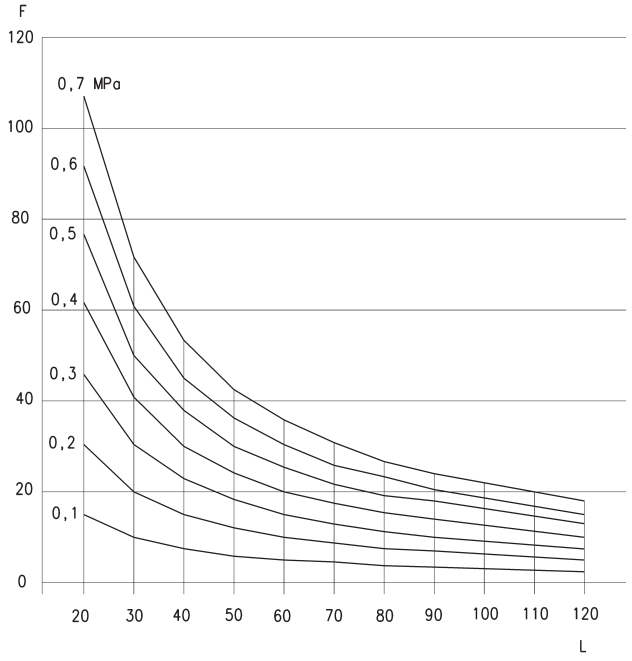
F = Gripping force (N)
L = Gripping moment (mm)




CGSN-20

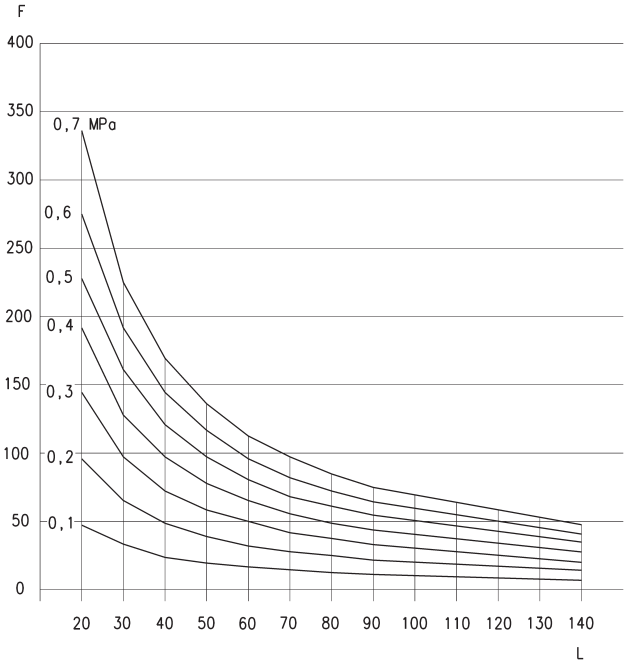
F = Gripping force (N)
L = Gripping moment (mm)

## Diagrams to choose the most suitable gripper size




CGSN-25

F = Gripping force (N)
L = Gripping moment (mm)



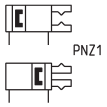

CGSN-32

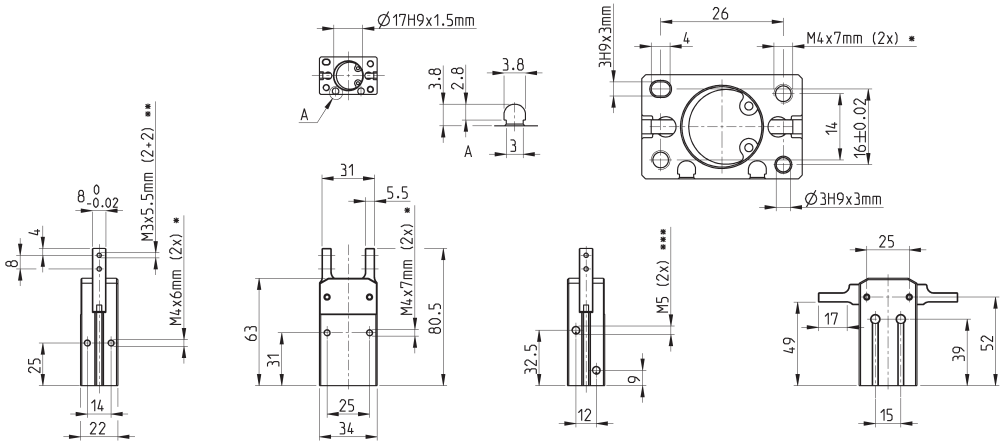
F = Gripping force (N)
L = Gripping moment (mm)

## CGSN gripper, bore 16 mm - dimensions

A = groove for Series CSD sensors

* = depth of the mounting threads
** = thread for the accessory mounting
*** = opening/closing for air connections



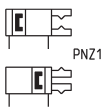



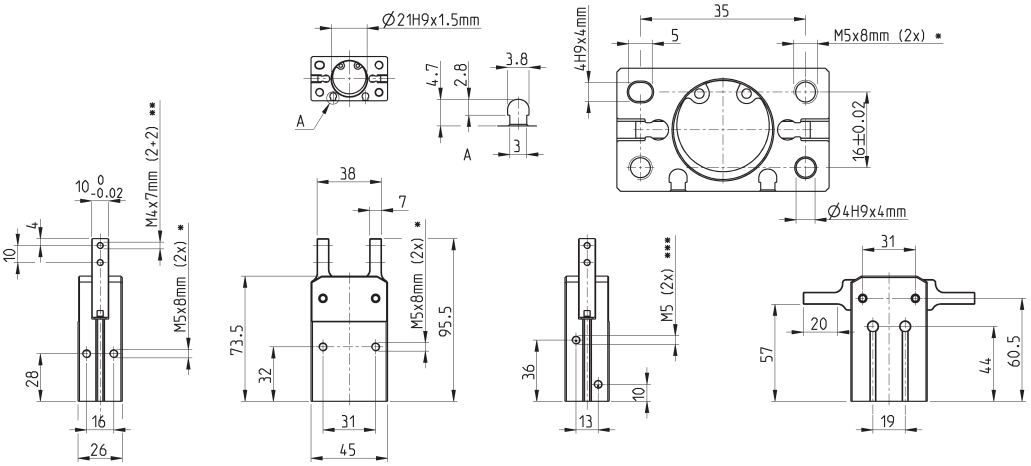

Mod.
**CGSN-16**

## CGSN gripper, bore 20 mm - dimensions

A = groove for Series CSD sensors

* = depth of the mounting threads
** = thread for the accessory mounting
*** = opening/closing for air connections



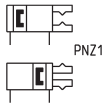



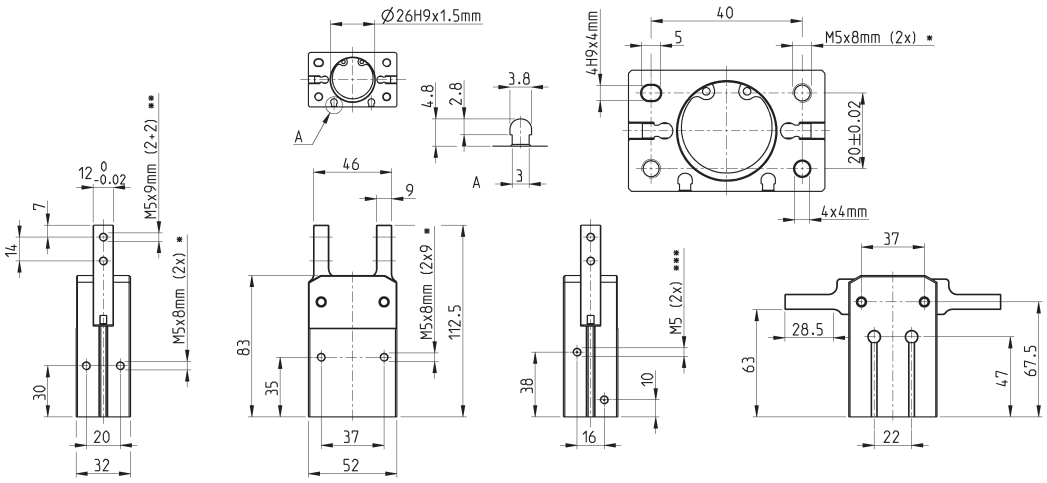

Mod.
**CGSN-20**

## CGSN gripper, bore 25 mm - dimensions

A = groove for Series CSD sensors

* = depth of the mounting threads
** = thread for the accessory mounting
*** = opening/closing for air connections



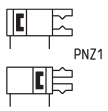



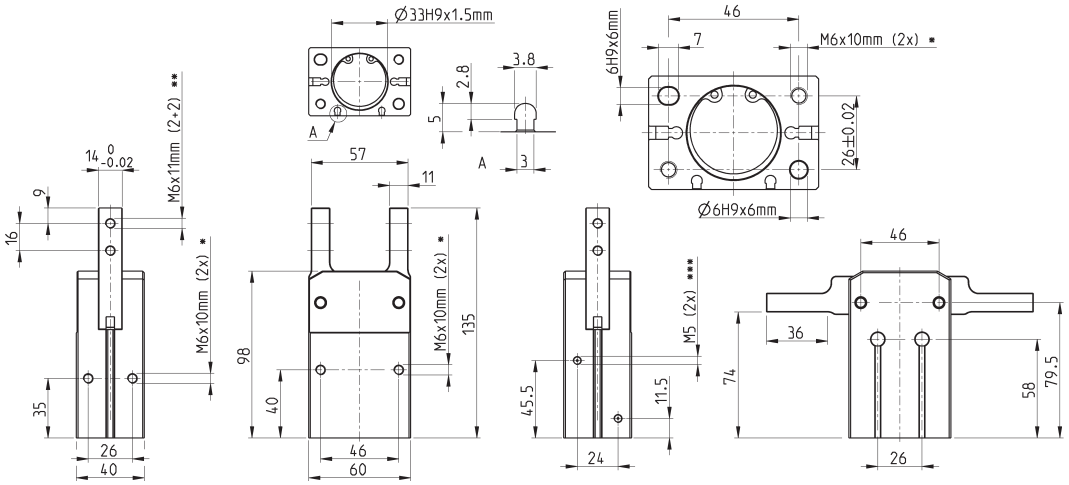

Mod.
**CGSN-25**

## CGSN gripper, bore 32 mm - dimensions

A = groove for Series CSD sensors

* = depth of the mounting threads
** = thread for the accessory mounting
*** = opening/closing for air connections




Mod.
**CGSN-32**

# Series CGP parallel grippers

## Magnetic
## Sizes 10 - 16 - 20 - 25 - 32 mm


- High durability
- Compact design
- High gripping force

The proximity switches can be inserted in the U-shaped grooves on the body.
For an easier installation the gripper can also be equipped with an optional installation adaptor mod. C-CGP (female) or L-CGP (male).

**Series CGP parallel grippers are available in 5 different sizes.**
**The closing action of the gripper is generated from the cylinder's thrust side, resulting in a higher gripping force. The gripper is equipped with ring bearings in the sliding section for higher durability. Gripper mod. CGP has mounting holes on three sides which provides flexibility in installation.**

## GENERAL DATA

| | |
|---|---|
| **Model** | CGP-10 CGP-16 CGP-20 CGP-25 CGP-32 |
| **Bore sizes (mm)** | Ø 10 Ø 16 Ø 20 Ø 25 Ø 32 |
| **Type of operation** | double-acting |
| **Operating pressure** | 1.5 ÷ 7 bar |
| **Operating temperature** | 0°C ÷ 80°C |
| **Max. operating frequency** | 180 cycles/min |
| **Lubrication** | lever section - lubrication required on sliding section |
| **Opening stroke (mm)** | Ø 10 = 4 Ø 16 = 8 Ø 20 = 12 Ø 25 = 14 Ø 32 =16 |
| **Theoritical holding force - opening (N)** | Ø 10 = 8 Ø 16 = 24 Ø 20 = 47 Ø 25 = 75 Ø 32 = 100<br>P = Related to a pressure of 5 bar with gripping point length 3 cm |
| **Theoritical holding force - closing (N)** | Ø 10 = 5 Ø 16 = 8 Ø 25 = 35 Ø 25 = 60 Ø 32 = 85<br>P = Related to a pressure of 5 bar with gripping point length 3 cm |
| **Length of max gripping point L (cm)** | 3,0 4,0 6,0 7,0 8,5<br>L = Related to a pressure of 5 bar |
| **Weight(g)** | Ø 10 = 50 Ø 16 = 140 Ø 20 = 250 Ø 25 = 410 Ø 32 = 680 |
| **Port sizes** | M5 (CGP-10 M3) |
| **Fluid** | filtered air, without lubrication.<br>In case lubricated air is used, it is recommended to use oil ISO VG32. Once applied, the lubrication should never be interrupted. |

1
MOVEMENT

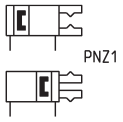
## CODING EXAMPLE

| CGP | - | 20 |
|---|---|---|

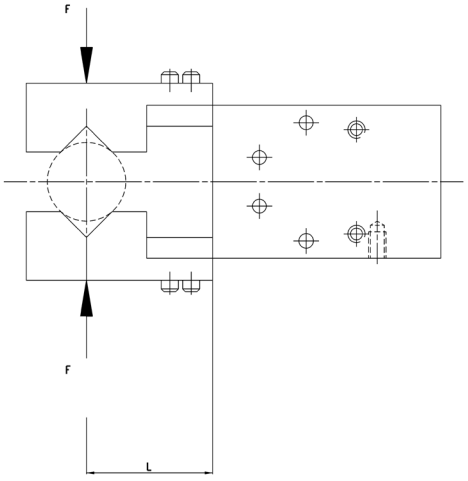
| | | |
|---|---|---|
| CGP | SERIES | PNEUMATIC SYMBOL<br>PNZ1 |
| 20 | SIZES<br>10 = ø 10 mm<br>16 = ø 16 mm<br>20 = ø 20 mm<br>25 = ø 25 mm<br>32 = ø 32 mm | |

## PNEUMATIC SYMBOLS

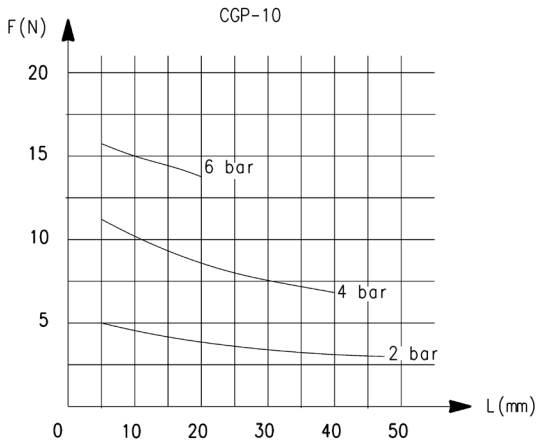
The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.




## GRIPPING FORCE CHARACTERISTICS

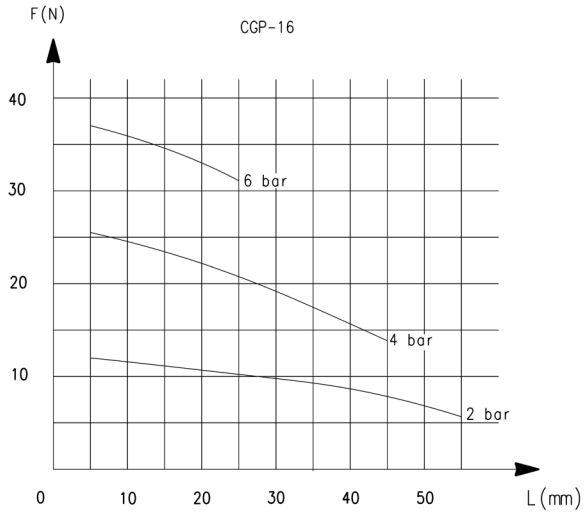



L = Gripping point length
F = Gripping Force

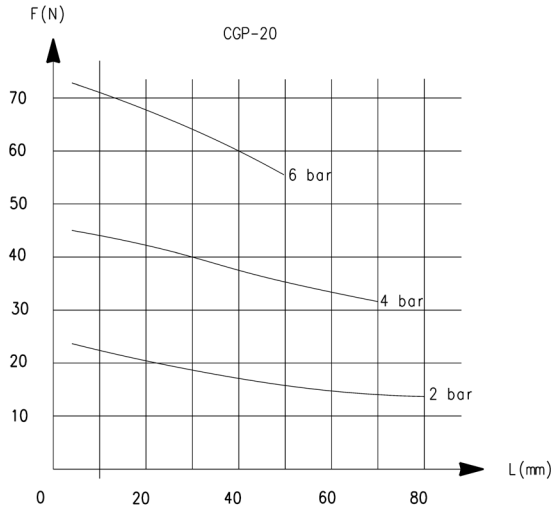



L = Gripping point length
F = Gripping Force

## GRIPPING FORCE CHARACTERISTICS

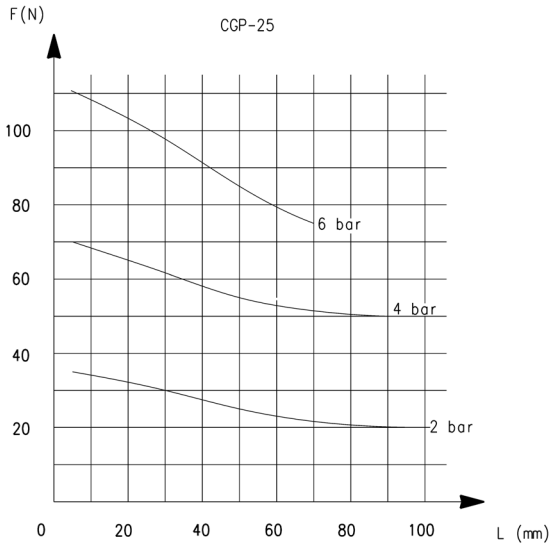



L = Gripping point length
F = Gripping Force

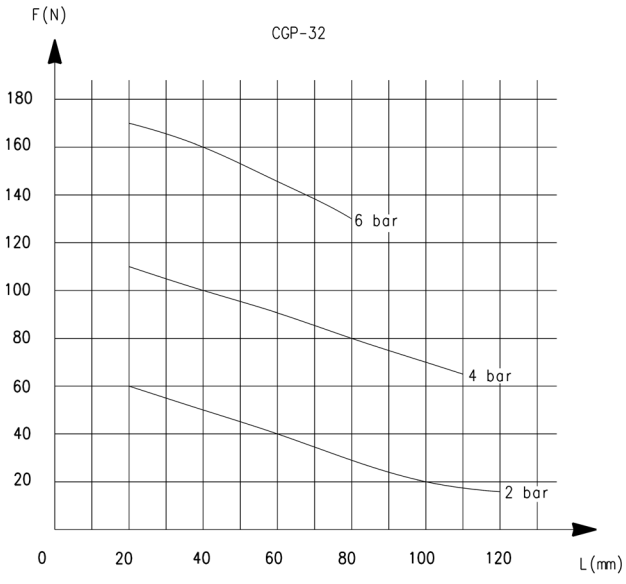



L = Gripping point length
F = Gripping Force

## GRIPPING FORCE CHARACTERISTICS

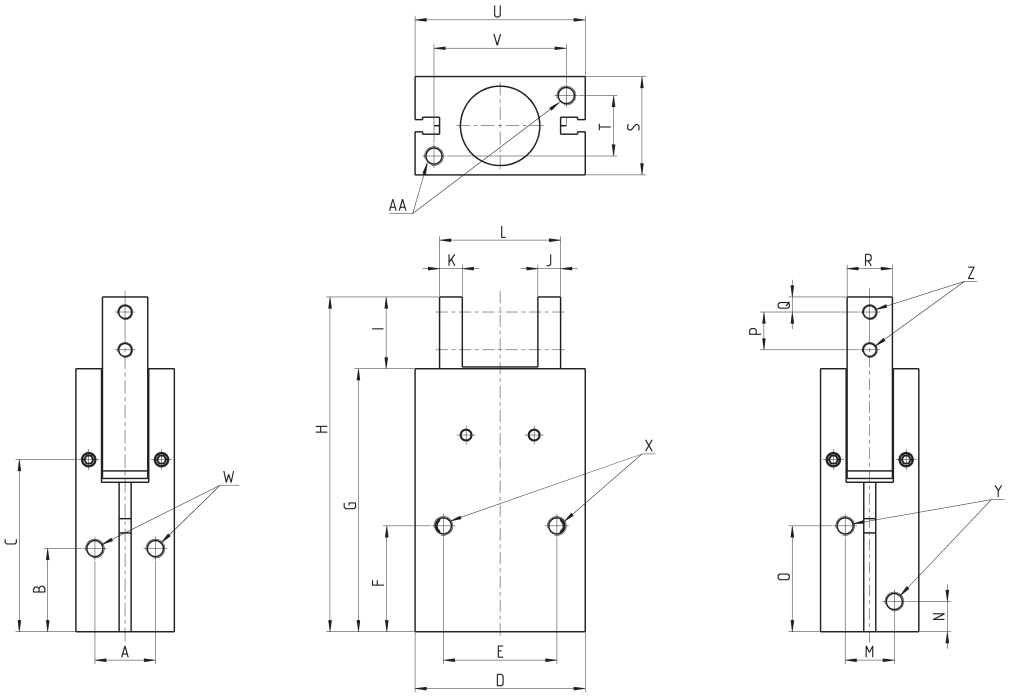



L = Gripping point length
F = Gripping Force




L = Gripping point length
F = Gripping Force

## Parallel grippers Series CGP




Y = port connection
Z= claw mounting-holes
X.W.AA = Mounting holes

DIMENSIONS

| Mod. | A | B | C | D | E | F | G | H | I | J | K | L closed | L open | M | N | O | P | Q | R | S | T | U | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CGP-10** | 10 | 15,5 | 31,5 | 23 | 18 | 20 | 45 | 58 | 13 | 4 | 4 | 18 | 22 | 10 | 7,5 | 19 | 6 | 3 | 7 | 16 | 10 | 23 | 17 |
| **CGP-16** | 14 | 21 | 39,5 | 34 | 24 | 25,5 | 58,8 | 73,5 | 15 | 5 | 5 | 25 | 33 | 12 | 7,5 | 25,5 | 8 | 3 | 11 | 22 | 14 | 34 | 26 |
| **CGP-20** | 16 | 22 | 45,5 | 45 | 30 | 28 | 69,5 | 88,5 | 19 | 6 | 6 | 32 | 44 | 13 | 8 | 28 | 10 | 4 | 12 | 26 | 16 | 45 | 35 |
| **CGP-25** | 20 | 24,5 | 51 | 52 | 36 | 31,5 | 79,5 | 103,5 | 24 | 8 | 8 | 37 | 51 | 18 | 9 | 31 | 12 | 5 | 14 | 32 | 20 | 52 | 40 |
| **CGP-32** | 26 | 30 | 56 | 60 | 44 | 37,5 | 88 | 119 | 31 | 9 | 9 | 44 | 60 | 24 | 10 | 35 | 15 | 7 | 18 | 40 | 26 | 60 | 46 |

DIMENSIONS

| Mod. | X thread | X depth | Y thread | Y depth | W thread | W depth | Z thread | Z depth | AA thread | AA depth |
|---|---|---|---|---|---|---|---|---|---|---|
| **CGP-10** | M3 | 7 | M3 | - | M3 | 5 | M3 | - | M3 | 5 |
| **CGP-16** | M4 | 11 | M5 | - | M4 | 7 | M3 | - | M4 | 7 |
| **CGP-20** | M5 | 13 | M5 | - | M4 | 8 | M4 | - | M5 | 8 |
| **CGP-25** | M6 | 14 | M5 | - | M6 | 10 | M5 | - | M6 | 10 |
| **CGP-32** | M6 | 20 | M5 | - | M6 | 10 | M6 | - | M6 | 10 |

# Series CGB
# guided parallel grippers

Running out of stock

## Magnetic
## Sizes 16 - 20 - 25 - 32 mm


- Guided mechanism which allows high repeatability
- Flexibility in installation
- High gripping force

The proximity switches can be inserted in the U-shaped grooves on the body.
For an easier installation the gripper can also be equipped with an optional installation adaptor mod. C-CGP (female) or L-CGP (male).

**Series CGB guided parallel grippers are available in 4 different sizes and are equipped with a guide mechanism that offers high repeatability.**
**The closing action of the gripper is generated from the cylinder's thrust side, resulting in a higher gripping force. Series CGB gripper has mounting holes on three sides which provides flexibility in installation.**

## GENERAL DATA

| | | | | |
|---|---|---|---|---|
| **Model** | CGB-L-16; CGB-L-20; CGB-L-25; CGB-L-32 | | | |
| **Bore sizes (mm)** | Ø16 | Ø 20 | Ø 25 | Ø 32 |
| **Type of operation** | double-acting, parallel type | | | |
| **Operating pressure (bar)** | 1.5 ÷ 7 bar | | | |
| **Operating temperature** | 0°C ÷ 80°C | | | |
| **Max. operating frequency** | 180 cycles/min | | | |
| **Lubrication** | lever section - lubrication required on sliding section | | | |
| **Opening stroke (mm)** | Ø 16 = 6 | Ø 20 = 8 | Ø 25 =14 | Ø 32 = 16 |
| **Theoritical gripping force at 5 bar - opening (N)** | Ø 16 =24 | Ø 20 = 47 | Ø 25 = 75 | Ø 32 = 100 |
| **with gripping point L = 30mm (closing)** | Ø 16 = 18 | Ø 20 = 35 | Ø 25 = 60 | Ø 32 = 85 |
| **Max length of gripping point L at 5 bar pressure** | 40 | 60 | 80 | 100 |
| **Weight (g)** | Ø 16=160 | Ø 20 = 280 | Ø 25 = 495 | Ø 32 = 785 |
| **Repeatability** | +/- 0,01mm | | | |
| **Port sizes** | M5 | | | |
| **Fluid** | filtered air, without lubrication.<br>If lubricated air is used, it is recommended to use oil ISO VG32. Once applied, the lubrication should never be interrupted. | | | |

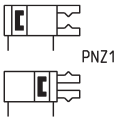
## CODING EXAMPLE

| CGB | - | L | - | 20 |
|---|---|---|---|---|

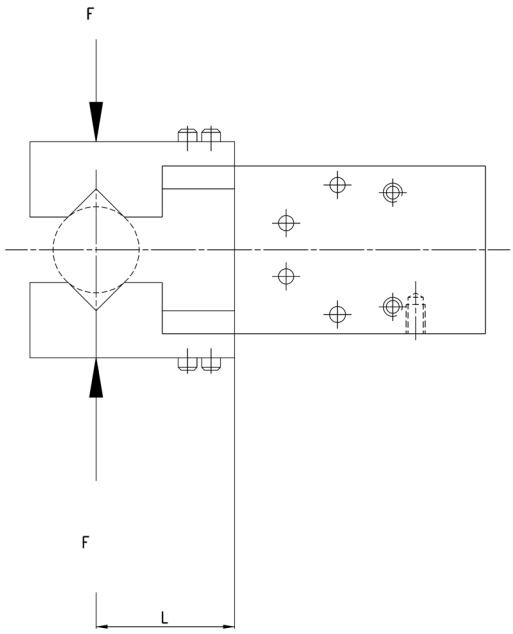
| | | |
|---|---|---|
| CGB | SERIES | PNEUMATIC SYMBOL<br>PNZ1 |
| L | TYPE<br>L = Wide finger position style<br>S = Narrow finger position style (only on request) | |
| 20 | SIZES<br>16 = ø 16 mm<br>20 = ø 20 mm<br>25 = ø 25 mm<br>32 = ø 32 mm | |

## PNEUMATIC SYMBOLS

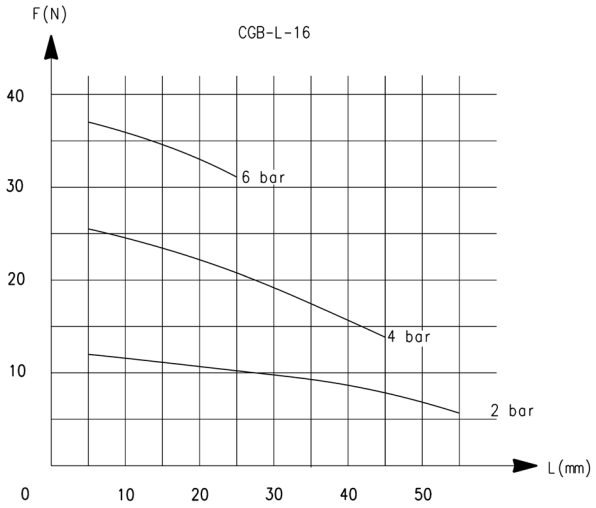
The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



## GRIPPING FORCE CHARACTERISTICS

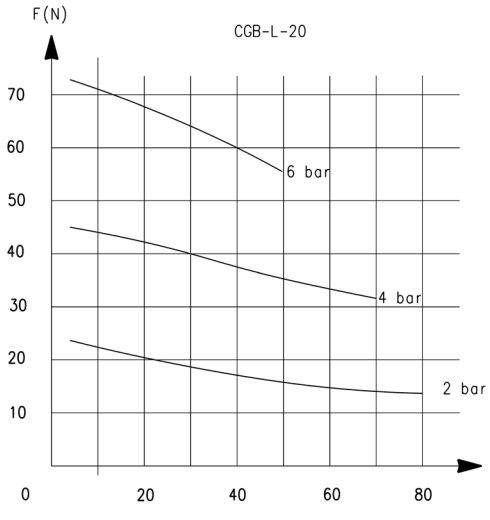



L = Gripping point length
F = Gripping Force

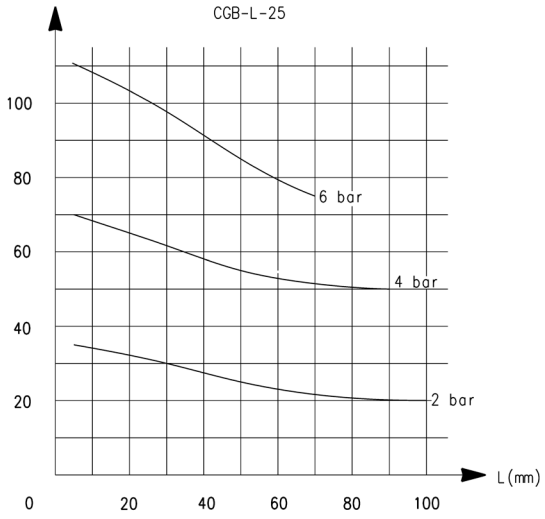



L = Gripping point length
F = Gripping Force

## GRIPPING FORCE CHARACTERISTICS

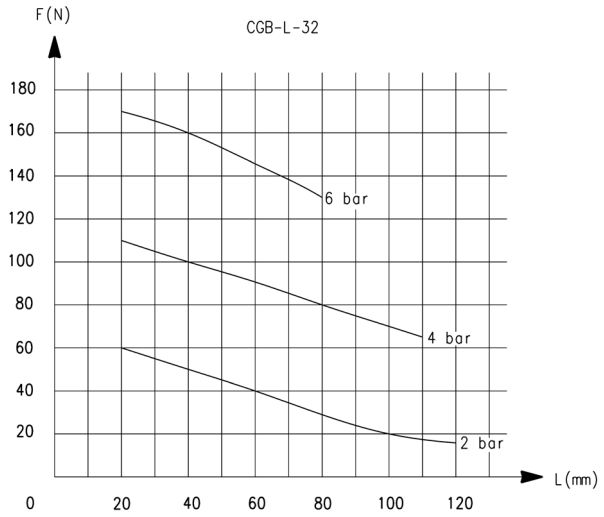


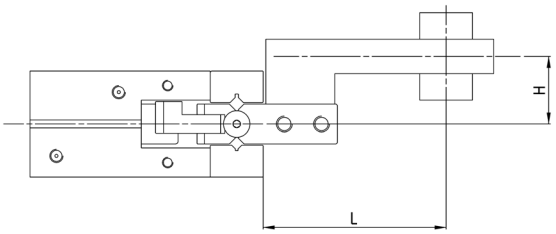

L = Gripping point length
F = Gripping Force




L = Gripping point length
F = Gripping Force

## GRIPPING FORCE CHARACTERISTICS

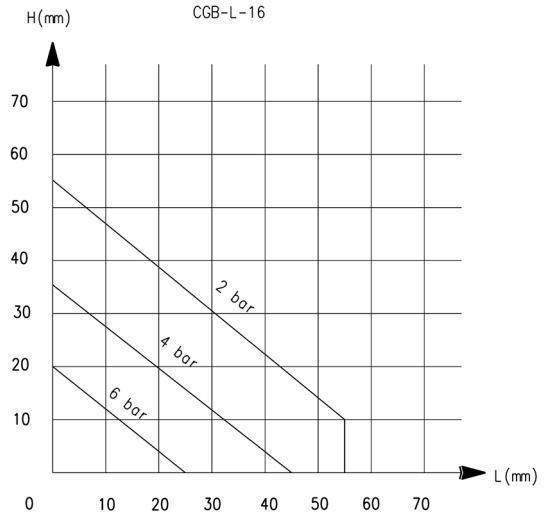


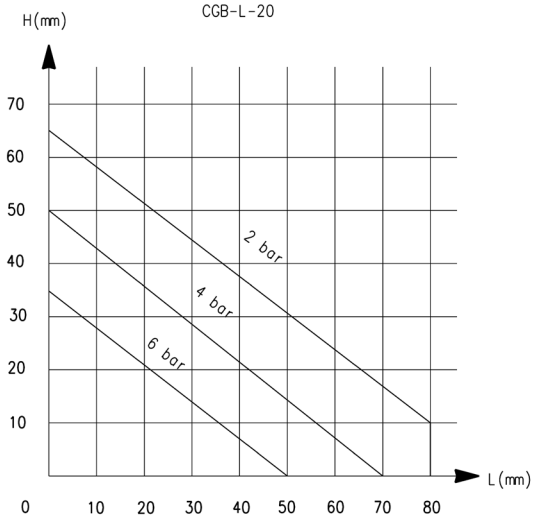




L = Gripping point length
F = Gripping Force

L = Gripping point length
F = Gripping Force

## GRIPPING POINT CHARACTERISTICS

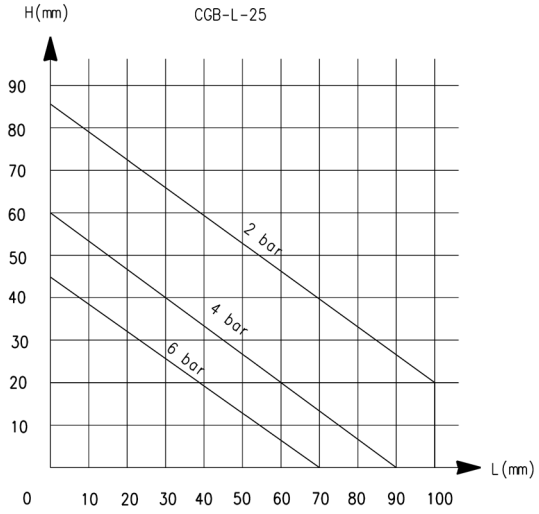


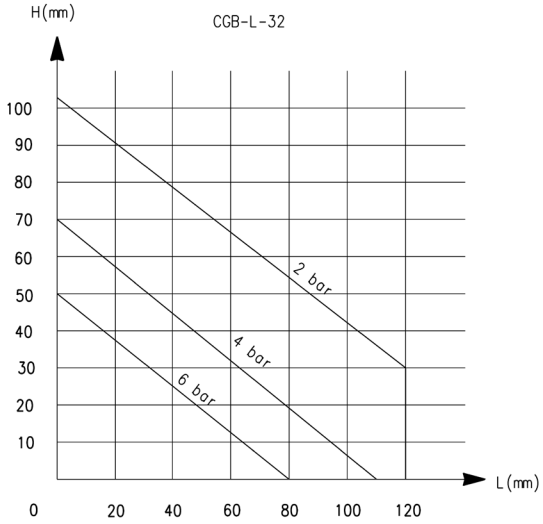

L = length of the gripping point (mm)
H = height from the gripping point (mm)

L = length of the gripping point (mm)
H = height from the gripping point (mm)

## GRIPPING POINT CHARACTERISTICS



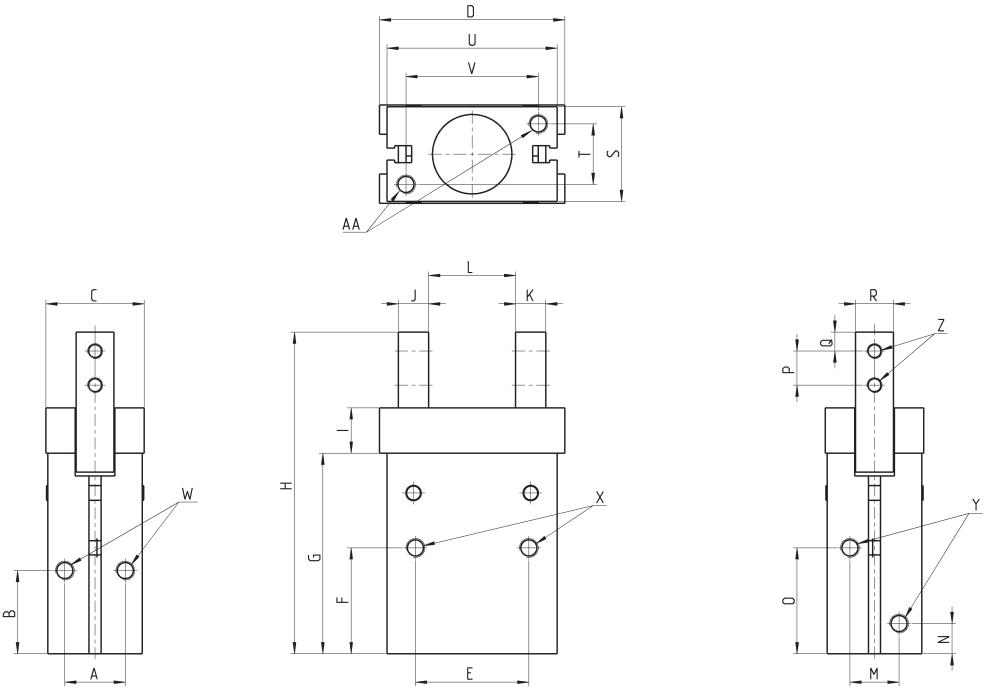

L = length of the gripping point (mm)
H = height from the gripping point (mm)




L = length of the gripping point (mm)
H = height from the gripping point (mm)

1
MOVEMENT

## Guided parallel grippers Series CGB-L




Y = port connection
Z= claw mounting-hole
X.W.AA = Mounting hole

DIMENSIONS

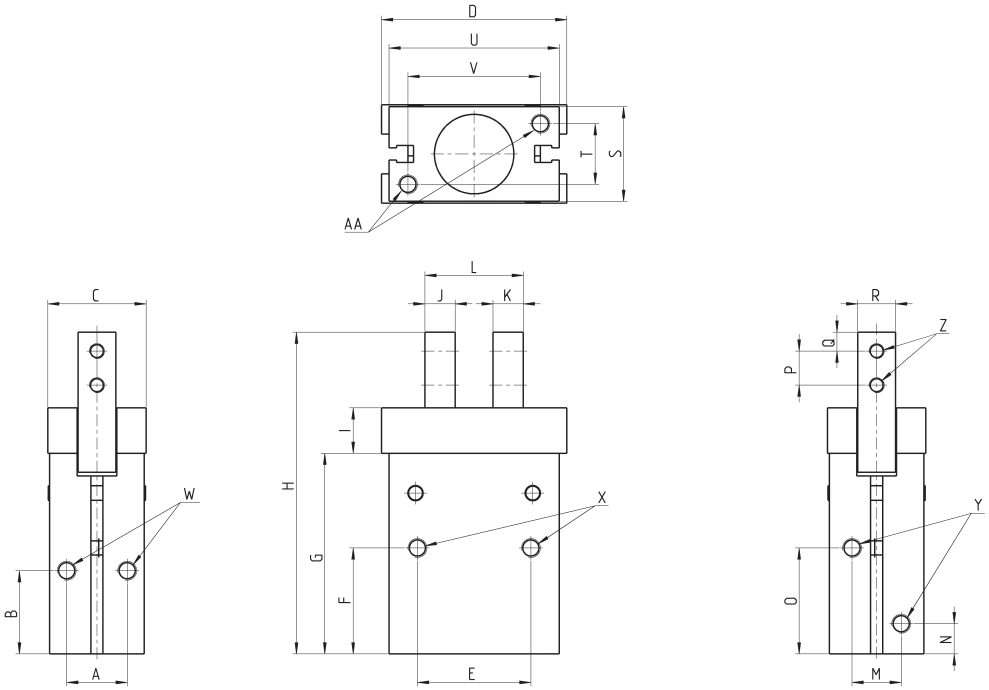
| Mod. | A | B | C | D | E | F | G | H | I | J | K | L closed | L open | M | N | O | P | Q | R | S | T | U | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CGB-L-16** | 14 | 21 | 22 | 38 | 24 | 25,5 | 45,5 | 72,5 | 12 | 6 | 6 | 18 | 24 | 12 | 7,5 | 25,5 | 7 | 4 | 7 | 22 | 14 | 34 | 26 |
| **CGB-L-20** | 16 | 22 | 26 | 49 | 30 | 28 | 53 | 85 | 12 | 8 | 8 | 23 | 31 | 13 | 8 | 28 | 9 | 5 | 10 | 26 | 16 | 45 | 35 |
| **CGB-L-25** | 20 | 24,5 | 32 | 56 | 36 | 31,5 | 63,5 | 104,5 | 16 | 10 | 10 | 20 | 34 | 18 | 9 | 31 | 12 | 6 | 12 | 32 | 20 | 52 | 40 |
| **CGB-L-32** | 26 | 30 | 40 | 62 | 44 | 37,5 | 68 | 116 | 20 | 10 | 10 | 24 | 40 | 24 | 10 | 33,5 | 14 | 6 | 15 | 40 | 26 | 60 | 46 |

DIMENSIONS

| Mod. | X thread | X depth | Y thread | Y depth | W thread | W depth | Z thread | Z depth | AA thread | AA depth |
|---|---|---|---|---|---|---|---|---|---|---|
| **CGB-L-16** | M4 | 11 | M5 | 5 | M4 | 7 | M3 | - | M4 | 7 |
| **CGB-L-20** | M5 | 13 | M5 | 5 | M5 | 8 | M4 | - | M5 | 8 |
| **CGB-L-25** | M6 | 16 | M5 | 5 | M6 | 10 | M5 | - | M6 | 10 |
| **CGB-L-32** | M6 | 20 | M5 | 8 | M6 | 10 | M6 | - | M6 | 10 |

## Guided parallel grippers (narrow opening) Series CGB-S

On demand only




DIMENSIONS

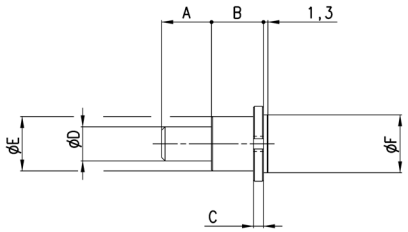
| Mod. | A | B | C | D | E | F | G | H | I | J | K | L closed | L open | M | N | O | P | Q | R | S | T | U | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CGB-S-16** | 14 | 21 | 22 | 38 | 24 | 25,5 | 45,5 | 72,5 | 12 | 6 | 6 | 18 | 25 | 12 | 7,5 | 25,5 | 7 | 4 | 7 | 22 | 14 | 34 | 26 |
| **CGB-S-20** | 16 | 22 | 26 | 49 | 30 | 28 | 53 | 85 | 12 | 8 | 8 | 22,9 | 30,9 | 13 | 8 | 28 | 9 | 5 | 10 | 26 | 16 | 45 | 35 |
| **CGB-S-25** | 20 | 24,5 | 32 | 56 | 36 | 31,5 | 63,5 | 104,5 | 16 | 10 | 10 | 28,4 | 42 | 18 | 9 | 31 | 12 | 6 | 12 | 32 | 20 | 52 | 40 |
| **CGB-S-32** | 26 | 30 | 40 | 62 | 44 | 37,5 | 68 | 116 | 20 | 10 | 10 | 28 | 43,5 | 24 | 10 | 33,5 | 14 | 6 | 15 | 40 | 26 | 60 | 46 |

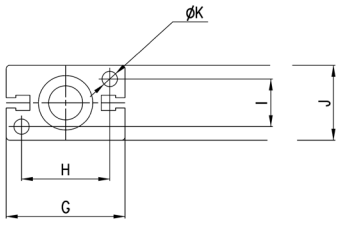
DIMENSIONS

| Mod. | X thread | X depth | Y thread | Y depth | W thread | W depth | Z thread | Z depth | AA thread | AA depth |
|---|---|---|---|---|---|---|---|---|---|---|
| **CGB-S-16** | M4 | 11 | M5 | 5 | M4 | 7 | M3 | - | M4 | 7 |
| **CGB-S-20** | M5 | 13 | M5 | 5 | M5 | 8 | M4 | - | M5 | 8 |
| **CGB-S-25** | M6 | 16 | M5 | 5 | M6 | 10 | M5 | - | M6 | 10 |
| **CGB-S-32** | M6 | 20 | M5 | 8 | M6 | 10 | M6 | - | M6 | 10 |

## Mounting brackets Mod. L-CGP

for gripper Series CGA, CGP, CGS and CGB

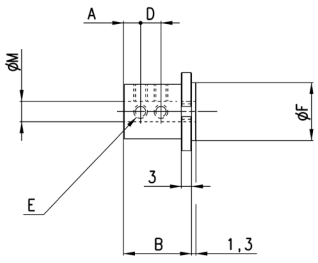


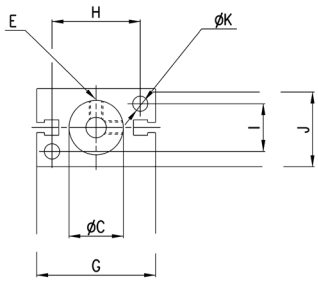




| Mod. | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **L-CGP-16** | 15 | 15 | 3 | 10 | 16 | 17 | 35 | 26 | 14 | 22 | 4,5 |
| **L-CGP-20** | 15 | 15 | 3 | 10 | 18 | 21 | 46 | 35 | 16 | 26 | 5,5 |
| **L-CGP-25** | 25 | 17 | 5 | 14 | 26 | 26 | 53 | 40 | 20 | 32 | 6,6 |
| **L-CGP-32** | 25 | 20 | 6 | 16 | 30 | 34 | 61 | 46 | 26 | 40 | 6,6 |

## Mounting brackets Mod. C-CGP

for gripper Series CGA, CGP, CGS and CGB




| Mod. | A | B | C | D | E | F | G | H | I | J | K | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C-CGP-16** | 5 | 20,5 | 16 | 7 | M4 | 17 | 35 | 26 | 14 | 23 | 4,5 | 6 |
| **C-CGP-20** | 7 | 25,5 | 20 | 9 | M4 | 21 | 46 | 35 | 16 | 27 | 5,5 | 8 |
| **C-CGP-25** | 8 | 30,5 | 25 | 10 | M4 | 26 | 53 | 40 | 20 | 33 | 6,6 | 10 |
| **C-CGP-32** | 10 | 40,5 | 32 | 15 | M4 | 34 | 61 | 46 | 26 | 41 | 6,6 | 12 |

# Series CGLN
# wide opening parallel grippers

Bores: ø 10 - 16 - 20 - 25 - 32 mm

- » High installation versatility
- » Rack and pinion synchronized mechanism
- » Sturdy and accurate construction

**Series CGLN's double piston ensures a high gripping force from within a compact unit.**
**The body of the gripper is complete of grooves to mount magnetic proximity switches (Series CSC).**

The wide range of bores and strokes available allows to meet technical requirements at its best.
Repositioning of the gripper body on the fixing surface is made easier by the locating pins provided in the base.

## GENERAL DATA

| | |
|---|---|
| **Operation** | double effect |
| **Working pressure** | 1 ÷ 7 bar (1,5 ÷ 7 bar for Ø10) |
| **Working temperature** | -10°C ÷ 60°C |
| **Lubrification** | not required |
| **Repeatibility** | ± 0.1 mm |
| **Effective gripping force with pressure = 0.5MPa and gripping moment R = 40 mm ( Ø 10-16-20-25 ) or = 80 mm ( Ø 32 )** | Ø 10 = 15N<br>Ø 16 = 45N<br>Ø 20 = 75N<br>Ø 25 = 125N<br>Ø 32 = 225N |
| **Air ports** | Ø 10 - 16 - 20 - 25 = M5<br>Ø 32 = G1/8 |
| **Fluid** | filtered air, without lubrication.<br>If lubricated air is used, it is recommended to use oil ISO VG32.<br>Once applied, the lubrication should never be interrupted. |

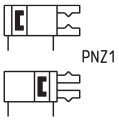
## CODING EXAMPLE

| CGLN | - | 20 | - | 040 |
|---|---|---|---|---|

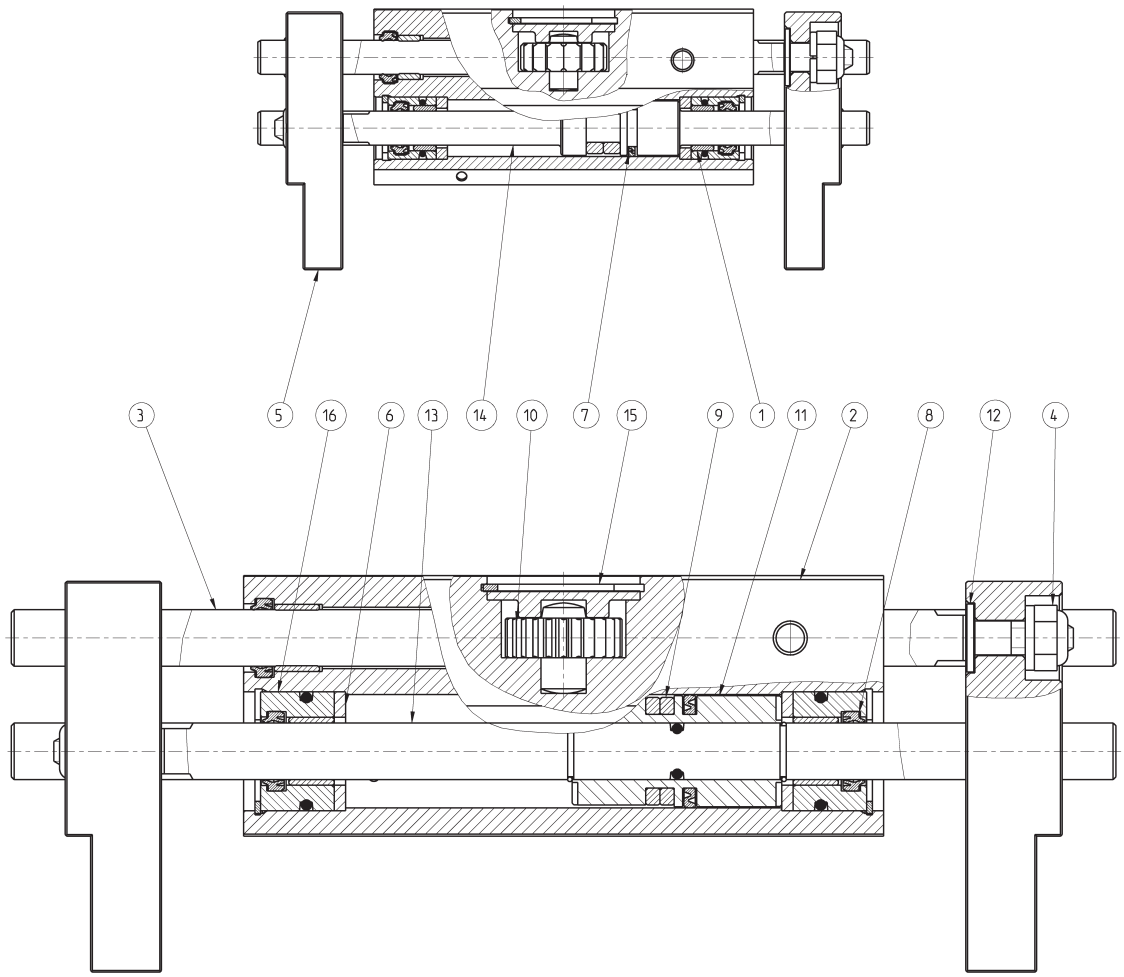
| | | |
|---|---|---|
| CGLN | SERIES | PNEUMATIC SYMBOL<br>PNZ1 |
| 20 | SIZES:<br>10 = ø 10 mm<br>16 = ø 16 mm<br>20 = ø 20 mm<br>25 = ø 25 mm<br>32 = ø 32 mm | |
| 040 | STROKE | |

## PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



# Series CGLN Gripper - construction




| LIST OF COMPONENTS | |
|---|---|
| PARTS | MATERIALS |
| **1 - Bushing** | Bronce |
| **2 - Body** | Aluminium |
| **3 - Rack** | Stainless steel |
| **4 - Self-locking nut** | Steel |
| **5 - Gripping flange** | Aluminium |
| **6 - Buffer seal** | PU |
| **7 - Piston seal** | NBR |
| **8 - Rod seal** | NBR |
| **9 - Magnet** | Plastoferrite |
| **10 - Pinion** | Steel |
| **11 - Pinion** | Aluminium |
| **12 - Washer** | Steel |
| **13 - Rod** | Stainless steel |
| **14 - Rod-piston** | Stainless steel |
| **15 - Plug** | Aluminium |
| **16 - Head** | Aluminium |

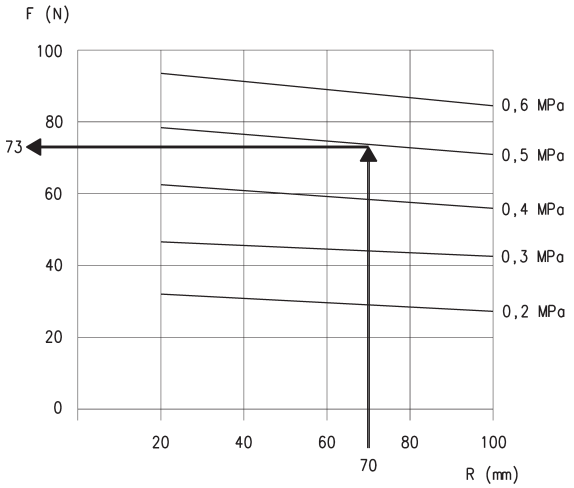
## Sizing criteria: 1) GRIPPING FORCE ANALYSIS

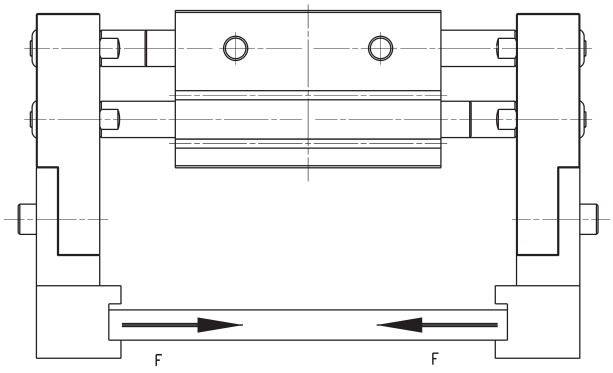
The selection of the size of the gripper has to be carried out according to the weight of the object that has to be moved. It is strongly recommended to select a gripper bore able to develop a gripping force at least 20 times higher than the weight of the object. In case of great acceleration or impact during the moving of the object, it is necessary to increase the factor of safety.

EXAMPLE OF CALCULATION (see the diagram on the right)
Size of the object to be moved (side x side) = 200 m x 20 mm
Weight of the object to be moved (Kg) = 0.3
Factor of safety = 20
Gripping moment R (mm) = 70
Working pressure (MPa) = 0.5
Minimum required gripping force Fmin = 0.3kg x 20 x 9.8m/s² = 60N

Through the diagrams “Effective Gripping force” we deduce from the above mentioned conditions that the gripping force with the mod. CGLN-20 is 73N, that is 24 times the weight of the object.
The condition requiring that gripping force is at least 20 times higher than the set gripping force is thus satisfied.
Once the gripper size is chosen, select a stroke that allows to have a maximum opening which is wider than the size of the object to be moved.
In the case above the gripper CGLN-20-80 is the right choice.
F = 220 mm > 200 mm

ACTUAL GRIPPING FORCE (F)
The shown gripping force corresponds to the gripping force of a finger when all fingers (or accessories) are in contact with the load.
F = Pushing force of 1 finger

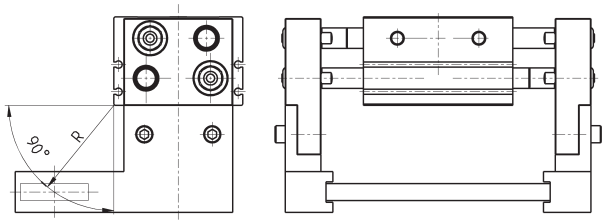


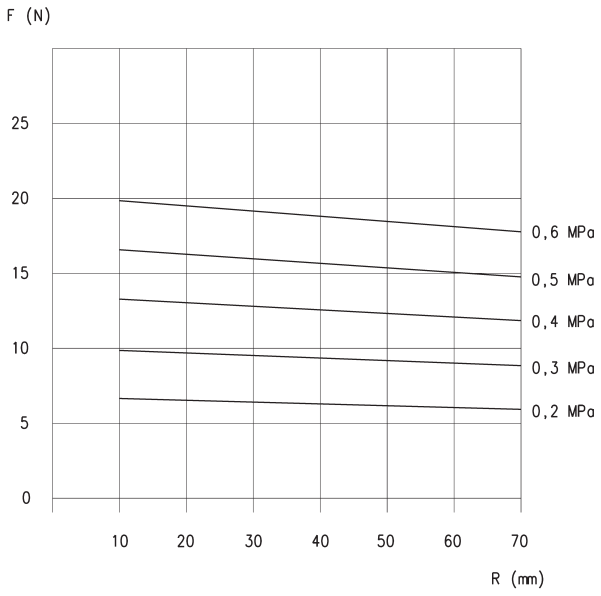

## Sizing criteria: 2) GRIPPING DISTANCE ANALYSIS

The R gripping distance of the object has to meet the parameters of the lines of force which are indicated for each pressure in the diagrams “Effective grip force”.
If the R distance is exceeded, the load applied will be too much overhanging, thus causing the screws to loosen as well as a reduced component life.

R = gripping distance (mm)

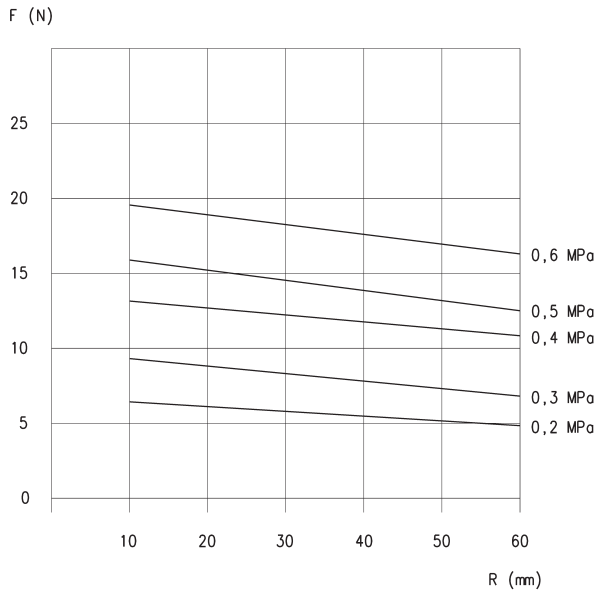


## Gripping force for bore 10




CGLN-10-020

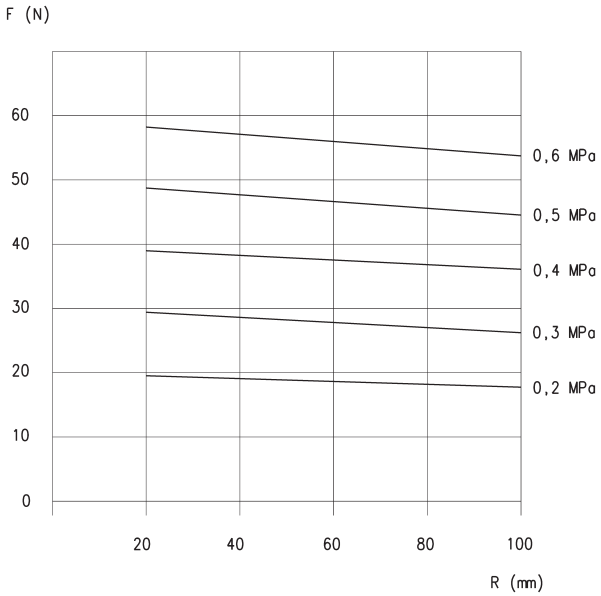
F = Gripping force (N)
R = Gripping moment (mm)




CGLN-10-040 and CGLN-10-060

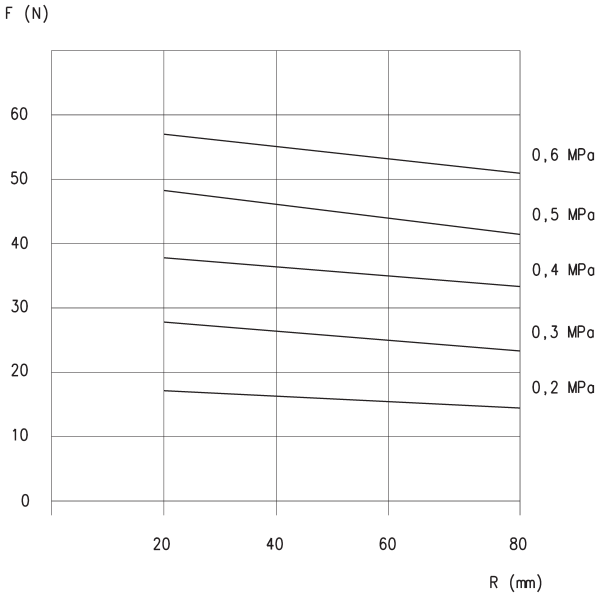
F = Gripping force (N)
R = Gripping moment (mm)

## Gripping force for bore 16




CGLN-16-030

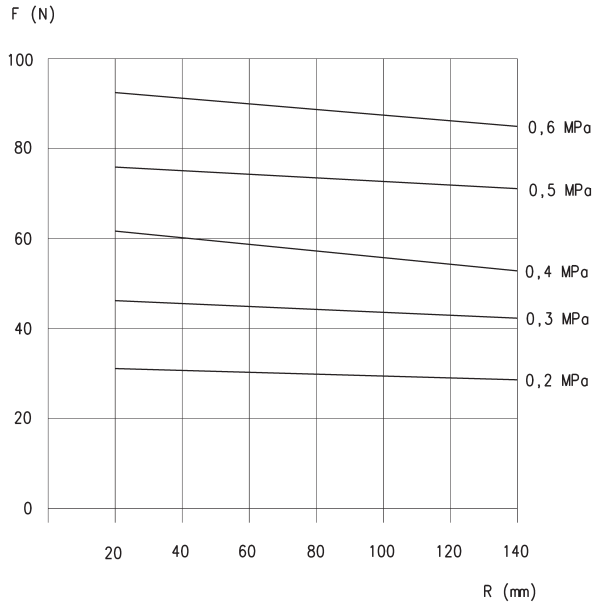
F = Gripping force (N)
R = Gripping moment (mm)




CGLN-16-060 and CGLN-16-080

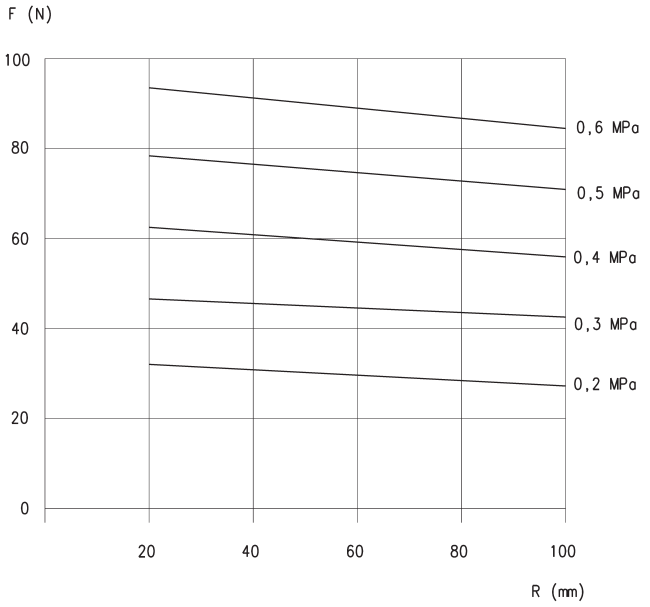
F = Gripping force (N)
R = Gripping moment (mm)

## Gripping force for bore 20




CGLN-20-040

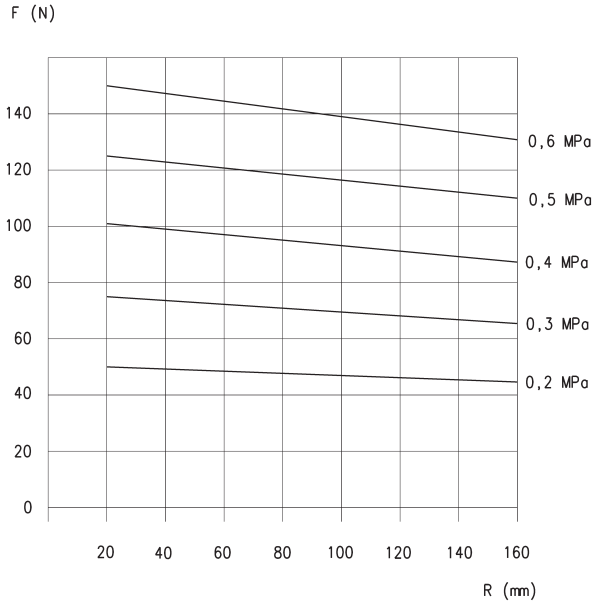
F = Gripping force (N)
R = Gripping moment (mm)




CGLN-20-080 and CGLN-20-100

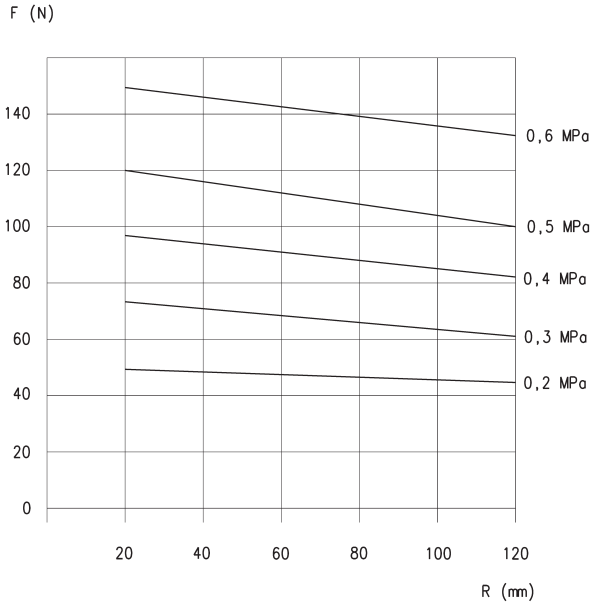
F = Gripping force (N)
R = Gripping moment (mm)

## Gripping force for bore 25




CGLN-25-050

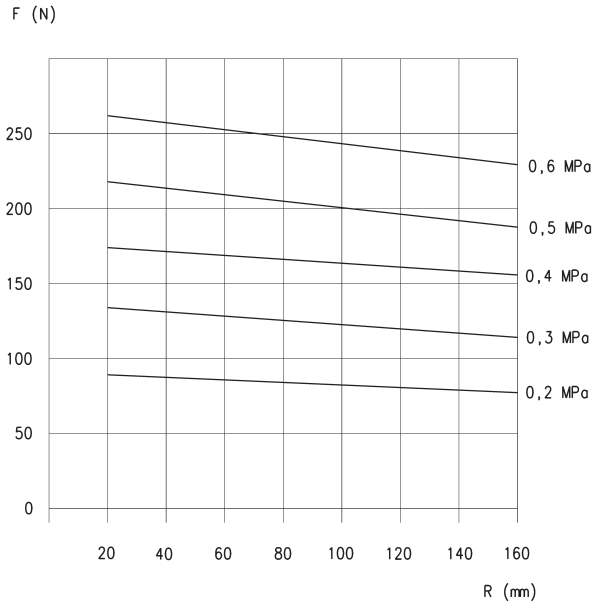
F = Gripping force (N)
R = Gripping moment (mm)




CGLN-25-100 and CGLN-25-120

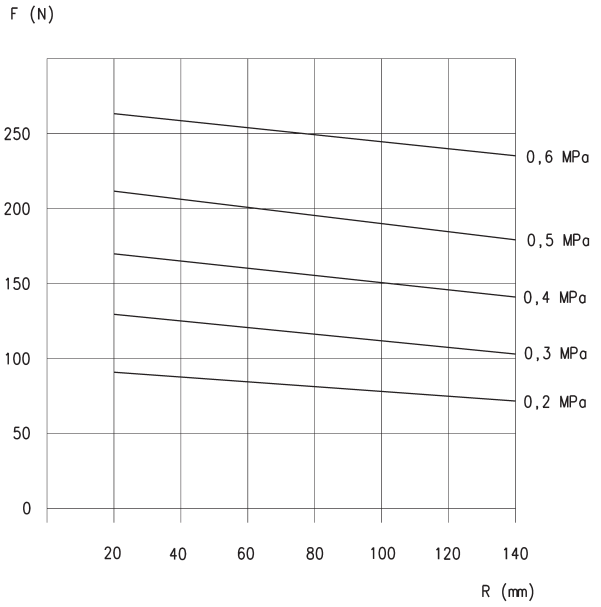
F = Gripping force (N)
R = Gripping moment (mm)

## Gripping force for bore 32




CGLN-32-070

F = Gripping force (N)
R = Gripping moment (mm)



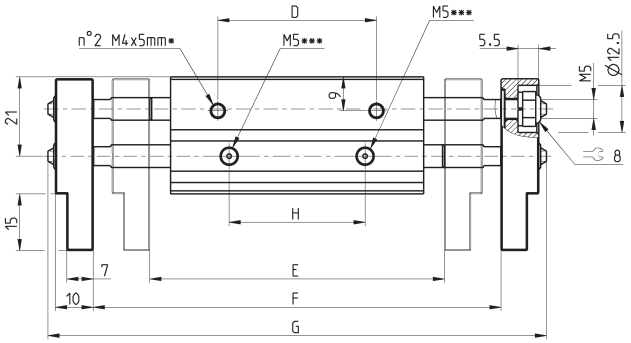

CGLN-32-120 and CGLN-32-170

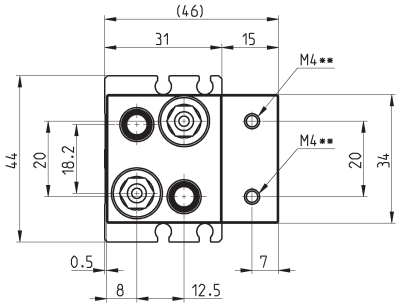
F = Gripping force (N)
R = Gripping moment (mm)

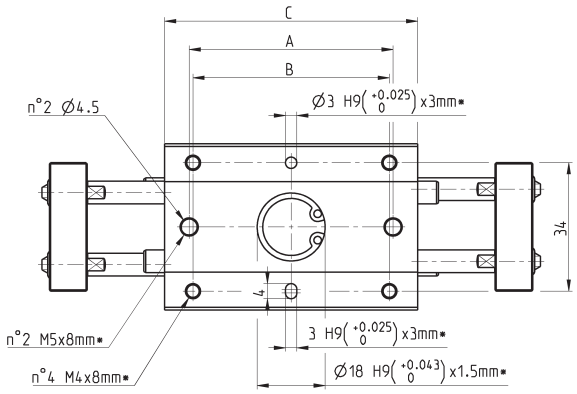
# CGLN gripper, bore 10 mm - dimensions

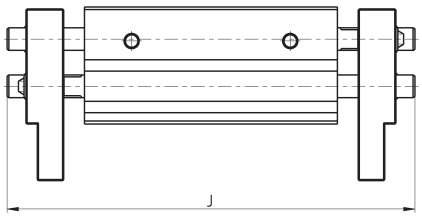
DRAWING LEGEND:

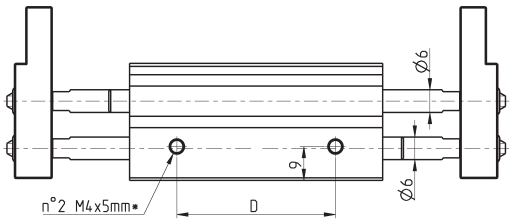
* = depth of the mounting threads
** = thread for the accessory mounting
*** = opening/closing of air connections



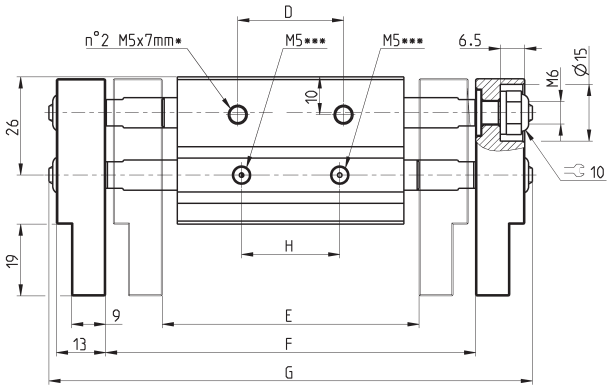



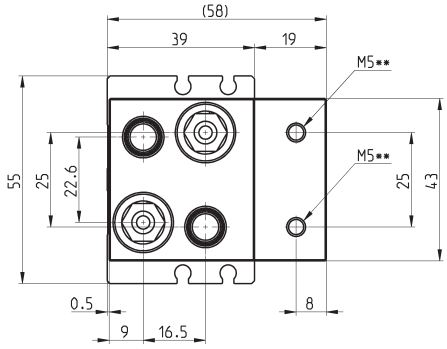

| Mod. | Bore | Stroke | A | B | C | D | E (Closed) Min opening | F (Open) Max opening | J (Closed) | G (Open) | H | Max frequency (cycles/min) | Weight (g) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CGLN-10-020** | 10 | 20 | 38 | 36 | 51 | 26 | 56 | 76 | 80 | 100 | 20 | 60 | 285 |
| **CGLN-10-040** | 10 | 40 | 54 | 52 | 67 | 42 | 78 | 118 | 108 | 142 | 36 | 40 | 355 |
| **CGLN-10-060** | 10 | 60 | 72 | 70 | 85 | 60 | 96 | 156 | 146 | 180 | 54 | 40 | 435 |

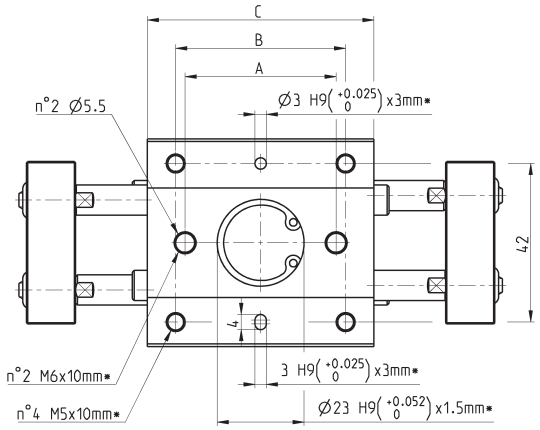
## CGLN gripper, bore 16 mm - dimensions

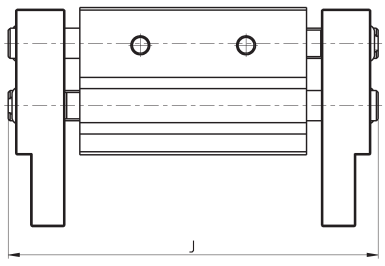
DRAWING LEGEND:

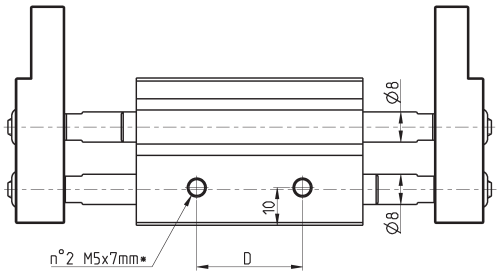
* = depth of the mounting threads
** = thread for the accessory mounting
*** = opening/closing of air connections



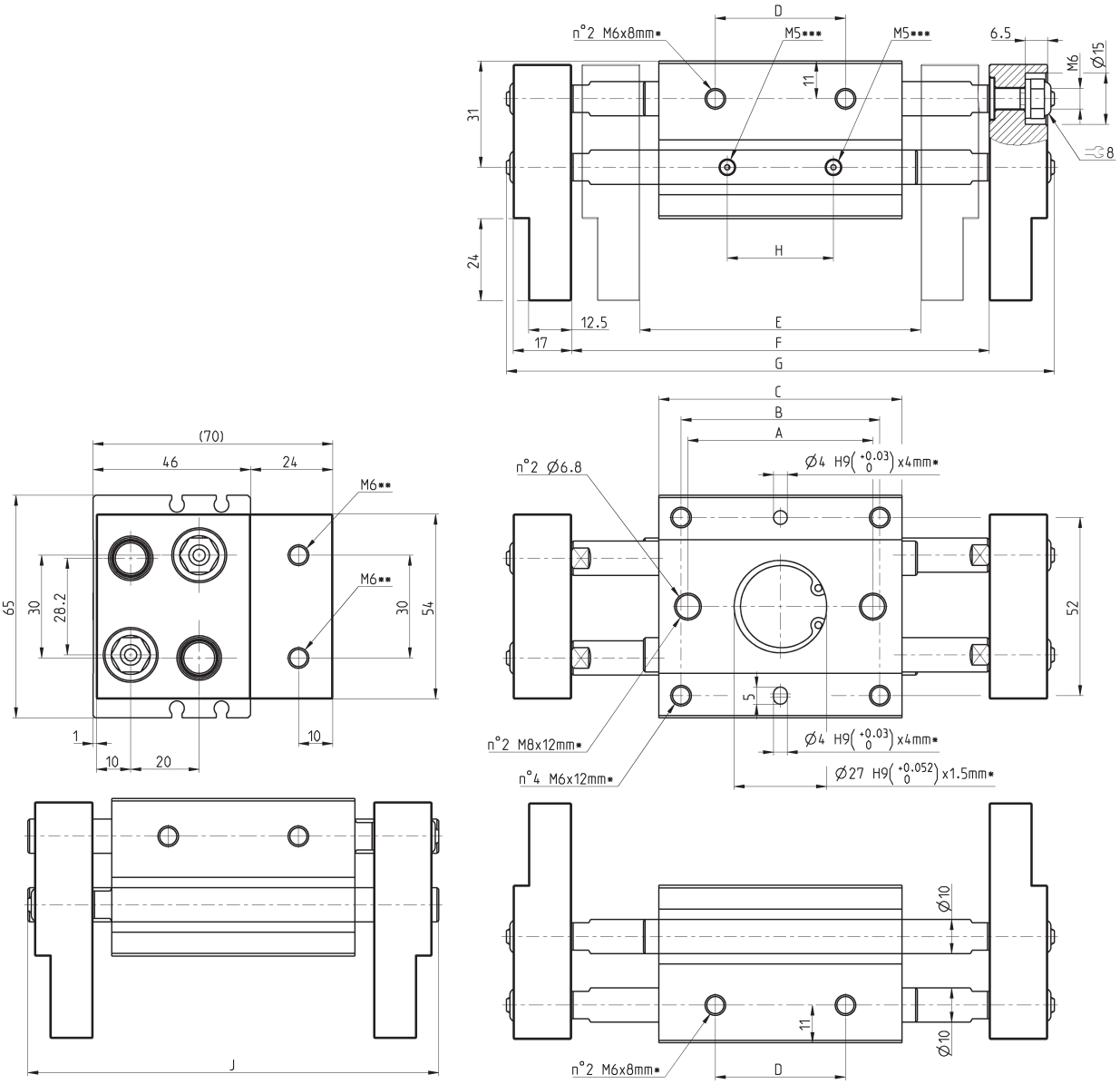




| Mod. | Bore | Stroke | A | B | C | D | E (Closed) Min opening | F (Open) Max opening | J (Closed) | G (Open) | H | Max frequency (cycles/min) | Weight (g) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CGLN-16-030** | 16 | 30 | 40 | 45 | 60 | 28 | 68 | 98 | 98 | 128 | 26 | 60 | 570 |
| **CGLN-16-060** | 16 | 60 | 70 | 75 | 90 | 58 | 110 | 170 | 152 | 200 | 56 | 40 | 795 |
| **CGLN-16-080** | 16 | 80 | 90 | 95 | 110 | 78 | 130 | 210 | 192 | 240 | 76 | 40 | 945 |

## CGLN gripper, bore 20 mm - dimensions

DRAWING LEGEND:

* = depth of the mounting threads
** = thread for the accessory mounting
*** = opening/closing of air connections

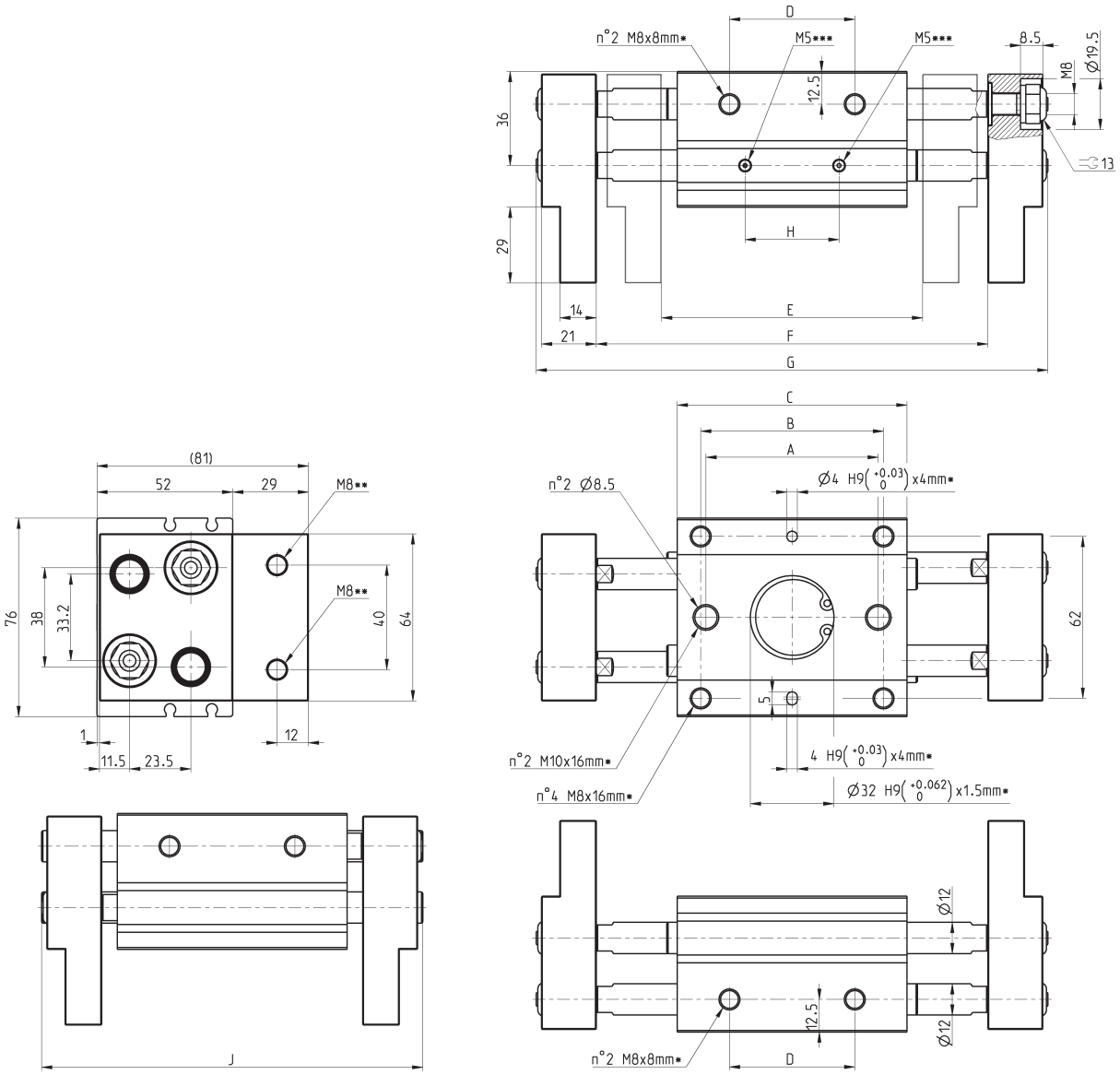



| Mod. | Bore | Stroke | A | B | C | D | E (Closed) Min opening | F (Open) Max opening | J (Closed) | G (Open) | H | Max frequency (cycles/min) | Weight (g) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CGLN-20-040** | 20 | 40 | 54 | 58 | 71 | 38 | 82 | 122 | 120 | 160 | 31 | 60 | 990 |
| **CGLN-20-080** | 20 | 80 | 96 | 100 | 113 | 80 | 142 | 222 | 195 | 260 | 73 | 40 | 1415 |
| **CGLN-20-100** | 20 | 100 | 116 | 120 | 133 | 100 | 162 | 262 | 235 | 300 | 93 | 40 | 1610 |

## CGLN gripper, bore 25 mm - dimensions

DRAWING LEGEND:

* = depth of the mounting threads
** = thread for the accessory mounting
*** = opening/closing of air connections

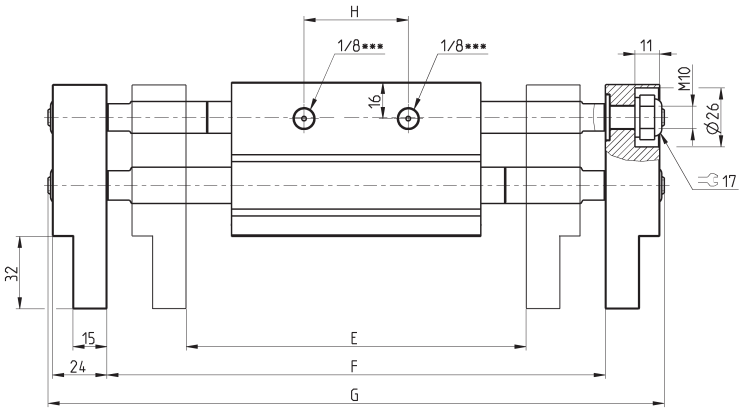


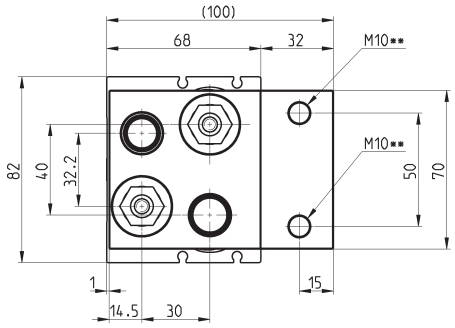

| Mod. | Bore | Stroke | A | B | C | D | E (Closed) Min opening | F (Open) Max opening | J (Closed) | G (Open) | H | Max frequency (cycles/min) | Weight (g) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CGLN-25-050** | 25 | 50 | 66 | 70 | 88 | 48 | 100 | 150 | 146 | 196 | 36 | 60 | 1670 |
| **CGLN-25-100** | 25 | 100 | 120 | 124 | 142 | 102 | 182 | 282 | 244 | 328 | 90 | 40 | 2415 |
| **CGLN-25-120** | 25 | 120 | 138 | 142 | 160 | 120 | 200 | 320 | 282 | 366 | 108 | 40 | 2655 |

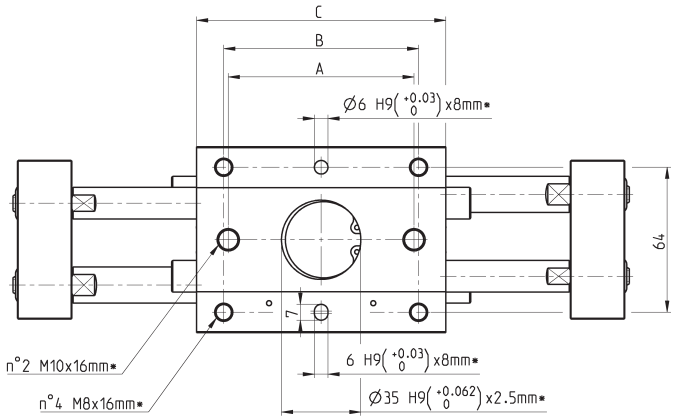
## CGLN gripper, bore 32 mm - dimensions

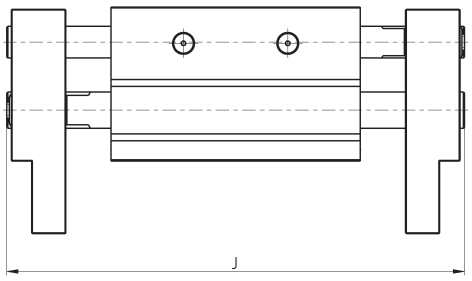
DRAWING LEGEND:

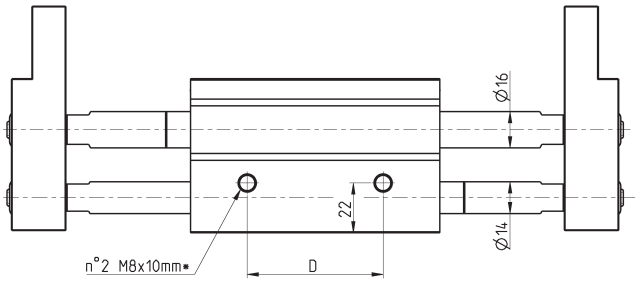
* = depth of the mounting threads
** = thread for the accessory mounting
*** = opening/closing of air connections




| Mod. | Bore | Stroke | A | B | C | D | E (Closed) Min opening | F (Open) Max opening | J (Closed) | G (Open) | H | Max frequency (cycles/min) | Weight (g) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CGLN-32-070** | 32 | 70 | 82 | 86 | 110 | 60 | 150 | 220 | 202 | 272 | 60 | 30 | 2970 |
| **CGLN-32-120** | 32 | 120 | 130 | 134 | 158 | 108 | 198 | 318 | 282 | 370 | 108 | 20 | 3840 |
| **CGLN-32-160** | 32 | 160 | 174 | 178 | 202 | 152 | 242 | 402 | 366 | 454 | 152 | 20 | 4680 |

# Series CGC
# 3-Finger centric grippers

## Magnetic
## Sizes 50 - 64 - 80 - 100 - 125

- Compact design
- High gripping force
- Long stroke


The proximity switches can be inserted in the U-shaped grooves on the body in order to detect whether the gripper is in an open or closed position.

**Series CGC 3-finger centric grippers are available in 5 different sizes.**
**Significant for Series CGC is the compact design that allows the combination of a high gripping force and long stroke.**
**The piston is equipped with permanent magnet for the use of magnetic proximity switches.**

## GENERAL DATA

| | |
|---|---|
| **Model** | CGC-50; CGC-64; CGC-80; CGC-100; CGC-125 |
| **Bore sizes** | Ø 32 Ø 45 Ø 58 Ø 77 Ø 98 |
| **Type of operation** | double-acting |
| **Materials** | housing: high tensile special hard-coated aluminium alloy, Functional parts: hardened steel |
| **Operating pressure (bar)** | 2 ÷ 7 bar |
| **Operating temperature** | 5°C ÷ 60°C |
| **Repeatability** | +/- 0,05 mm |
| **Max. operating frequency** | 60 cycles/min |
| **Lubrication** | lever section lubrication required on sliding section |
| **Theoritical holding force (N) with gripping point at 30 mm with 5 bar opening** | Ø 32 = 78, Ø 45 = 185<br>Ø 58 = 340, Ø77 = 580<br>Ø 98 = 940 |
| **Theoritical holding force (N) with gripping point at 30 mm with 5 bar closing** | Ø 32 = 68, Ø 45 = 160<br>Ø 58 =290, Ø 77= 510<br>Ø 98 = 860 |
| **Weight (g)** | Ø 32 = 230, Ø 45 = 410<br>Ø 58 = 800, Ø 77= 1400<br>Ø 98 = 2400 |
| **Stroke per finger (mm)** | Ø 32 = 4, Ø 45 = 6<br>Ø 58 = 8, Ø 77 = 10<br>Ø 98 = 13 |
| **Port sizes** | Ø 32- 45 -58 - M5<br>Ø 77 - Ø 98 -G1/8 |
| **Fluid** | filtered air without lubrication. If lubricated air is used, it is recommended to use oil ISO VG32. Once applied, the lubrication should never be interrupted. |

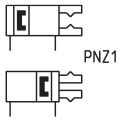
## CODING EXAMPLE

| CGC | - | 050 |
|---|---|---|

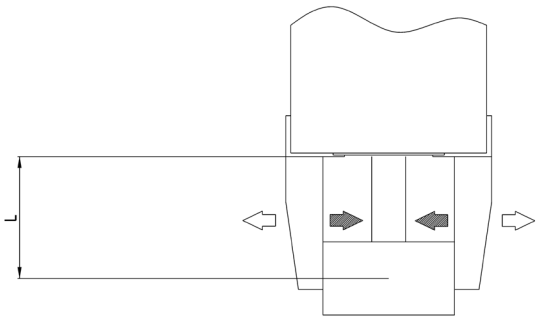
| | | |
|---|---|---|
| CGC | SERIES | PNEUMATIC SYMBOL<br>PNZ1 |
| 050 | SIZE<br>050 = 32 mm<br>064 = 45 mm<br>080 = 58 mm<br>100 = 77 mm<br>125 = 98 mm | |

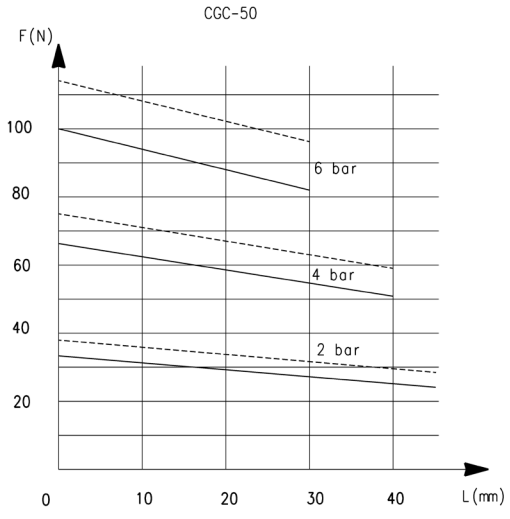
## PNEUMATIC SYMBOLS

The pneumatic symbols which have been indicated in the CODING EXAMPLE are shown below.



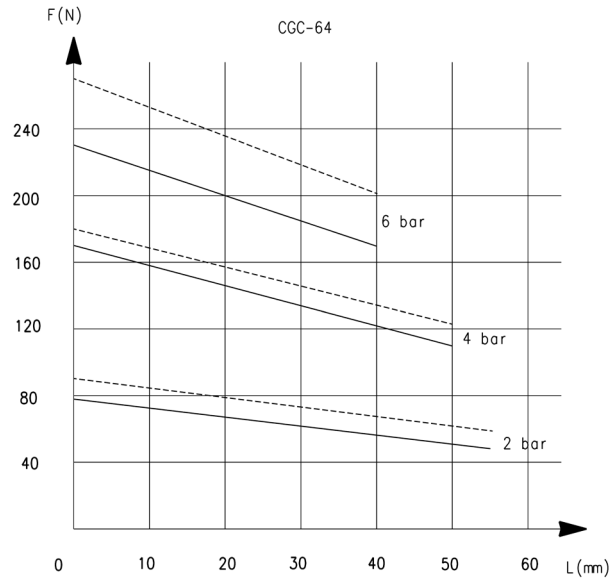

## GRIPPING FORCE CHARACTERISTICS



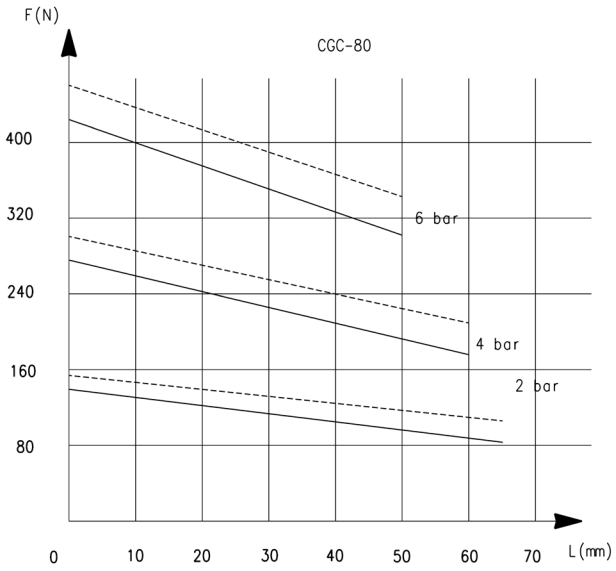




F = Gripping Force
L = Gripping point length

## GRIPPING FORCE CHARACTERISTICS

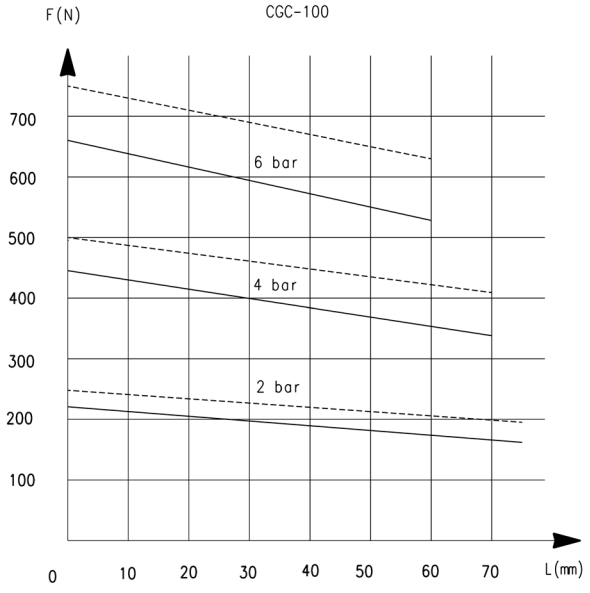



F = Gripping Force
L = Gripping point length

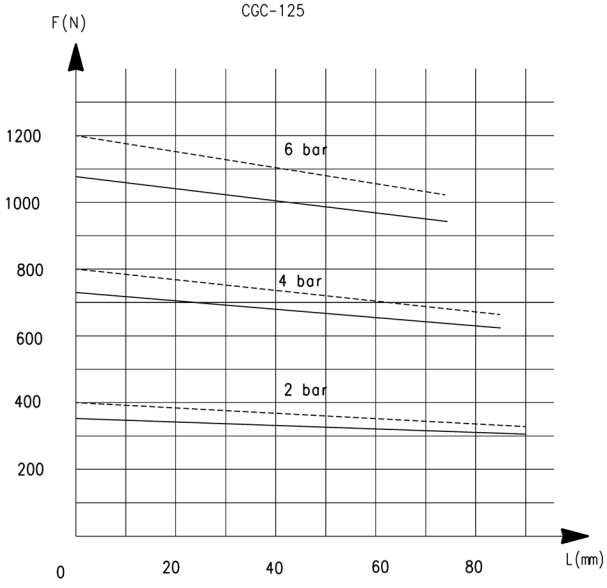



F = Gripping Force
L = Gripping point length

## GRIPPING FORCE CHARACTERISTICS



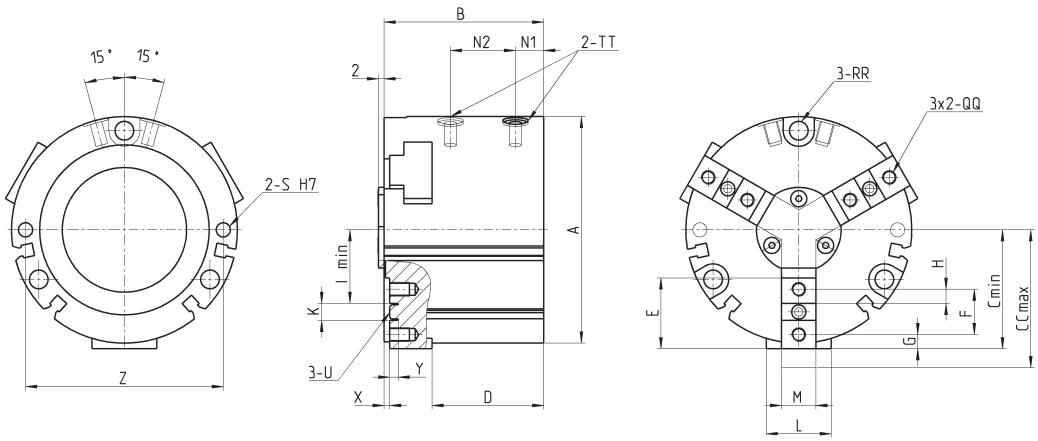

F = Gripping Force
L = Gripping point length




F = Gripping Force
L = Gripping point length

## Grippers Series CGC

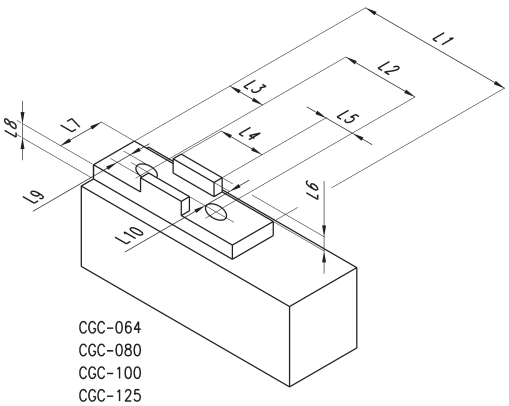

TT = port connection
QQ = claw mounting holes
RR = Mounting holes
S = Mounting holes



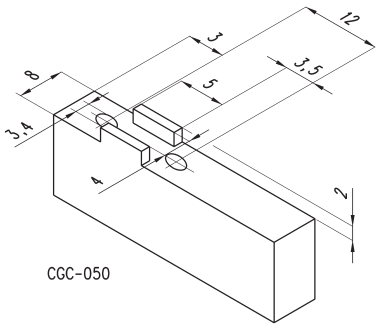

| DIMENSIONS | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mod. | A | B | C | CC | D | E | F | G | H | I | K | L | M | N1 | N2 | RR | QQ | S | TT | U | X | Y | Z | Weight (g) |
| **CGC-050** | 50 | 39 | 26,5 | 30,5 | 27 | 18 | 12 | 3 | 3,5 | 15 | 5 | 14 | 8 | 9 | 13,5 | Ø 3,4 | M3x0,5 | Ø 3 | M5 | Ø 4 | 1 | 2 | 44 | 230 |
| **CGC-064** | 64 | 47,5 | 32 | 38 | 32 | 20 | 13 | 4 | 4 | 19 | 5 | 18 | 10,2 | 10 | 16 | Ø 5,5 | M4x0,7 | Ø 4 | M5 | Ø 4 | 2 | 2,5 | 56 | 410 |
| **CGC-080** | 80 | 56,5 | 42 | 50 | 39,5 | 25 | 16 | 5 | 5 | 26 | 6 | 23 | 12,2 | 10 | 23 | Ø 6,6 | M5x0,8 | Ø 5 | M5 | Ø 5 | 2 | 3 | 70 | 800 |
| **CGC-100** | 100 | 65 | 52 | 62 | 45,5 | 32 | 20 | 6 | 6 | 32 | 8 | 27 | 14,2 | 12 | 25 | Ø 6,6 | M6x1 | Ø 5 | PT 1/8 | Ø 6 | 3 | 3 | 90 | 1400 |
| **CGC-125** | 125 | 76 | 65,5 | 78,5 | 52 | 40 | 24 | 8,5 | 8 | 41 | 8 | 30 | 16,2 | 13,5 | 27,5 | Ø 9 | M6x1 | Ø 6 | PT 1/8 | Ø 6 | 3 | 3,5 | 112 | 2400 |

## Support fimensions for grippers Series CGC

Dimensions of external mounting support of finger - gripping element




CGC-064
CGC-080
CGC-100
CGC-125




CGC-050

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Mod. | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 |
| **CGC-064** | 20 | 13 | 4 | 5 | 4 | 2.5 | 10.2 | 4.5 | 4.5 | 4 |
| **CGC-080** | 25 | 16 | 5 | 6 | 5 | 3 | 12.2 | 5.5 | 5.5 | 5 |
| **CGC-100** | 32 | 20 | 6 | 8 | 6 | 3 | 14.2 | 5.5 | 6.6 | 6 |
| **CGC-120** | 40 | 24 | 8.5 | 8 | 8 | 3.5 | 16.2 | 5.5 | 6.6 | 6 |

# Series RPGA sprue grippers
# Size 20mm

New version

Angular, not self-centering, single-acting, Normally Open
Models: Flat Finger, Curved Finger, Short Finger,
Flat Finger with sensor slot,
Curved Finger with sensor slot


**Thanks to a piston with a size of 20mm and to the direct transfer of the force from the piston to the fingers, Series RPGA guarantees a strong and a safe grip.**

Their technical features ensure a high gripping force and make these grippers particularly suitable in the removal of injection molded items.
The surface treatments on each metallic part make this series very wear resistant.

D and E models are provided with a finger having a slot for the installation of an inductive sensor.

PNZ2

## GENERAL DATA

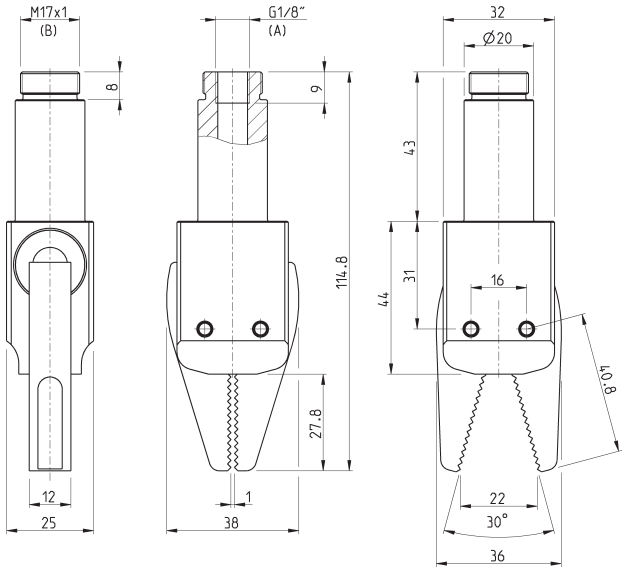
| | |
|---|---|
| **Operation** | single-acting, Normally Open |
| **Materials** | anodized aluminium body and fingers, PU seals |
| **Working pressure** | 2.5 bar ÷ 8 bar |
| **Working temperature** | 0°C ÷ 60°C |
| **Max frequency** | 2.5 Hz |
| **Lubrication** | Not necessary |
| **Air ports** | G1/8 |
| **Media** | Filtered air, without lubrication |
| **Size** | 20 mm |
| **Weights** | 120 g (models A and B); 125 g (models C, D, E) |
| **Gripping torque at 6 bar** | 310 Ncm |
| **Opening torque at 6 bar** | 25 Ncm |
| **Gripping force at 6 bar** | 90 N |
| **Closing time without load** | 20 ms |
| **Opening time** | 75 ms |

## CODING EXAMPLE

| RPGA | - | 20 | - | A |
|---|---|---|---|---|

| | |
|---|---|
| RPGA | SERIES |
| 20 | SIZE:<br>20 = ø 20 mm |
| A | TYPE OF CONSTRUCTION:<br>A = Flat finger<br>B = Curved finger<br>C = Short finger with holes for extra jaws<br>D = Flat finger for sensor<br>E = Curved finger for sensor |

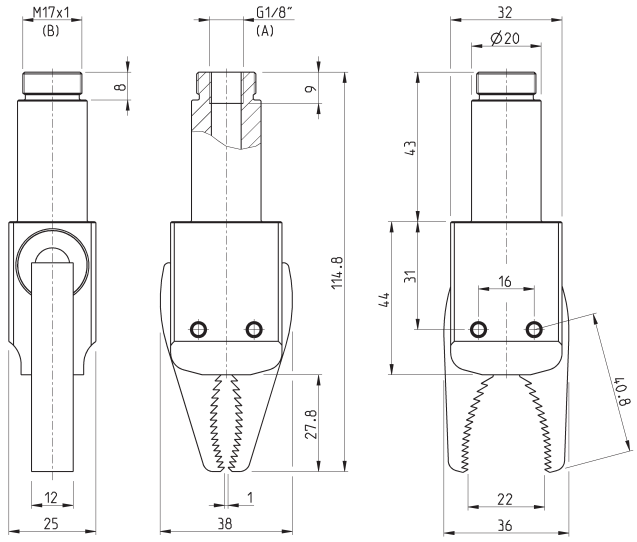
## Flat finger gripper Mod. RPGA-20-A - dimensions




A = connection port
B = fixing thread

Mod.
RPGA-20-A

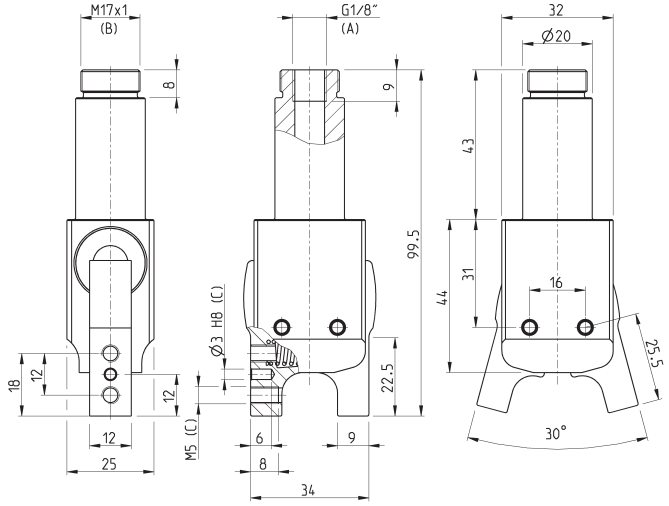
## Curved finger gripper Mod. RPGA-20-B - dimensions




A = connection port
B = fixing thread

Mod.
**RPGA-20-B**

## Short finger gripper Mod. RPGA-20-C - dimensions

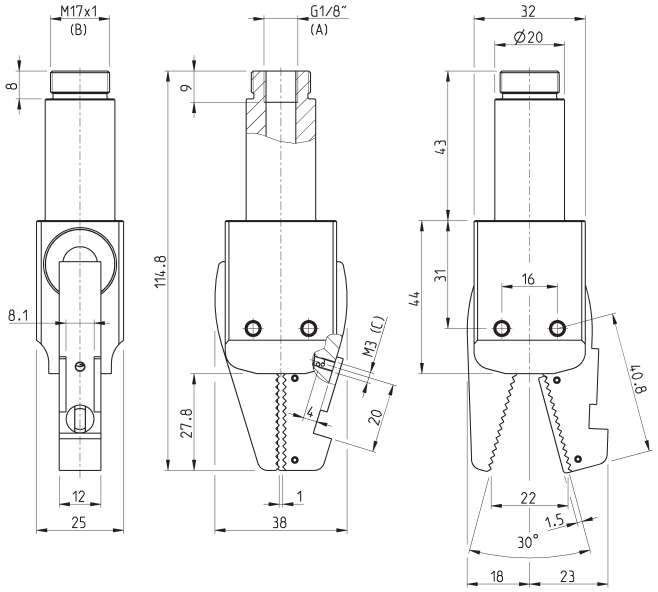



A = connection port
B = fixing thread
C = fixing holes

Mod.
**RPGA-20-C**

## Flat finger gripper with sensor slot Mod. RPGA-20-D - dimensions

Note: the sensor is not supplied with the gripper

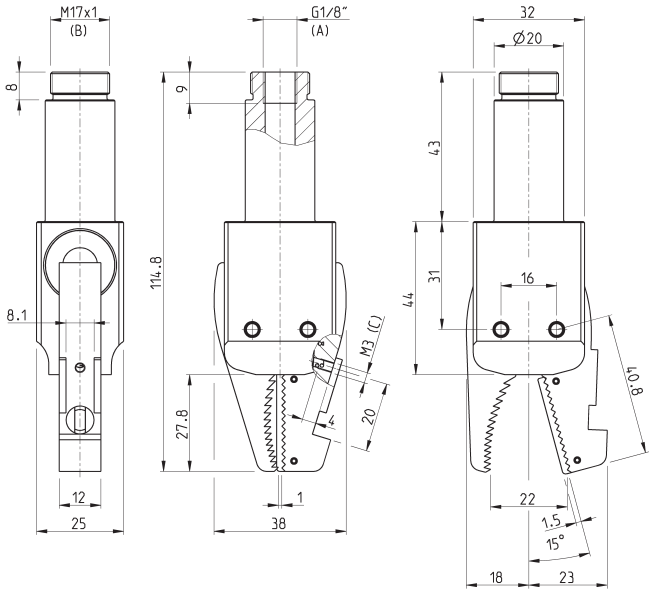



A = connection port
B = fixing thread
C = sensor fixing hole

Mod.
**RPGA-20-D**

## Curved finger gripper with sensor slot Mod. RPGA-20-E - dimensions

Note: the sensor is not supplied with the gripper




A = connection port
B = fixing thread
C = sensor fixing hole

Mod.
**RPGA-20-E**

# Series RPGB sprue grippers
# Size 8, 12mm

New version

Angular, not self-centering, single-acting, Normally Open
Models: Flat Finger, Short Finger, Flat Finger with sensor

- Suitable for plastic injection molding sector
- Easy to install
- Compact and lightweight
- Wear resistant
- Models RPGB-08-D and RPGB-12-D are supplied with sensor CSD-362 already mounted

**The external design, the choice of materials and the search for miniaturization makes Series RPGB a compact and lightweight solution. The D model is provided with a finger having a slot for the installation of a magnetic sensor which is able to detect the grip of the piece.**

Its technical features ensure a high gripping force and make this gripper particularly suitable in the removal of injection molded items.
The surface treatments on each metallic part make this series very wear resistant.

PNZ2

## GENERAL DATA

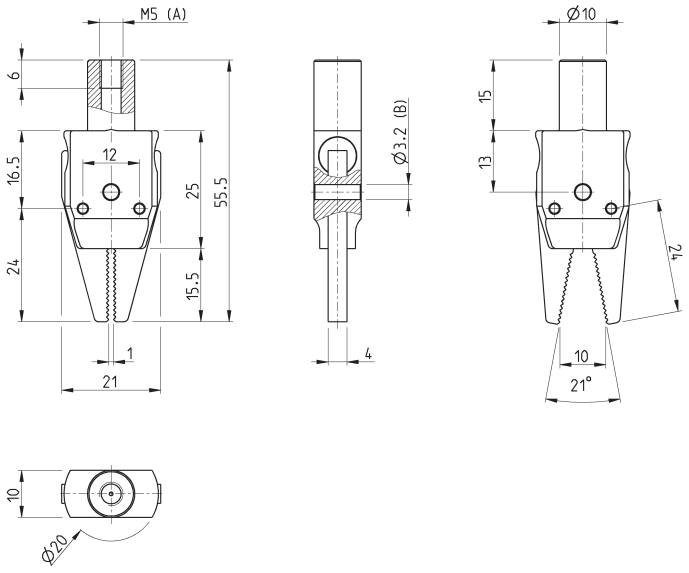
| | |
|---|---|
| **Operation** | single-acting, Normally Open |
| **Materials** | anodized aluminium body and fingers, HNBR seals |
| **Working pressure** | 2.5 bar ÷ 8 bar |
| **Working temperature** | 0°C ÷ 60°C |
| **Max frequency** | 3 Hz |
| **Lubrication** | Not necessary |
| **Air ports** | M5 |
| **Media** | Filtered air, class 6.8.4 according to ISO 8573-1, without lubrication |
| **Size** | 8, 12 mm |
| **Weights** | 15 g (size 8) - 50 g (size 12) |
| **Gripping torque at 6 bar**<br>**Opening torque at 6 bar**<br>**Gripping force at 6 bar** | 25 Ncm (size 8) - 90 Ncm (size 12)<br>2 Ncm (size 8) - 5 Ncm (size 12)<br>7 N (size 8) - 30 N (size 12) |
| **Closing time without load** | 10 ms |
| **Opening time** | 30 ms |

## CODING EXAMPLE

| RPGB | - | 12 | - | A |
|---|---|---|---|---|

| | |
|---|---|
| RPGB | SERIES |
| 12 | SIZE:<br>08 = ø 8 mm<br>12 = ø 12 mm |
| A | TYPE OF CONSTRUCTION:<br>A = Flat finger<br>C = Short finger with holes for extra jaws<br>D = Flat finger with sensor mounted (Mod. CSD-362) |

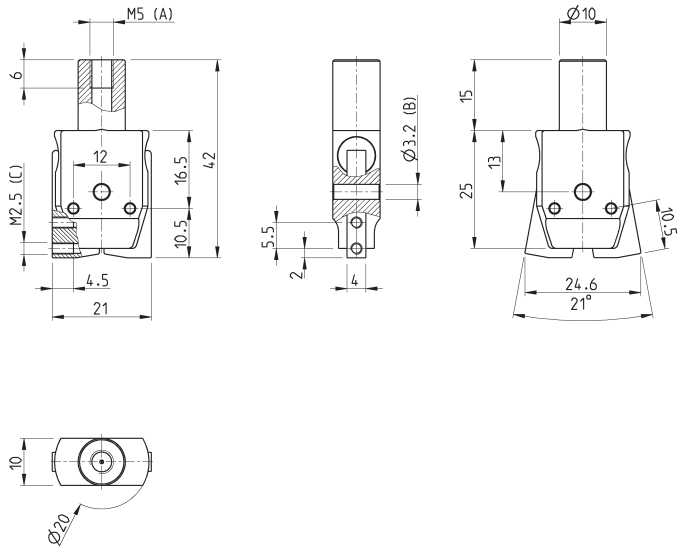
## Flat finger gripper Mod. RPGB-08-A - dimensions




A = port connection
B = mounting hole

Mod.
**RPGB-08-A**

## Short finger gripper Mod. RPGB-08-C - dimensions

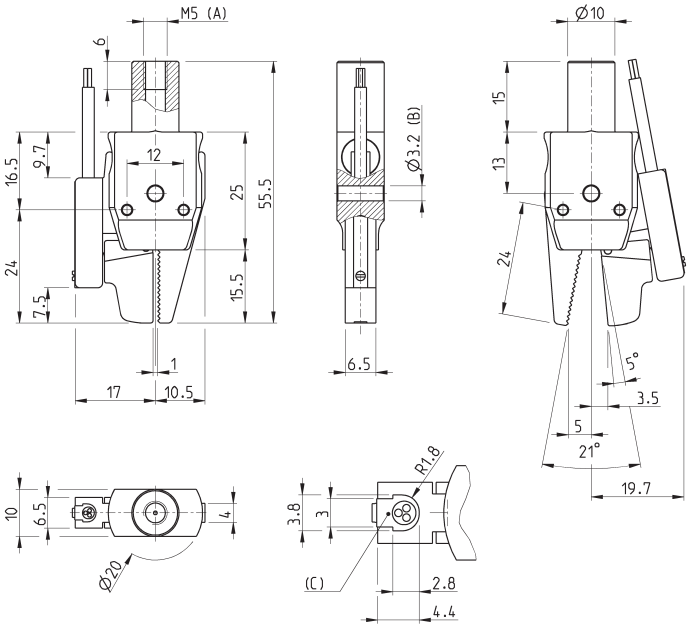



A = port connection
B = mounting hole
C = mounting thread

Mod.
**RPGB-08-C**

## Flat finger gripper with sensor slot Mod. RPGB-08-D - dimensions

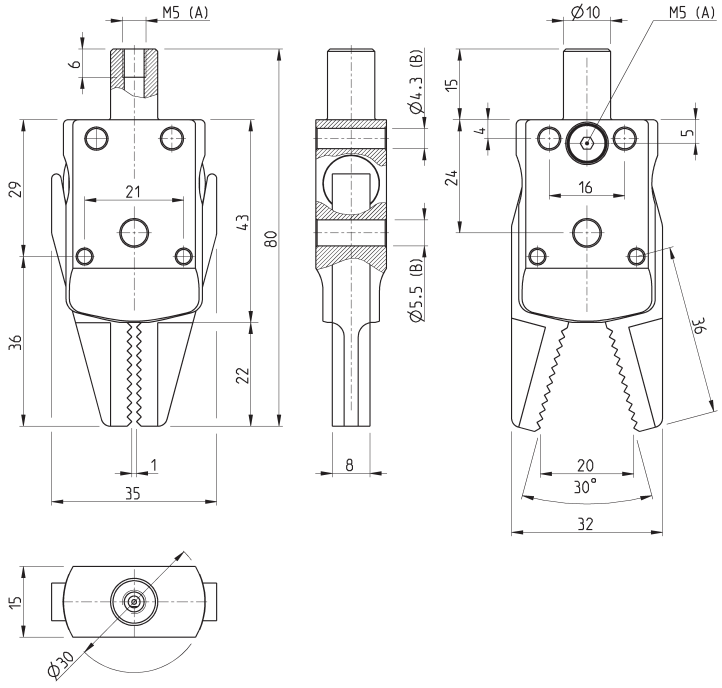
This model is supplied with sensor CSD-362 mounted.




A = connection port
B = mounting hole
C = sensor groove

Mod.
**RPGB-08-D**

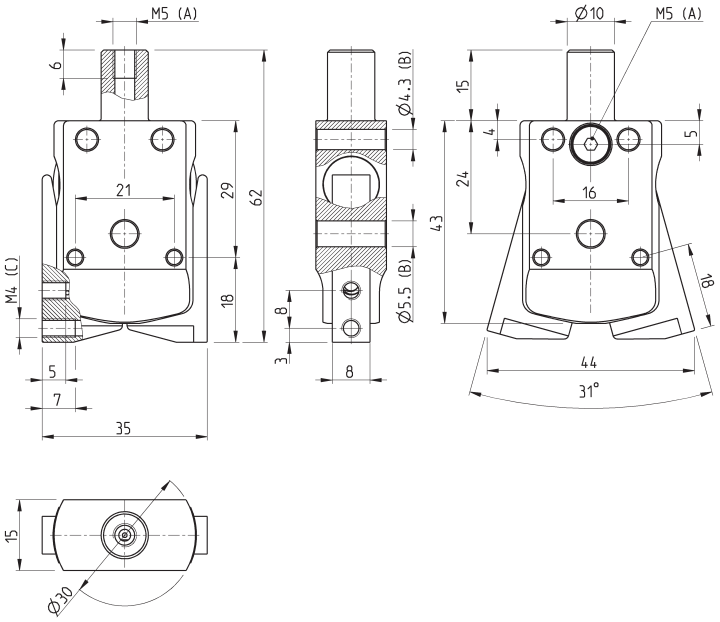
## Flat finger gripper Mod. RPGB-12-A - dimensions




A = port connection
B = mounting holes

Mod.
**RPGB-12-A**

## Short finger gripper Mod. RPGB-12-C - dimensions

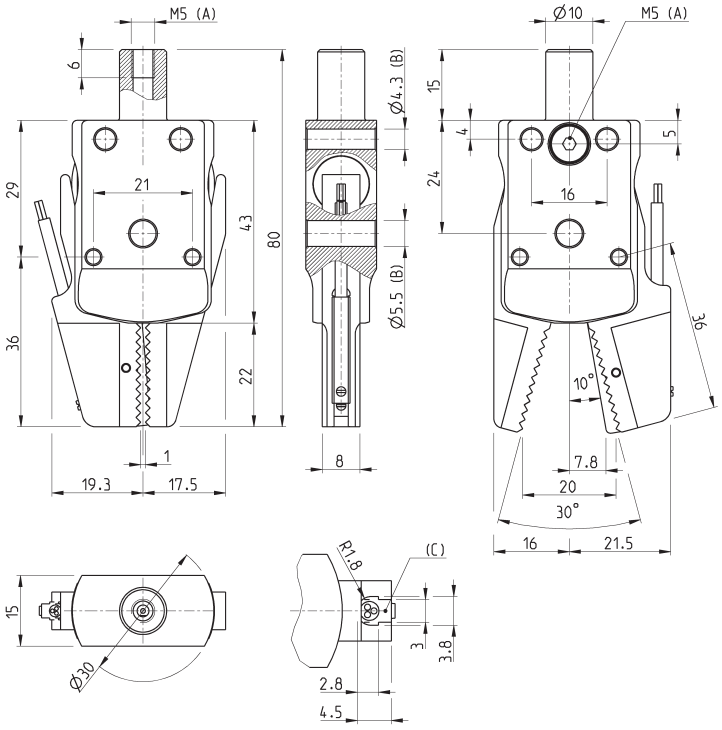



A = port connection
B = mounting holes
C = mounting thread

Mod.
**RPGB-12-C**

## Flat finger gripper with sensor slot Mod. RPGB-12-D - dimensions

This model is supplied with sensor CSD-362 mounted.



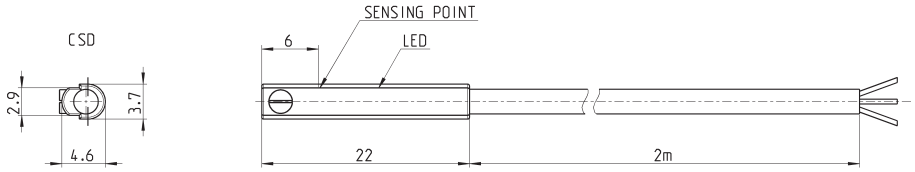

A = port connection
B = mounting hole
C = sensor groove

Mod.
**RPGB-12-D**

## Series CSD magnetic proximity switches with 3-wire cable

New

Length cable: 2 m

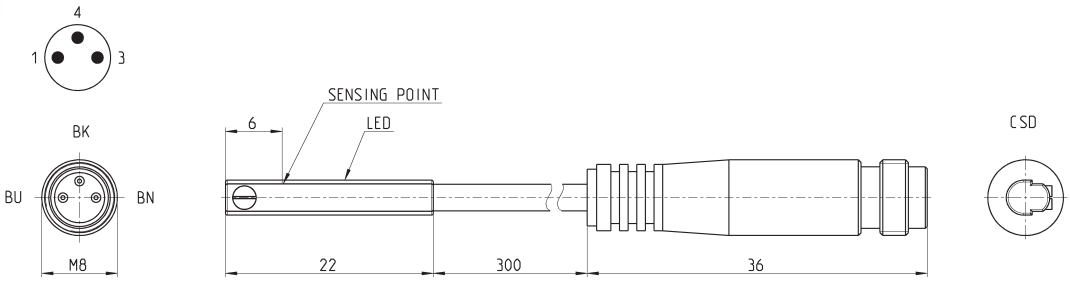



| Mod. | Operation | Connections | Voltage | Output | Max. current | Max Load | Protection |
|---|---|---|---|---|---|---|---|
| **CSD-332** | Electronic | 3 wires | 10 ÷ 27 DC | PNP | 200 mA | 6W | Against polarity reversing and overvoltage |

## Series CSD magnetic proximity switches with male connector M8

New

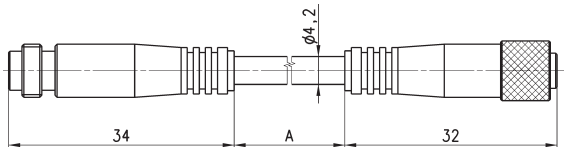
Length cable 0,3 mt.




| Mod. | Operation | Connections | Voltage | Output | Max. current | Max Load | Protection |
|---|---|---|---|---|---|---|---|
| **CSD-362** | Electronic | 3 wires with M8 connector | 10 ÷ 27 DC | PNP | 200 mA | 6W | Against polarity reversing and overvoltage |

## Extension with connector M8, 3 Pin Male / Female

Non shielded

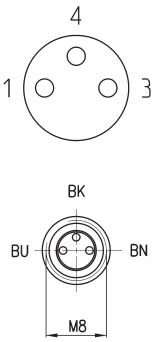


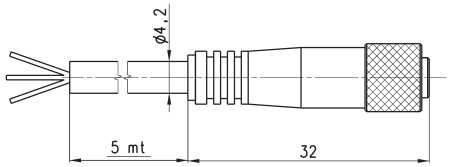

| Mod. | cable length “A” (m) |
|---|---|
| **CS-DW03HB-C250** | 2,5 |
| **CS-DW03HB-C500** | 5 |

## Circular connectors M8, 3 Pin Female

With PU sheathing, non shielded cable.
Protection class: IP65

BN = Brown
BK = Black
BU = Blue




| Mod. | Length |
|---|---|
| **CS-2** | 2 m |
| **CS-5** | 5 m |
| **CS-10** | 10 m |