

amark™

 A business of BARNES

PINZE

Grippers

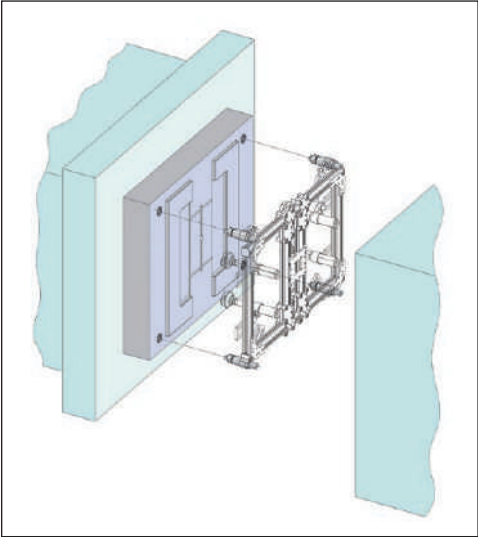
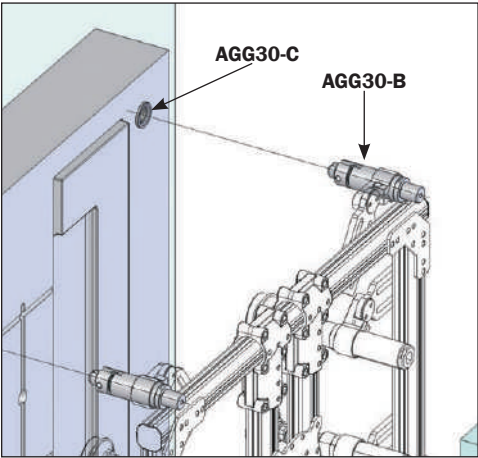


Pinza per agganciamento

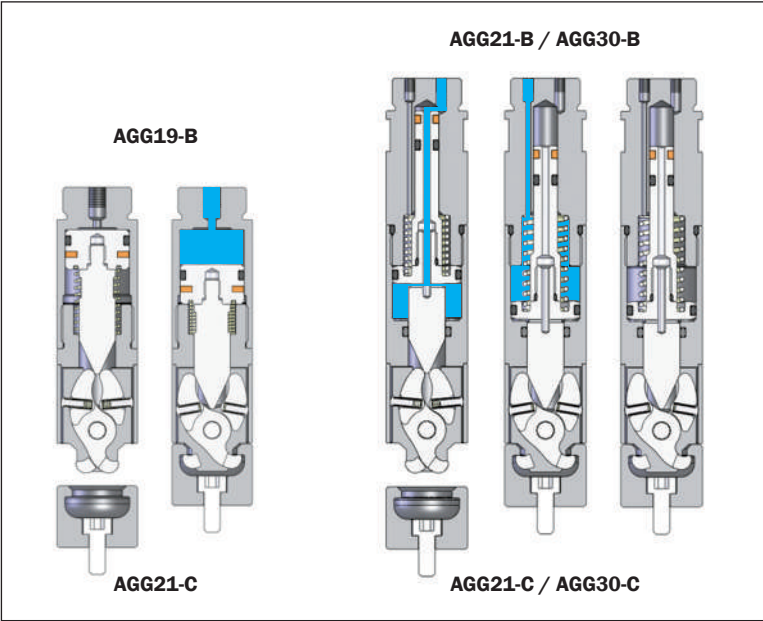
La AGG é usata per centrare in modo preciso il robot sullo stampo. Questo é necessario quando si devono posizionare degli inserti metallici nello stampo, prima di iniettare la plastica. La pinza AGG...-B è montata sull'EOAT e la bussola AGG...-C in acciaio sullo stampo. Dopo che il robot si é avvicinato allo stampo, la pinza viene alimentata, così si chiude e si aggrappa sulla bussola. AGG21-B e AGG30-B sono a doppio effetto con molla di sicurezza che mantiene agganciata la pinza anche in mancanza d'aria (NC). AGG19-B è a semplice effetto con molla di ritorno (NO).

Gripper for engagement

The AGG is used to provide a precise centering between the robot and the mould. This is necessary when metal inserts must be placed in the mould, before the plastic injection. The gripper AGG...-B is fitted on the EOAT, while the steel bushing AGG...-C is fitted on the mould. Once the robot has approached the mould, the gripper is pressurized, thus it closes and engages the bushing. AGG21-B and AGG30-B are double-acting with a safety spring to keep the gripper engaged even without compressed air (NC). AGG19-B is single-acting with reset spring (NO).



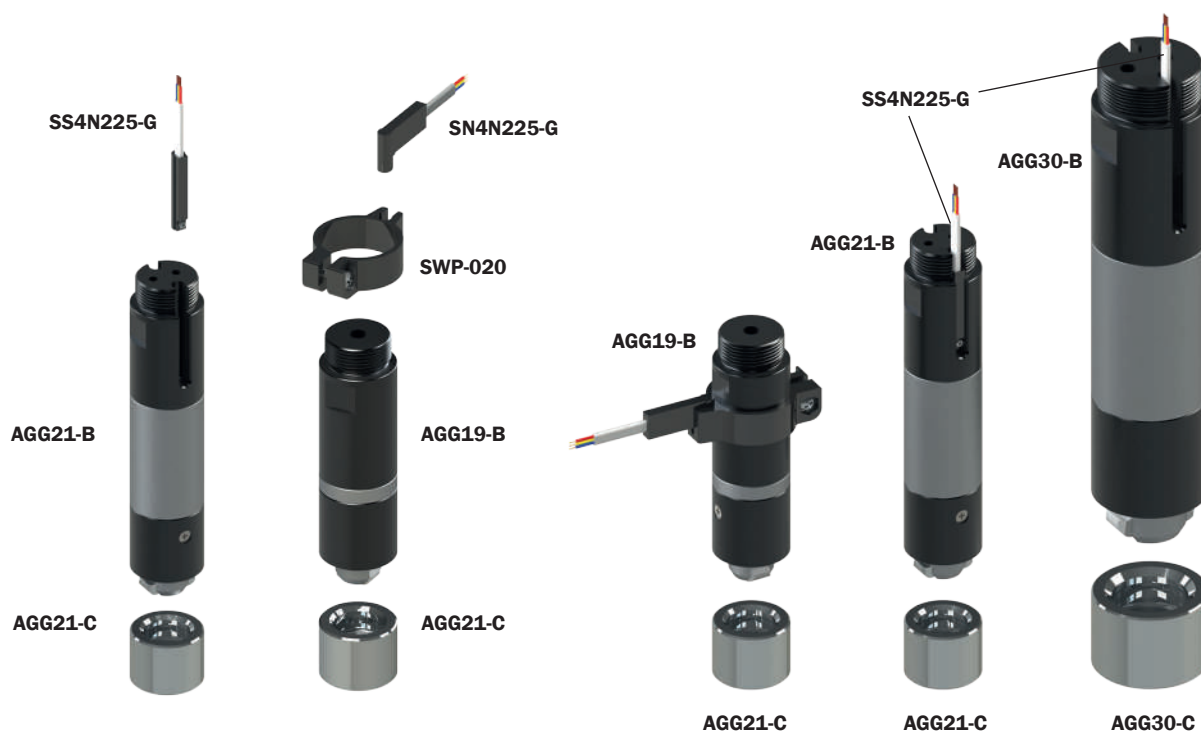
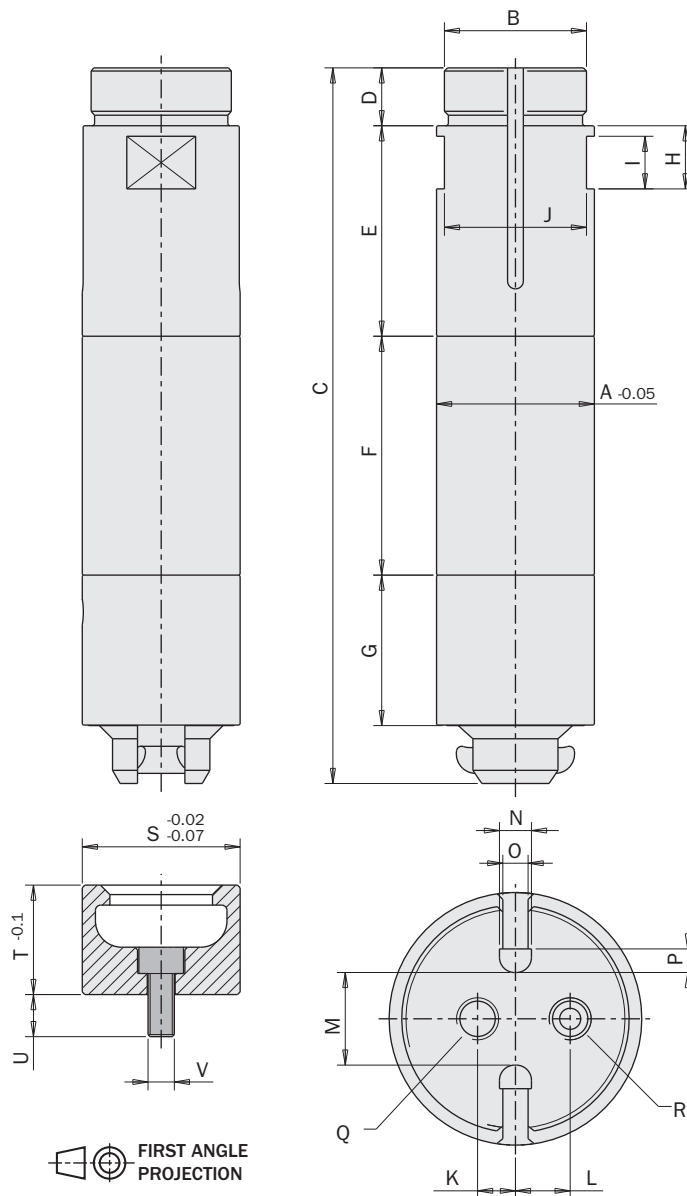
	AGG19-B	AGG21-B	AGG30-B
Massimo carico assiale senza aria compressa prima del rilascio Maximum axial load without compressed air before releasing	0 N	600 N	1400 N
Massimo carico assiale con aria compressa prima della rottura Maximum axial load with compressed air before breakage	2000 N	2000 N	5000 N
Pressione di esercizio Pressure range	2 ÷ 8 bar (NO)	4 ÷ 8 bar (NC)	4.5 ÷ 8 bar (NC)
Temperatura di esercizio Temperature range	5 ÷ 60 °C.		



Dimensioni (mm)
Dimensions (mm)

	AGG19-B	AGG21-B	AGG30-B
A	Ø20	Ø20	Ø30
B	M17x1	M17x1	M27x1
C	70.5	96.5	136
D	8	8	11
E	32	28	40
F	4	34	45.4
G	19.5	19.5	28.6
H	10	10	12
I	8	8	10
J	18	18	27
K	0	2.8	4.5
L	-	4.6	6.5
M	-	6	11
N	-	3.8	3.8
O	-	3	3
P	-	2.8	2.8
Q	M5	M3	M5
R	-	M3	M5
Peso Weight	85 g	115 g	390 g

	AGG21-C	AGG30-C
S	Ø20	Ø30
T	15.3	20.8
U	6.7	8
V	M4	M5
Peso Weight	25 g	75 g

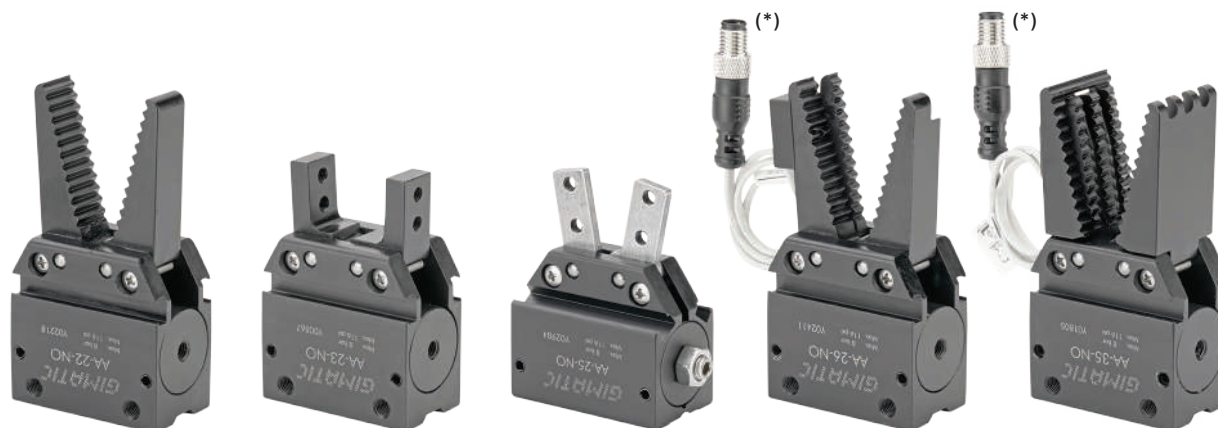
Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

Pinza pneumatica per materozze, angolare autocentrante a due griffe serie AA

- A doppio effetto o con molla in apertura (-NO).
- Forza di serraggio molto elevata in rapporto al peso ed alle dimensioni.
- Varie possibilità di fissaggio.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

2-jaw self-centering angular pneumatic sprue gripper series AA

- Double acting or spring open (-NO).
- Very high gripping force related to the weight and dimensions.
- Different options for fastening.
- Optional magnetic sensors.
- Food grade grease FDA-H1.



AA-22-NO

AA-23-NO

AA-25-NO

AA-26-NO

AA-35-NO

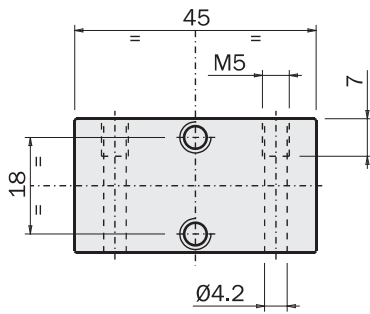
(*)

Il sensore SS3N203-G è incluso
The sensor SS3N203-G is included

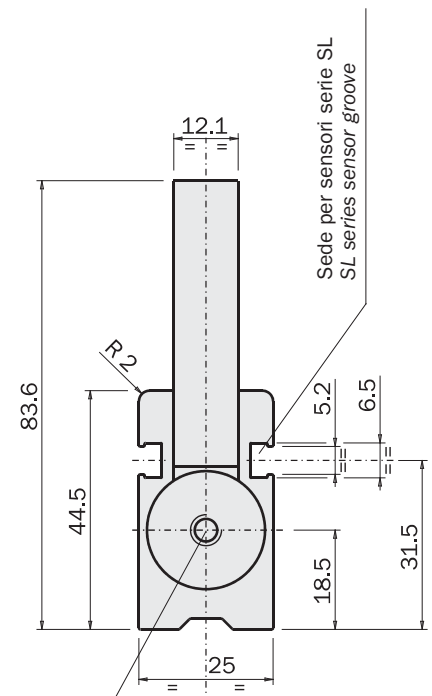
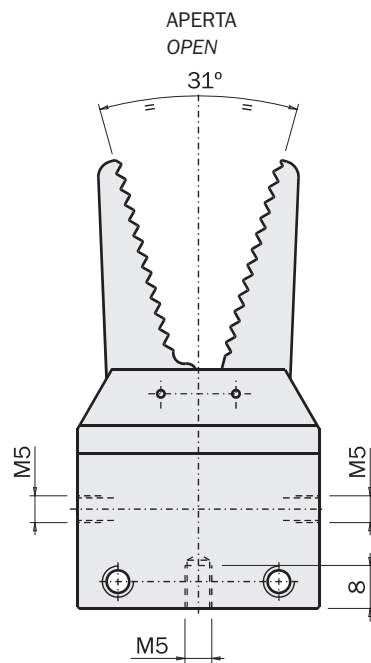
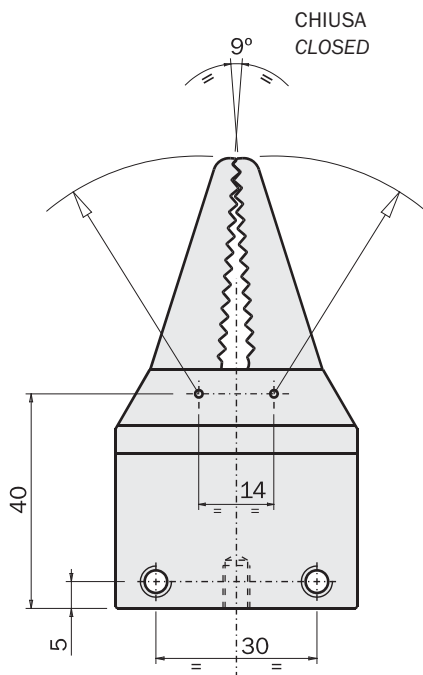
	AA-22	AA-22-NO	AA-23	AA-23-NO AA-25-NO	AA-26	AA-26-NO	AA-35	AA-35-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]							
Pressione di esercizio Pressure range	2.5 ÷ 8 bar							
Temperatura di esercizio Temperature range	5 ÷ 60 °C.							
Corsa Stroke (±1°)	2 x 20°							
Coppia di chiusura per griffa a 6 bar Closing torque at 6 bar each jaw	150 Ncm	125 Ncm	150 Ncm	125 Ncm	150 Ncm	125 Ncm	150 Ncm	125 Ncm
Coppia di chiusura totale a 6 bar Total closing torque at 6 bar	300 Ncm	250 Ncm	300 Ncm	250 Ncm	300 Ncm	250 Ncm	300 Ncm	250 Ncm
Coppia di apertura per griffa a 6 bar Opening torque at 6 bar each jaw	150 Ncm	175 Ncm	150 Ncm	175 Ncm	150 Ncm	175 Ncm	150 Ncm	175 Ncm
Coppia di apertura totale a 6 bar Total opening torque at 6 bar	300 Ncm	350 Ncm	300 Ncm	350 Ncm	300 Ncm	350 Ncm	300 Ncm	350 Ncm
Coppia di apertura per griffa a 0 bar Opening torque at 0 bar each jaw	0 Ncm	25 Ncm	0 Ncm	25 Ncm	0 Ncm	25 Ncm	0 Ncm	25 Ncm
Coppia di apertura totale a 0 bar Total opening torque at 0 bar	0 Ncm	50 Ncm	0 Ncm	50 Ncm	0 Ncm	50 Ncm	0 Ncm	50 Ncm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	5 cm ³	2 cm ³	5 cm ³	2 cm ³	5 cm ³	2 cm ³	5 cm ³	2 cm ³
Tempo di chiusura senza carico Closing time without load	0.02 s	0.02 s	0.02 s	0.02 s	0.02 s	0.02 s	0.02 s	0.02 s
Peso Weight	115 g	115 g	100 g	100 g	120 g	120 g	140 g	140 g

Dimensioni (mm)
Dimensions (mm)

AA-22
AA-22-NO
AA-26
AA-26-NO

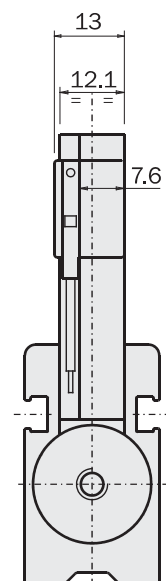
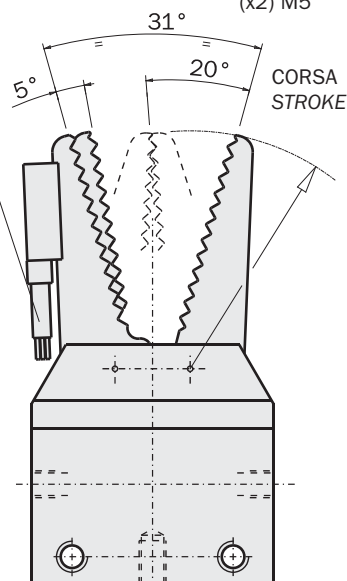
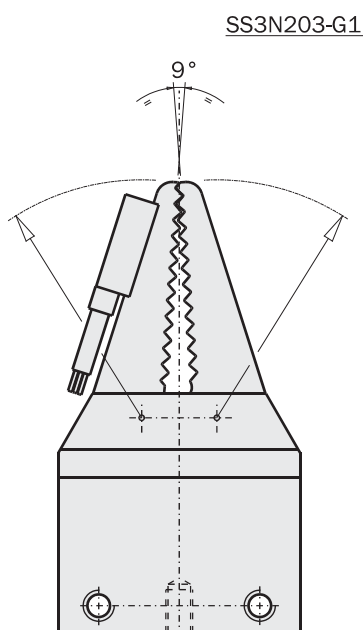


AA-22



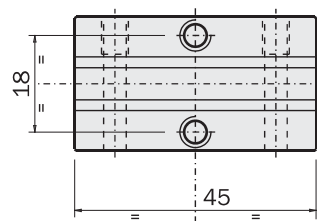
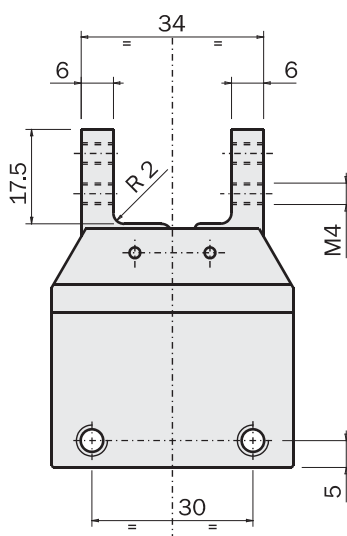
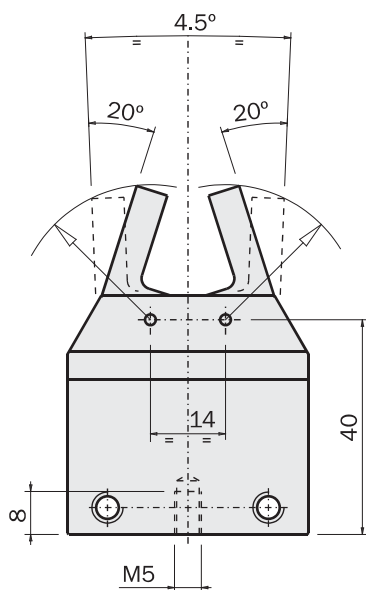
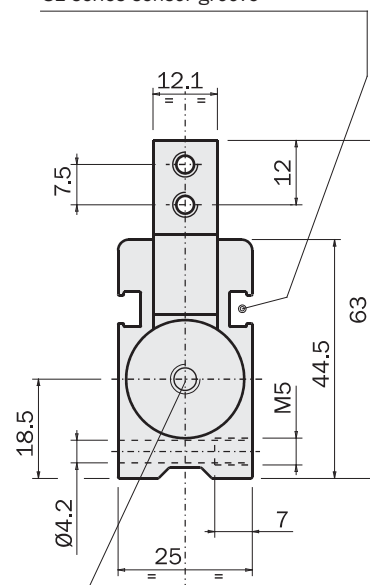
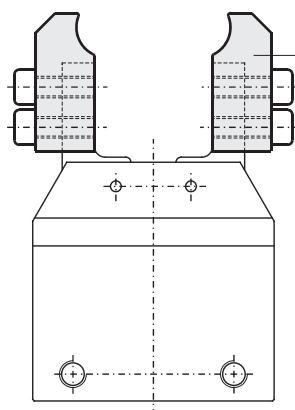
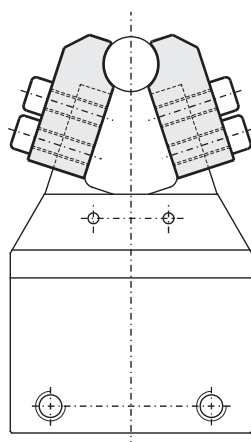
Sede per sensori serie SL
SL series sensor groove

Ingresso aria
Air connection
(x2) M5



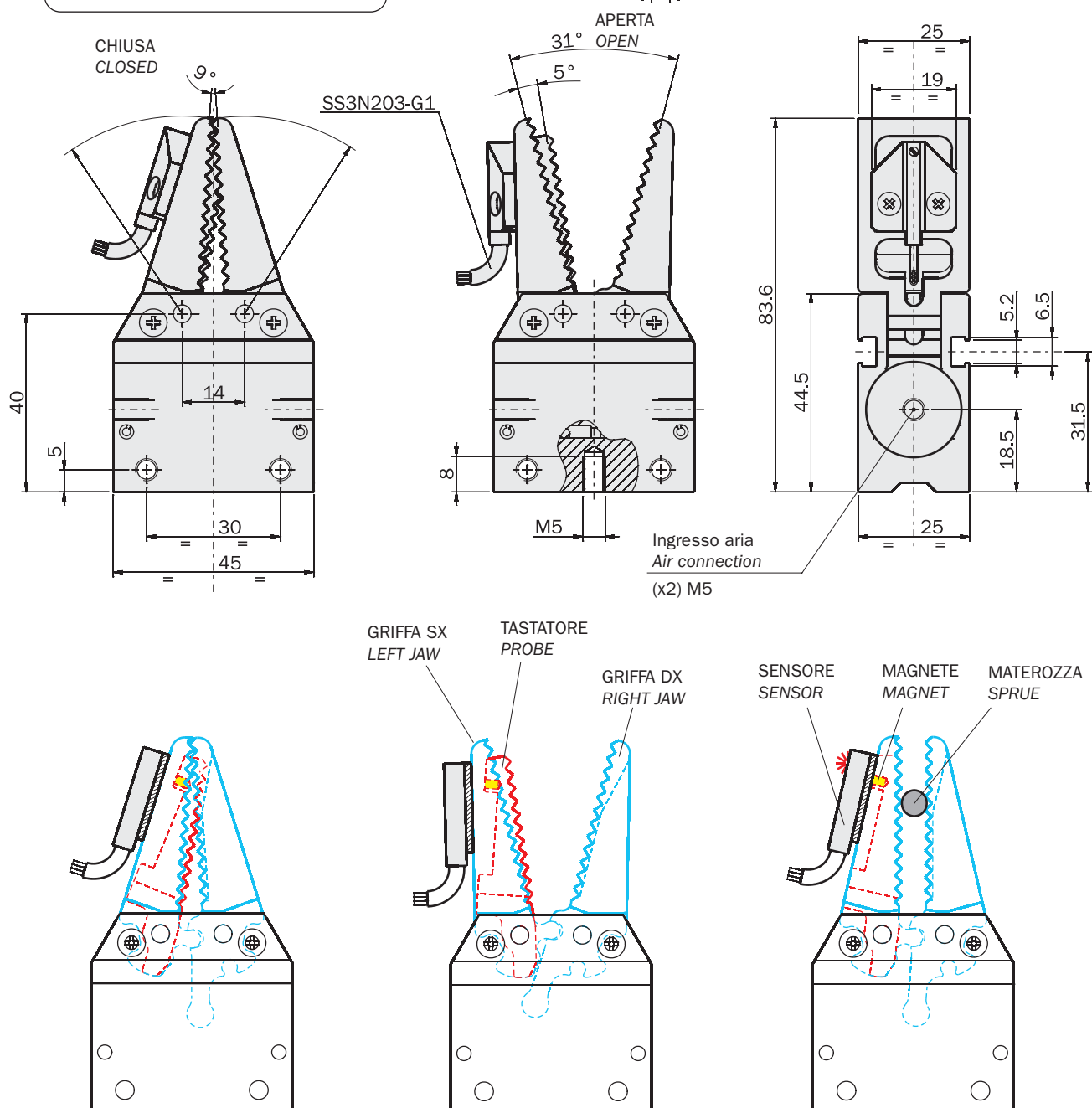
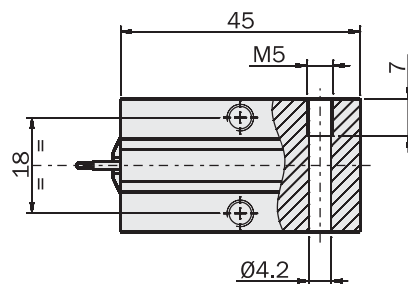
AA-26

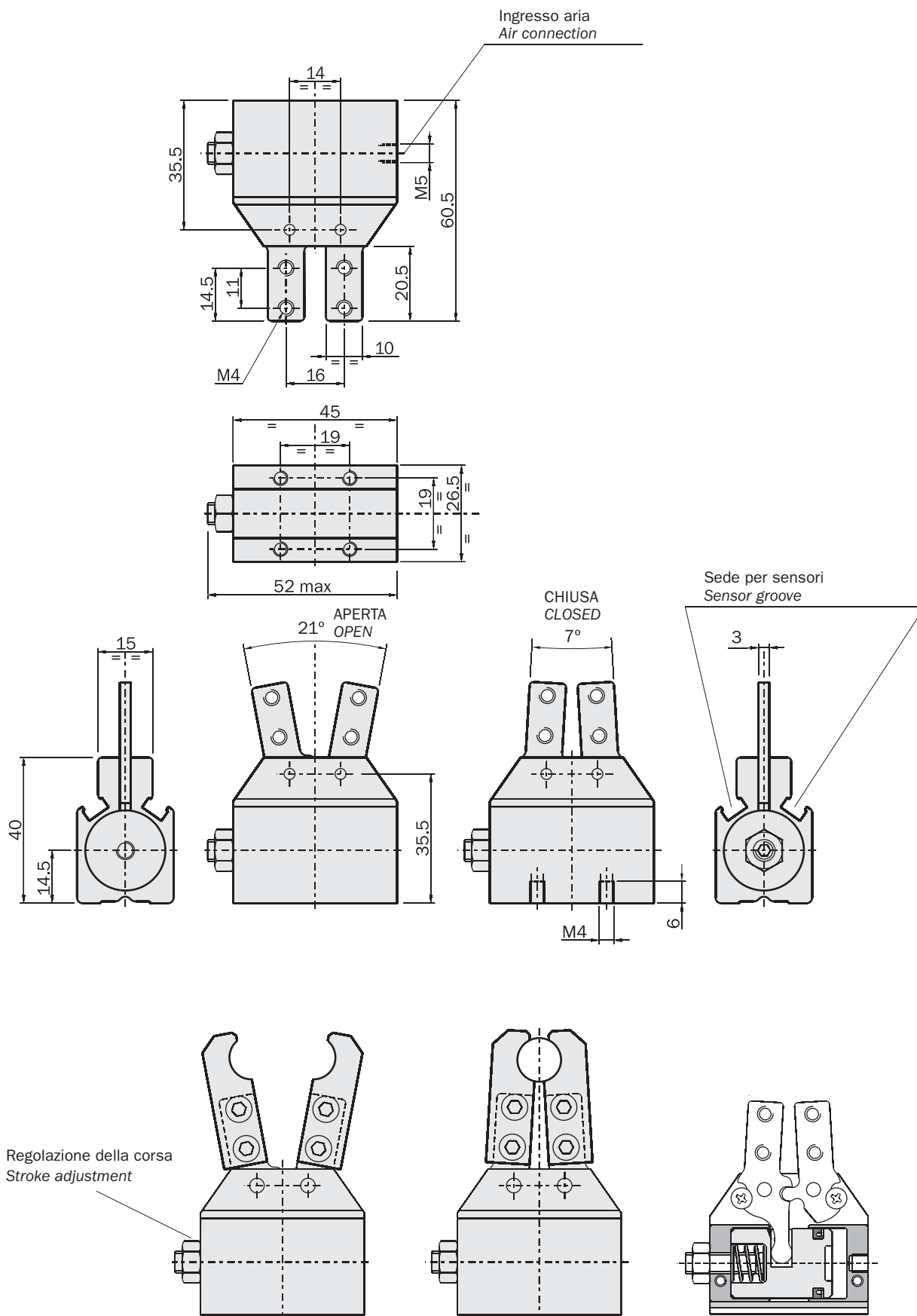


Dimensioni (mm)
Dimensions (mm)APERTA
OPENSede per sensori serie SL
SL series sensor grooveIngresso aria
Air connection
(x2) M5Dito di presa (non fornito)
Gripping tool (not supplied)FIRST ANGLE
PROJECTION

Dimensioni (mm)**Dimensions (mm)**

Dita più larghe e scanalate per una presa migliore
Wider, grooved fingers for a better gripping

AA-35**AA-35-NO**
 **FIRST ANGLE
PROJECTION**


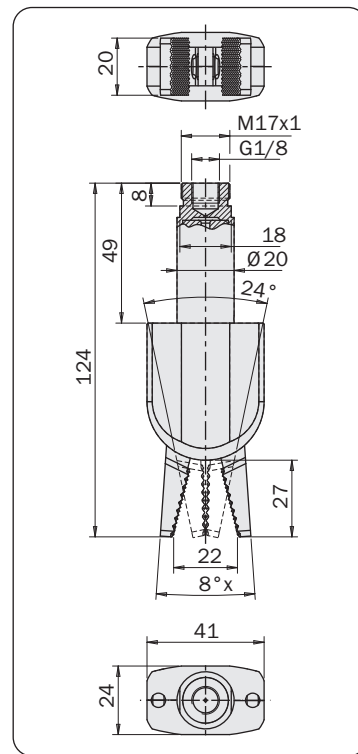
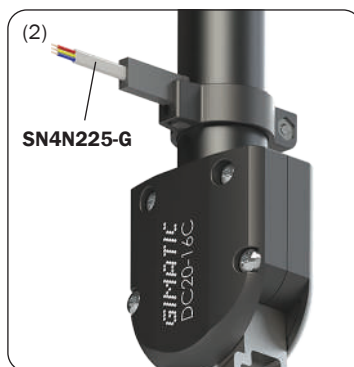
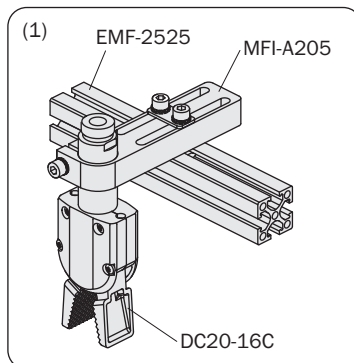


Pinza pneumatica per materozze, angolare autocentrante a due griffe, serie DC

- Azionamento a semplice effetto con apertura a molla.
- Vari accessori disponibili per il fissaggio (1).
- Griffe in acciaio.
- Corpo composito in plastica, acciaio, alluminio.
- Grasso alimentare FDA-H1.
- Sensori e fascette opzionali (2).

2-jaw self-centering angular pneumatic sprue gripper, series DC

- Single acting with spring opening (1).
- Several mounting accessories.
- Steel jaws.
- Plastic-steel-aluminium composite body.
- FDA-H1 food-grade grease.
- Optional sensors and clamps (2).



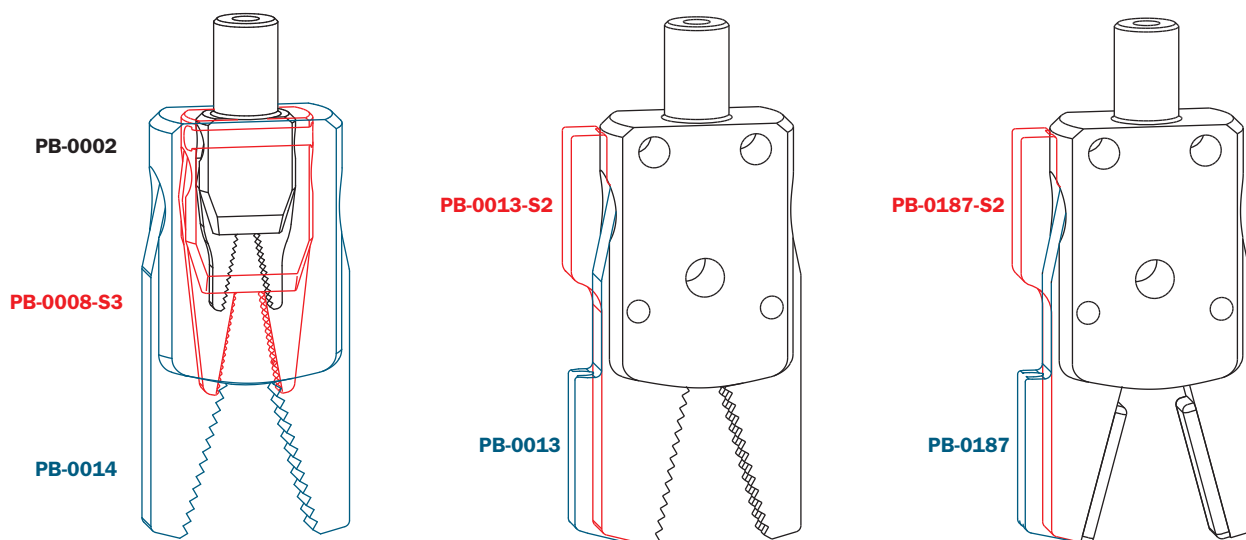
	DC20-16C
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]
Pressione di esercizio Pressure range	2 ÷ 8 bar
Temperatura di esercizio Temperature range	5 ÷ 60 °C.
Corsa Stroke	2 x 15°
Coppia di chiusura per griffa a 6 bar Closing torque at 6 bar each jaw	300 Ncm
Coppia di chiusura totale a 6 bar Total closing torque at 6 bar	600 Ncm
Coppia di apertura per griffa a 0 bar Opening torque at 0 bar each jaw	20 Ncm
Coppia di apertura totale a 0 bar Total opening torque at 0 bar	40 Ncm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz
Consumo d'aria per ciclo Cycle air consumption	3.6 cm ³
Tempo di chiusura Closing time	0.02 s
Peso Weight	148 g

Pinza pneumatica per materozze, angolare non autocentrante a due griffe serie PB

- Grasso alimentare FDA-H1.
- Tre taglie disponibili con alesaggio 6mm, 8mm, 12mm.
- Sensore sulla punta, o sul fondo della griffa.
- Griffe con denti (per presa materozze), o con pastiglie (per contatto morbido).
- Griffe in alluminio o acciaio.

2-jaw non-selfcentering angular pneumatic sprue gripper series PB

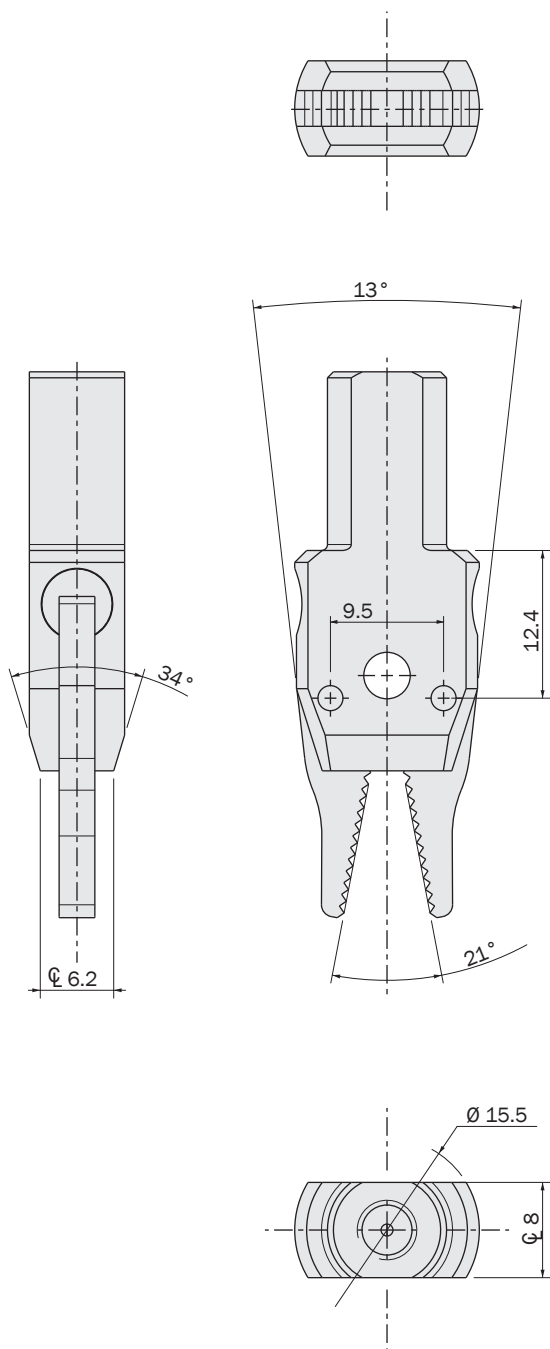
- FDA-H1 food-grade grease.
- Three available sizes with piston bore 6mm, 8mm, 12mm.
- Sensor on the tip of the jaw, or on the tail.
- Jaws with teeth (for sprue gripping), or with pads (for soft contact).
- Jaws in aluminium or steel.



		NEW	NEW		NEW	PB-0170				PB-0160 PB-0181 PB-0182		NEW	NEW	NEW	NEW
	PB-0002	PB-0007-S3	PB-0008-S3	PB-0013	PB-0013-S2	PB-0014	PB-0015	PB-0017	PB-0140 PB-0150	PB-0180	PB-0180-SV	PB-0180-S2	PB-0187	PB-0187-S2	PB-0187-SV
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]														
Pressione di esercizio Pressure range	4 ÷ 8 bar														
Temperatura di esercizio Temperature range	5 ÷ 60 °C.														
Peso Weight	7 g	17 g	18 g	55 g	64 g	50g	50 g	45 g	75 g	60 g	74 g	70 g	58 g	62 g	
Corsa Stroke (±2°)	2x10°			2x15°			2x16°	2x15°							
Consumo d'aria per ciclo Cycle air consumption	0.3 cm³			1.2 cm³			1.5 cm³	1.2 cm³							
Coppia di serraggio per griffa in chiusura a 6 bar Closing gripping torque at 6 bar each jaw	10 Ncm	24 Ncm		80 Ncm			60 Ncm	80 Ncm							
Coppia per griffa in apertura (a 6 bar) Opening gripping torque (at 6 bar) each jaw	1 Ncm	2 Ncm		5 Ncm			5 Ncm (25 Ncm)	5 Ncm							
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz														
Tempo di chiusura senza carico Closing time without load	0.01 s														

PB-0002

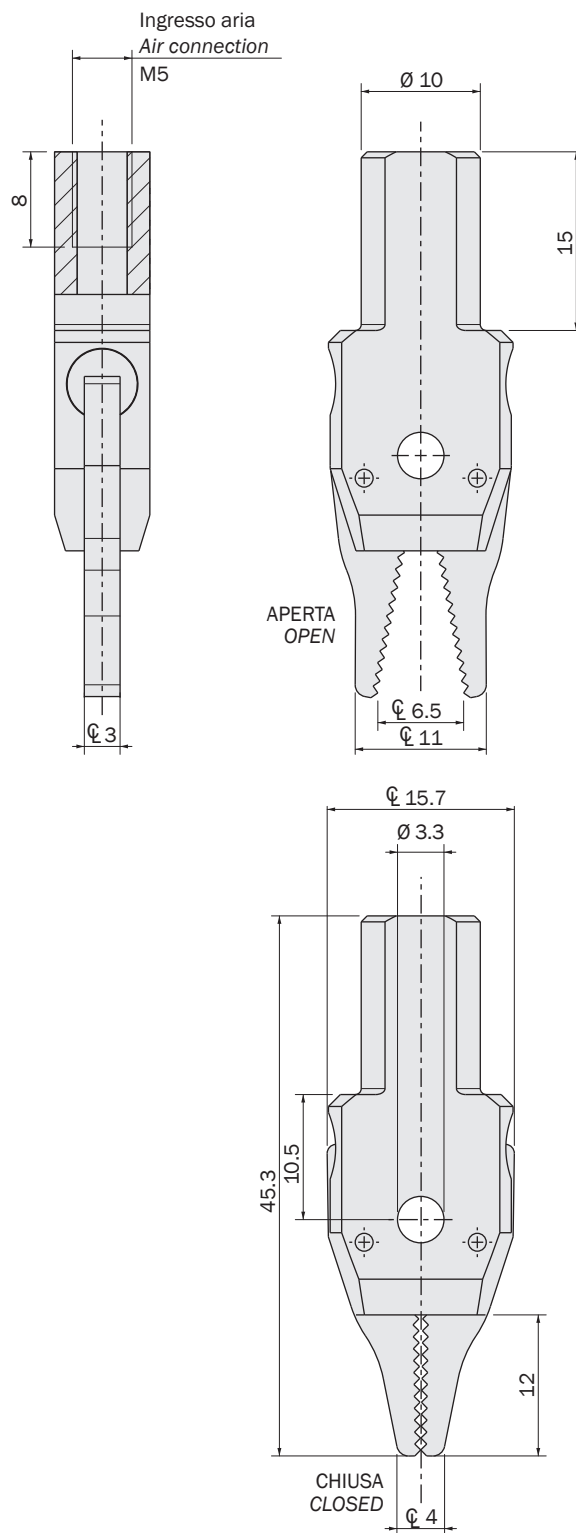
- Alesaggio: 6mm.
- 8mm di spessore.
- A semplice effetto con molla in apertura.

Dimensioni (mm)**PB-0002**

- Piston bore: 6mm.
- 8mm thickness.
- Single-acting with opening spring.

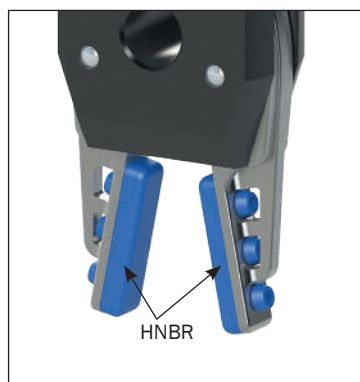
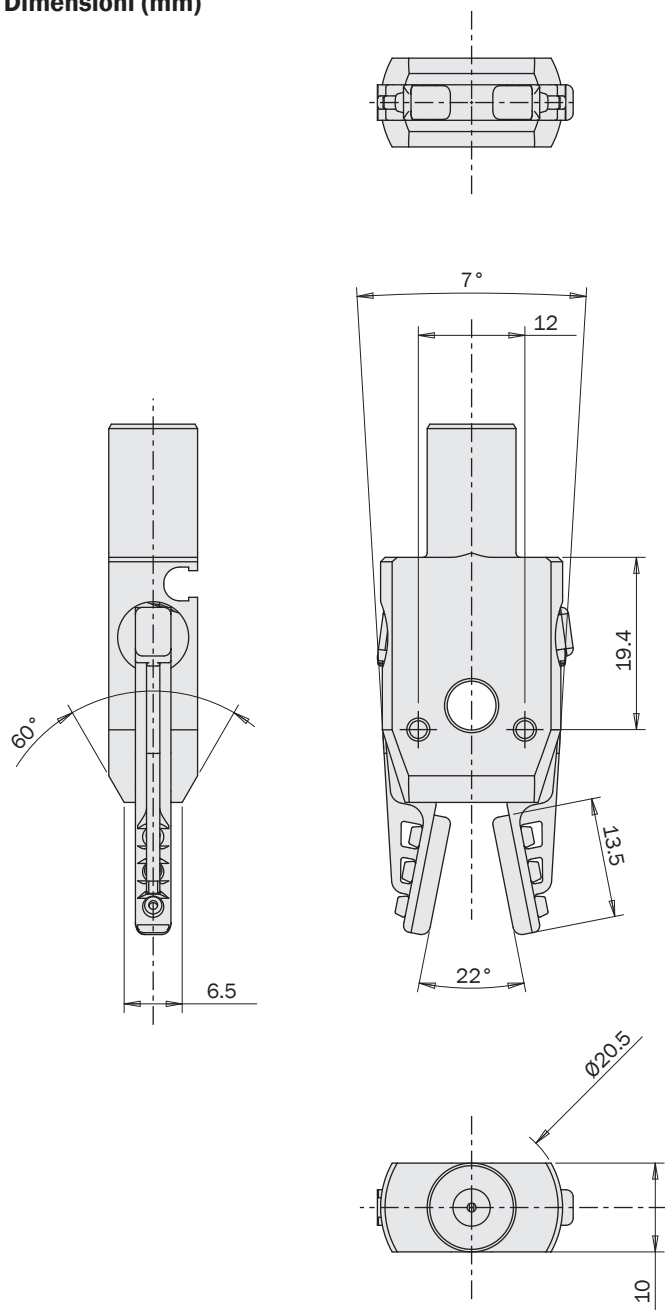
Dimensions (mm)

FIRST ANGLE
PROJECTION



PB-0007-S3

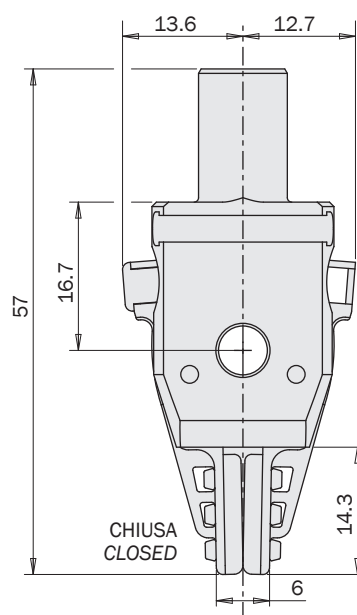
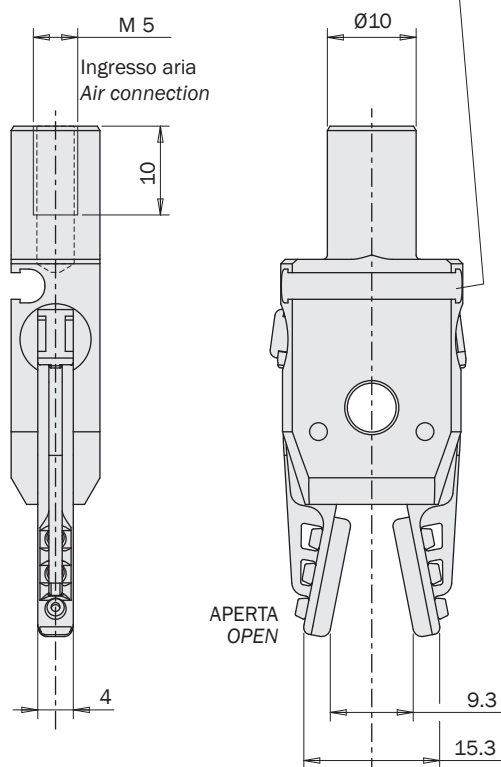
- Alesaggio: 8mm.
- A semplice effetto con molla in apertura.
- Pastiglia in gomma (HNBR) per contatto morbido.
- Predisposta per sensore magnetico programmabile PRO-SSR.
- Spessore minimo rilevabile: 2mm.

Dimensioni (mm)**PB-0007-S3**

- Piston bore: 8mm.
- Single-acting with opening spring.
- Rubber (HNBR) pads for a soft contact.
- Ready for PRO-SSR programmable magnetic sensor.
- Minimum detectable thickness: 2mm.

Dimensions (mm)FIRST ANGLE
PROJECTION**I sensori opzionali sono:****The optional sensors are:**

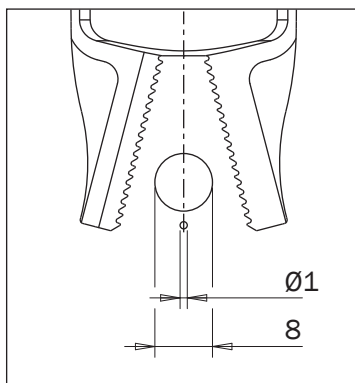
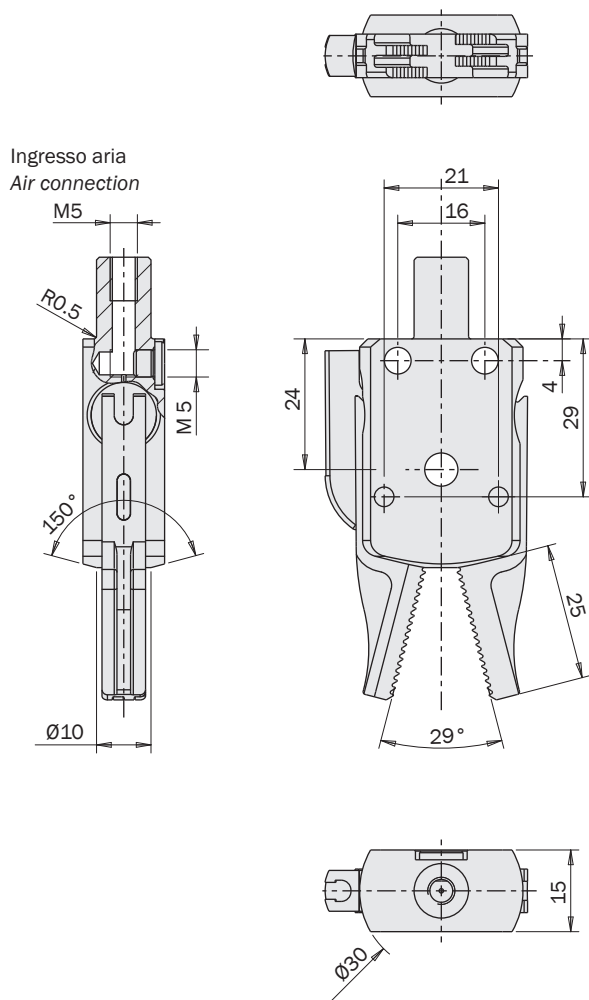
PRO-SSR3M215-G	NPN	Connettore M8
PRO-SSR3N215-G	PNP	M8 snap plug connector
PRO-SSR4M225-G	NPN	Cavo 2.5m
PRO-SSR4N225-G	PNP	2.5m cable



PB-0013-S2

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore magnetico SSY opzionale con ingombro ridotto nella zona di presa.

Dimensioni (mm)



PB-0013-S2

- Piston bore: 12mm.
- Single-acting with opening spring.
- Optional magnetic sensor SSY with reduced encumbrance in the grip area.

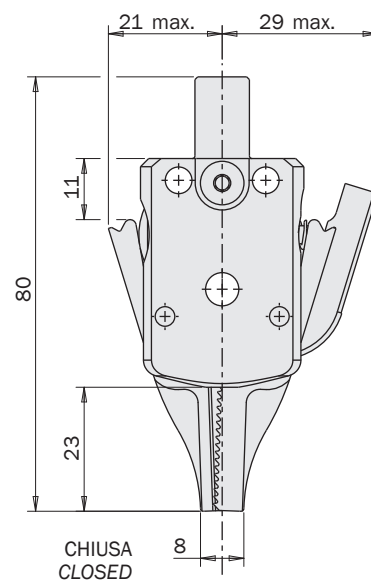
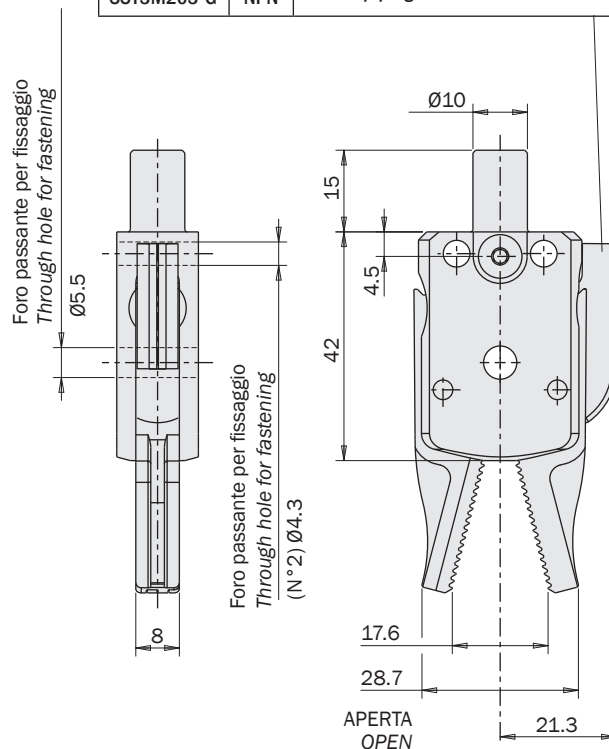
Dimensions (mm)



I sensori opzionali sono:

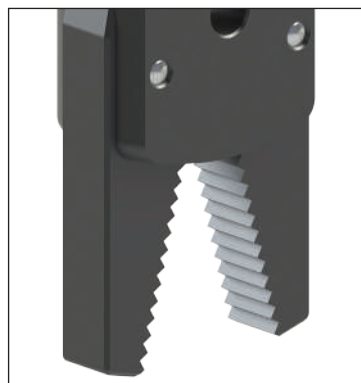
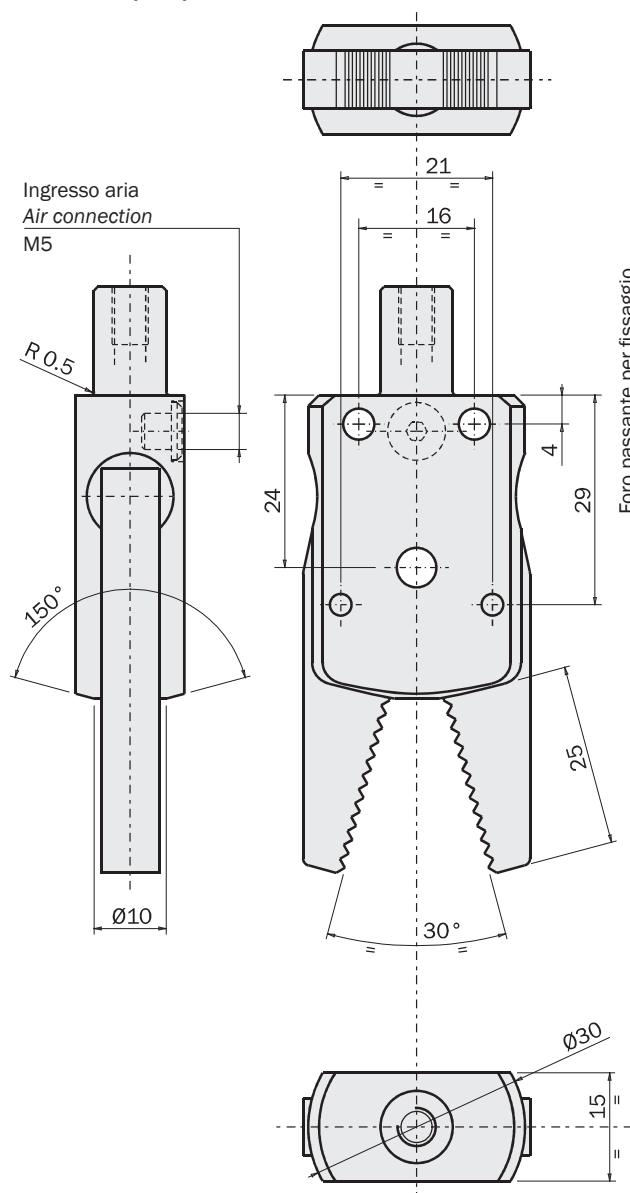
The optional sensors are:

SSY4N225-G	PNP	Cavo 2.5m
SSY4M225-G	NPN	2.5m cable
SSY3N203-G	PNP	Connettore M8
SSY3M203-G	NPN	M8 snap plug connector

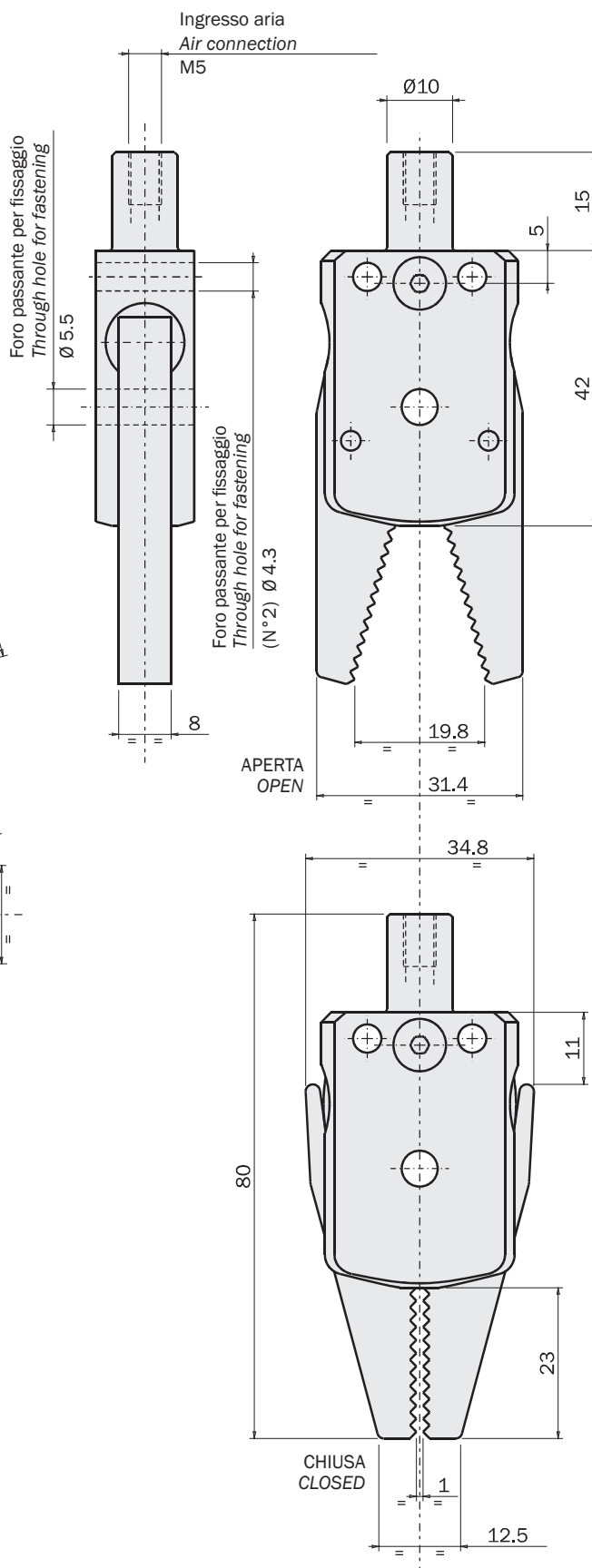


PB-0014

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.

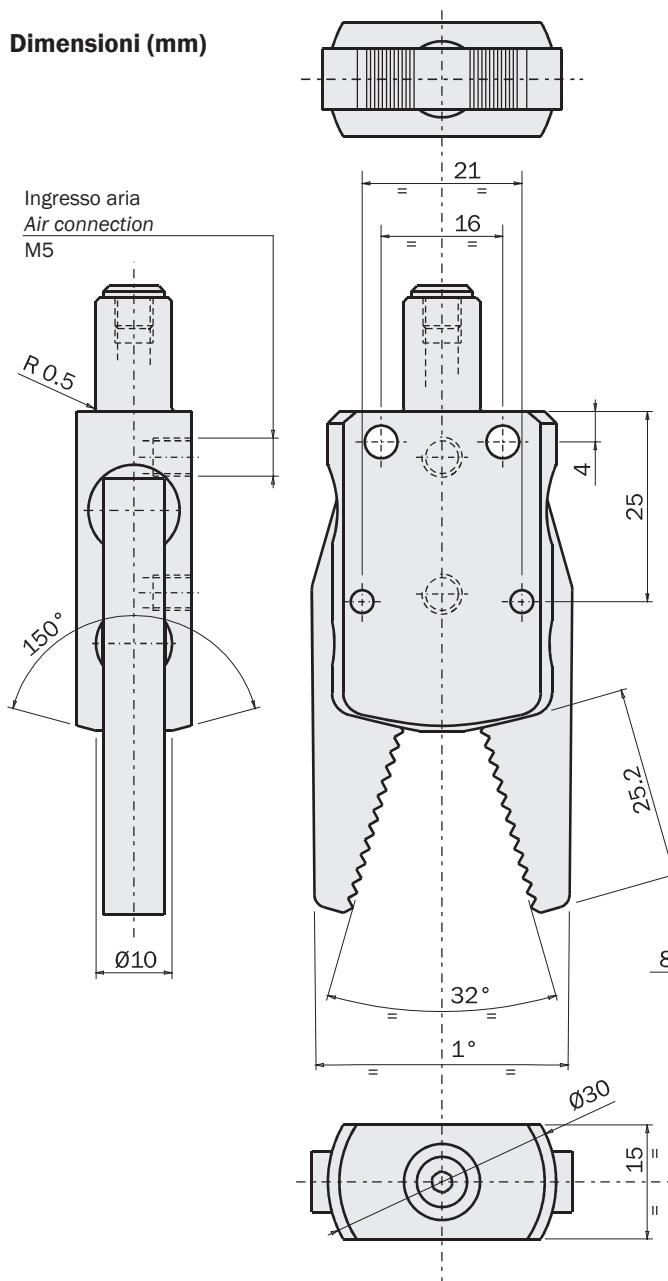
Dimensioni (mm)**PB-0014**

- Piston bore: 12mm.
- Single-acting with opening spring.

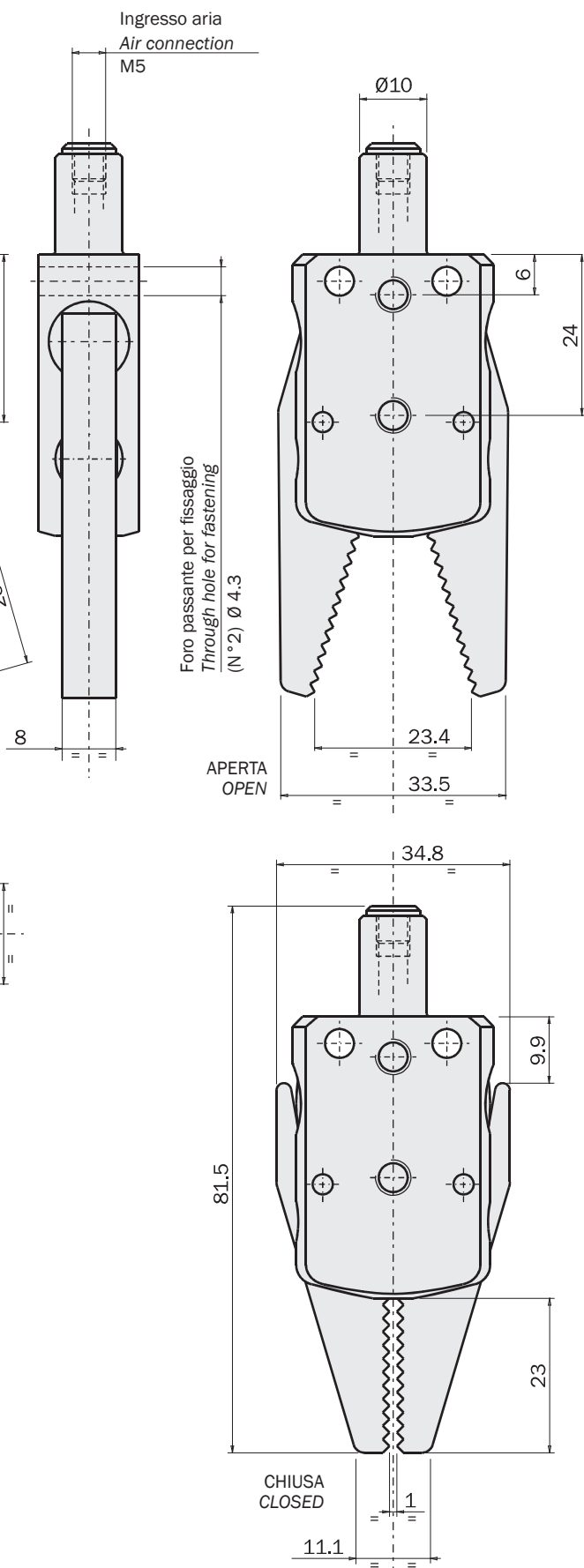
Dimensions (mm)

PB-0015

- Alesaggio: 12mm.
- A doppio effetto con molla in apertura.

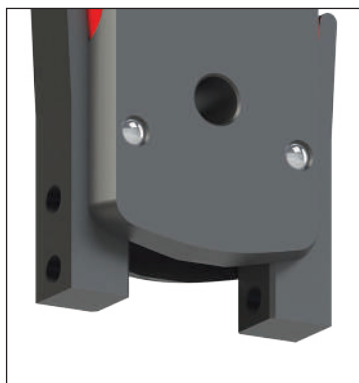
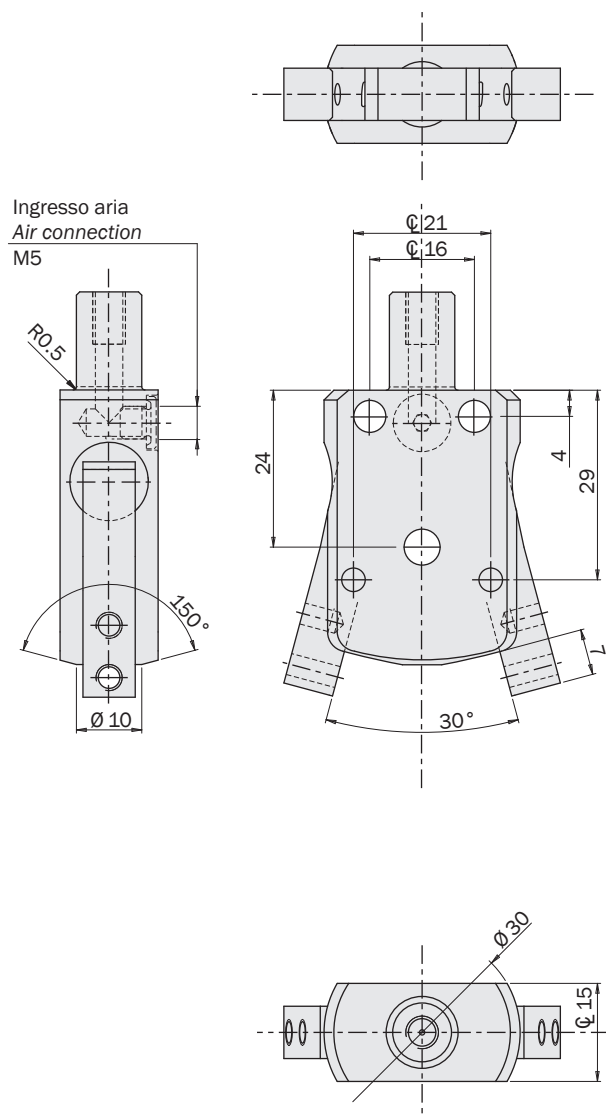
Dimensioni (mm)**PB-0015**

- Piston bore: 12mm.
- Double-acting with opening spring.

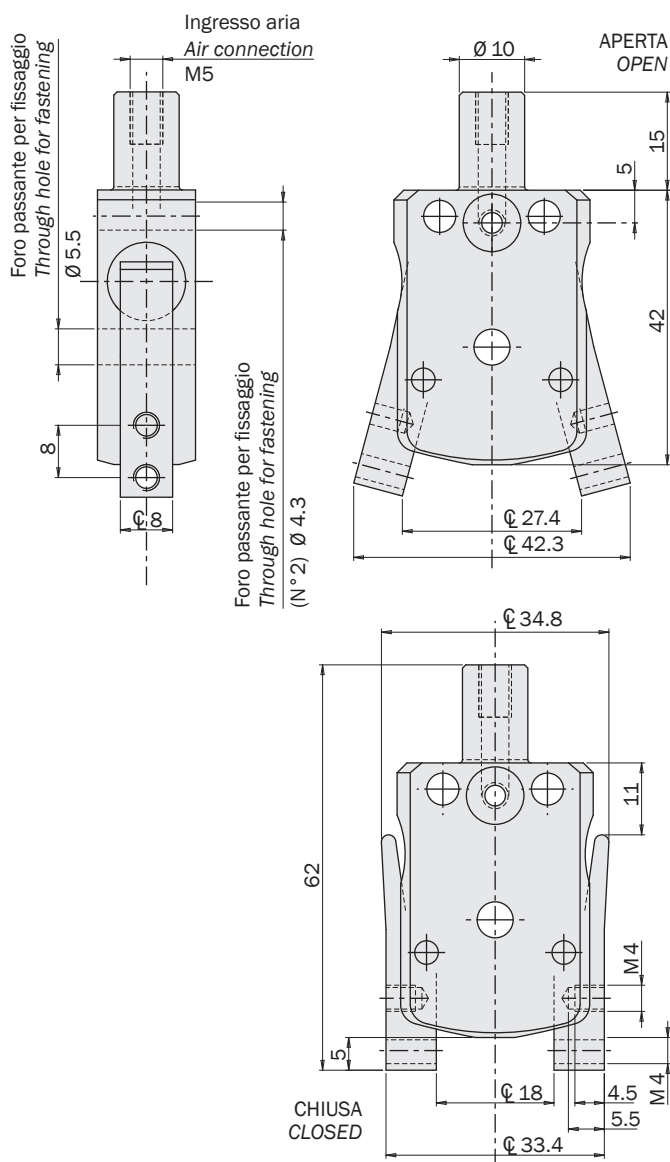
Dimensions (mm)

PB-0017

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe personalizzabili.

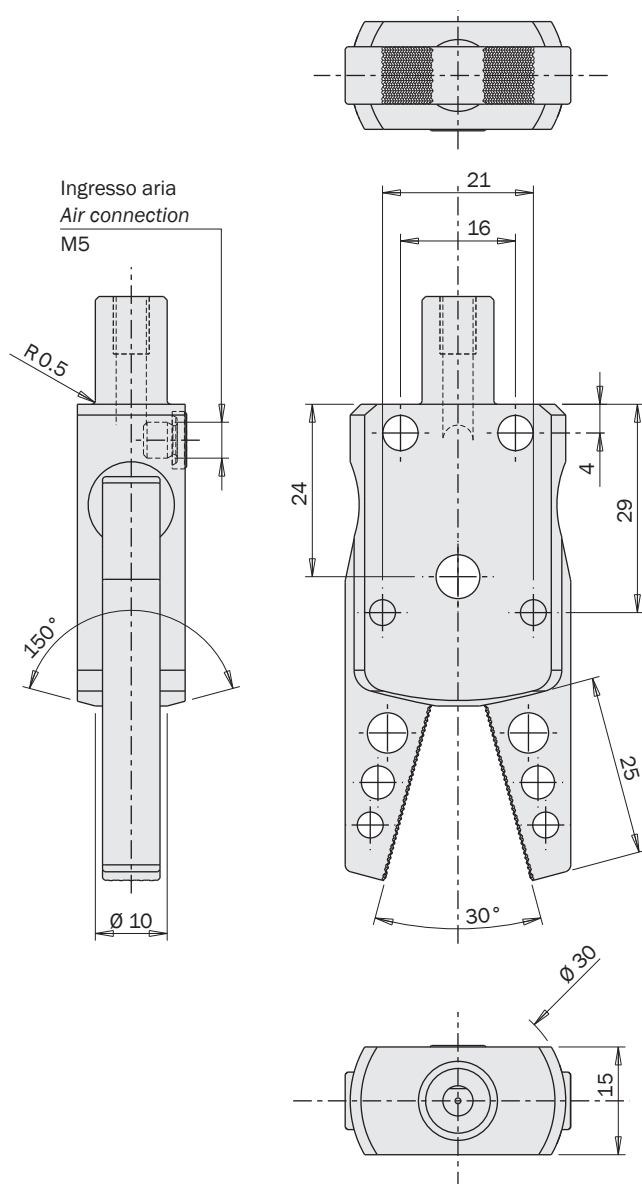
Dimensioni (mm)**PB-0017**

- Piston bore: 12mm.
- Single-acting with opening spring.
- Custom jaws.

Dimensions (mm)

PB-0140

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe in acciaio.

Dimensioni (mm)

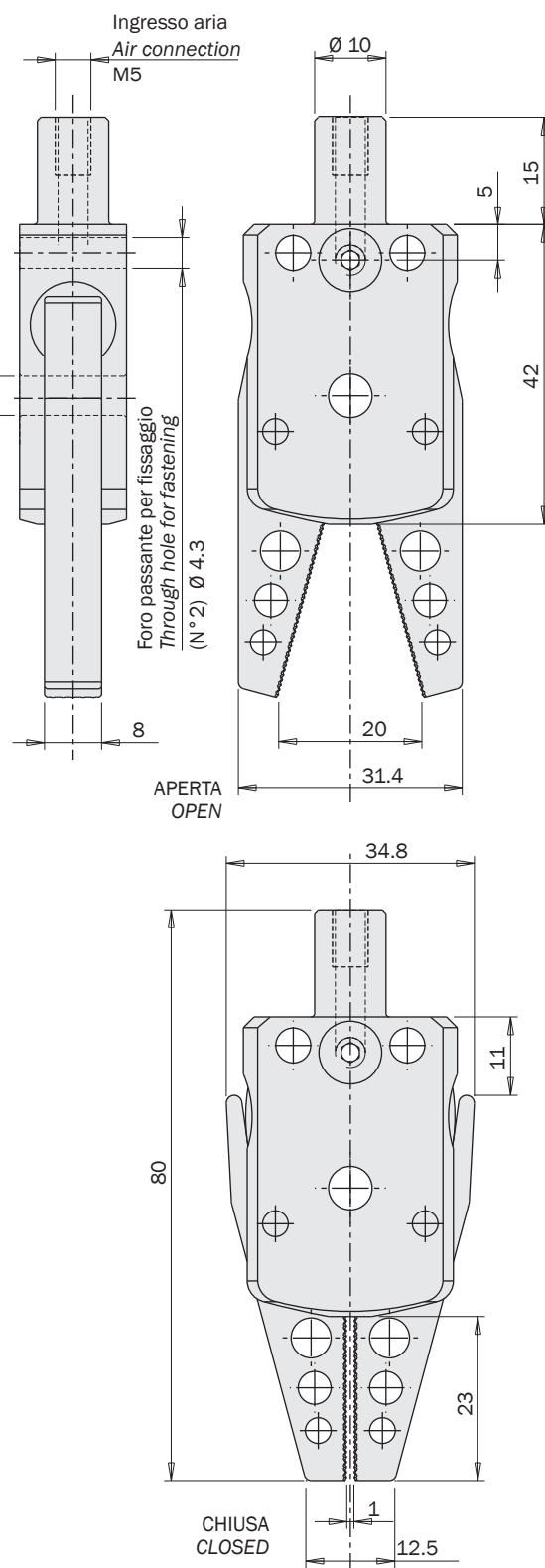
Griffe in acciaio con zigrinatura spinata (90°)
Steel jaws with diamond knurl (90°)



FIRST ANGLE
PROJECTION

PB-0140

- Piston bore: 12mm.
- Single-acting with opening spring.
- Steel jaws.

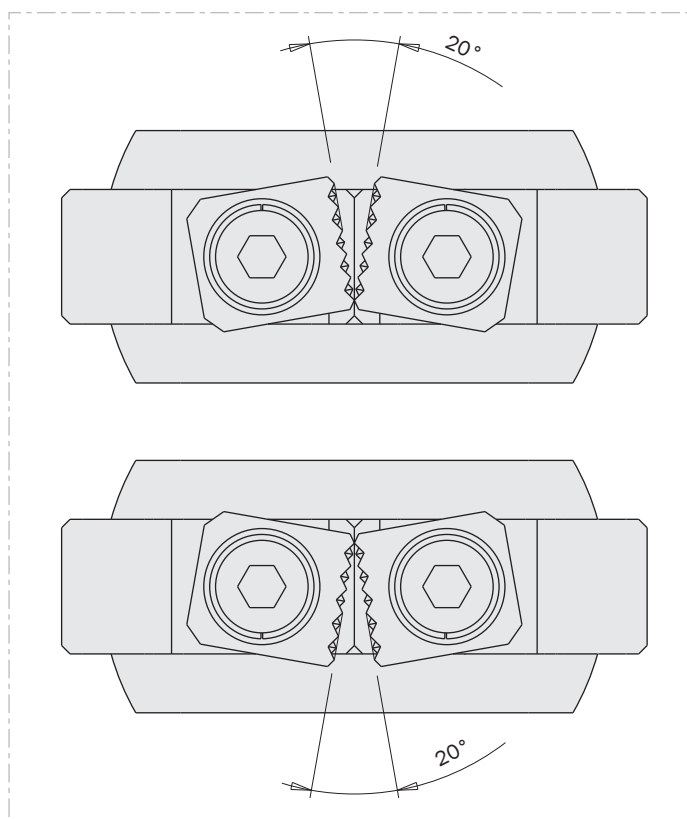
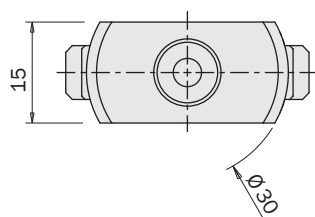
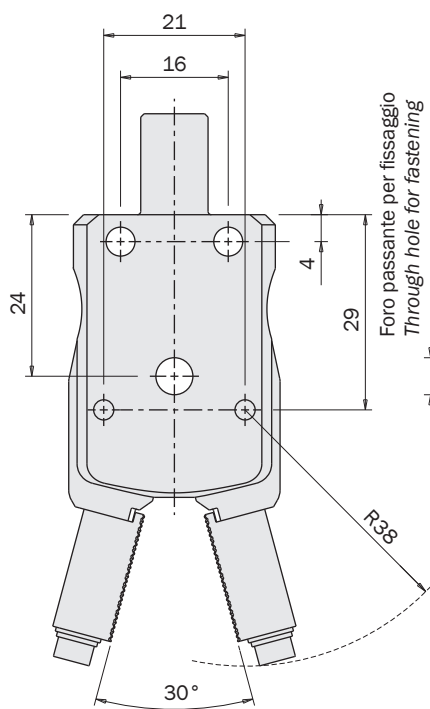
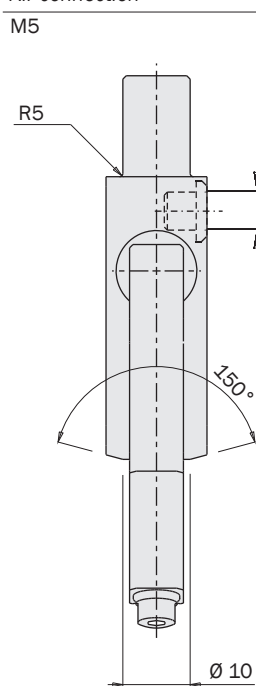
Dimensions (mm)

PB-0150

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe oscillanti per materozze coniche.

Dimensioni (mm)

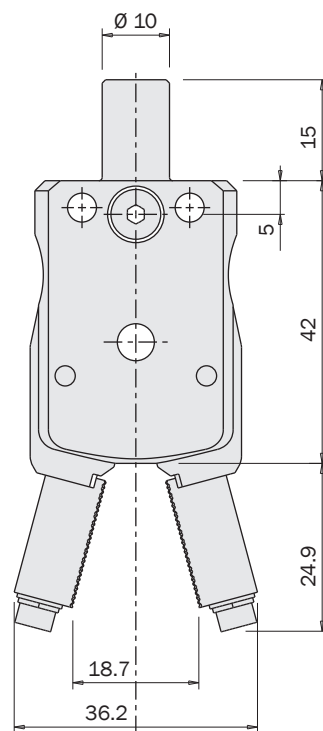
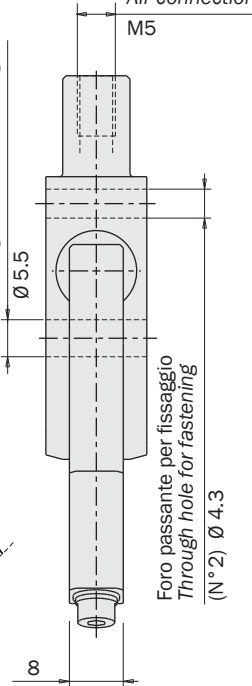
Ingresso aria
Air connection
M5

**PB-0150**

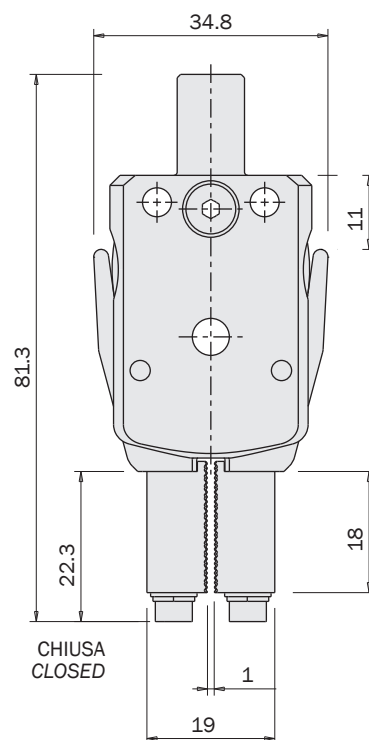
- Piston bore: 12mm.
- Single-acting with opening spring.
- Swiveling jaws for conical sprues.

Dimensions (mm)

Ingresso aria
Air connection
M5



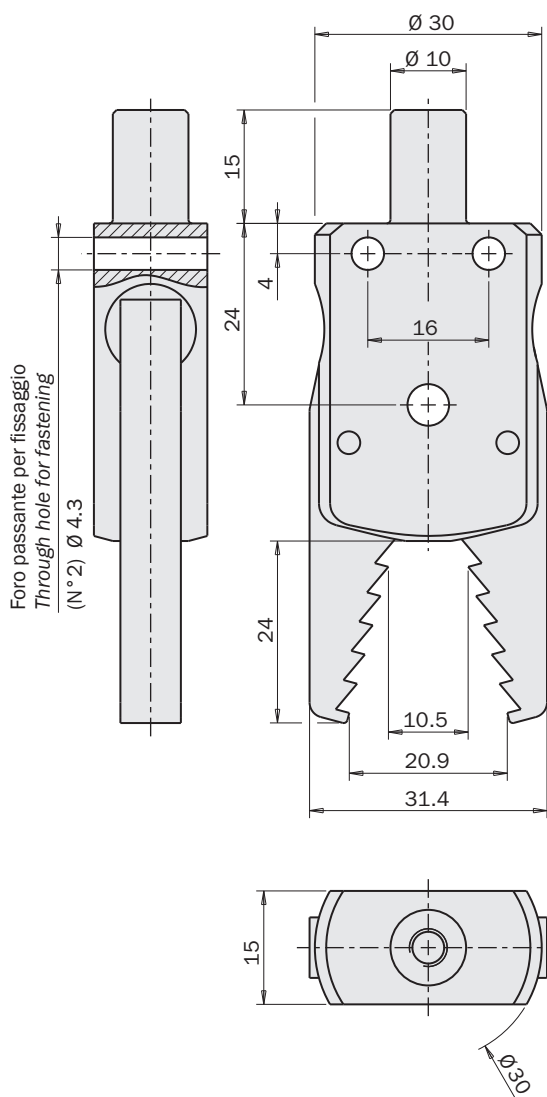
APERTA
OPEN



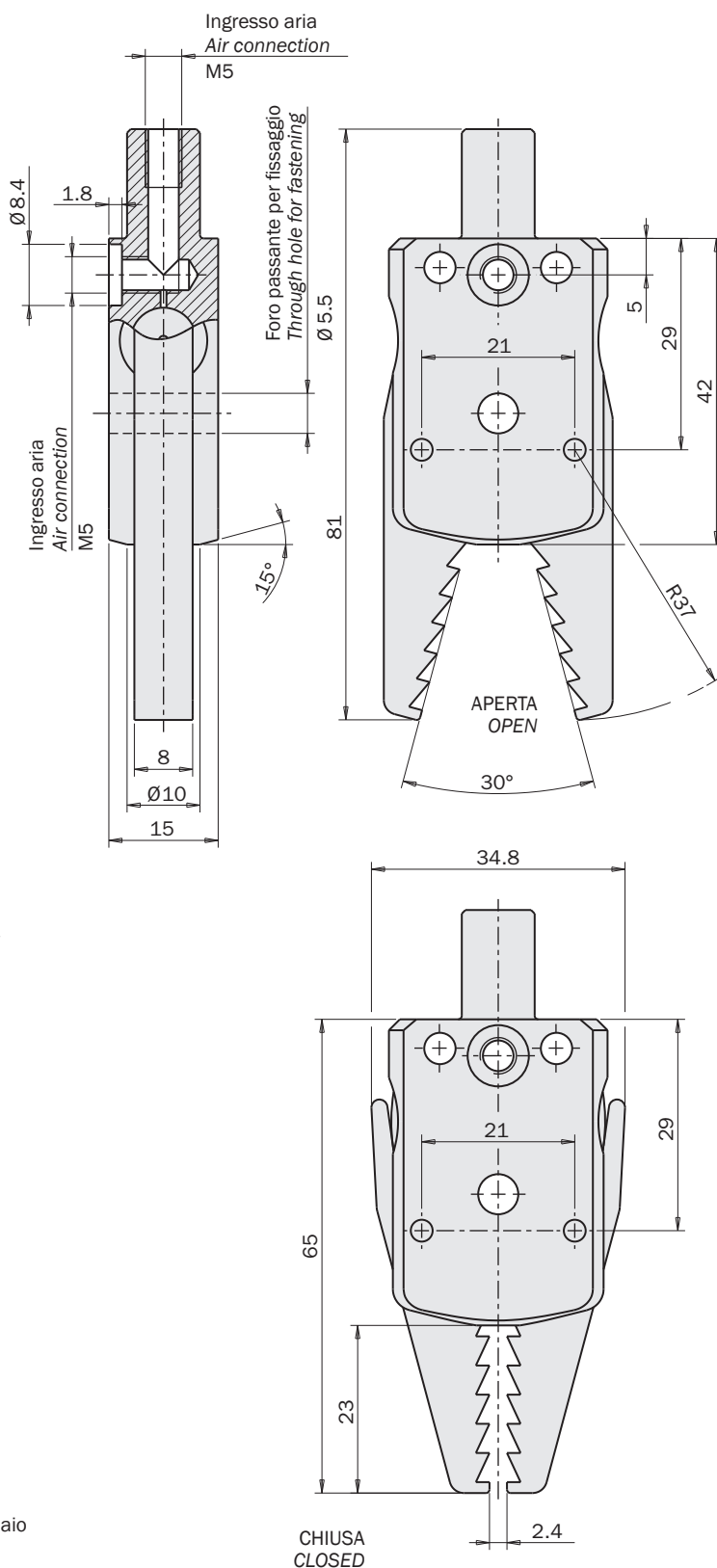
FIRST ANGLE
PROJECTION

PB-0160

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe in acciaio.

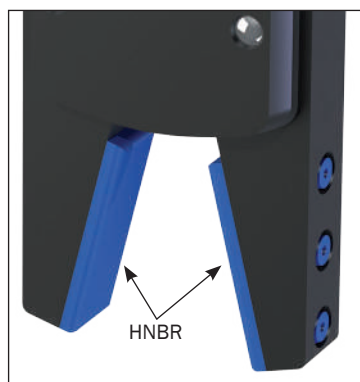
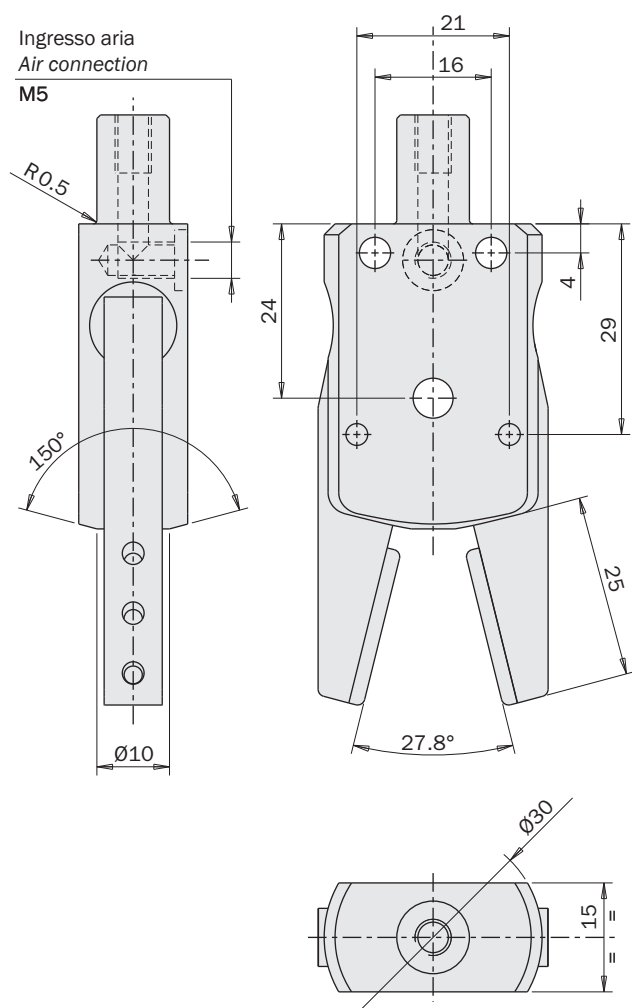
Dimensioni (mm)Griffe in acciaio
Steel jaws**PB-0160**

- Piston bore: 12mm.
- Single-acting with opening spring.
- Steel jaws.

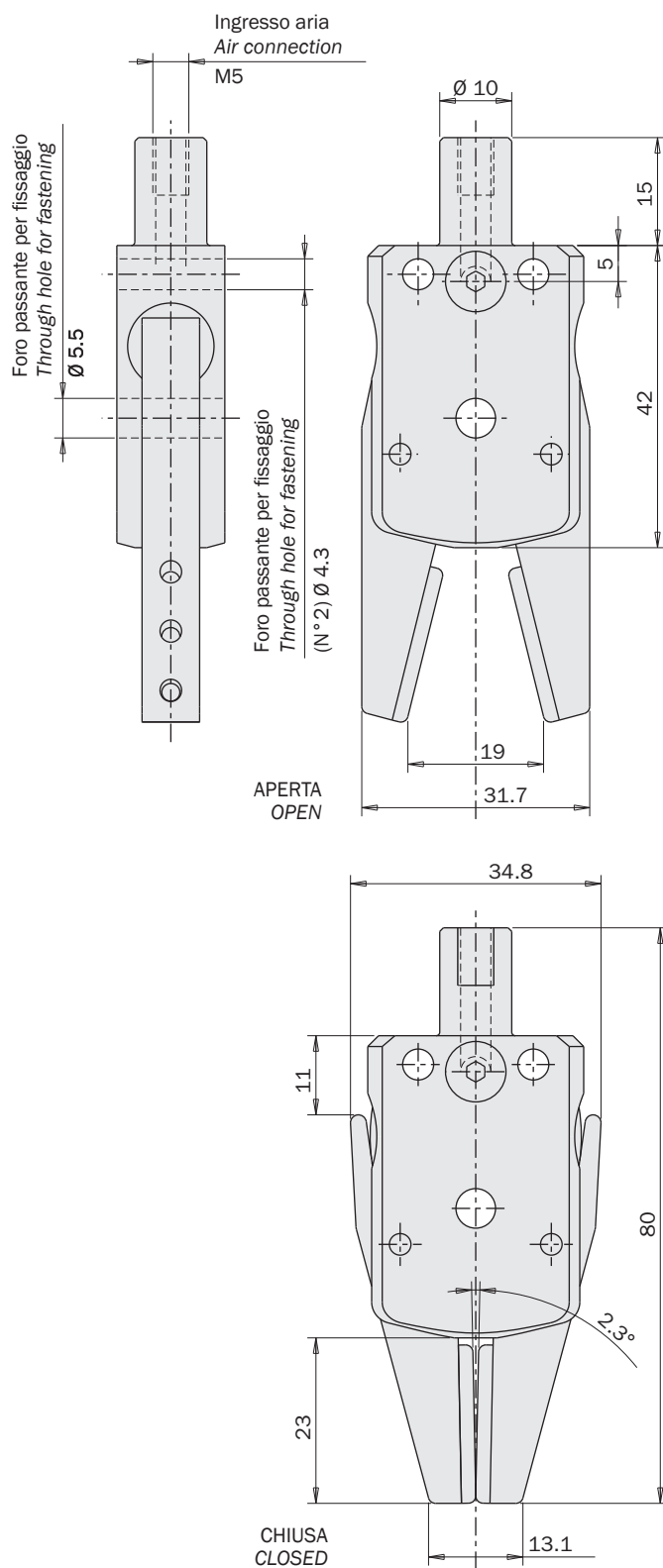
Dimensions (mm)FIRST ANGLE
PROJECTION

PB-0170

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Pastiglia in gomma (HNBR) per contatto morbido.

Dimensioni (mm)**PB-0170**

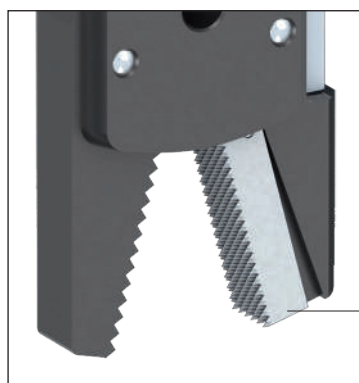
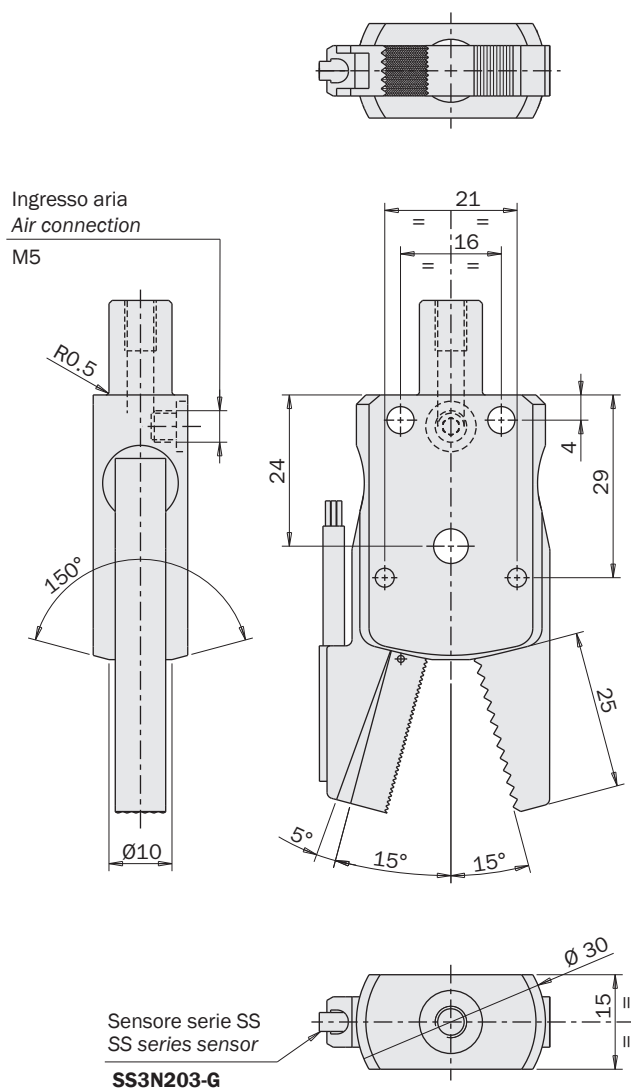
- Piston bore: 12mm.
- Single-acting with opening spring.
- Rubber (HNBR) pads for a soft contact.

Dimensions (mm)
**FIRST ANGLE
PROJECTION**

PB-0180

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore SS3N203-G incluso e montato sulla punta della griffa.
- Tastatore in acciaio.

Dimensioni (mm)

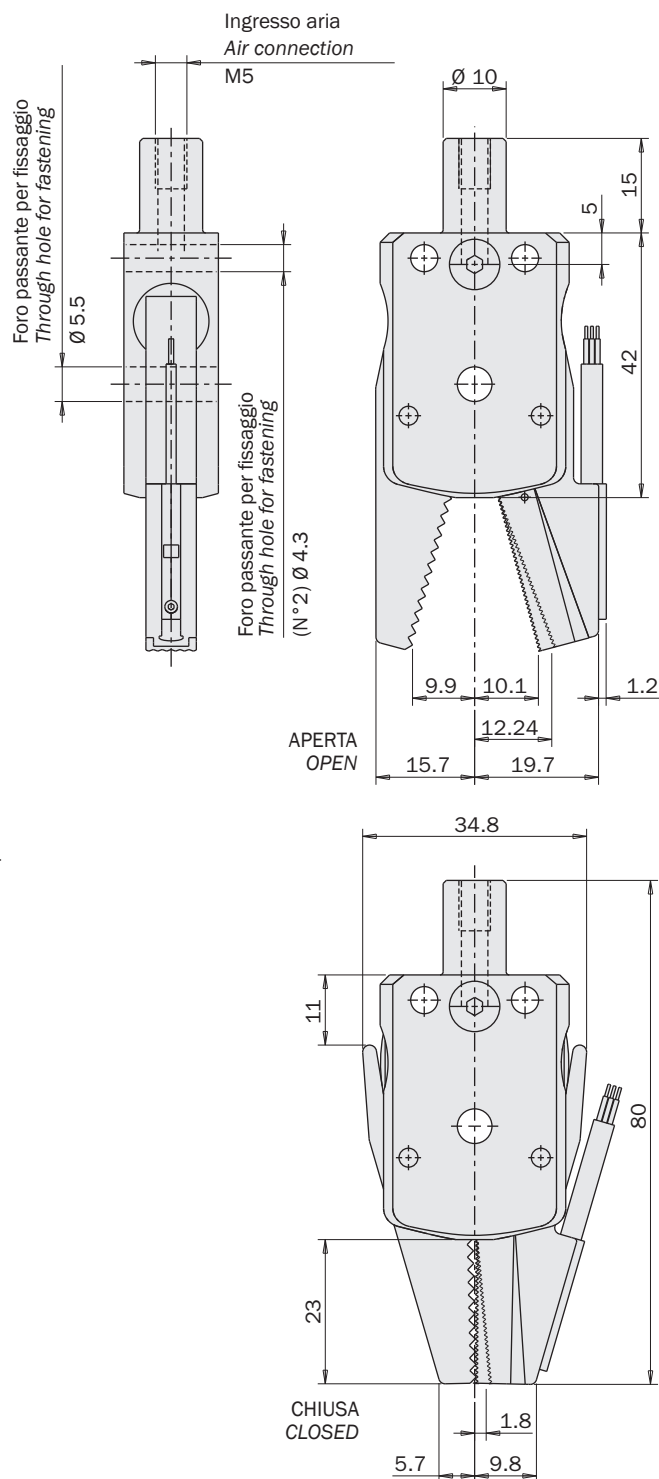


Tastatore in acciaio
Steel probe

PB-0180

- Piston bore: 12mm.
- Single-acting with opening spring.
- Sensor SS3N203-G included and fitted to the tip of the jaw.
- Steel probe.

Dimensions (mm)

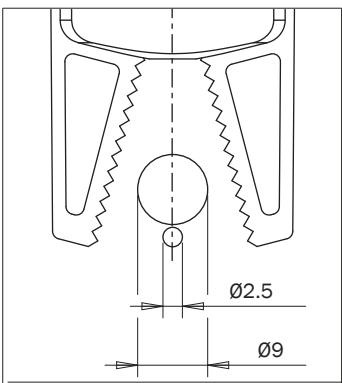
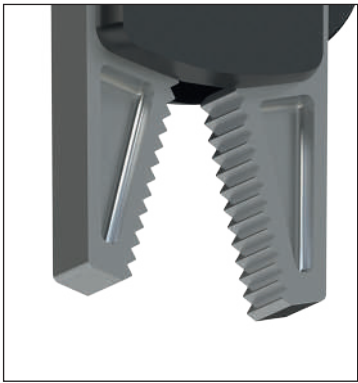
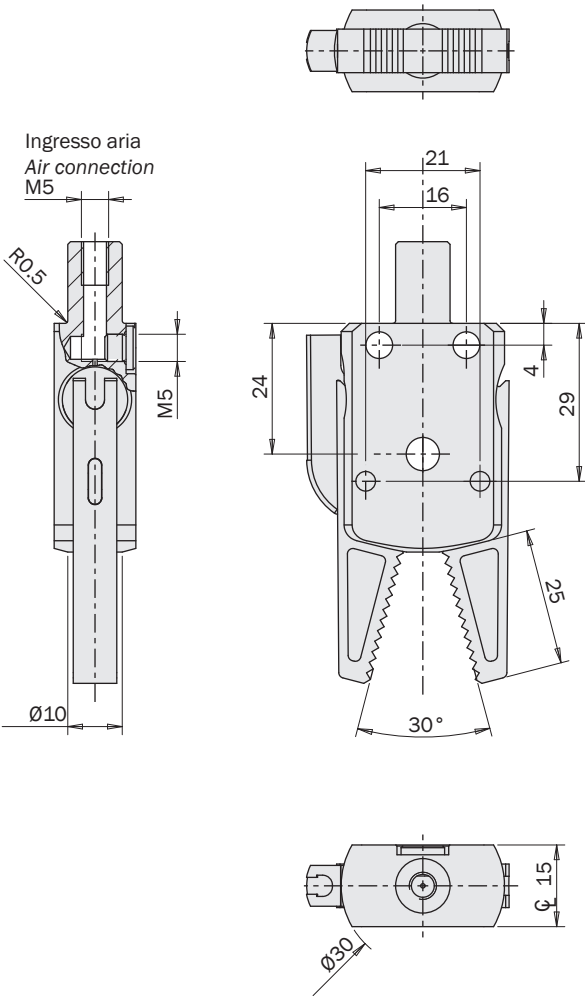


 FIRST ANGLE
PROJECTION

PB-0180-S2

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore magnetico SSY opzionale con ingombro ridotto nella zona di presa.

Dimensioni (mm)

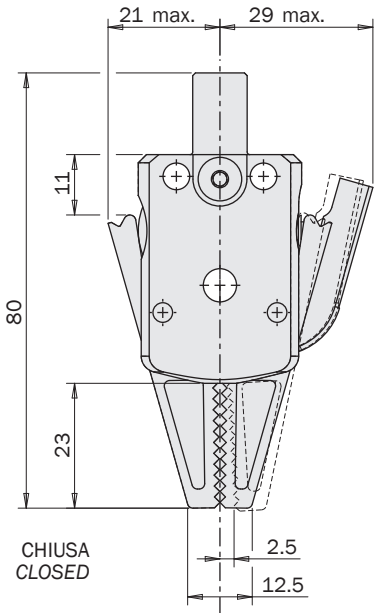
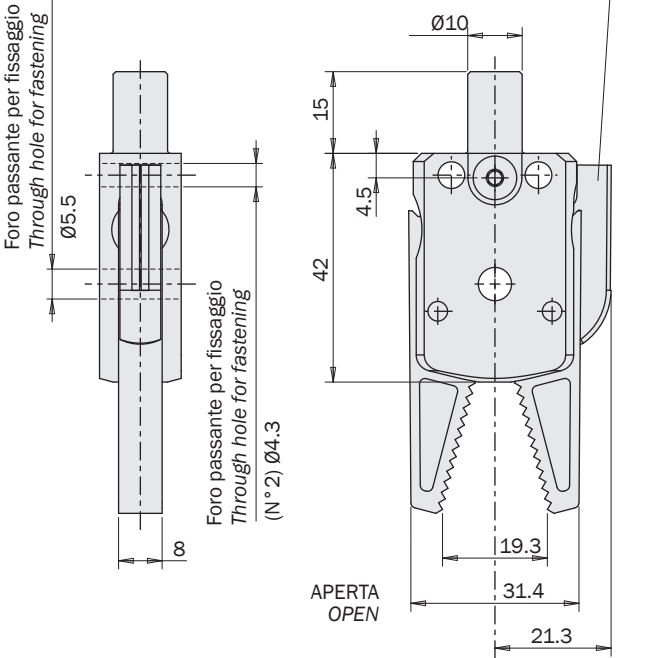


PB-0180-S2

- Piston bore: 12mm.
- Single-acting with opening spring.
- Optional magnetic sensor SSY with reduced encumbrance in the grip area.

Dimensions (mm)

I sensori opzionali sono: The optional sensors are:		
SSY4N225-G	PNP	Cavo 2.5m 2.5m cable
SSY4M225-G	NPN	
SSY3N203-G	PNP	Connettore M8 M8 snap plug connector
SSY3M203-G	NPN	

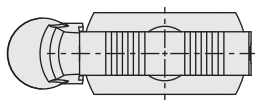


PB-0180-SV

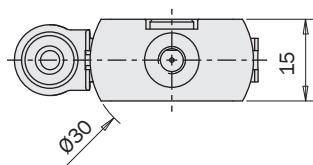
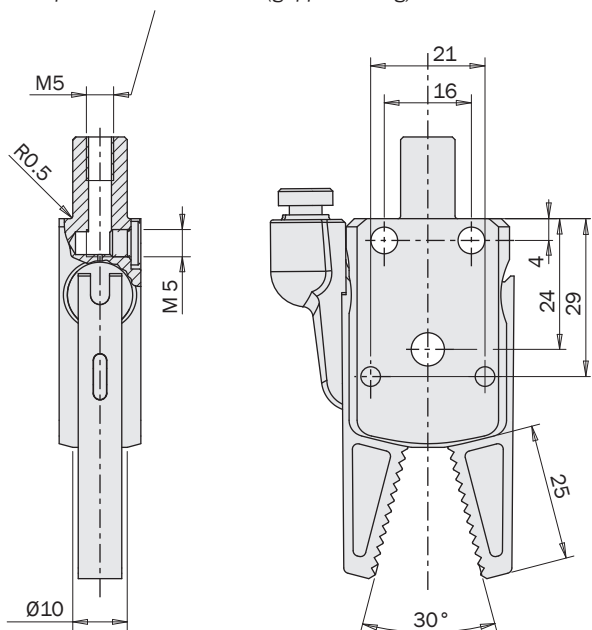
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Rilevamento della presa con sensore di vuoto.

PB-0180-SV

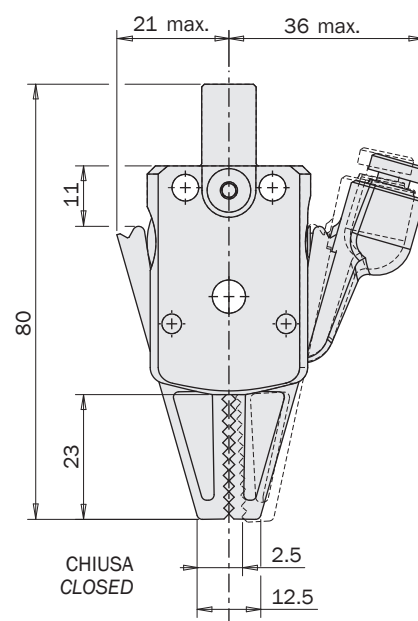
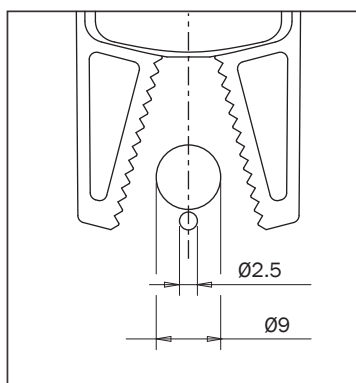
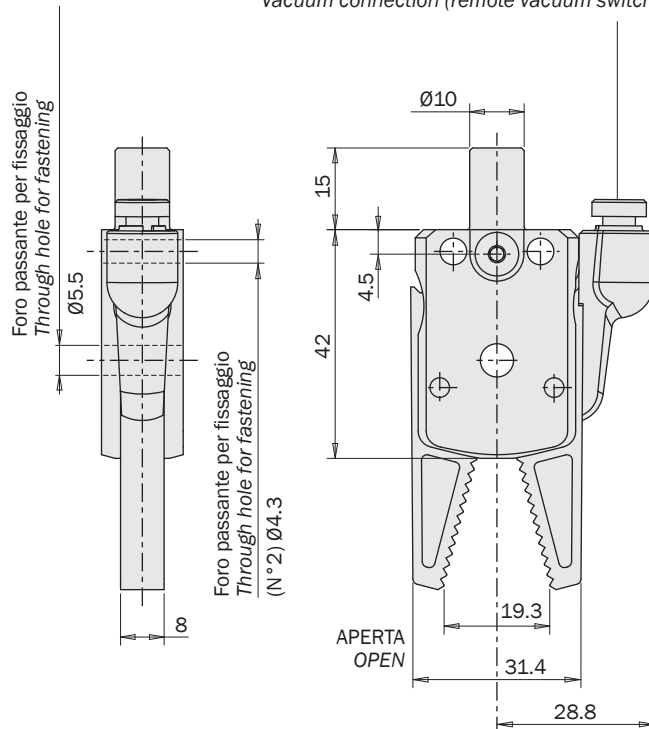
- Piston bore: 12mm.
- Single-acting with opening spring.
- Grip detection by vacuum sensor



Connessione per aria compressa (chiusura pinza)
Compressed air connection (gripper closing)

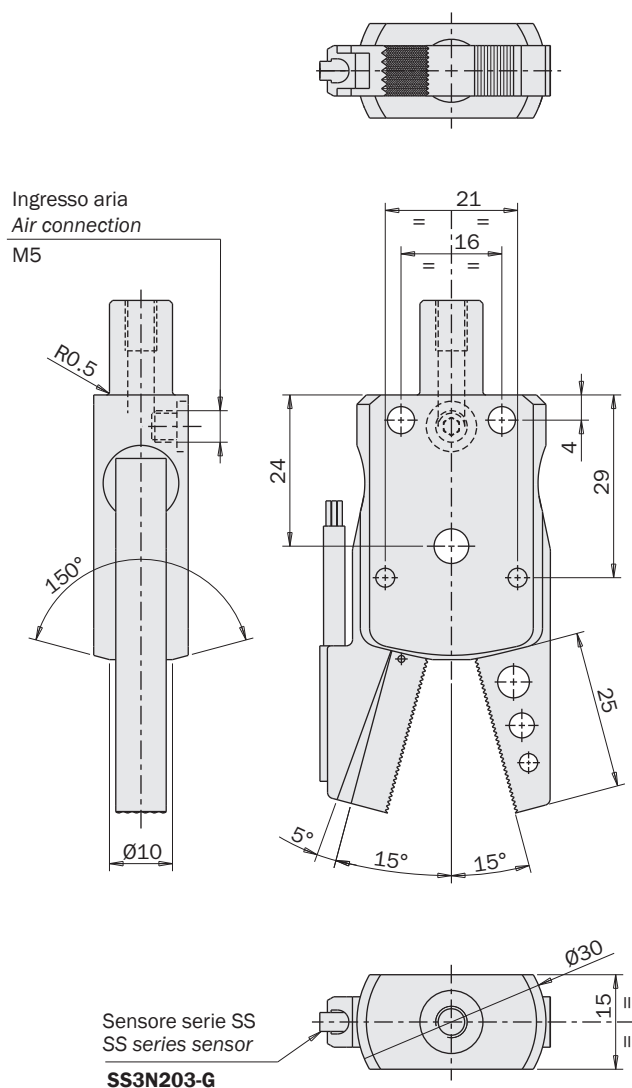


Connessione per vuoto (vacuostato remoto)
Vacuum connection (remote vacuum switch)



PB-0181

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore SS3N203-G incluso e montato sulla punta della griffa.
- Griffa e tastatore in acciaio.

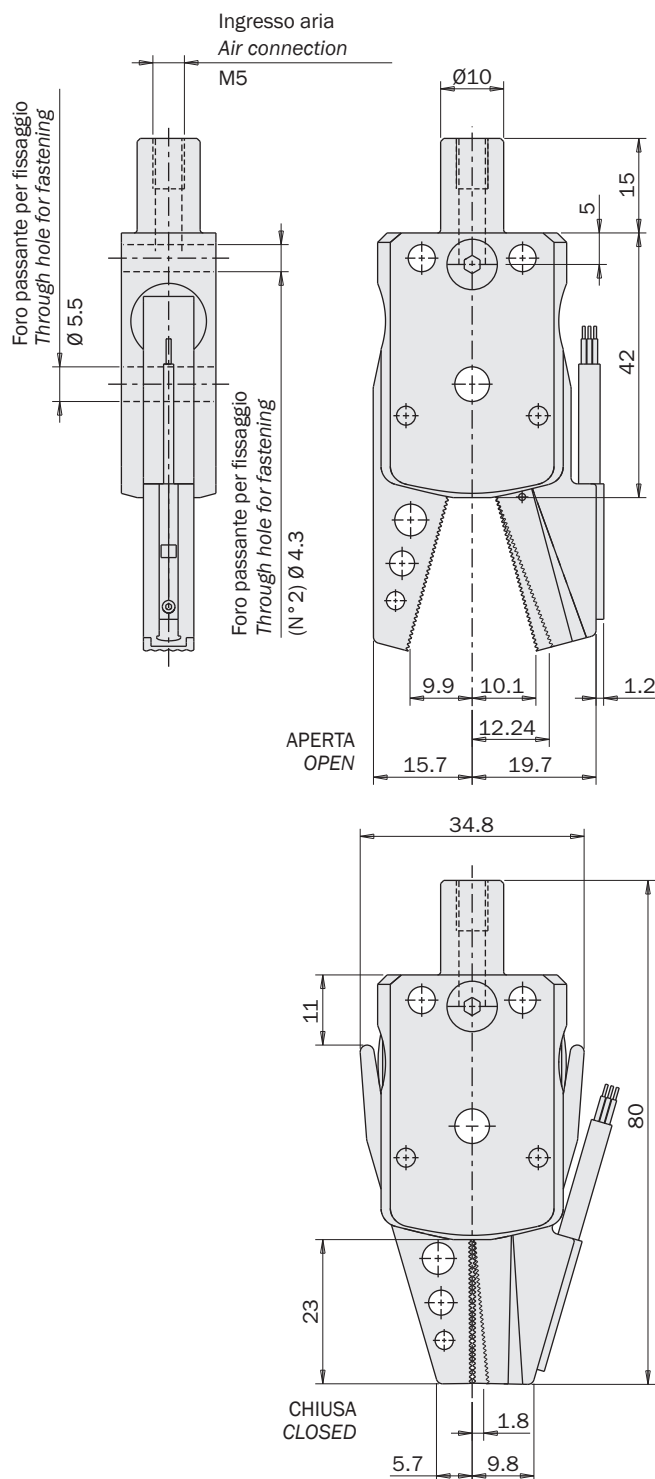
Dimensioni (mm)

Griffa in acciaio
Steel jaw

Tastatore in acciaio
Steel probe

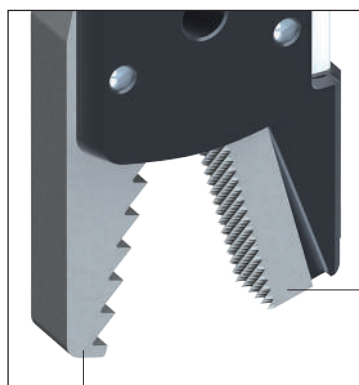
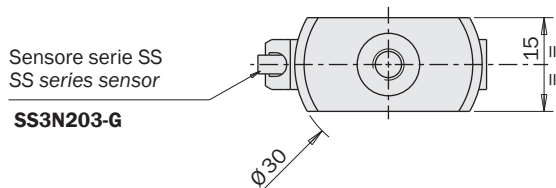
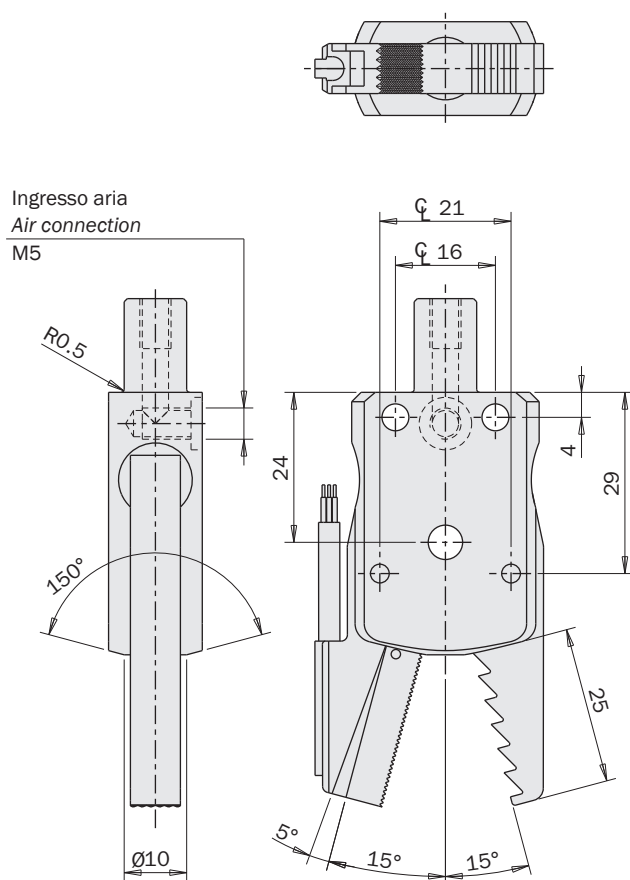
PB-0181

- Piston bore: 12mm.
- Single-acting with opening spring.
- Sensor SS3N203-G included and fitted to the tip of the jaw.
- Steel jaw and probe.

Dimensions (mm)

PB-0182

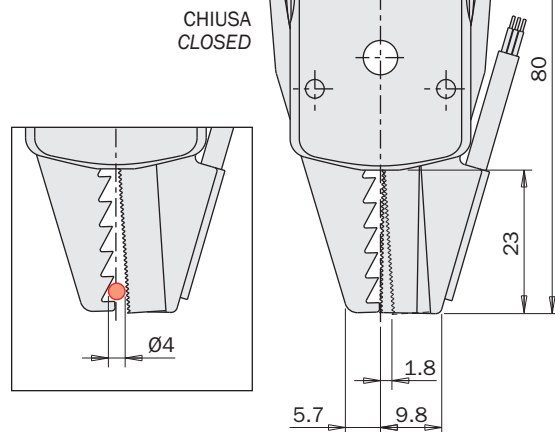
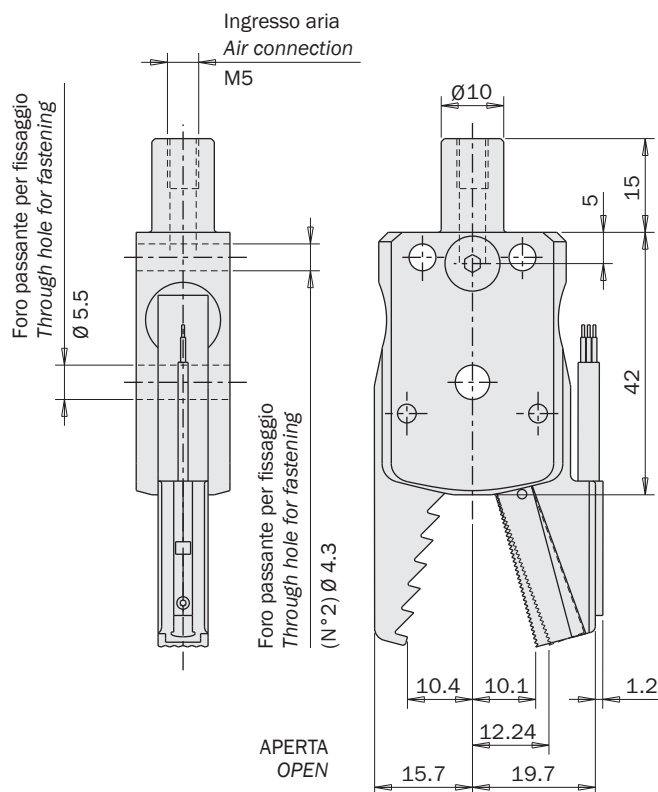
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore SS3N203-G incluso e montato sulla punta della griffa.
- Griffa e tastatore in acciaio.

Dimensioni (mm)

Griffa in acciaio
Steel jaw

PB-0182

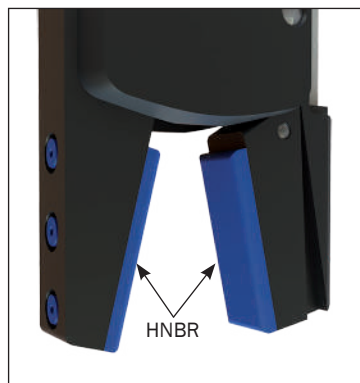
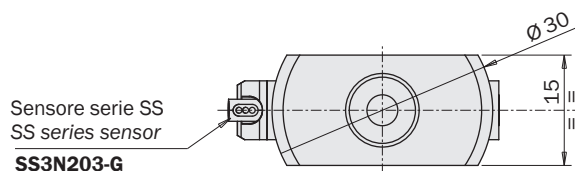
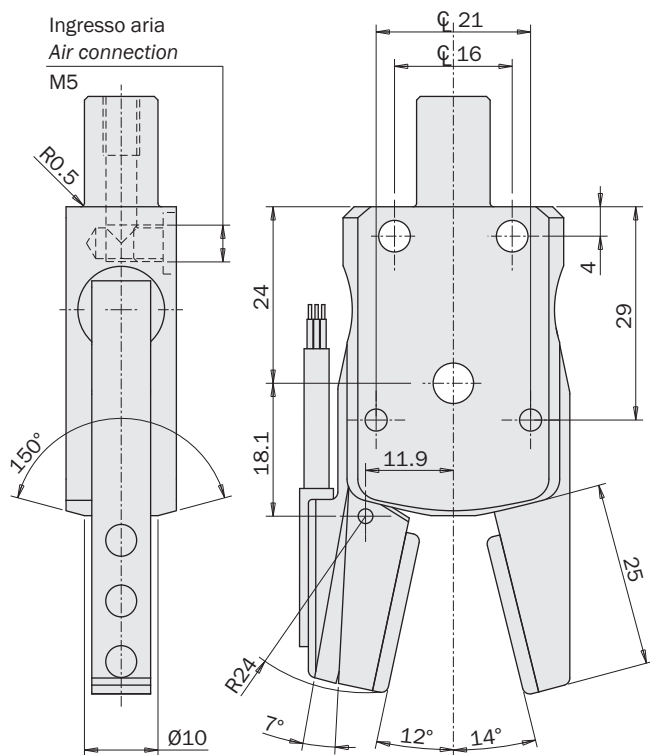
- Piston bore: 12mm.
- Single-acting with opening spring.
- Sensor SS3N203-G included and fitted to the tip of the jaw.
- Steel jaw and probe.

Dimensions (mm)

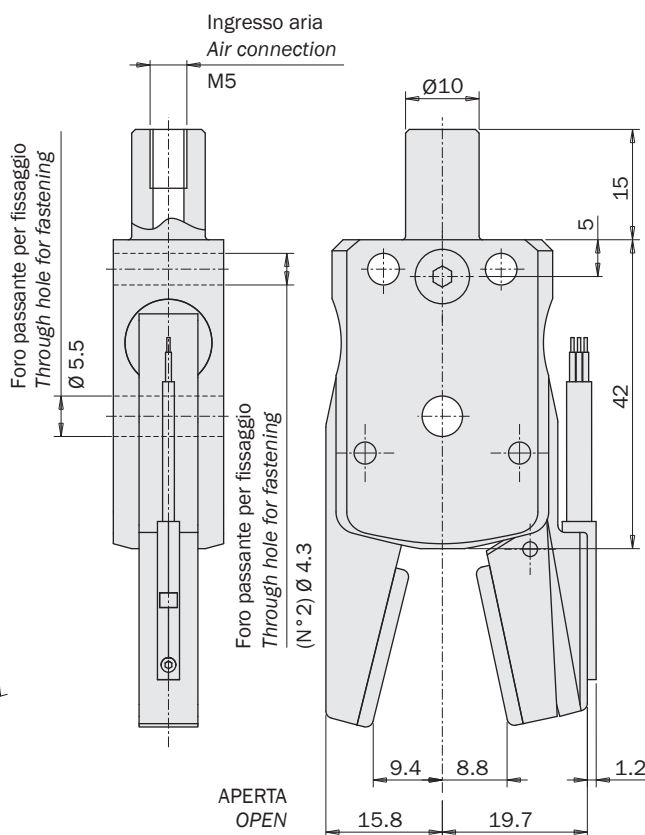
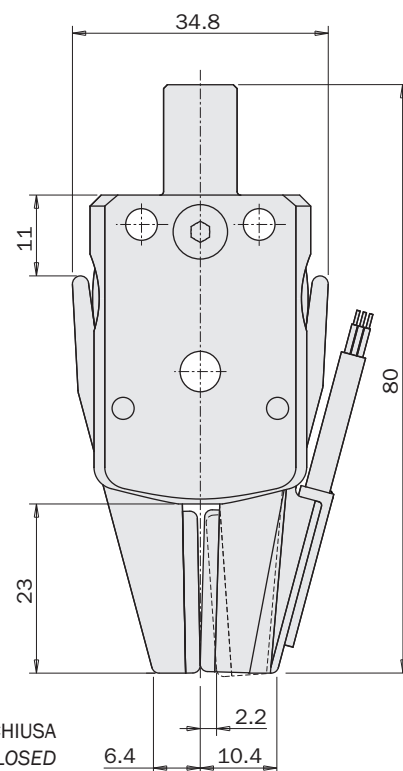
FIRST ANGLE
PROJECTION

PB-0187

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Pastiglia in gomma (HNBR) per contatto morbido.
- Sensore SS3N203-G incluso e montato sulla punta della griffa.

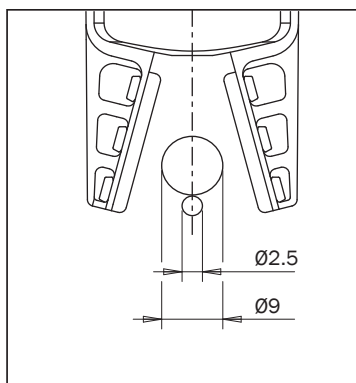
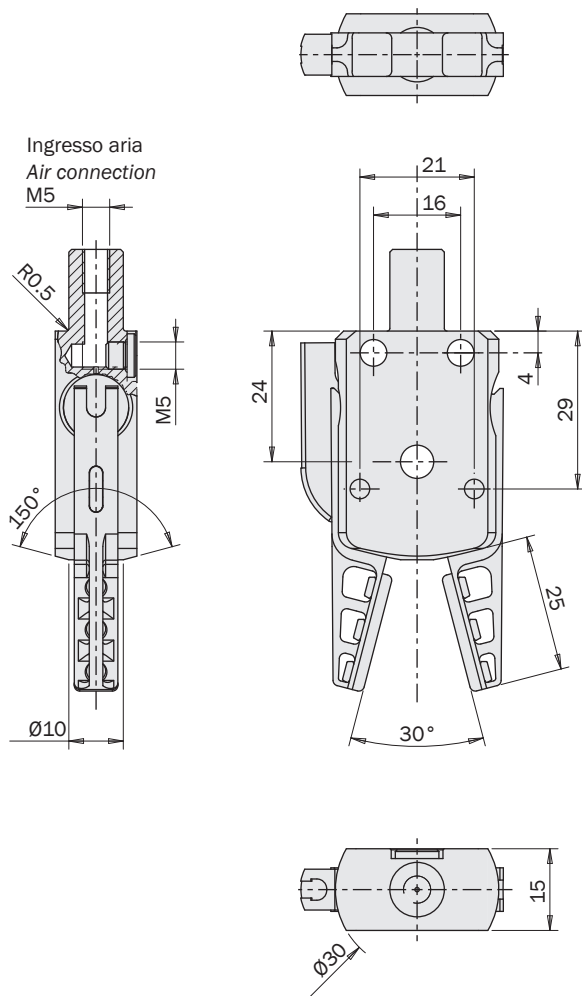
Dimensioni (mm)**PB-0187**

- Piston bore: 12mm.
- Single-acting with opening spring.
- Rubber (HNBR) pads for a soft contact.
- Sensor SS3N203-G included and fitted to the tip of the jaw.

Dimensions (mm)APERTA
OPENCHIUSA
CLOSEDFIRST ANGLE
PROJECTION

PB-0187-S2

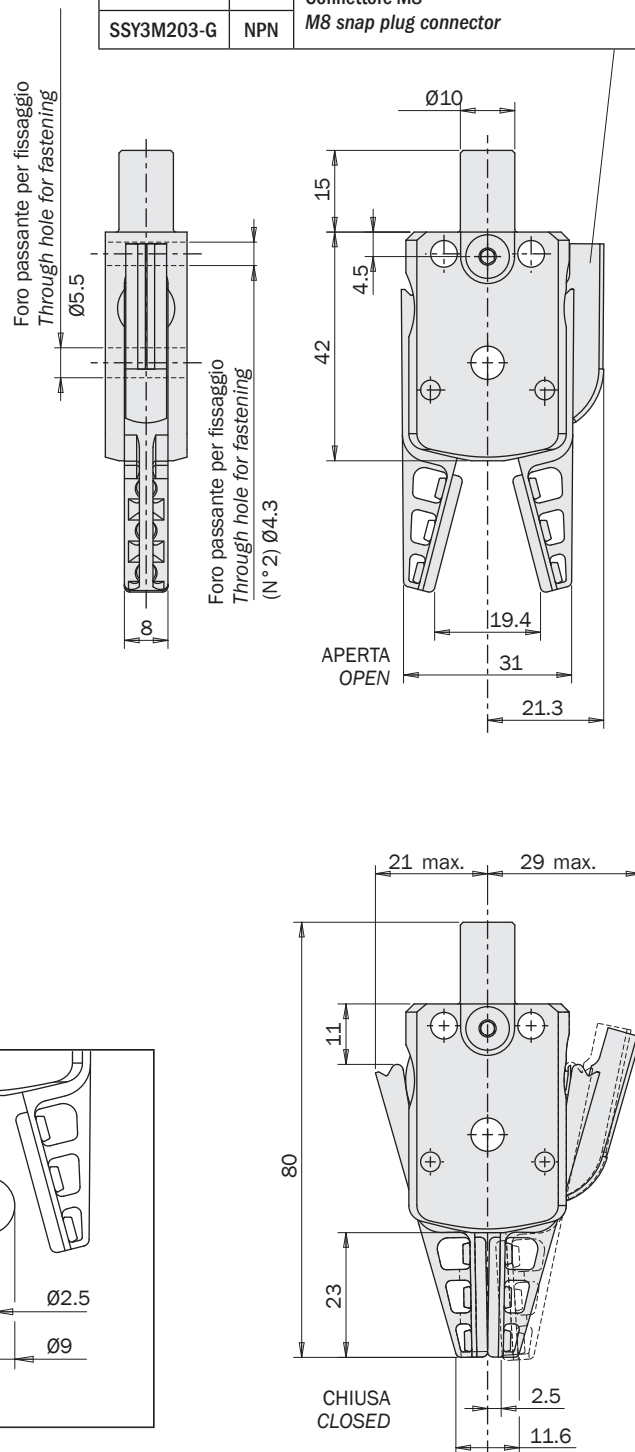
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Pastiglia in gomma (HNBR) per contatto morbido.
- Sensore magnetico SSY opzionale con ingombro ridotto nella zona di presa.

Dimensioni (mm)**PB-0187-S2**

- Piston bore: 12mm.
- Single-acting with opening spring.
- Rubber (HNBR) pads for a soft contact.
- Optional magnetic sensor SSY with reduced encumbrance in the grip area.

Dimensions (mm)**I sensori opzionali sono:****The optional sensors are:**

SSY4N225-G	PNP	Cavo 2.5m
SSY4M225-G	NPN	2.5m cable
SSY3N203-G	PNP	Connettore M8
SSY3M203-G	NPN	M8 snap plug connector

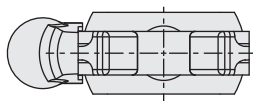


PB-0187-SV

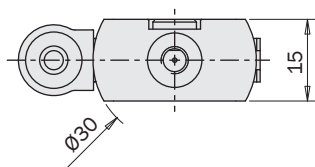
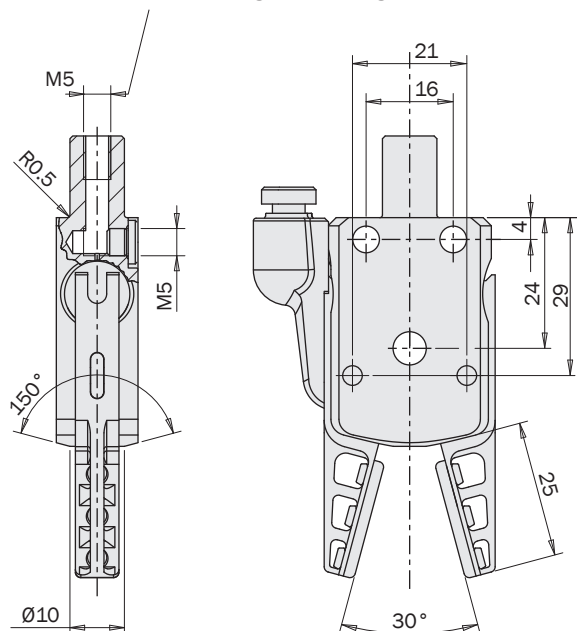
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Rilevamento della presa con sensore di vuoto.

PB-0187-SV

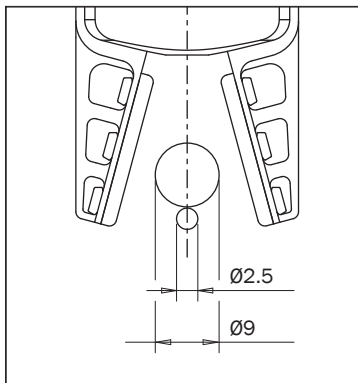
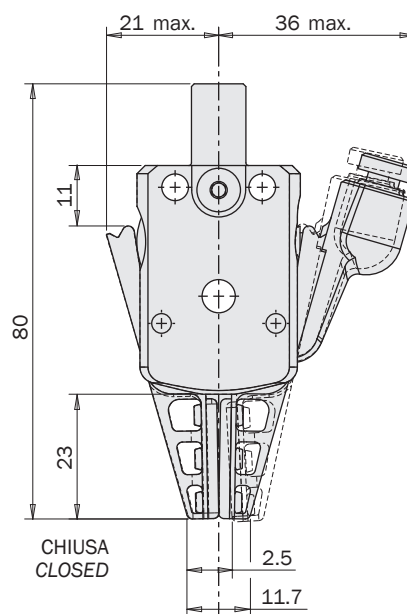
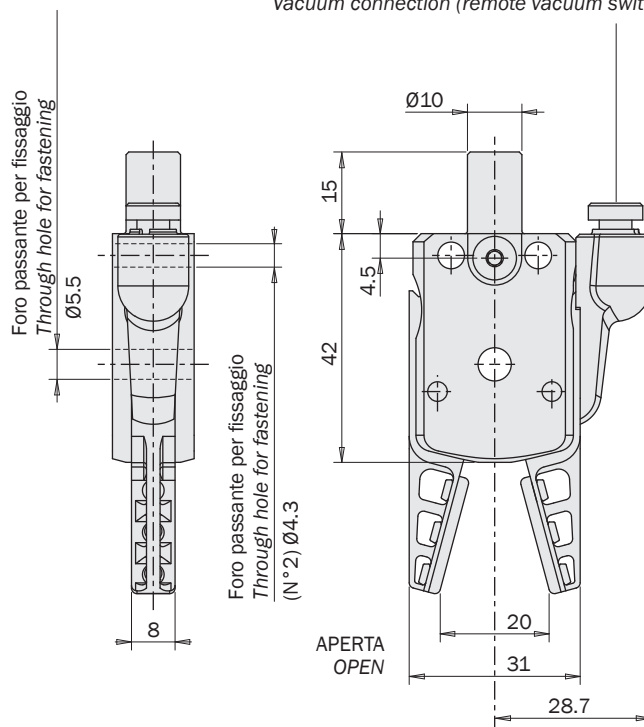
- Piston bore: 12mm.
- Single-acting with opening spring.
- Grip detection by vacuum sensor



Connessione per aria compressa (chiusura pinza)
Compressed air connection (gripper closing)



Connessione per vuoto (vacuostato remoto)
Vacuum connection (remote vacuum switch)

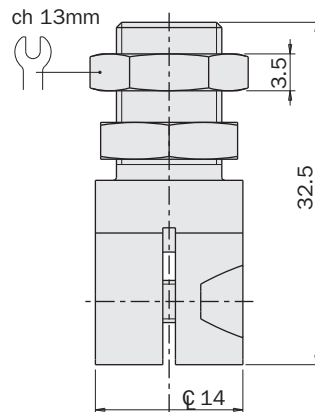
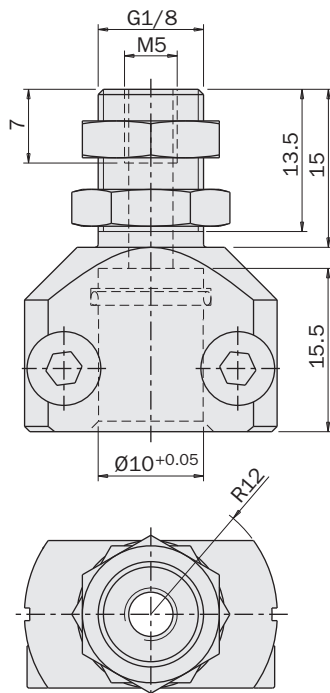


Adattatore per pinze PB

(Non per PB-0002)

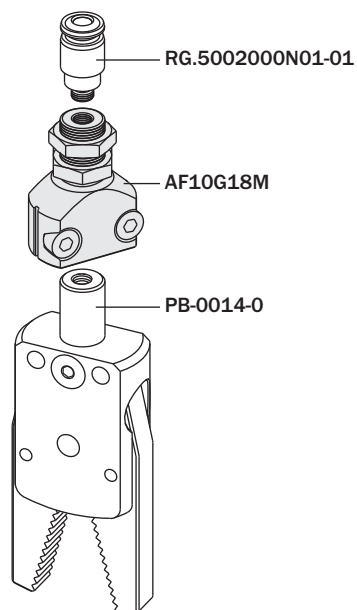
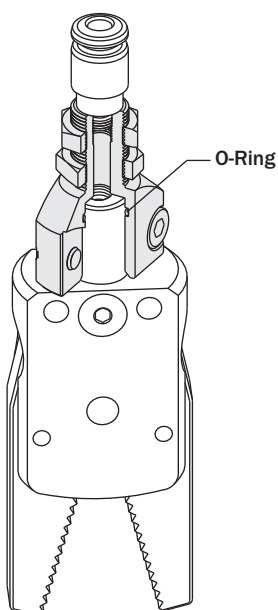
Adapter fitting for PB grippers

(Not for PB-0002)



FIRST ANGLE
PROJECTION

	AF10G18M
Peso Weight	18 g

**Esempi di utilizzo**
Application example

Pinza pneumatica per materozze, angolare non autocentrante a due griffe serie BB

- BB-12-00 a doppio effetto.
- BB-12-NO normale aperta.
- BB-13-NO normale aperta con sensore.
- Corpo e griffe fusi in lega di zinco (zama).
- Profilo sottile.
- Doppia possibilità di fissaggio.
- Grasso alimentare FDA-H1.

2-jaw non-selfcentering angular pneumatic sprue gripper series BB

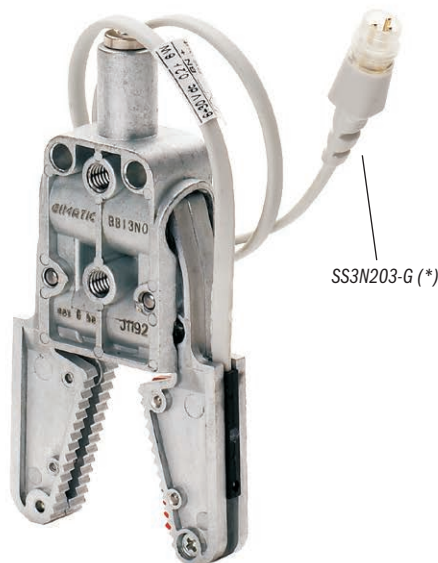
- BB-12-00 double-acting.
- BB-12-NO normally open.
- BB-13-NO normally open with sensor.
- Housing and jaws die-casted in zinc alloy (zamak).
- Flat profile.
- Two fastening options.
- Food grade grease FDA-H1.



BB-12-00



BB-12-NO



BB-13-NO

SS3N203-G (*)

(*)
Il sensore SS3N203-G è incluso.
The sensor SS3N203-G is included.

	BB-12-00	BB-12-NO	BB-13-NO
Fluido Medium	Aria compressa filtrata, lubrificata / non lubrificata Filtered, lubricated / non lubricated compressed air		
Pressione di esercizio Pressure range	2.5 ÷ 8 bar		
Temperatura di esercizio Temperature range	5 ÷ 60 °C.		
Corsa Stroke (±2°)	2 x 15°		
Coppia di serraggio per griffa in chiusura a 6 bar Closing gripping torque at 6 bar each jaw	65 Ncm	60 Ncm	60 Ncm
Coppia per griffa in apertura a 6 bar Opening gripping torque at 6 bar each jaw	20 Ncm	-	-
Coppia per griffa in apertura a 0 bar Opening gripping torque at 0 bar each jaw	-	5 Ncm	5 Ncm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	3 Hz	3 Hz
Consumo d'aria per ciclo Cycle air consumption	1.5 cm ³	1.1 cm ³	1.1 cm ³
Tempo di chiusura senza carico Closing time without load	0.01 s	0.01 s	0.01 s
Peso Weight	75 g	77 g	90 g

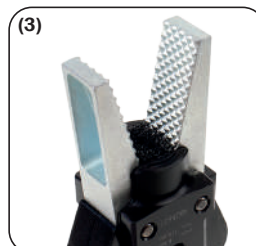
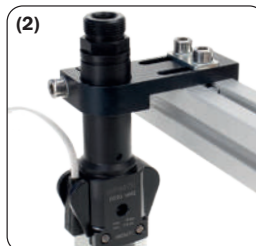
Pinza pneumatica per materozze, angolare autocentrante a due griffe, serie DD

- Nuovo concetto con sensore arretrato e minore ingombro nella zona di presa.
- Sensori magnetici opzionali (1).
- Il sensore è acceso solo quando viene pinzato qualcosa.
- Azionamento a semplice effetto con apertura a molla.
- Elevata forza di serraggio.
- Vari accessori disponibili per il fissaggio (2).
- Griffe in acciaio.
- Grasso alimentare FDA-H1.
- Protezione contro l'ingresso di piccoli corpi estranei (3).
- Fine corsa robusti.

2-jaw self-centering angular pneumatic sprue gripper, series DD

- New concept with retracted sensor and smaller dimensions in the grip area.
- Optional magnetic sensors (1).
- The sensor is ON only when something is gripped.
- Single acting with spring opening.
- Very high closing force.
- Several mounting accessories (2).
- Steel jaws.
- FDA-H1 food-grade grease.
- Protection against the entry of small foreign bodies (3).
- Heavy-duty end-strokes.

SS4N225-G	PNP	Cavo 2.5m
SS4M225-G	NPN	2.5m cable
SS3N203-G	PNP	Connettore M8 M8 snap plug connector
SS3M203-G	NPN	



NEW

NEW

NEW

NEW

NEW

NEW

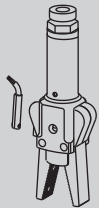
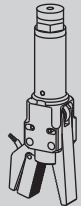
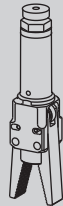
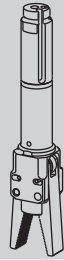
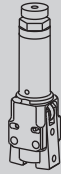
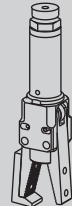
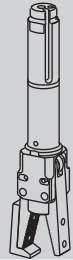
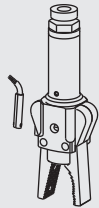
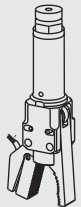
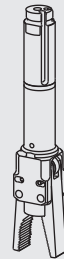
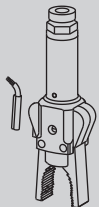
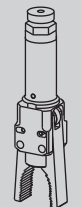
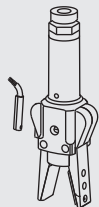
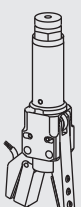
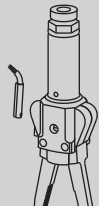
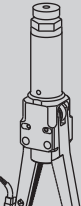
	DD20-16MV	DD20-16LV	DD20-16M2	DD20-16L2	DD20-16E2	DD20-16W2	DD20-16B2
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]						
Pressione di esercizio Pressure range	3.5 ÷ 8 bar						
Temperatura di esercizio Temperature range	5 ÷ 60 °C.						
Corsa Stroke	2 x 15°						
Coppia di chiusura per griffa a 6 bar Closing torque at 6 bar each jaw	300 Ncm						
Coppia di chiusura totale a 6 bar Total closing torque at 6 bar	600 Ncm						
Coppia di apertura per griffa a 0 bar Opening torque at 0 bar each jaw	20 Ncm						
Coppia di apertura totale a 0 bar Total opening torque at 0 bar	40 Ncm						
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz						
Consumo d'aria per ciclo Cycle air consumption	3.6 cm³						
Tempo di chiusura senza carico Closing time without load	0.03 s						
Peso Weight	119 g	116 g	114 g	110 g	123 g	118 g	140 g

Passare alla nuova versione

Le vecchie pinze DD verranno dismesse, ma quelle nuove sono intercambiabili. Le dimensioni esterne sono le stesse e tutte le opzioni del dito sono ancora disponibili. Con il vecchio schema c'erano versioni con sensore (o sulla punta del dito o sulla coda del corpo) e versioni senza. Con il nuovo schema è possibile utilizzare la stessa pinza con o senza sensore. E il sensore può essere scelto tra le versioni PNP/NPN e cavo/connettore.

Change to the new version

The old DD grippers will be discontinued, however the new ones are compatible. Outer dimensions are the same and all the finger options are still available. The old scheme had versions with sensor (either on the finger tip or on the body tail) and versions without sensor. The new scheme enables to use the same gripper with or without sensor. Moreover, the sensor can be chosen amongst the PNP/NPN and cable/connector versions.

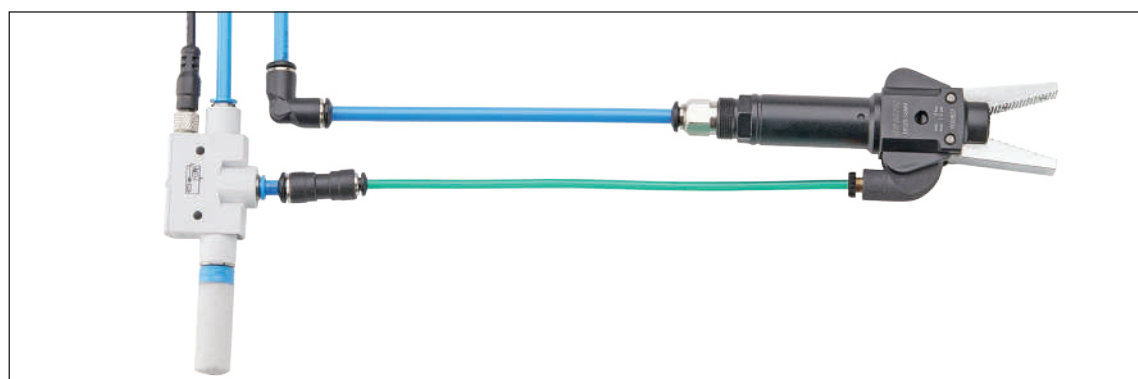
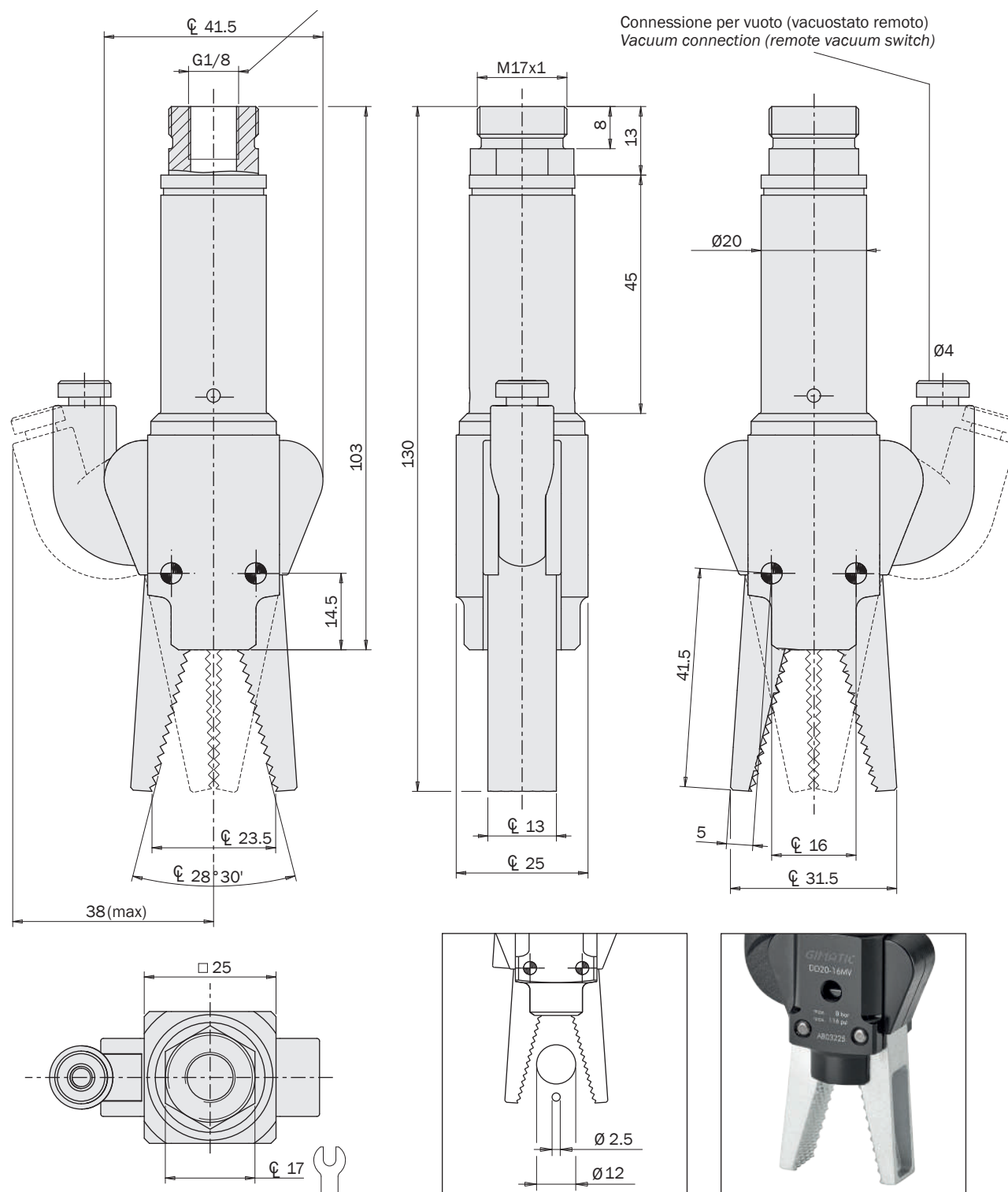
Nuova versione New version	Vecchia versione Old version						
DD20-16M2 	DD20-16M 	DD20-16R 	DD20-16RS 	DD20-16A 	DD20-16AS 	DD20-16T 	DD20-16TS 
DD20-16W2 	DD20-16W 	DD20-16K 	DD20-16KS 				
DD20-16E2 	DD20-16E 	DD20-16ES 					
DD20-16L2 	DD20-16L 	DD20-16P 	DD20-16PS 				
DD20-16B2 	DD20-16B 						

Dimensioni (mm)

Dimensions (mm)

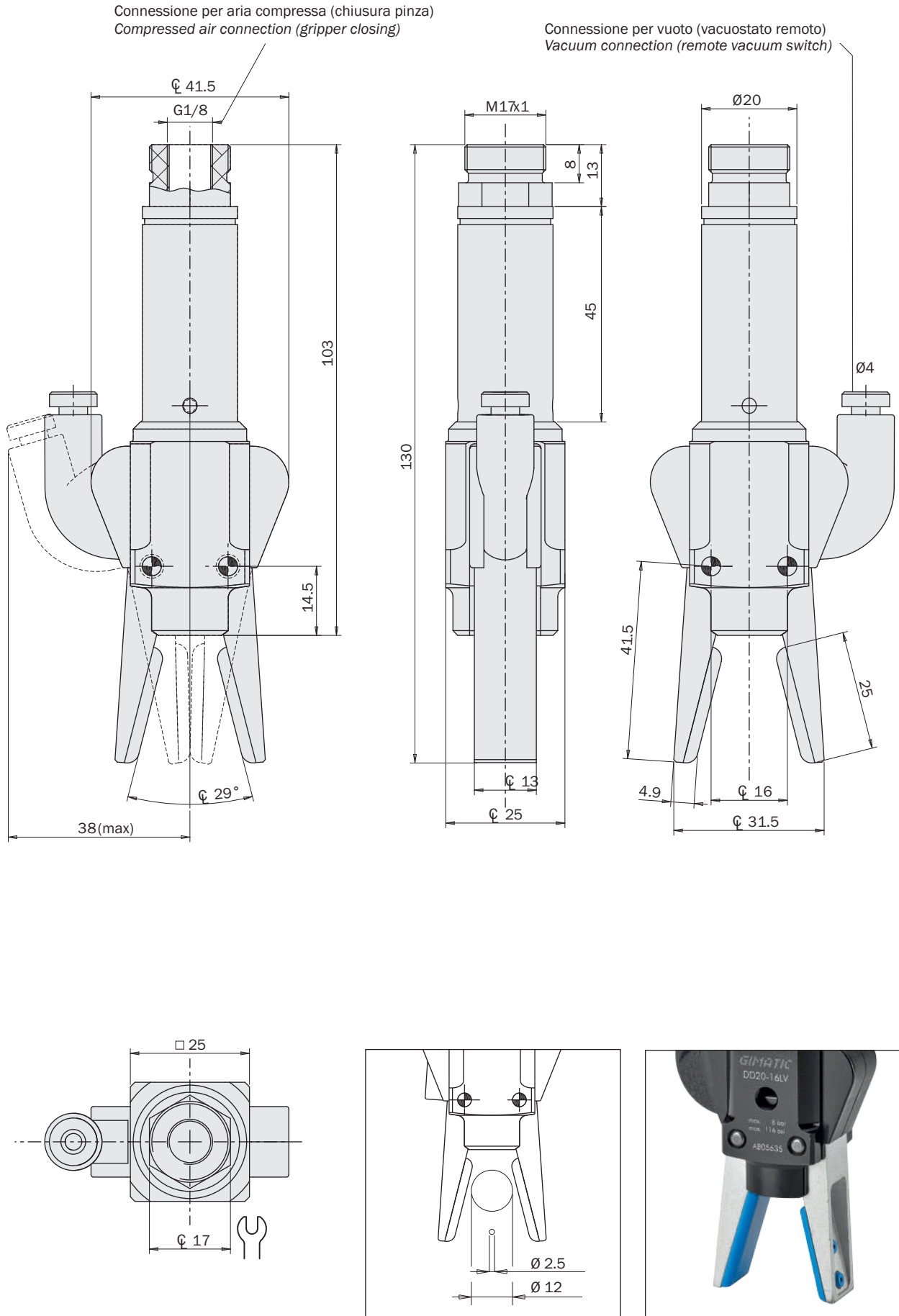
Connessione per aria compressa (chiusura pinza)
Compressed air connection (gripper closing)

Connessione per vuoto (vacuostato remoto)
Vacuum connection (remote vacuum switch)



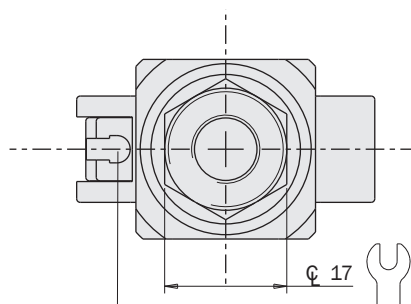
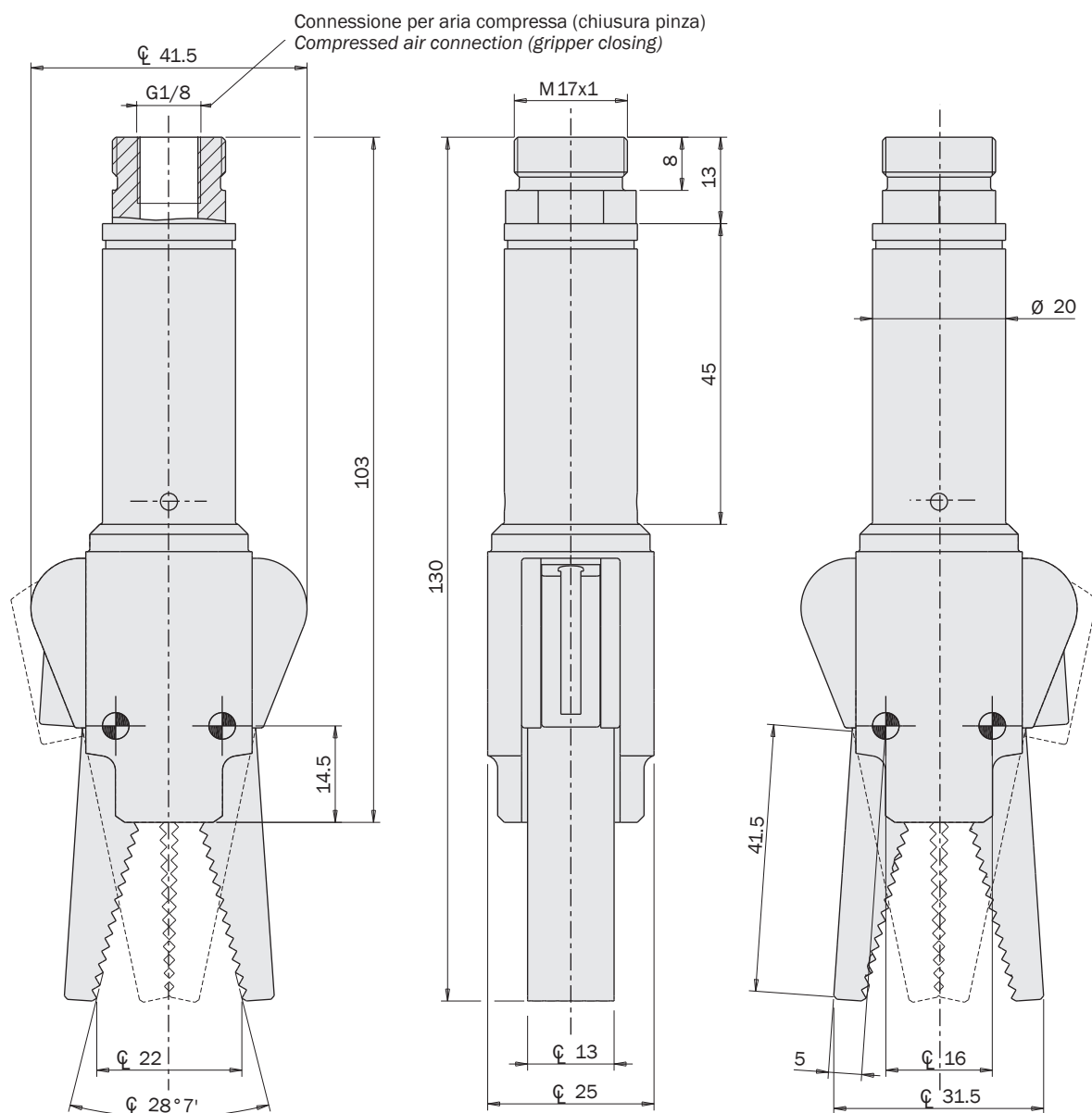
Dimensioni (mm)
Dimensions (mm)

DD20-16LV

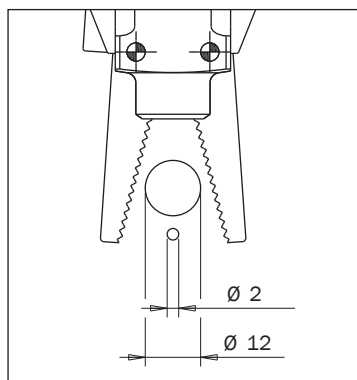


Dimensioni (mm) Dimensions (mm)

DD20-16M2

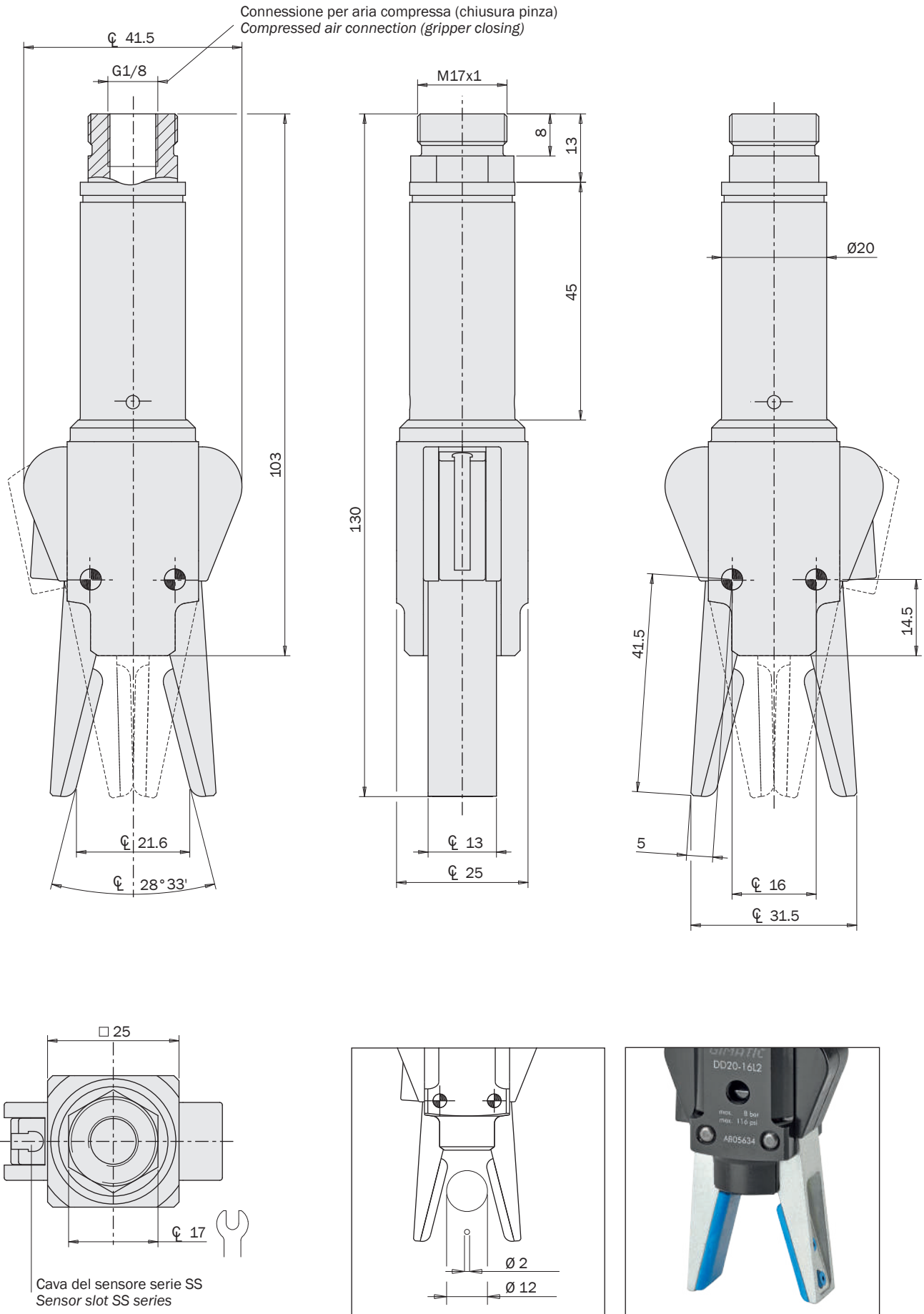


Cava del sensore serie SS
Sensor slot SS series



Dimensioni (mm)
Dimensions (mm)

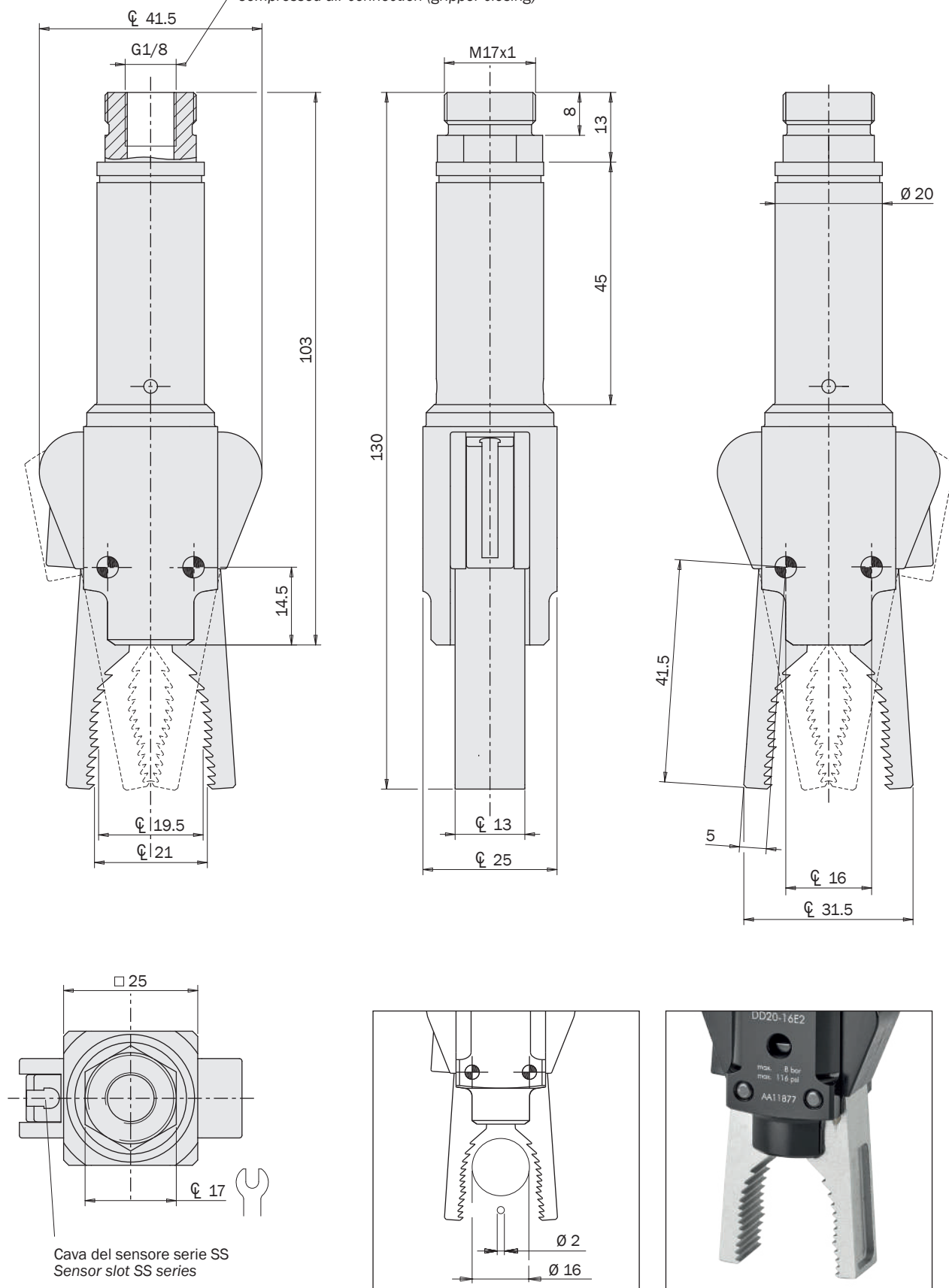
DD20-16L2



Dimensioni (mm) Dimensions (mm)

DD20-16E2

Connessione per aria compressa (chiusura pinza)
Compressed air connection (gripper closing)

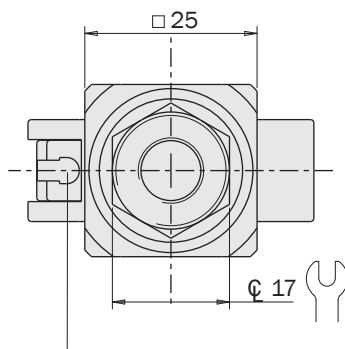
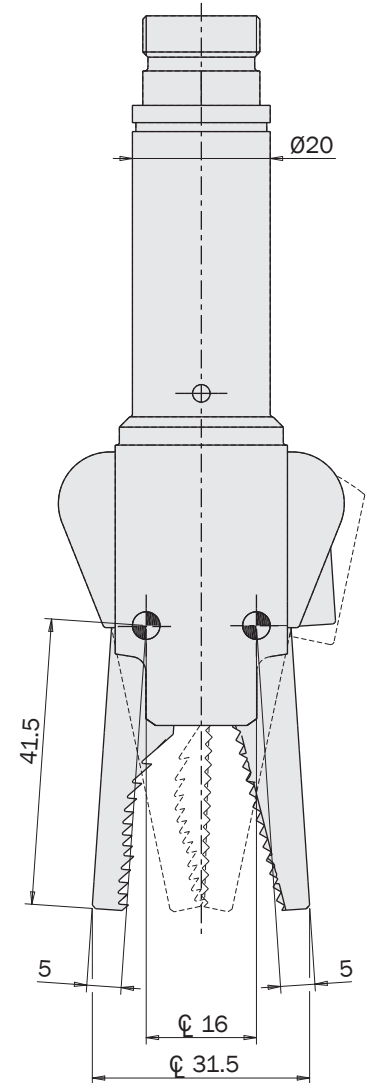
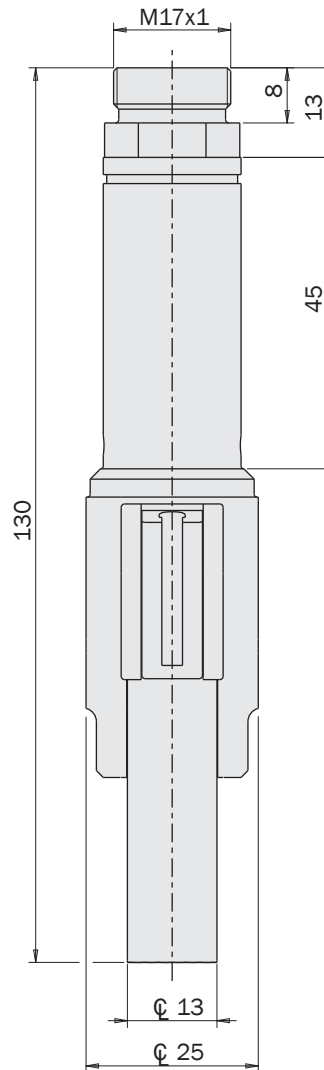
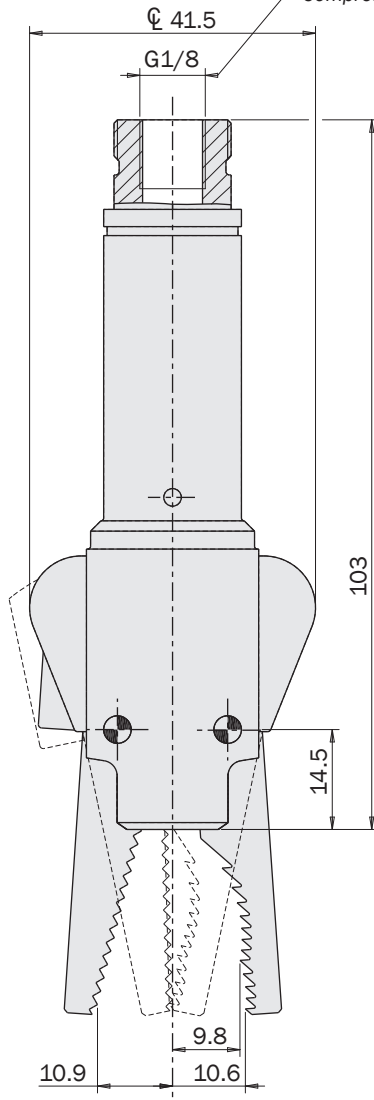


Cava del sensore serie SS
Sensor slot SS series

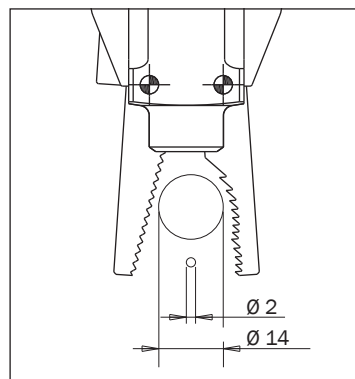
Dimensioni (mm)
Dimensions (mm)

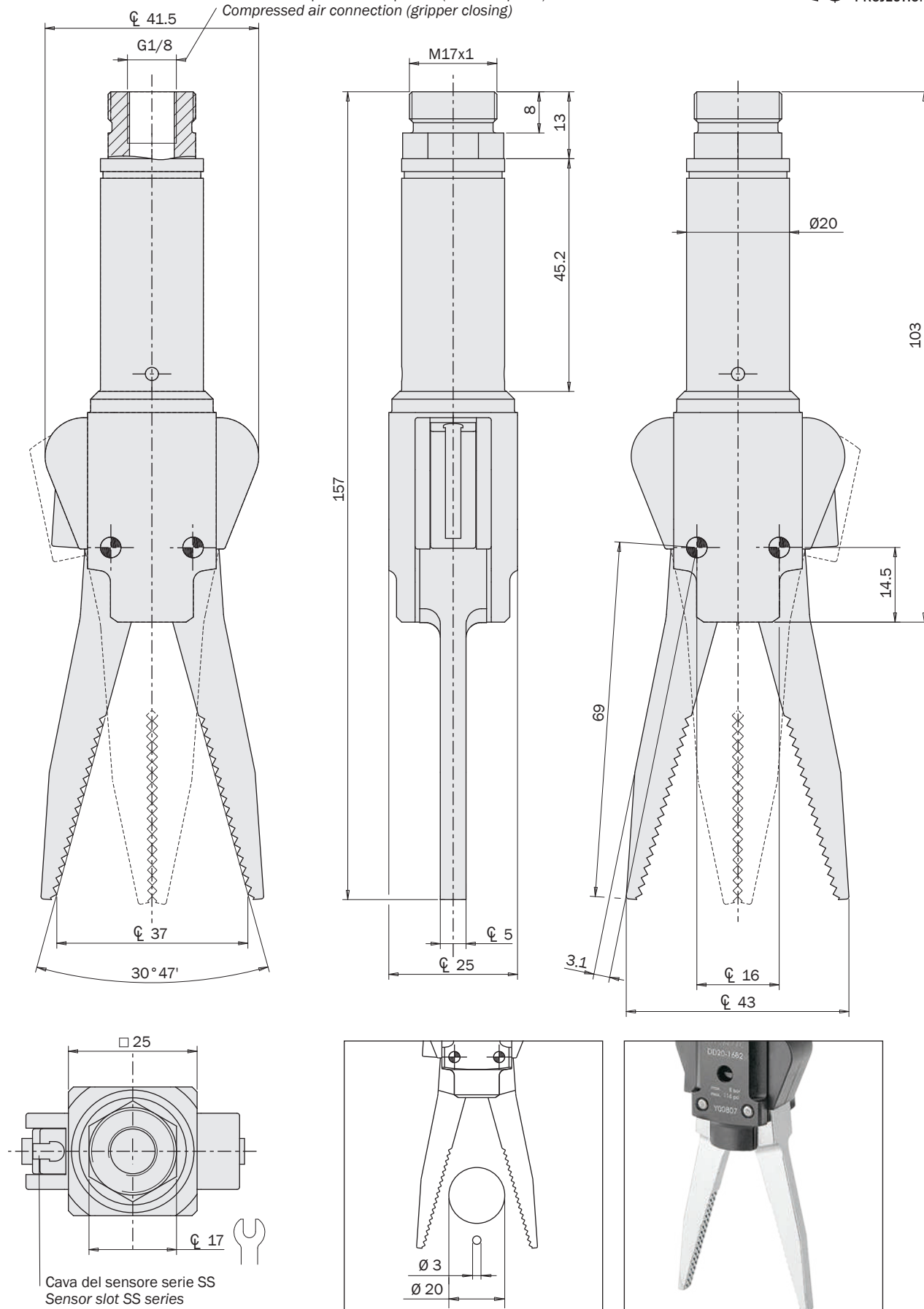
DD20-16W2

Connessione per aria compressa (chiusura pinza)
Compressed air connection (gripper closing)



Cava del sensore serie SS
Sensor slot SS series

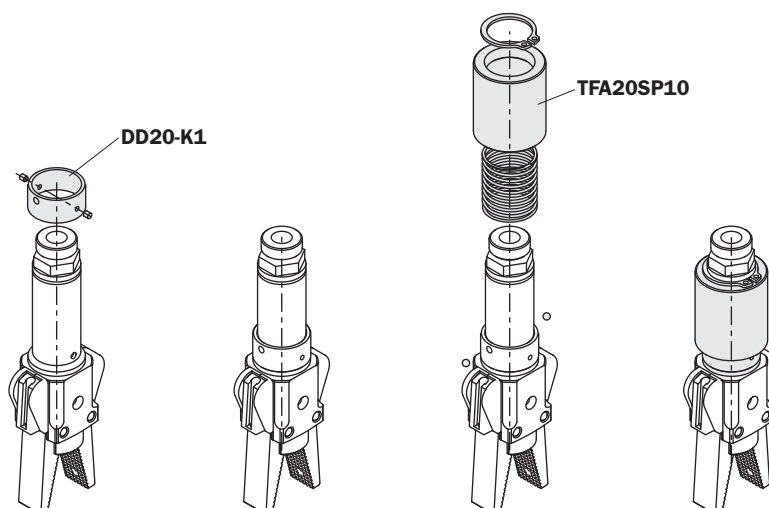


Dimensioni (mm)
Dimensions (mm)**DD20-16B2**FIRST ANGLE
PROJECTIONConnessione per aria compressa (chiusura pinza)
Compressed air connection (gripper closing)

Accessori Accessories

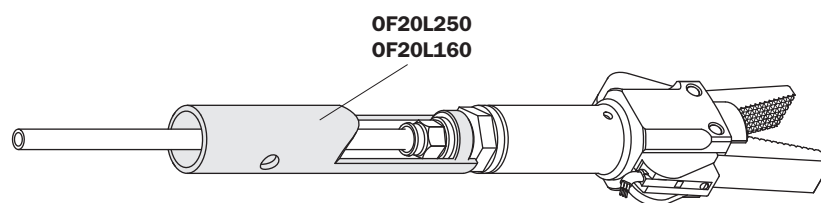
DD20-K1 + TFA20SP10

Sospensione
Suspension



OF20L...

Tubo di prolunga
Extension tube



DD20-16...

Pastiglia di ricambio per DD20-16L2
Spare pad for DD20-16L2



DD20-16P-13
HNBR 60Sh.A

DD20-16P-13F
HNBR 60Sh.A
Floccato
HNBR 60Sh.A
Flocked

DD20-16P-10
TPU 70Sh.A

DD20-16P-17
PU 70Sh.A

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3D (PA12)

Customised with the new 3D printing
service (PA12)

Unità Rotanti
Rotary Units

Cambia Utensile
Quick Changer

Profili e Staffe
Profiles and Brackets

Pinze
Grippers

Attuatori Lineari
Linear Actuators

Sospensioni
Suspensions

Taglierini
Nippers

Kit-Robot
Robot Kit

Accessori Opzionali
Options

Sensori
Sensors

Pinza pneumatica ad azione basculante autocentrante a 2 griffe (serie GW)

- Azionamento a doppio effetto.
- Grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio.
- Sensori magnetici opzionali.
- Disponibile anche con molla in chiusura (-NC) o in apertura (-NO).
- Grasso alimentare FDA-H1.

2-jaw self centering angular pneumatic gripper (series GW)

- Double acting.
- Long life and reliability, maintenance free.
- Various options for fastening.
- Optional proximity magnetic sensors.
- Spring closed (-NC) or spring open (-NO) option.
- FDA-H1 food-grade grease.



	GW-10	GW-16	GW-20	GW-25
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]			
Pressione di esercizio Operating pressure range	2 ÷ 8 bar			
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.			
Coppia di serraggio per griffa in apertura a 6 bar Opening torque at 6 bar on each jaw	11 Ncm	45 Ncm	89 Ncm	178 Ncm
Coppia di serraggio totale in apertura a 6 bar Opening total torque at 6 bar	22 Ncm	90 Ncm	178 Ncm	356 Ncm
Coppia di serraggio per griffa in chiusura a 6 bar Closing torque at 6 bar on each jaw	8 Ncm	36 Ncm	78 Ncm	160 Ncm
Coppia di serraggio totale in chiusura a 6 bar Closing total torque at 6 bar	16 Ncm	72 Ncm	156 Ncm	320 Ncm
Corsa Stroke (±1°)	2x20°	2x20°	2x20°	2x20°
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	3 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	0.7 cm ³	3 cm ³	6 cm ³	11 cm ³
Tempo di chiusura senza carico Closing time without load	0.005 s	0.005 s	0.02 s	0.02 s
Ripetibilità Repetition accuracy	0.04°	0.04°	0.04°	0.04°
Peso Weight	39 g	88 g	180 g	300 g

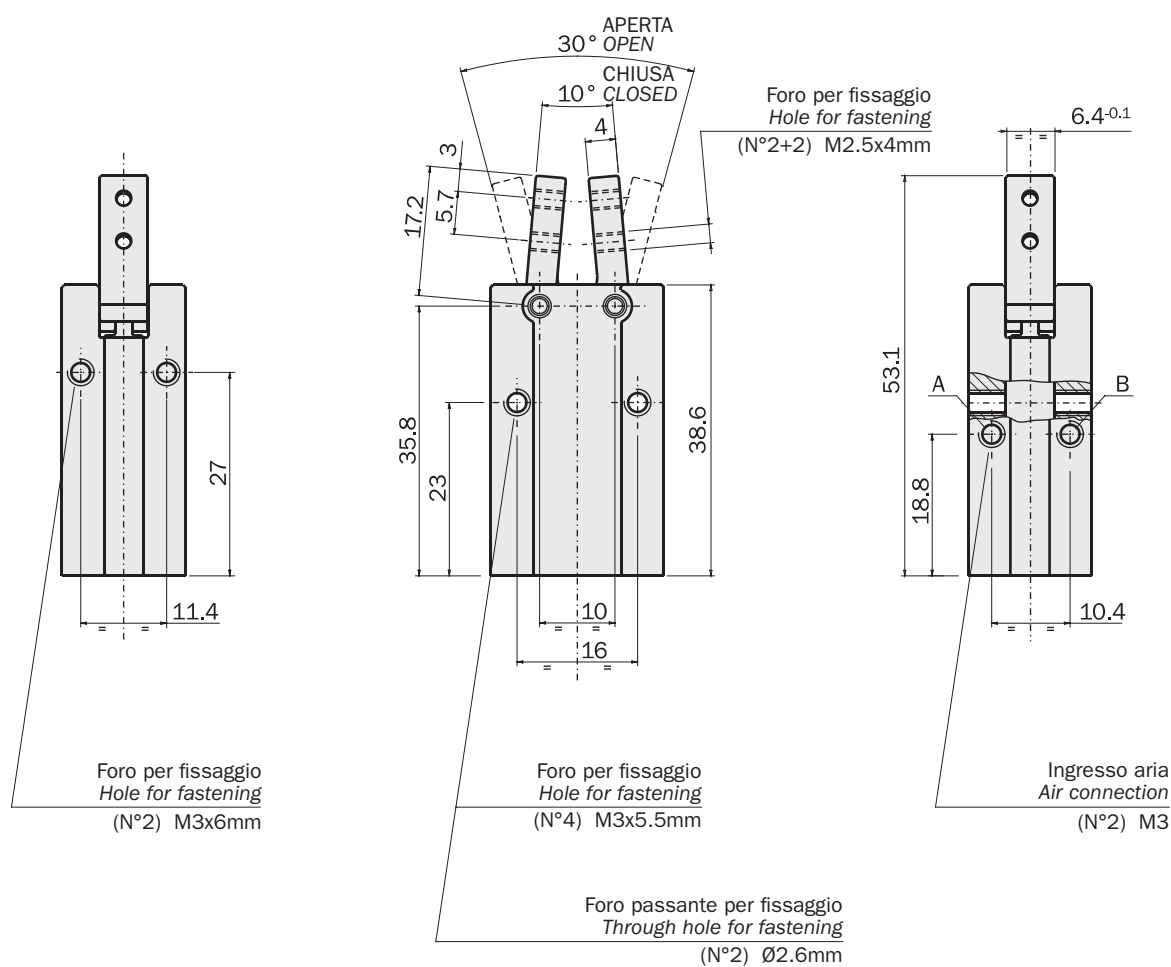
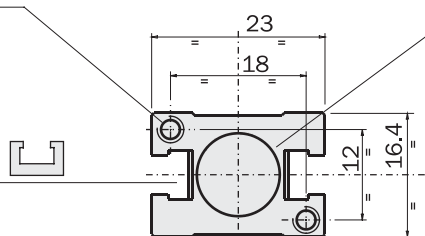
Dimensioni (mm)
Dimensions (mm)

GW-10

Foro per fissaggio
Hole for fastening
(N°2) M3x6mm

Foro di riferimento
Centering spot facing
Ø11 H9 x 1.5mm

Sede per sensori
Sensor groove



Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

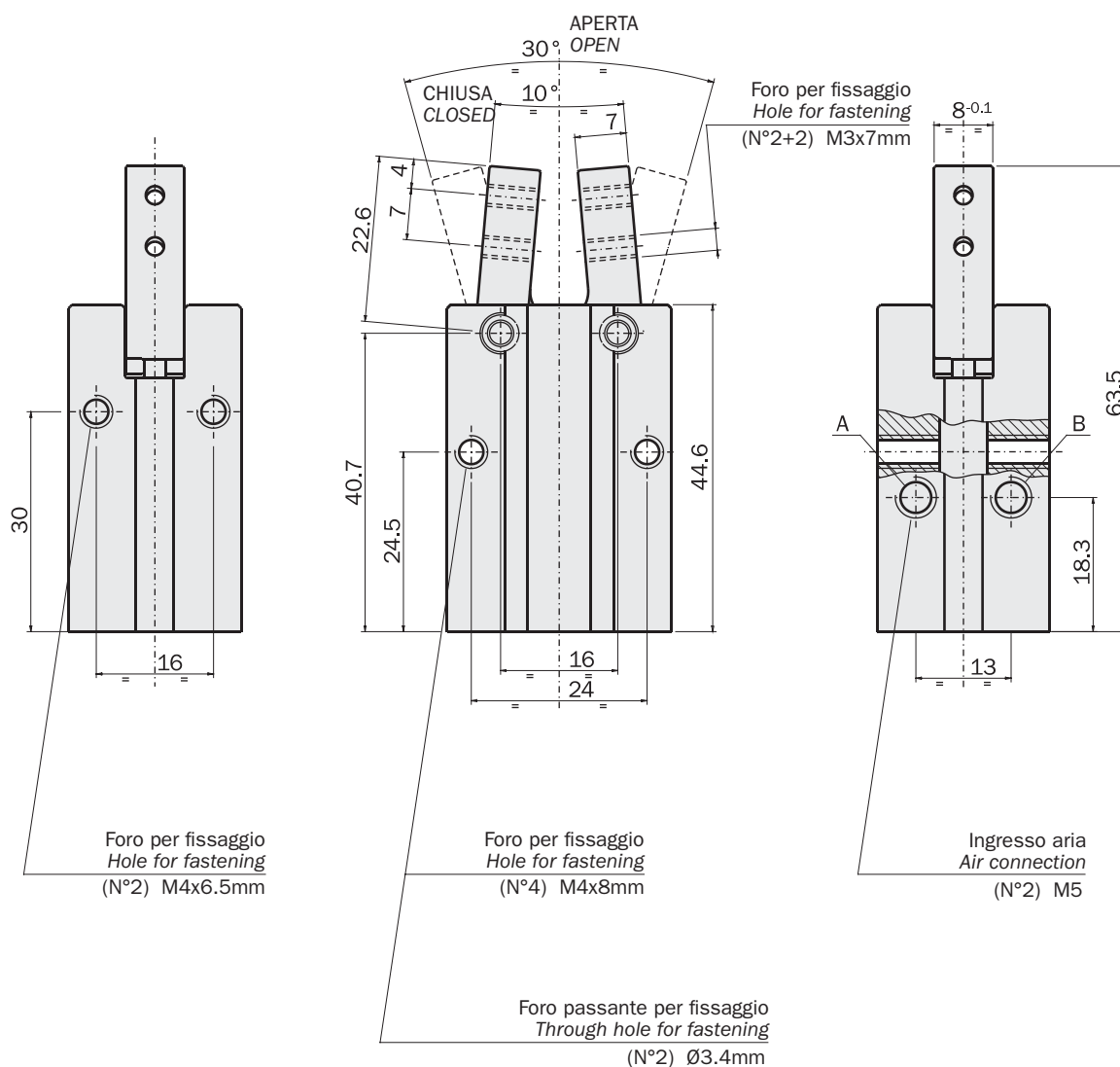
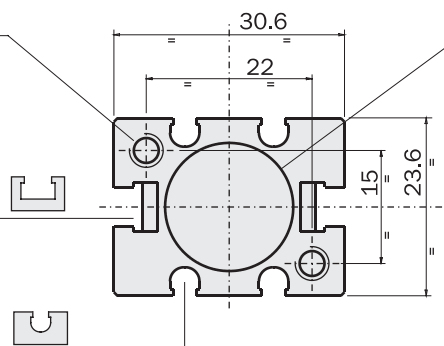
Dimensioni (mm)
Dimensions (mm)

Foro per fissaggio
Hole for fastening
(N°2) M4x8mm

Foro di riferimento
Centering spot facing
Ø17 H9 x 1.5mm

Sede per sensori
Sensor groove

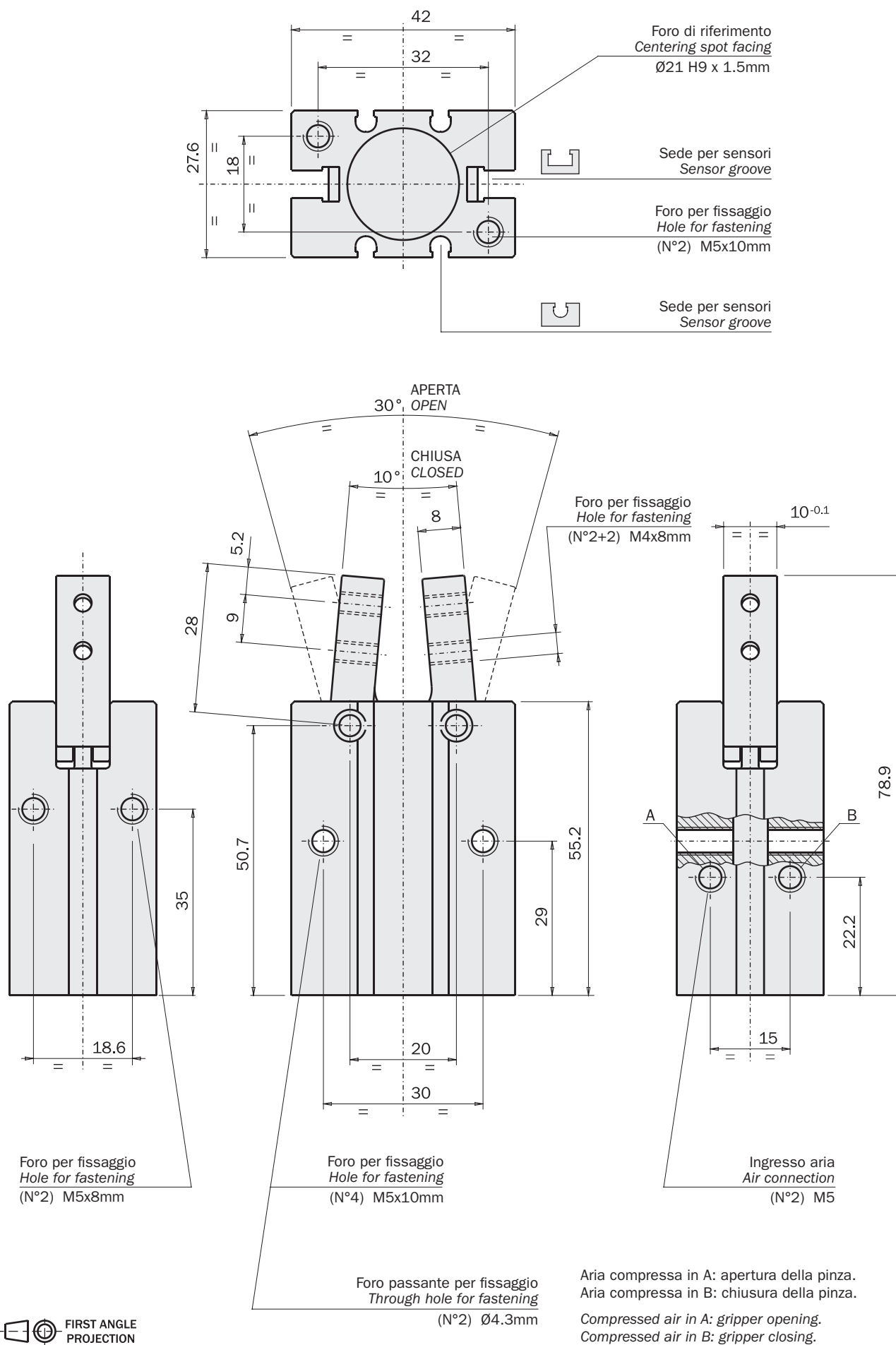
Sede per sensori
Sensor groove



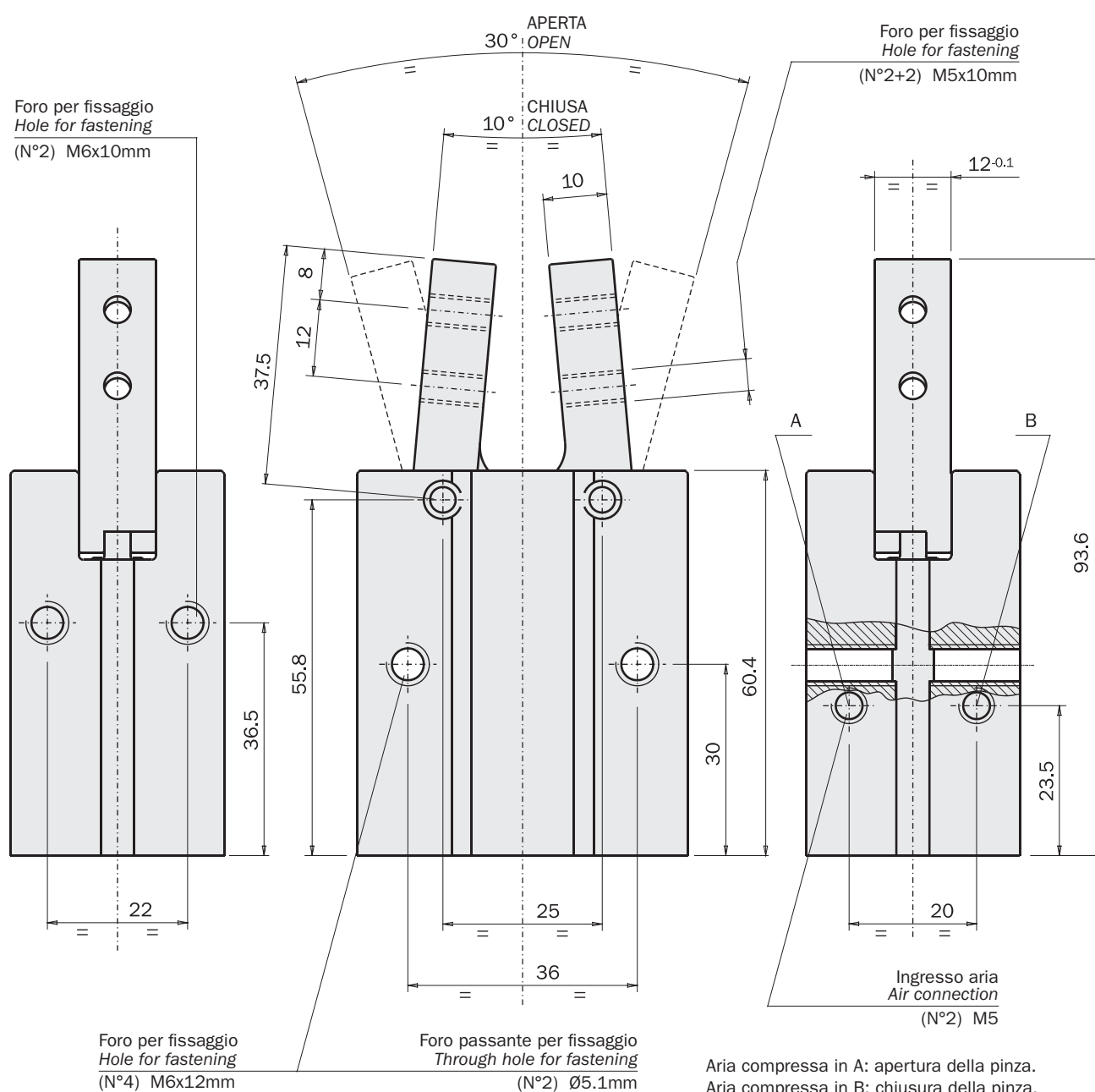
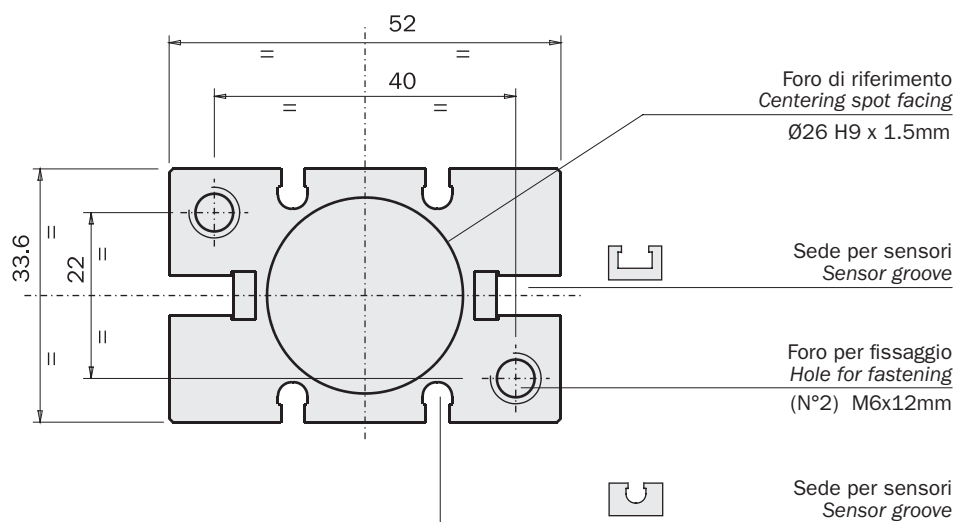
Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

Dimensioni (mm)
Dimensions (mm)

GW-20



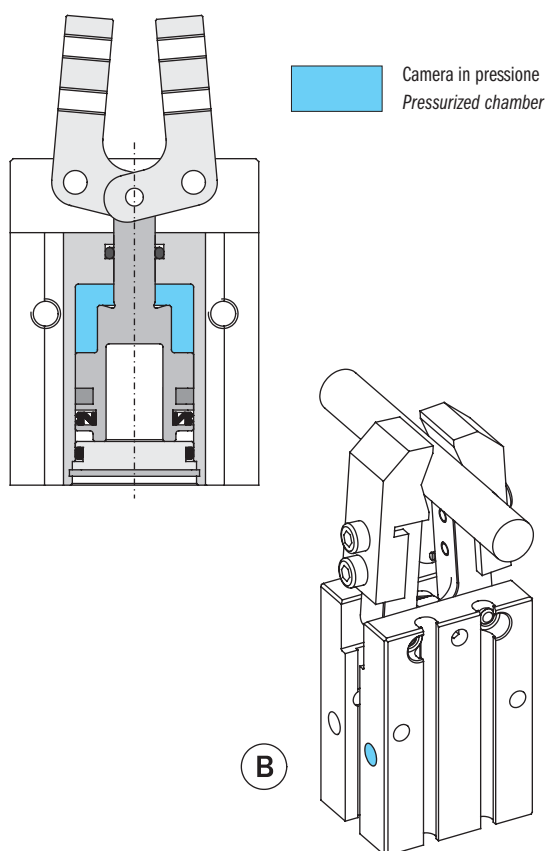
Dimensioni (mm)
Dimensions (mm)



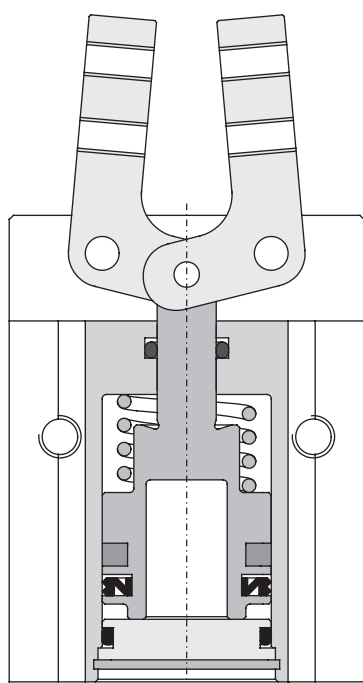
Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

Serraggio

La pinza è a doppio effetto e può quindi essere usata per serrare il carico sia dall'esterno (B) che dall'interno (A). La forza di serraggio è maggiore in apertura.

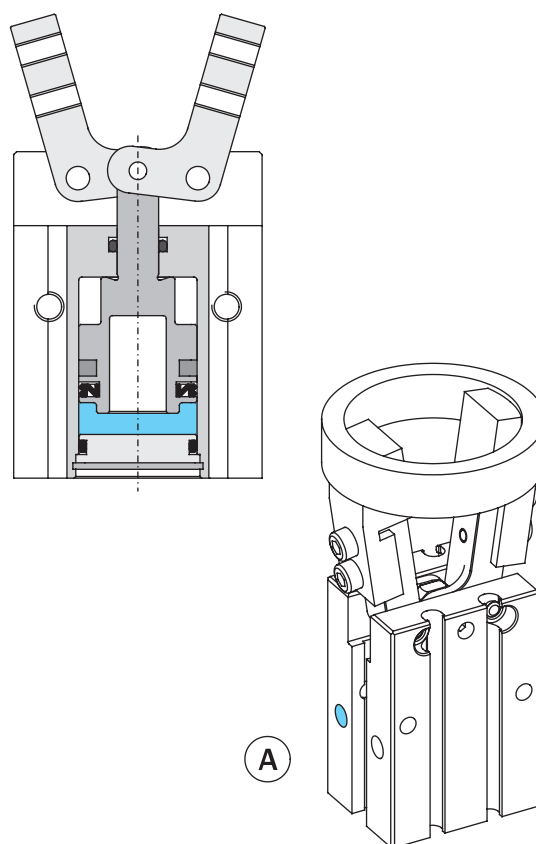


A richiesta è disponibile la versione con la molla in chiusura (-NC) o in apertura (-NO), che in assenza d'aria garantisce circa un quarto della forza disponibile a 6 bar.

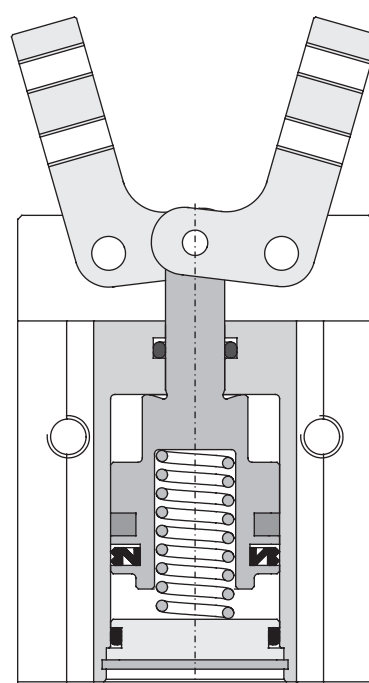


Gripping

The gripper is double-acting for either internal (A) or external (B) gripping applications. The opening force is higher.



It is also available, on request, with a closing (-NC) or opening (-NO) spring, providing, after a pressure black-out, about one fourth of the output force at 6 bar.

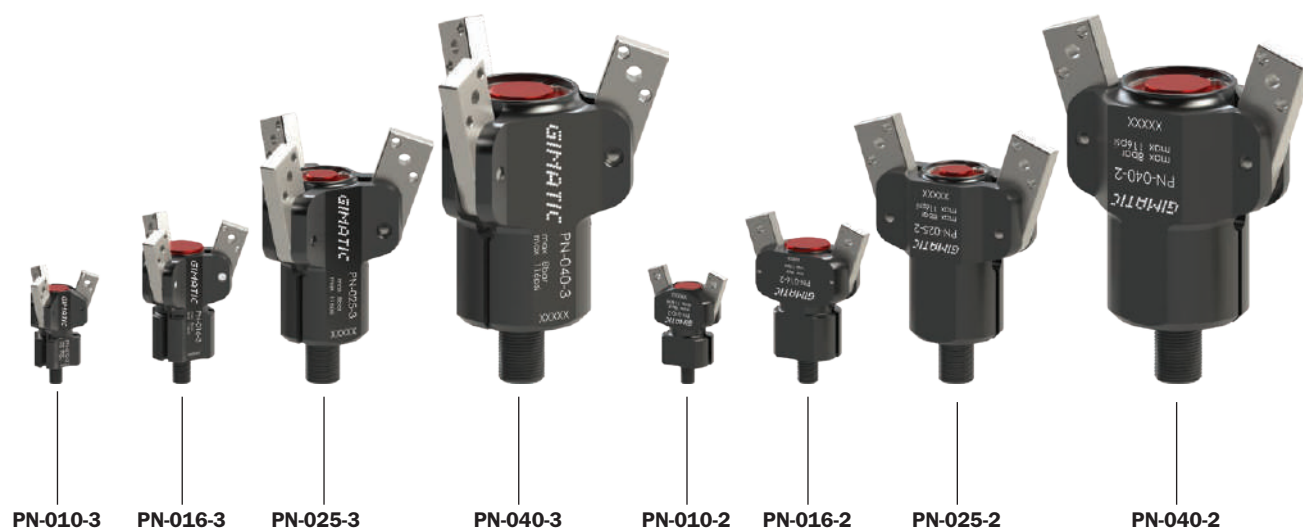


Pinze pneumatiche ad azione basculante autocentrante

- Azionamento a doppio effetto.
- Rendimento ed affidabilità elevati, dovuti all'assenza di organi di trasmissione.
- Possibilità di scelta: 2 o 3 griffe.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

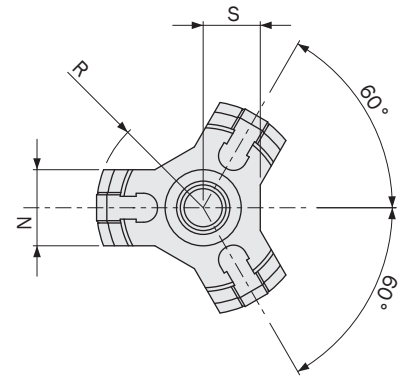
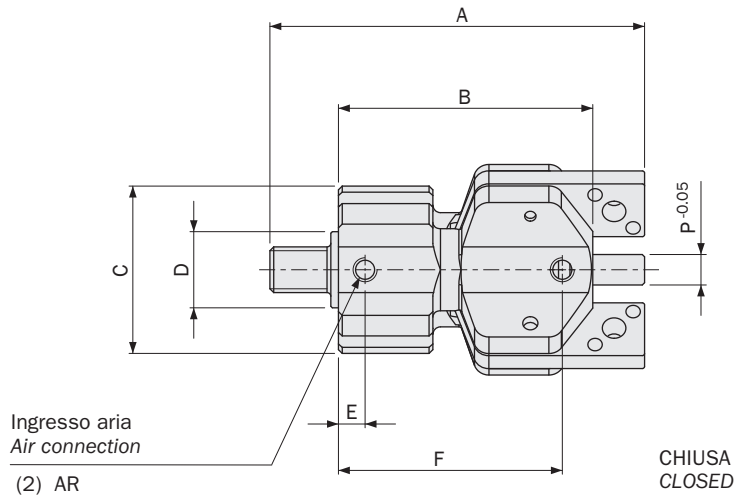
Self-centering angular pneumatic grippers

- Double acting.
- High efficiency and reliability due to the lack of driving parts.
- 2 or 3 jaws.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.

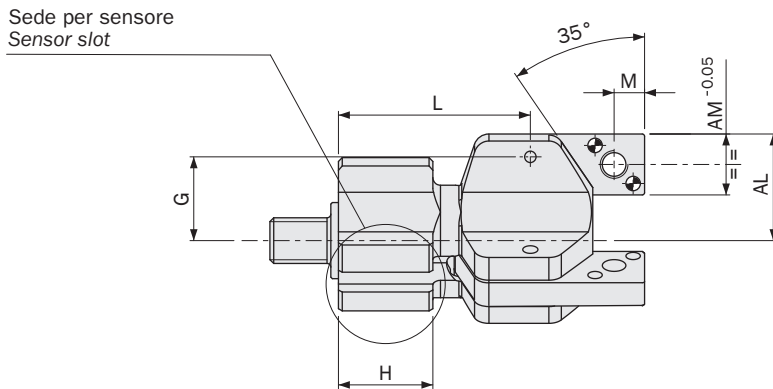


	PN-010-3	PN-010-2	PN-016-3	PN-016-2	PN-025-3	PN-025-2	PN-040-3	PN-040-2
Azionamento <i>Design</i>	Pinza pneumatica ad azionamento basculante autocentrante <i>Self - centering angular motion gripper</i>							
Fluido <i>Medium</i>	Aria compressa a norma ISO 8573-1:2010 [7:4:4] <i>Compressed air in compliance with ISO 8573-1:2010 [7:4:4]</i>							
Pressione di esercizio <i>Compressed air control range</i>	2 ÷ 8 bar							
Corsa <i>Stroke</i> (± 1°)	3 x 19°	2 x 19°	3 x 19°	2 x 19°	3 x 19°	2 x 19°	3 x 19°	2 x 19°
Temperatura di esercizio <i>Permitted temperature range</i>	5 ÷ 60°C.							
Coppia di serraggio per ogni griffa a 6 bar <i>Maximum gripper torque at 6 bar on each jaw</i>	10 Ncm	15 Ncm	38 Ncm	57 Ncm	166 Ncm	249 Ncm	434 Ncm	651 Ncm
Coppia di serraggio totale a 6 bar <i>Total gripper torque at 6 bar</i>	30 Ncm		114 Ncm		498 Ncm		1302 Ncm	
Tempo di chiusura a 6 bar senza carico <i>Closing time at 6 bar without load</i>	0.02 s		0.03 s		0.06 s		0.1 s	
Frequenza max funzionamento continuativo a 6 bar <i>Maximum working frequency at 6 bar</i>	3 Hz				2 Hz		1 Hz	
Consumo d'aria per ciclo a 6 bar <i>Air consumption for cycle at 6 bar</i>	0.49 cm³		2.61 cm³		10.8 cm³		41.1 cm³	
Ripetibilità <i>Repetition accuracy</i>	0.1°				0.1°			
Peso <i>Weight</i>	36 g	33 g	110 g	100 g	410 g	960 g	1070 g	940 g

Dimensioni (mm)
Dimensions (mm)

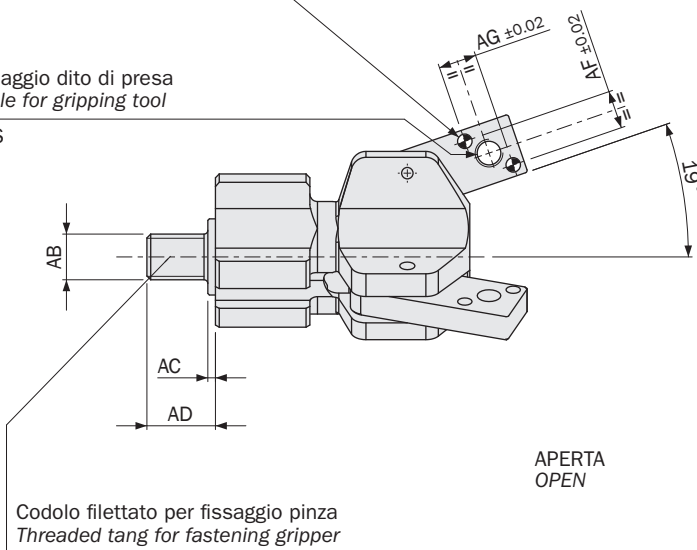


FIRST ANGLE
PROJECTION



Foro di riferimento dito di presa
Dowel pin hole for gripping tool
(2+2+2) AT

Foro per fissaggio dito di presa
Threaded hole for gripping tool
(1+1+1) AS



	PN-010-3	PN-016-3
A	49.2	70.5
B	33.4	48.2
C	Ø22	Ø28.8
D	Ø10 h8	Ø10 h8
E	3.5	4.5
F	29.4	41
G	11	17.5
H	12.4	19.5
L	25.2	36
M	4	5.5
N	10	15
P	4	6
R	Ø28	Ø44
S	7.5	11
AB	M6	M8
AC	1	1
AD	9	12.5
AF	5	8
AG	5	7
AL	14	22
AM	8	12
AR	M3	M5
AS	M3	M4
AT	Ø1.5 H8	Ø2 H8

Unità Rotanti
Rotary Units

Cambia Utensile
Quick Changer

Profili e Staffe
Profiles and Brackets

Pinze
Grippers

Attuatori Lineari
Linear Actuators

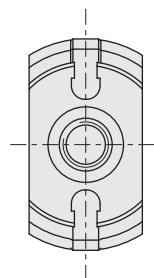
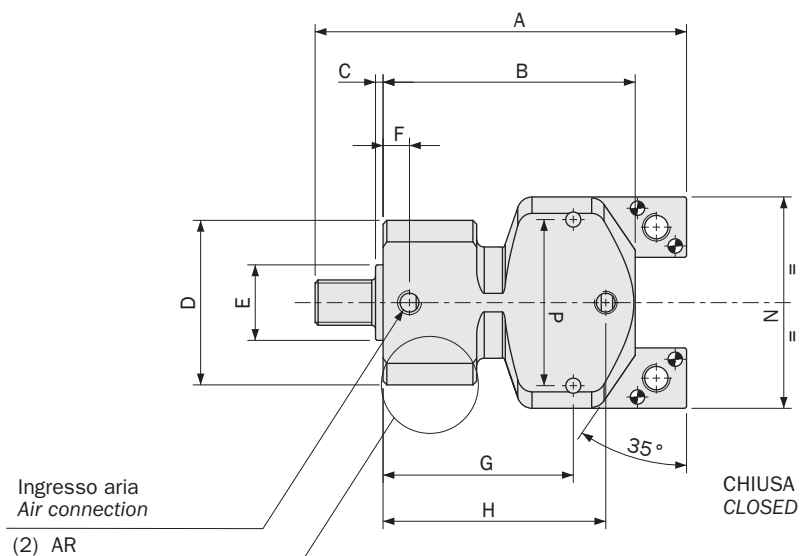
Sospensioni
Suspensions

Taglierini
Nippers

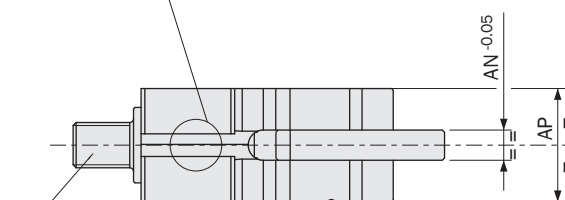
Kit-Robot
Robot Kit

Accessori Opzionali
Options

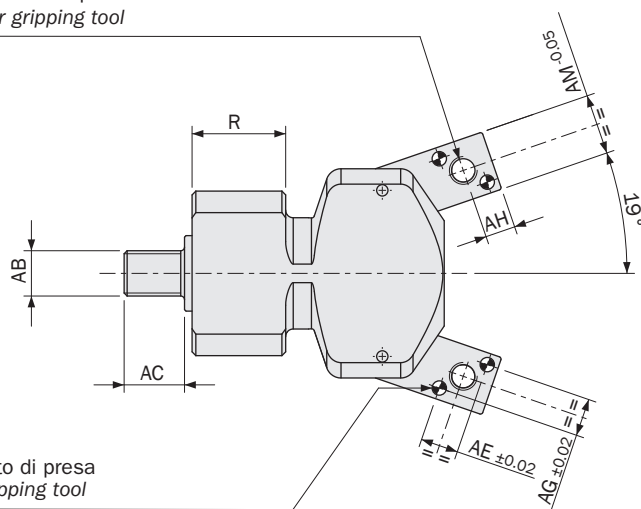
Sensori
Sensors

Dimensioni (mm)
Dimensions (mm)


 FIRST ANGLE
PROJECTION

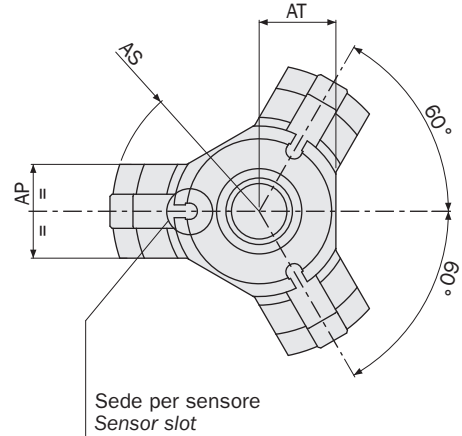
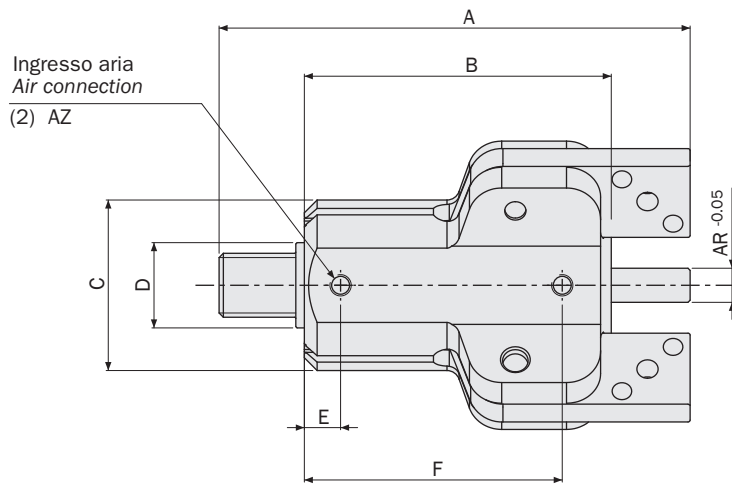
 Sede per sensore
Sensor slot

 Foro per fissaggio dito di presa
Threaded hole for gripping tool

(1+1) AS



	PN-010-2	PN-016-2
A	49.2	70.5
B	33.4	48.2
C	1	1
D	Ø22	Ø28.8
E	Ø10 h8	Ø10 h8
F	3.5	4.5
G	25.2	36
H	29.5	41
N	28	44
P	22	35
R	12.4	19.5
AB	M6	M8
AC	8	11.5
AE	5	7
AG	5	8
AH	4	5.5
AM	8	12
AN	4	6
AP	15	22
AR	M3	M5
AS	M3	M4
AT	Ø1.5 H8	Ø2 H8
AV	Ø28	Ø44

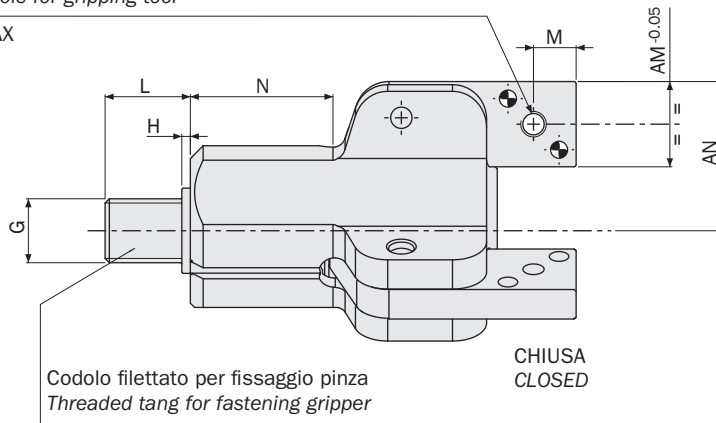
Dimensioni (mm)
Dimensions (mm)



FIRST ANGLE
PROJECTION

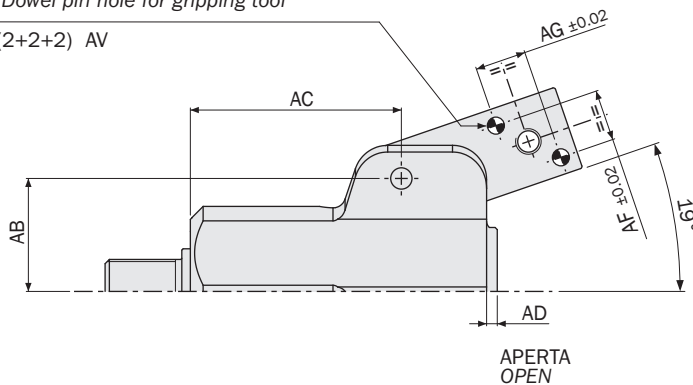
Foro per fissaggio dito di presa
Threaded hole for gripping tool

(1+1+1) AX



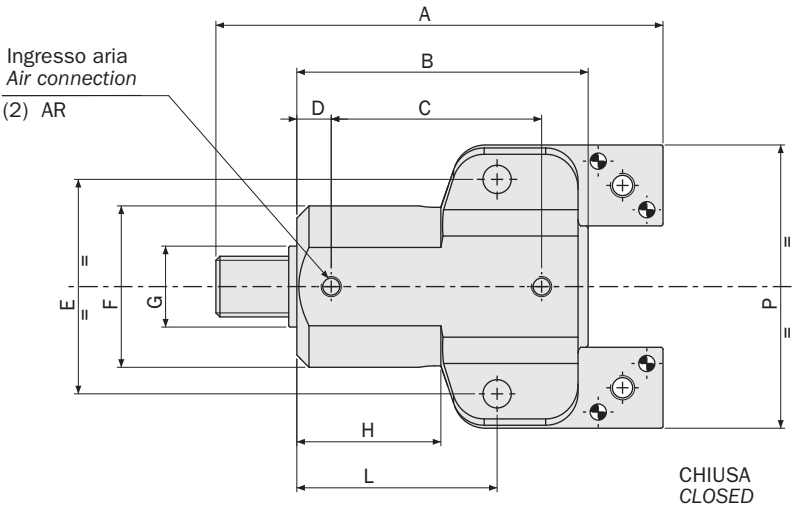
Foro di riferimento dito di presa
Dowel pin hole for gripping tool

(2+2+2) AV

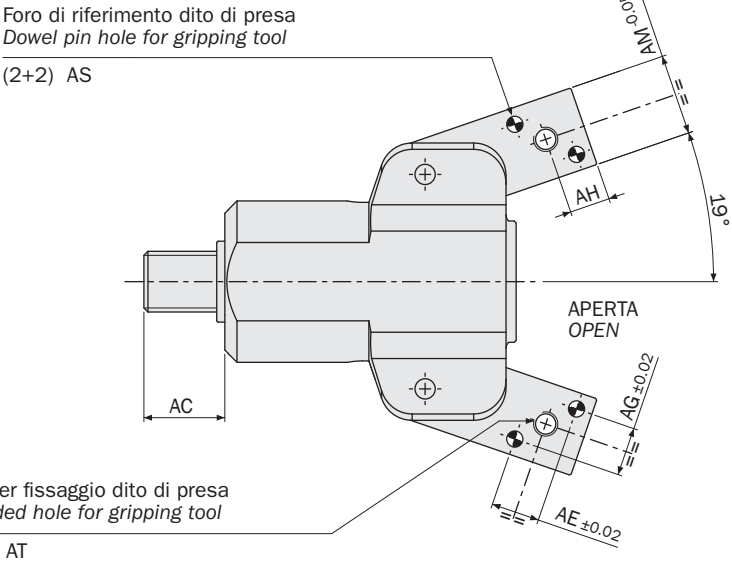
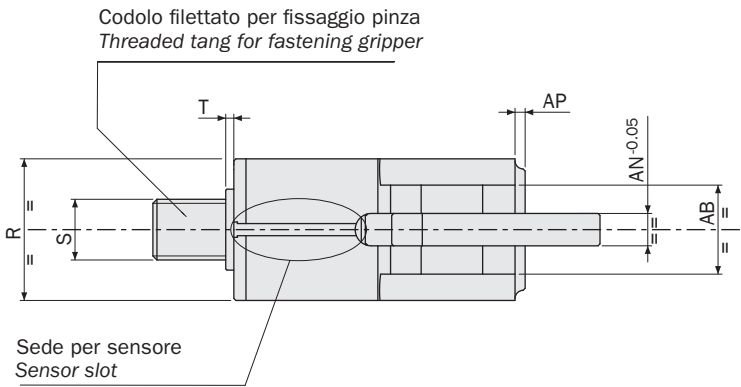


	PN-025-3	PN-040-3
A	110.5	150
B	72	102
C	Ø40	Ø60
D	Ø20 f7	Ø30 f7
E	8.5	12
F	60.5	85
G	M15x1	M20x1
H	2	3
L	20	28
M	10	12
N	33.5	44.2
AB	26.5	39.5
AC	49.5	74
AD	2.5	6.5
AF	12	15
AG	12	15
AM	20	24
AN	35	48.5
AP	22	25
AR	8	10
AS	Ø69	Ø97
AT	18	28
AV	Ø4 H8	Ø5 H8
AX	M6	M8
AZ	M5	1/8 Gas

Dimensioni (mm)
Dimensions (mm)



FIRST ANGLE
PROJECTION



	PN-025-2	PN-040-2
A	110.5	150
B	72	102
C	52	73
D	8.5	12
E	53	79
F	Ø40	Ø60
G	Ø20 f7	Ø30 f7
H	35.6	44.2
L	49.5	74
P	70	97
R	35	56
S	M15x1	M20x1
T	2	3
AB	22	25
AC	20	28
AE	12	15
AG	12	19.5
AH	10	12
AM	20	24
AN	8	10
AP	2.5	6.5
AR	M5	1/8 Gas
AS	Ø4 H8	Ø5 H8
AT	M6	M8
AV	Ø69	Ø97

Sensori

Il rilevamento della posizione di lavoro è affidata ad uno o più sensori magnetici di prossimità inseriti nelle guide del corpo pinza.

Essi rilevano la posizione attraverso un magnete applicato sul pistone.

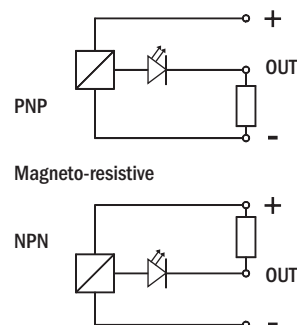
SN4N225-G	PNP	Cavo 2.5m 2.5m cable
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 M8 snap plug connector
SN3M203-G	NPN	

Sono tutti dotati di un cavo piatto a tre fili e di un led.

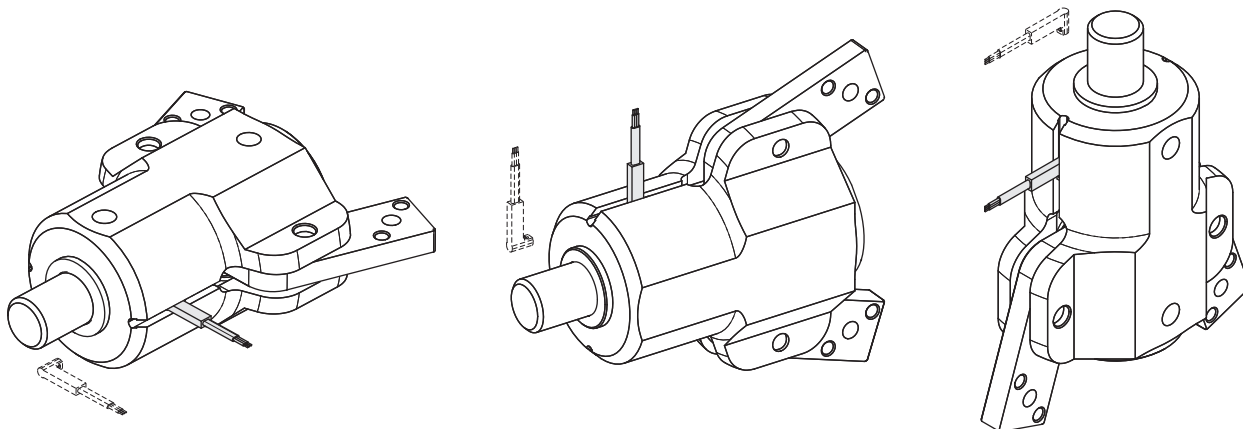
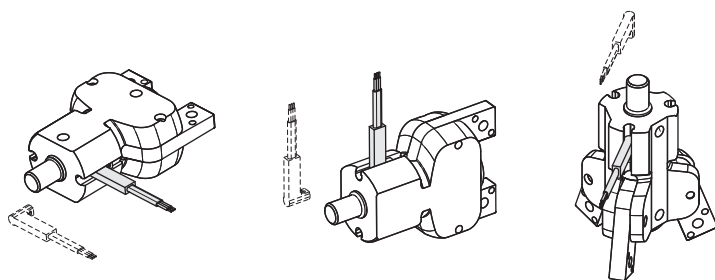
Sensors

The operating position is detected by proximity magnetic sensors, fitted in the guides of the gripper's body.

These sensors detect the position by means of a magnet placed on the piston.



They are all provided with a 3-wire flat cable and a LED.



Mini pinza angolare a due griffe autocentrante, serie TFA

- Azionamento a semplice effetto con apertura a molla.
- Vari accessori disponibili per il fissaggio.
- Kit opzionale per la sospensione (1).
- Grasso alimentare FDA-H1.

2-jaw self-centering angular mini gripper, series TFA

- Single acting with spring opening.
- Several mounting accessories.
- Optional suspension kit (1).
- FDA-H1 food-grade grease.

(1)



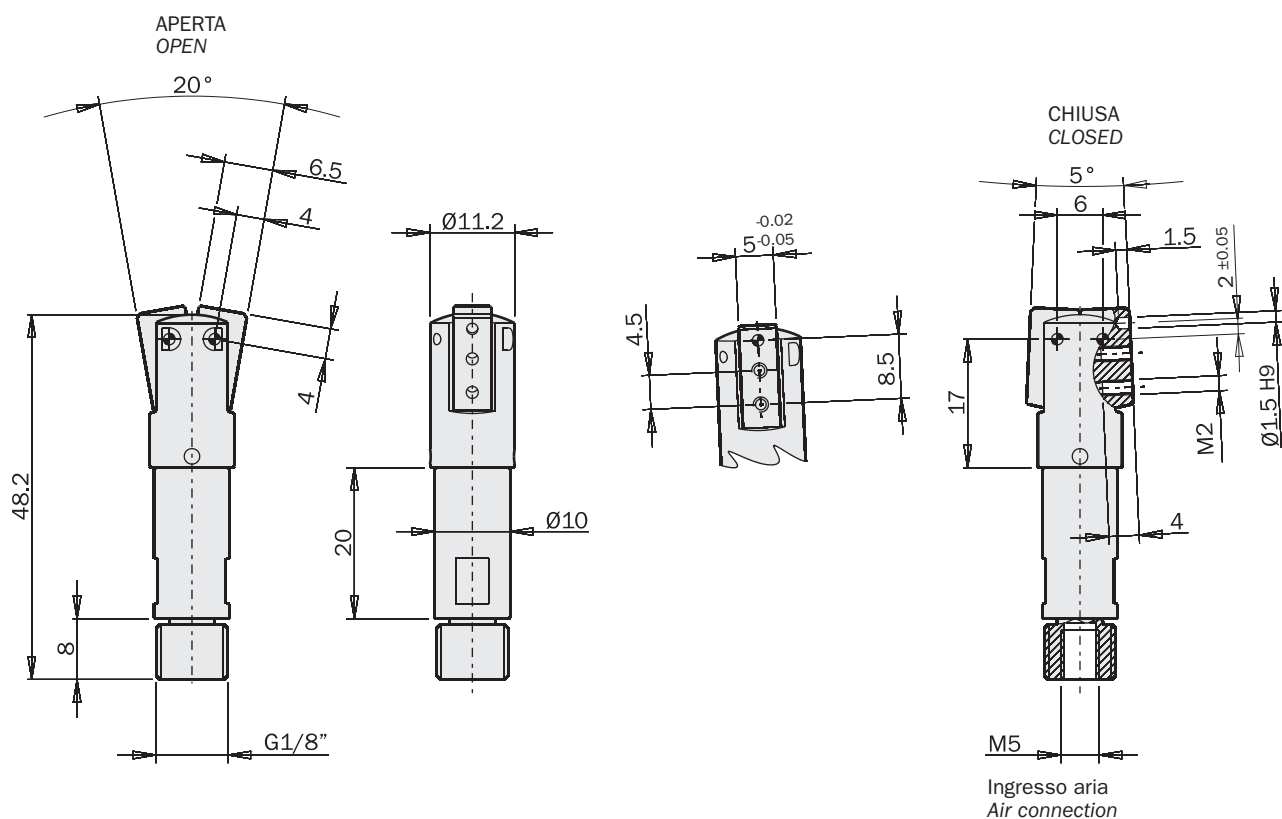
	TFA10-25	TFA14-25	TFA20-25 TFA20-25S
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Pressure range	2.5 ÷ 8 bar		
Temperatura di esercizio Temperature range	5 ÷ 60 °C.		
Corsa Stroke	2 x 12.5°		
Coppia di chiusura per griffa a 6 bar Closing torque at 6 bar each jaw	17 Ncm	48 Ncm	215 Ncm
Coppia di chiusura totale a 6 bar Total closing torque at 6 bar	34 Ncm	96 Ncm	430 Ncm
Coppia di apertura per griffa a 0 bar Opening torque at 0 bar each jaw	0.5 Ncm	0.8 Ncm	1.3 Ncm
Coppia di apertura totale a 0 bar Total opening torque at 0 bar	1 Ncm	1.6 Ncm	2.6 Ncm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	0.2 cm ³	0.5 cm ³	2 cm ³
Peso Weight	12 g	30 g	95 g (TFA20-25) 120 g (TFA20-25S)

(1)

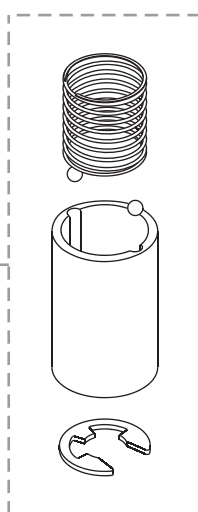
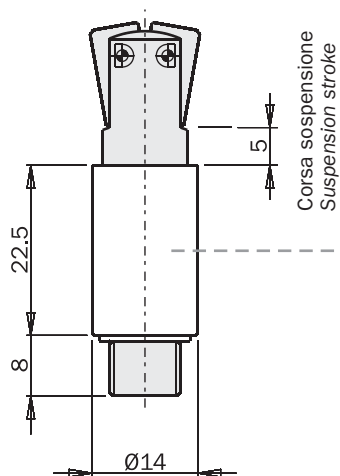
	TFA10SP05	TFA14SP05	TFA20SP10
Forza della molla Spring force	1.9 ÷ 2.2 N	3.0 ÷ 3.5 N	4.1 ÷ 6.7 N
Peso Weight	10 g	35 g	85 g

Dimensioni (mm)
Dimensions (mm)

TFA10-25



Pinza + Sospensione
Gripper + Suspension



TFA10SP05

Kit opzionale per la sospensione
Optional suspension kit



Dimensioni (mm)
Dimensions (mm)

TFA20-25
TFA20-25S

Unità Rotanti
Rotary Units

Cambia Utensile
Quick Changer

Profili e Staffe
Profiles and Brackets

Pinze
Grippers

Attuatori Lineari
Linear Actuators

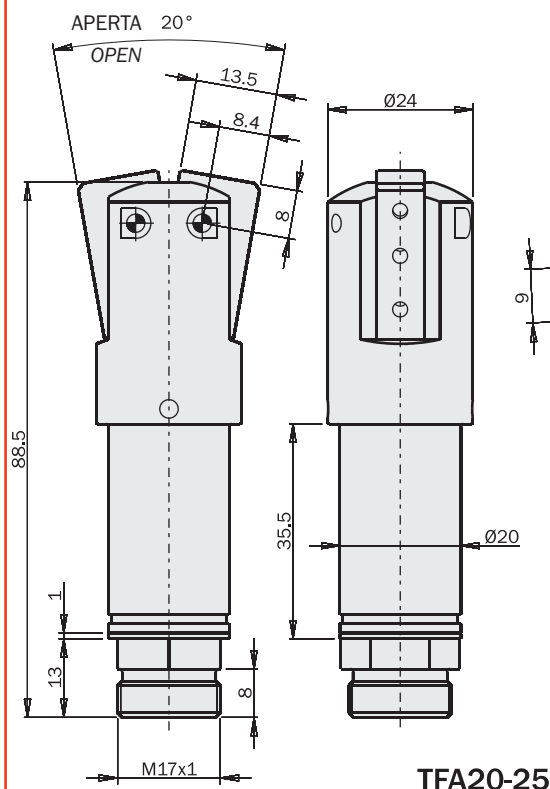
Sospensioni
Suspensions

Taglierini
Nippers

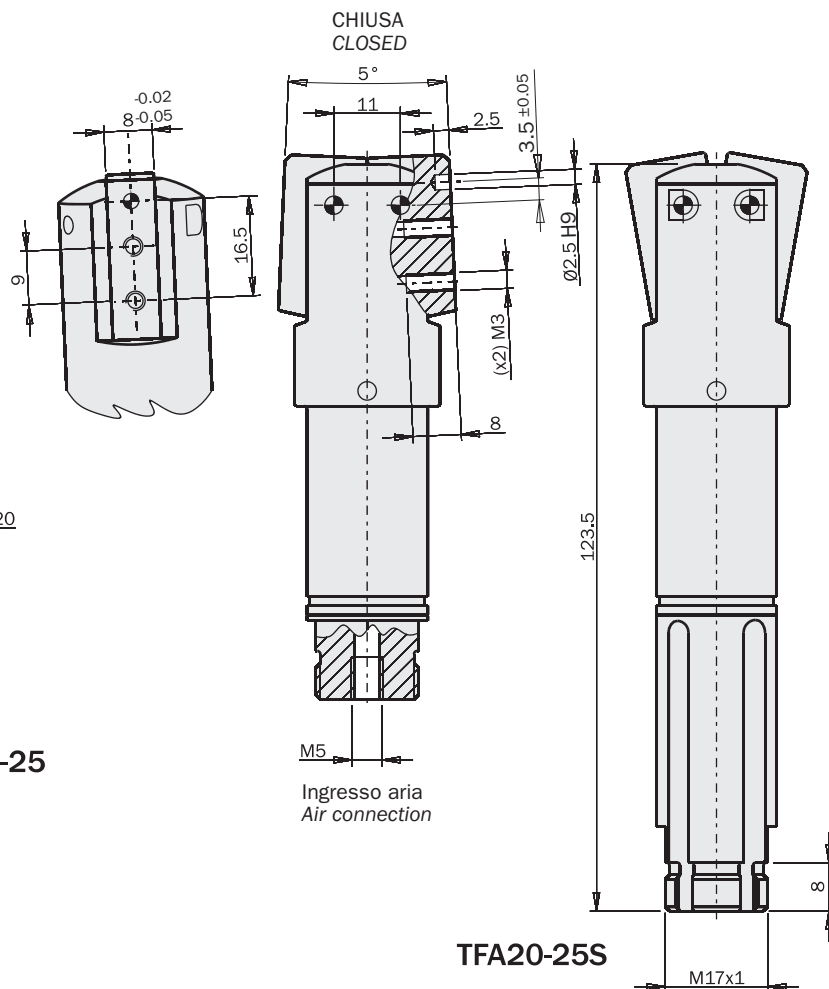
Kit-Robot
Robot Kit

Accessori Opzionali
Options

Sensori
Sensors

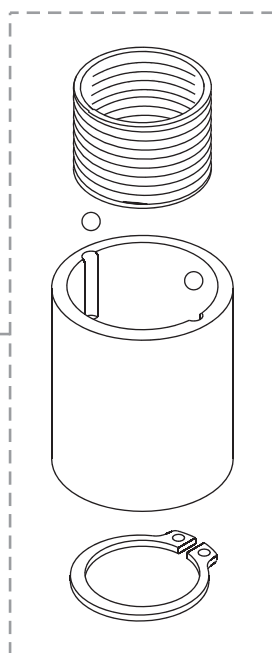
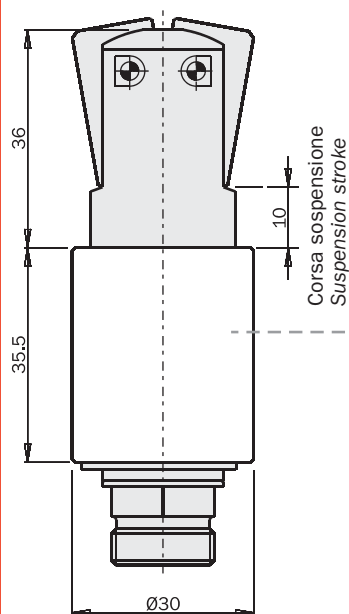


TFA20-25



TFA20-25S

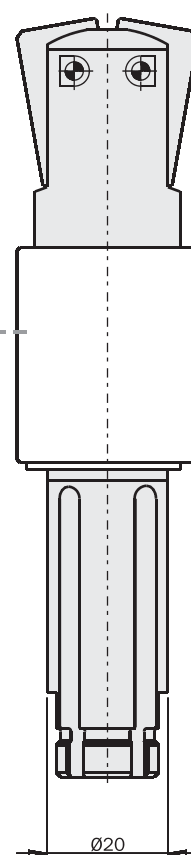
Pinza + Sospensione
Gripper + Suspension



TFA20SP10

Kit opzionale per la
sospensione
Optional suspension kit

Pinza + Sospensione
Gripper + Suspension

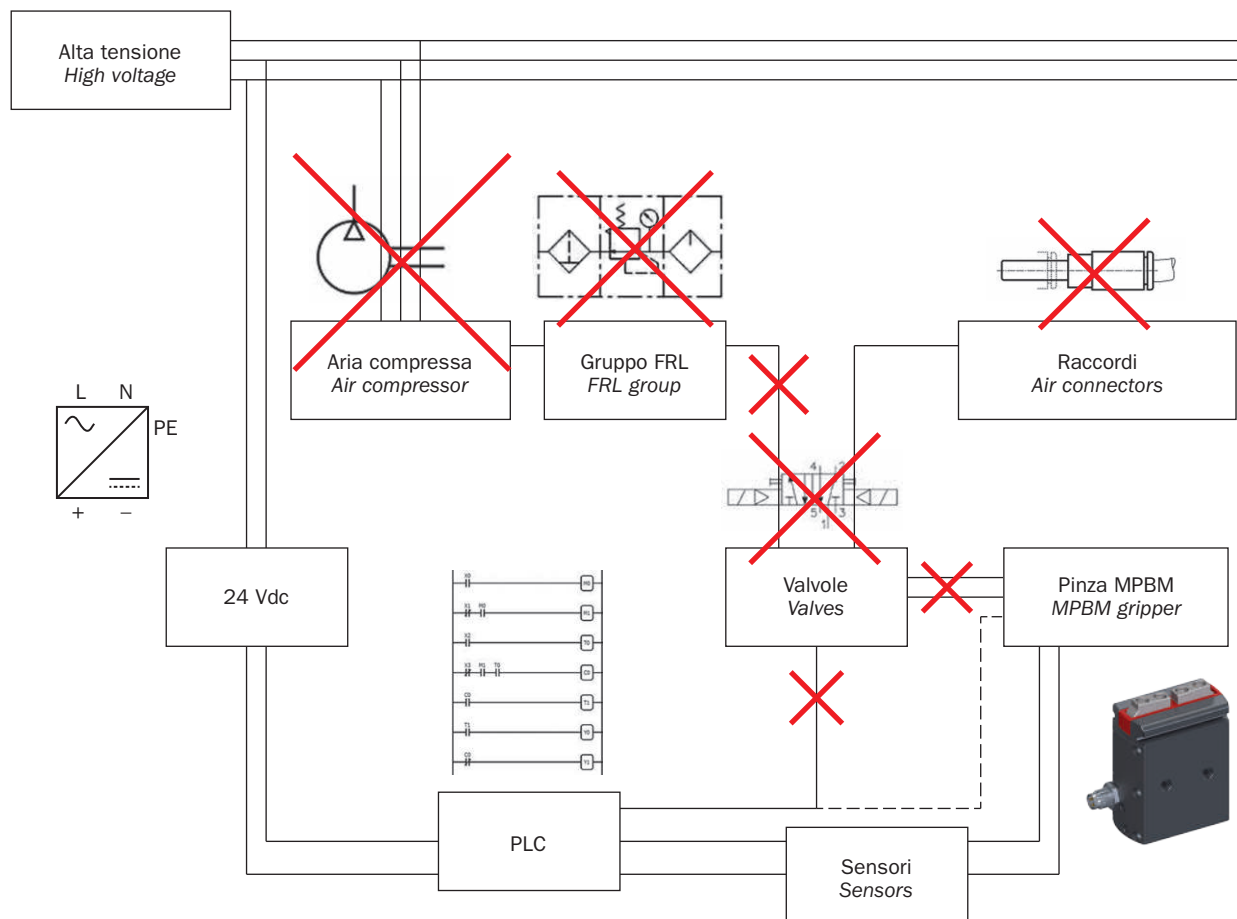


Pinza elettrica angolare 2 griffe autocentrante

- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando la pinza è in presa.
- Nessuna programmazione richiesta.
- Tenuta pezzo garantita in caso di interruzione d'energia.
- Si adatta ad ogni dimensione di pezzo entro griffe.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nella pinza.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe contenute nell'ingombro pinza.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con attuatori rotanti.
- Sensori magnetici opzionali.

2-jaw angular self-centering electric gripper

- Plug & play user friendly gripper.
- No electricity consumption when gripper is engaged.
- No programming required.
- Gripper retention guaranteed in event of blackout.
- Self Adapting jaws part.
- Long life Brushless motor (Brushless DC).
- Built-in motor driver.
- 24 Vdc Low Voltage Power Supply.
- M8x1, 3 poles standard connection.
- Controllable by PLC as a pneumatic valve.
- Fiber-carbon gear reduction.
- 10 million cycle maintenance-free.
- Jaws contained within gripper profile.
- Weight-dimensions-force best trade off.
- Rotary actuator fitting compatible.
- Optional magnetic sensors.

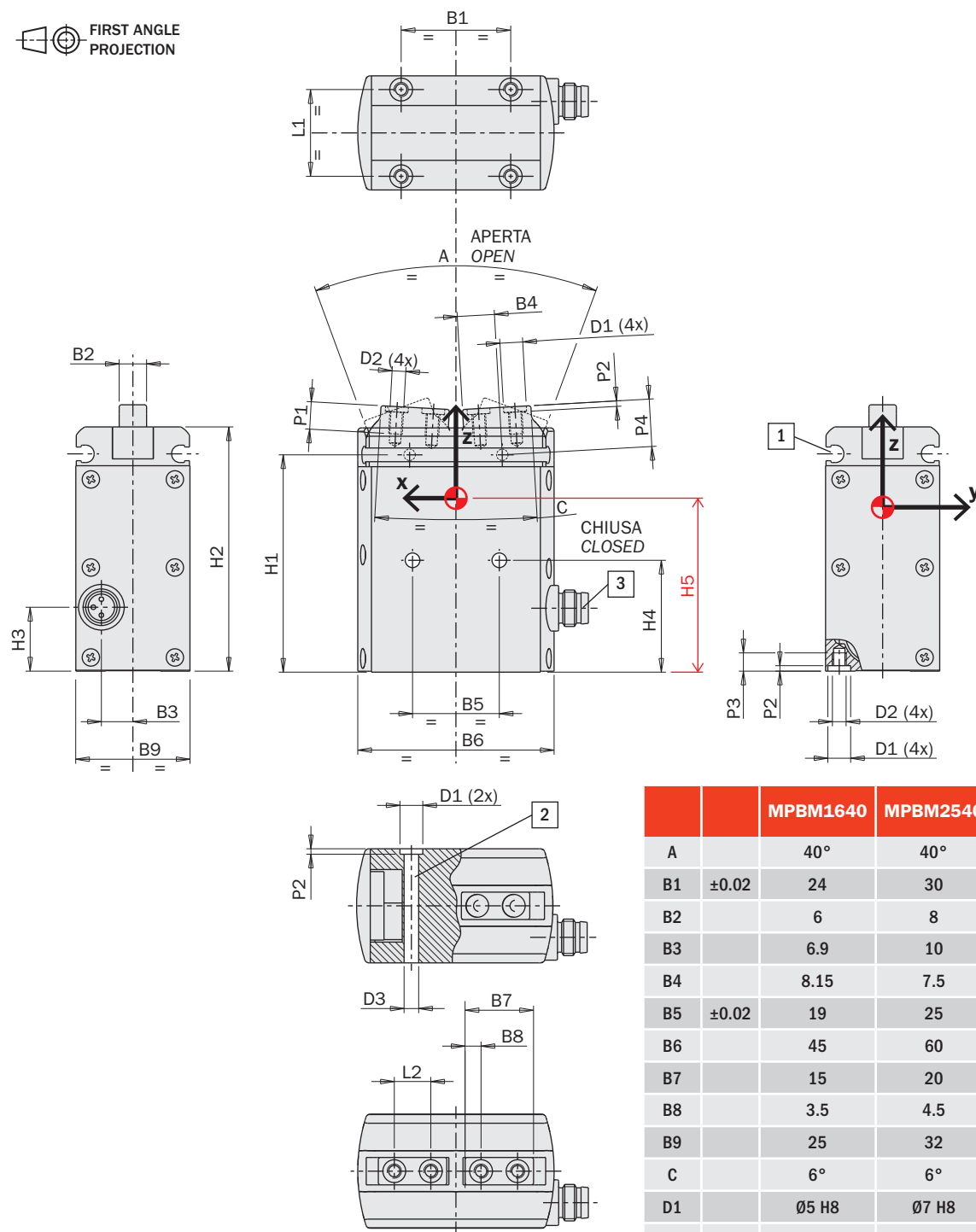




	MPBM1640	MPBM2540	MPBM3240
Coppia di serraggio totale <i>Total gripping torque</i>	68 Ncm	151 Ncm	277 Ncm
Corsa <i>Stroke</i>	2x23° (±2°)	2x23° (±2°)	2x23° (±2°)
Frequenza alla temperatura ambiente di 30°C <i>Frequency at an ambient temperature of 30°C</i>	0.93 Hz	0.85 Hz	0.81 Hz
Tempo chiusura griffe <i>Jaw closing time</i>	0.09 s	0.13 s	0.14 s
Tempo di lavoro pinza <i>Working gripper time</i>	0.18 s	0.31 s	0.25 s
Ciclo di lavoro alla temperatura ambiente di 30°C <i>Duty cycle at an ambient temperature of 30°C</i>	34%	53%	41%
Tensione d'alimentazione <i>Power supply</i>	24 Vdc ±10%	24 Vdc ±10%	24 Vdc ±10%
Corrente di picco <i>Peak current</i>	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale <i>Nominal current</i>	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless <i>Brushless motor power</i>	6 W	11 W	23 W
Connessione <i>Connection</i>	M8 - 3 poli M8 - 3 poles		
Segnale d'ingresso apertura/chiusura <i>Open/closed input signal</i>	PNP open collector PNP open collector		
Ripetibilità <i>Repetition accuracy</i>	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio <i>Operating temperature</i>	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione <i>Environmental Degree</i>	IP54	IP54	IP54
Rumorosità <i>Noise level</i>	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) <i>Mass (motor included)</i>	140 g	315 g	510 g
Carico inerziale massimo <i>Maximum inertial load</i>	.	.	.
Certificazione Camera Bianca IPA <i>IPA Clean Room Certification</i>	.	.	.
Normative di riferimento <i>Reference standards</i>	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jxx	0.42 kgcm²	1.72 kgcm²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jyy	0.53 kgcm²	2.18 kgcm²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jzz	0.23 kgcm²	0.94 kgcm²
Tecnologia e opzioni <i>Technology and options</i>	Pagina 570 - 571 Page 570 - 571		

Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

Dimensioni (mm)
Dimensions (mm)

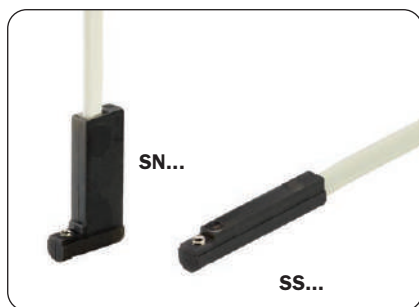
**FIRST ANGLE
PROJECTION**


- 1** Cava per sensore magnetico
Magnetic sensor slot
- 2** Foro passante per fissaggio pinza
Through hole for gripper fastening
- 3** Connessione elettrica
Electrical connection

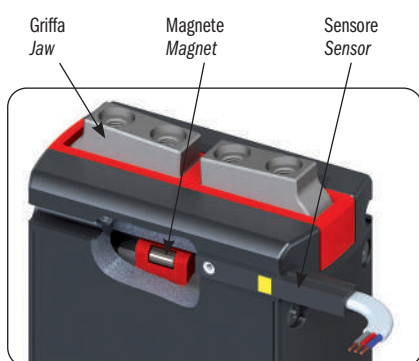
		MPBM1640	MPBM2540	MPBM3240
A		40°	40°	40°
B1	±0.02	24	30	36
B2		6	8	9
B3		6.9	10	11
B4		8.15	7.5	12.25
B5	±0.02	19	25	30
B6		45	60	73
B7		15	20	24
B8		3.5	4.5	5
B9		25	32	35
C		6°	6°	6°
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
D3		Ø3.2	Ø4.2	Ø5.2
H1		47.6	63	72
H2		53.5	70	80
H3		14	17	19
H4	±0.02	24.5	32	38
H5		32.3	42.5	48.5
L1	±0.02	19	24	26
L2	±0.02	8	11	14
P1		6	8	10
P2	+0.1	1.2	1.5	1.5
P3		4	6	8
P4		10.4	14	16

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe. Per i dettagli si veda la sezione "Accessori".



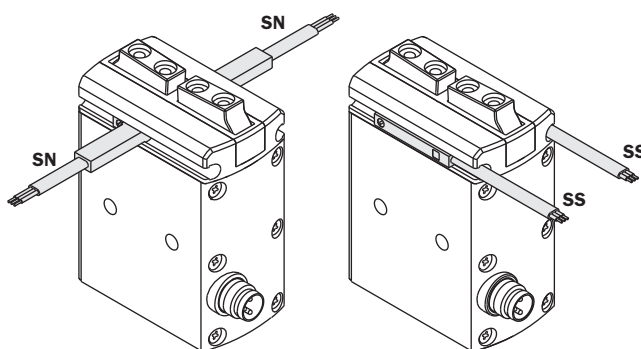
Sono tutti dotati di un cavo piatto a tre fili e di un led.



Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside. For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



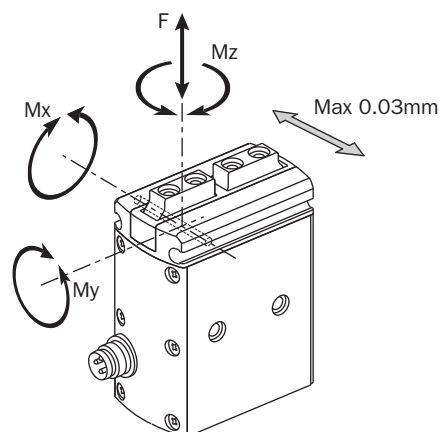
Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili. Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore. F_s , M_x , M_y , M_z , sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme. J è il massimo momento d'inerzia ammissibile per ogni dito di presa. La figura sotto mostra anche il gioco massimo delle griffe.

	MPBM1640	MPBM2540	MPBM3240
F_s	40 N	80 N	120 N
M_x	0.5 Nm	1 Nm	2.5 Nm
M_y	1 Nm	2 Nm	5 Nm
M_z	1 Nm	2 Nm	5 Nm
J	0.4 kgcm ²	2 kgcm ²	5 kgcm ²

Safety loads and backlashes

Check the table for the maximum permitted loads. Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator. F_s , M_x , M_y , M_z , are the maximum permitted loads under static conditions, that is with motionless jaws. J is the maximum permitted moment of inertia on each gripping tool. The picture below shows also the jaw maximum backlash.



Pinza pneumatica radiale autocentrante a 2 griffe (serie PS)

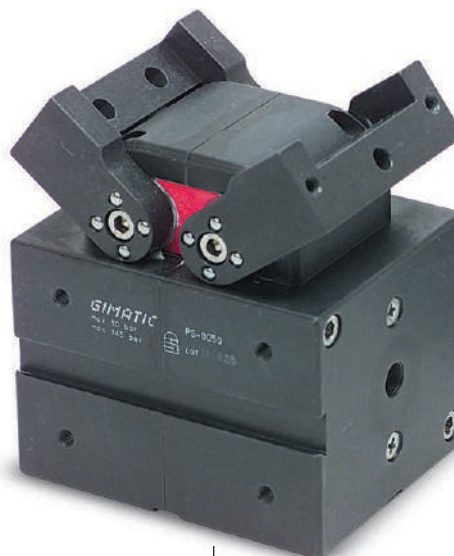
- Azionamento radiale a doppio effetto.
- Forza di serraggio totalmente disponibile su tutta la corsa (da 0° a 90° sia in apertura che in chiusura).
- Basso peso ottenuto con l'impiego di leghe leggere.
- Costruzione robusta.
- Protezione contro la polvere.
- Grasso alimentare FDA-H1.

2-jaw self-centering radial pneumatic gripper (series PS)

- Double acting radial motion.
- The gripping force is totally available on both directions from 0° to 90°.
- Light weight, due to its alloy construction.
- Rugged construction.
- Well protected against dusty environment.
- FDA-H1 food-grade grease.



PS-0030



PS-0050

	PS-0030	PS-0050
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]	
Pressione di esercizio Operating pressure range	2 ÷ 8 bar	
Temperatura di esercizio Operating temperature range	5 ÷ 60 °C.	
Corsa Stroke (±1°)	2 x 91°	
Coppia di serraggio per griffa a 6 bar Gripping torque at 6 bar on each jaw	200 Ncm	600 Ncm
Coppia di serraggio totale a 6 bar Total gripping torque at 6 bar	400 Ncm	1200 Ncm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	37 cm³	105 cm³
Tempo di chiusura senza carico Closing time without load	0.08 s	0.1 s
Ripetibilità Repetition accuracy	0.1°	0.1°
Peso Weight	750 g	1100 g

Dimensioni (mm)
Dimensions (mm)

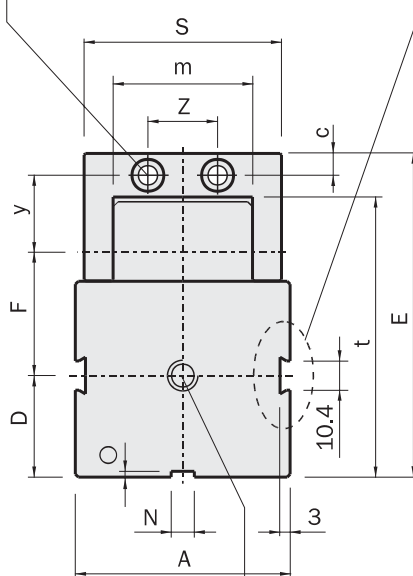


	PS-0030	PS-0050
A	49	74
B	81	92
C	45	67.5
D	24	35
E	83	111.5
F	30	42.5
G	50	60
H	65	60
I	39	44
L	11.5	20
M	13.5	20
N	6 ^{+0.05}	8 ^{+0.05}
O	2	2
P	12.5	15
Q	M4x8	M5x10
R	41.8	46.8
S	48	68
T	38	58
U	10.2	11.5
V	12.4	14.4
Z	20	24
J	M4x5	M5x8
a	Ø5.5	Ø6.6
b	Ø9	Ø11
c	6	7.5
d	1/8 Gas	1/8 Gas
e	6.4	7.2
f	82	95
g	M4x10	M5x15
h	Ø5H8x12	Ø6H8x15
m	31	48
q	20.3	22.8
r	65.5	90.5
t	70.5	96
k	5.5	6.5
y	23	26.5
w	12	15
x	24	27

Foro filettato per fissaggio pinza
Threaded hole for gripper fastening
(N°4) Q

Sede per sensori
Sensor groove

Foro di riferimento dito di presa
Dowel pin hole for gripping tool

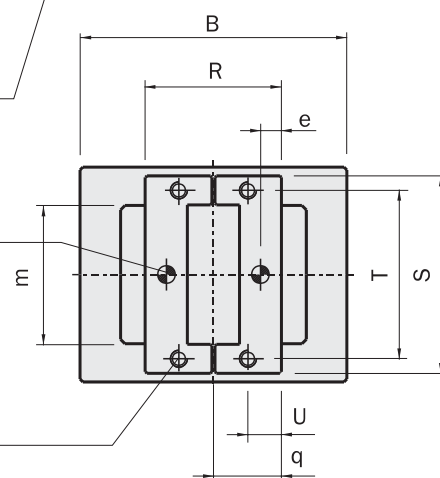
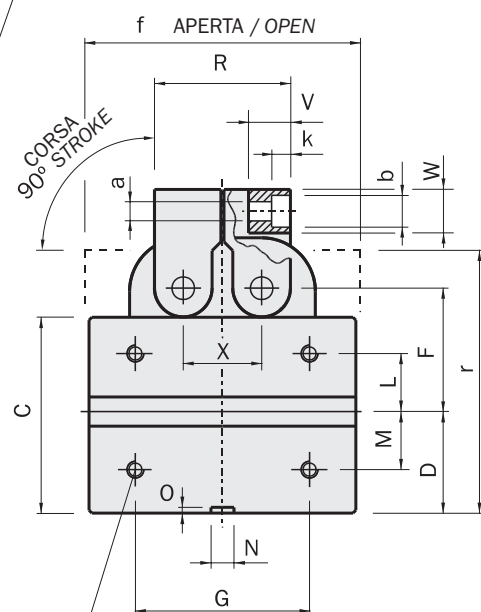
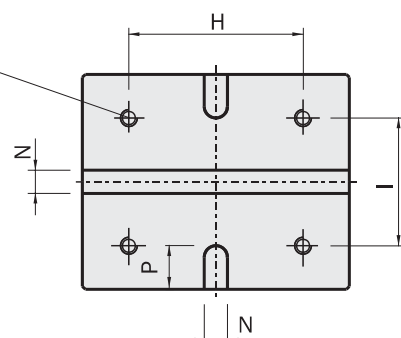


Ingresso aria
Air connection
(N°2) d

Foro filettato per fissaggio pinza
Threaded hole for gripper fastening
(N°4+4) J

Foro di riferimento dito di presa
Dowel pin hole for gripping tool
(N°1+1) h

Foro di riferimento dito di presa
Dowel pin hole for gripping tool
(N°2+2) g



Unità Rotanti
Rotary Units

Cambia Utensile
Quick Changer

Profili e Staffe
Profiles and Brackets

Pinze
Grippers

Attuatori Lineari
Linear Actuators

Sospensioni
Suspensions

Taglierini
Nippers

Kit-Robot
Robot Kit

Accessori Opzionali
Options

Sensori
Sensors

**Pinza pneumatica radiale autocentrante a 2 griffe
(serie PS-P)**

- Azionamento radiale a doppio effetto.
- Forza di serraggio totalmente disponibile su tutta la corsa (da 0° a 90° sia in apertura che in chiusura).
- Basso peso ottenuto con una costruzione interamente in lega leggera.
- Profilo piatto.
- Protezione contro la polvere.
- Versatilità di gestione anche con più di due sensori alloggiabili nelle cave integrate.
- Grasso alimentare FDA-H1.

**2-jaw self-centering radial pneumatic gripper
(series PS-P)**

- Double acting radial motion.
- The gripping force is totally available on both directions from 0° to 90°.
- Lightweight, being totally in light alloy.
- Flat profile.
- Well protected against dusty environment.
- As more than two sensors can be mounted, versatile operating is possible.
- FDA-H1 food-grade grease.



PS-0016-P



PS-0025-P

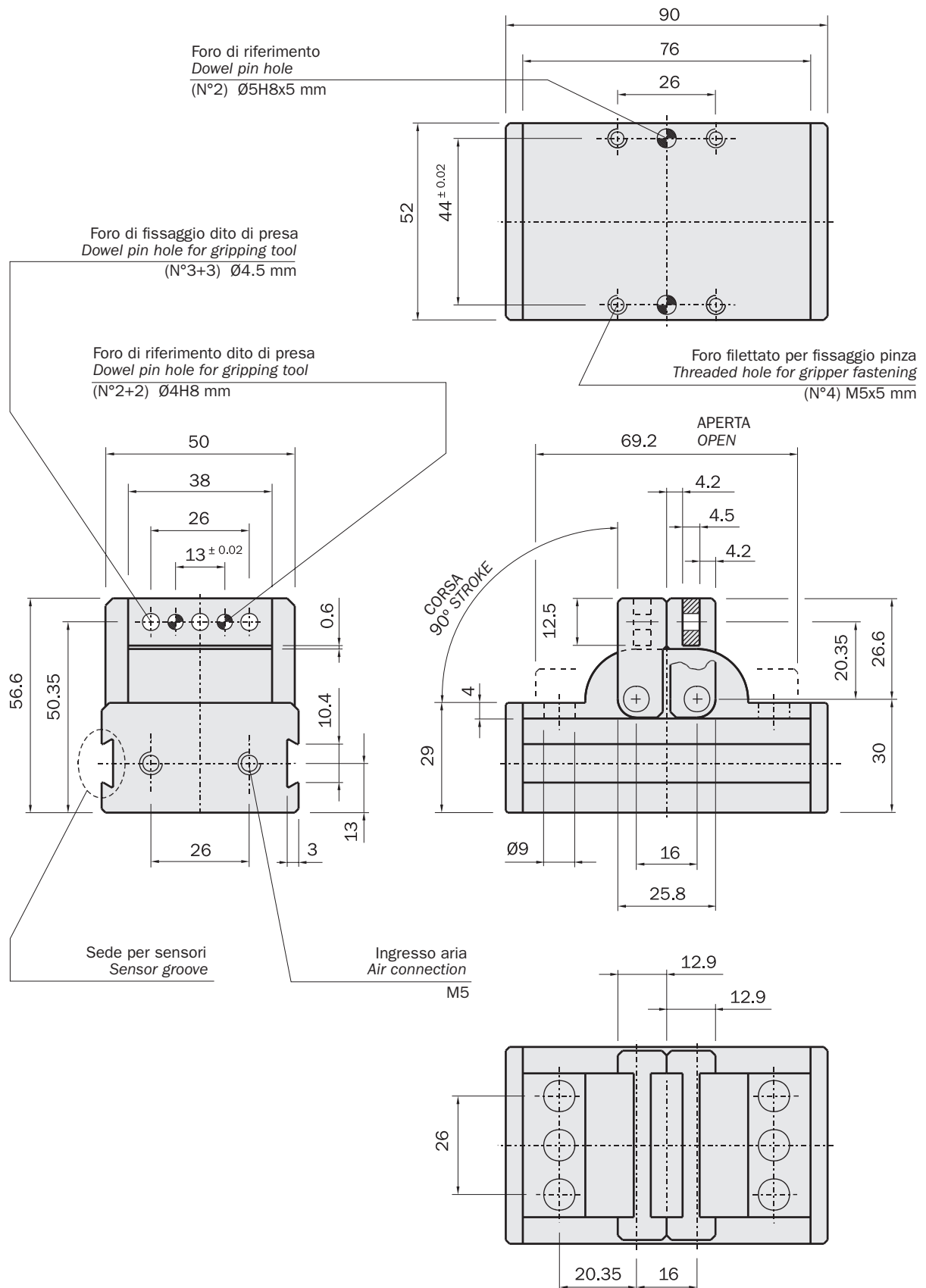


PS-0045-P

	PS-0016-P	PS-0025-P	PS-0045-P
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Operating pressure range	2 ÷ 8 bar		
Temperatura di esercizio Operating temperature range	5 ÷ 60 °C.		
Corsa Stroke (±1°)	2 x 90°		
Coppia di serraggio per griffa a 6 bar Gripping torque at 6 bar on each jaw	100 Ncm	280 Ncm	1800 Ncm
Coppia di serraggio totale a 6 bar Total gripping torque at 6 bar	200 Ncm	560 Ncm	3600 Ncm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz	2 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	16 cm³	57 cm³	382 cm³
Tempo di chiusura senza carico Closing time without load	0.06 s	0.09 s	0.15 s
Ripetibilità Repetition accuracy	0.1°	0.1°	0.1°
Peso Weight	320 g	650 g	2700 g

Dimensioni (mm)
Dimensions (mm)

PS-0016-P





Pinza pneumatica radiale autocentrante a 2 griffe (serie GX-S)

- Azionamento a doppio effetto.
- Elevata forza di serraggio alla fine della corsa di chiusura.
- Grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

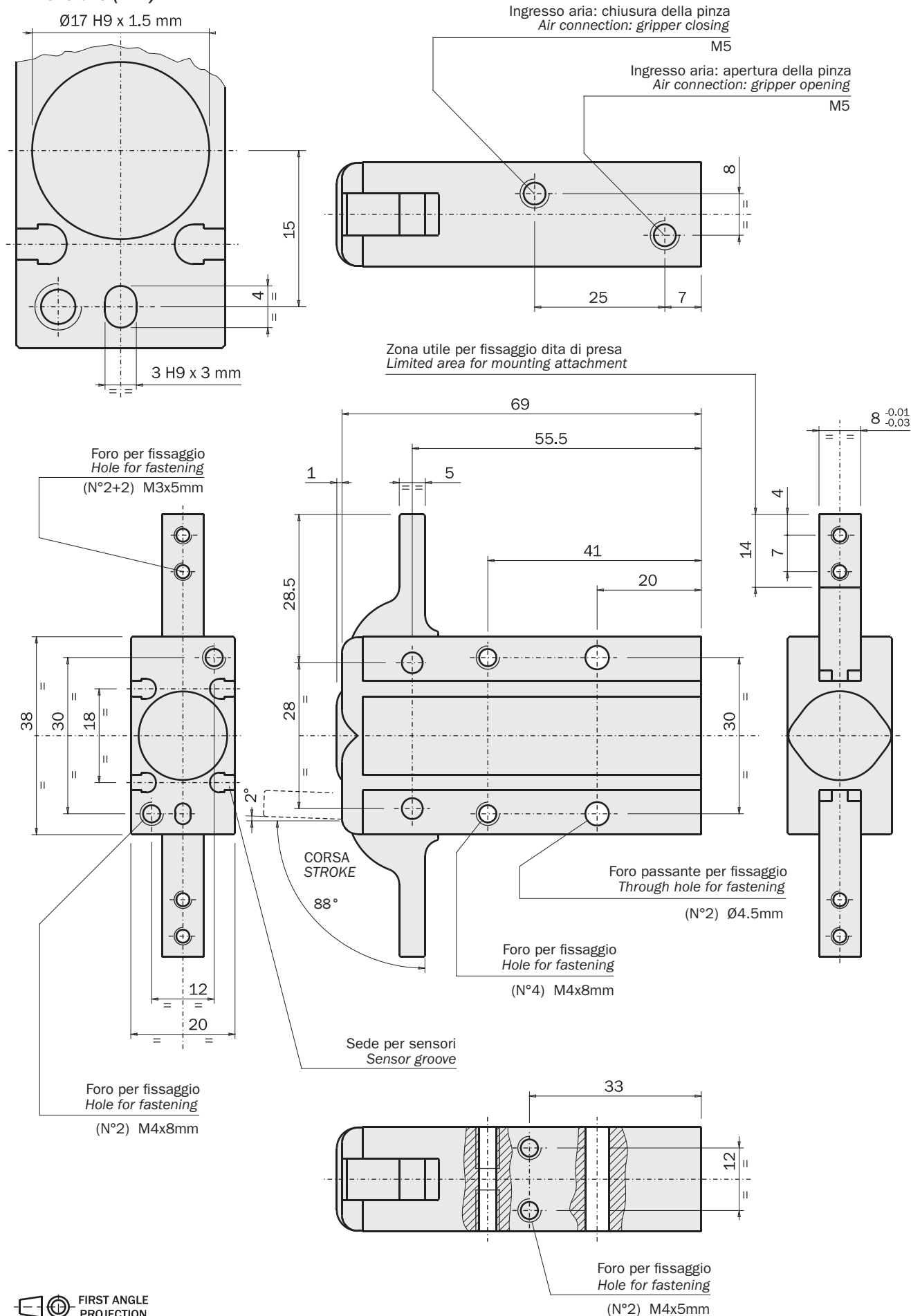
2-jaw self centering radial pneumatic gripper (series GX-S)

- Double acting.
- Very high gripping force at the end of the closing stroke.
- Long life and reliability, maintenance free.
- Various options for fastening.
- Optional proximity magnetic sensors.
- FDA-H1 food-grade grease.



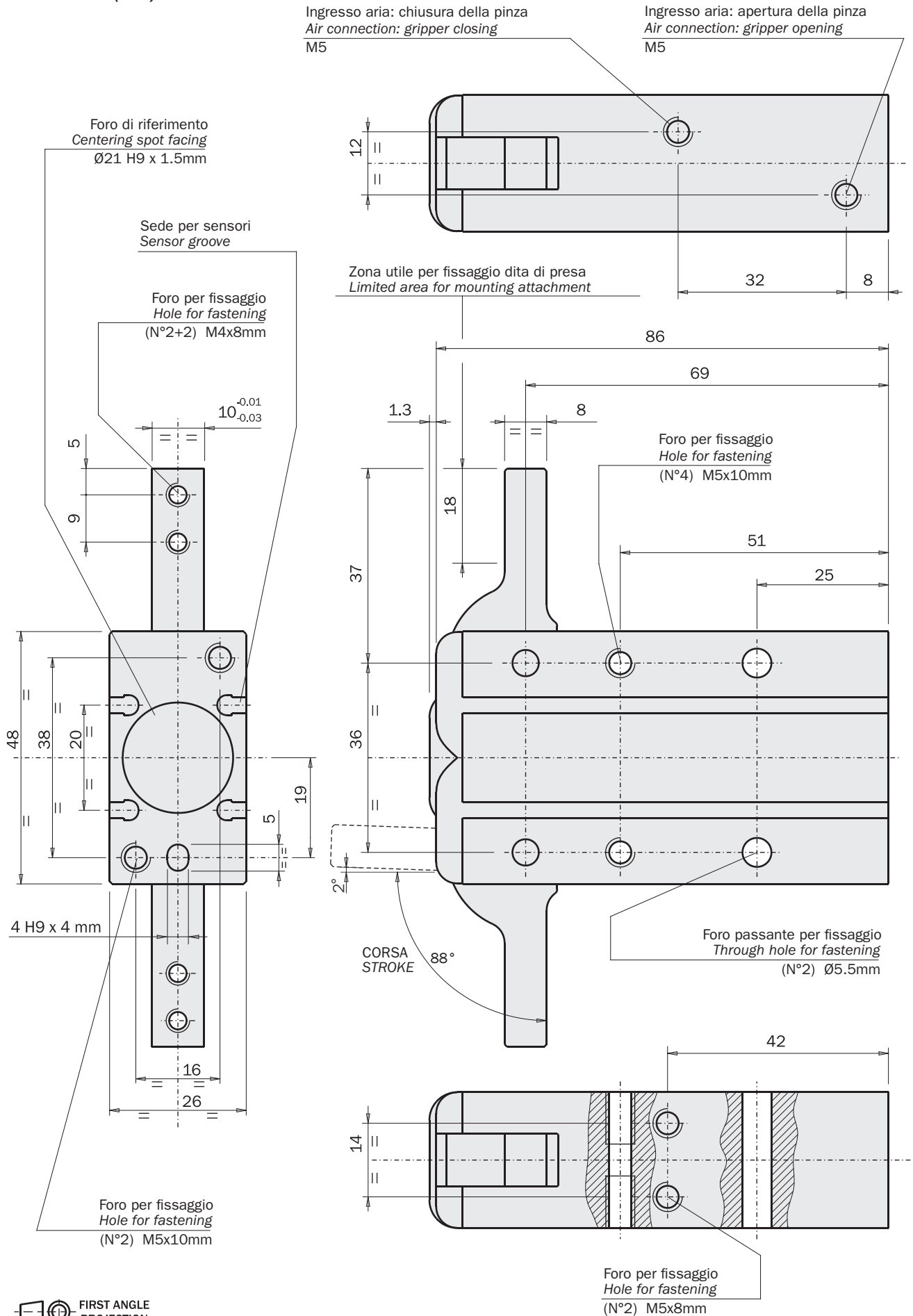
	GX-10S	GX-16S	GX-20S	GX-25S
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]			
Pressione di esercizio Operating pressure range	2 ÷ 8 bar			
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.			
Coppia massima per griffa in apertura a 6 bar Opening maximum torque at 6 bar on each jaw	35 Ncm	120 Ncm	230 Ncm	430 Ncm
Coppia massima totale in apertura a 6 bar Opening maximum total torque at 6 bar	70 Ncm	240 Ncm	460 Ncm	860 Ncm
Coppia massima per griffa in chiusura a 6 bar Closing maximum torque at 6 bar on each jaw	26 Ncm	105 Ncm	210 Ncm	400 Ncm
Coppia massima totale in chiusura a 6 bar Closing maximum total torque at 6 bar	52 Ncm	210 Ncm	420 Ncm	800 Ncm
Corsa Stroke (±4°)	2x90°	2x90°	2x90°	2x90°
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	2 cm ³	6 cm ³	11 cm ³	22 cm ³
Tempo di chiusura senza carico Closing time without load	0.04 s	0.08 s	0.10 s	0.08 s
Ripetibilità Repetition accuracy	0.05°	0.05°	0.05°	0.05°
Peso Weight	70 g	140 g	290 g	510 g

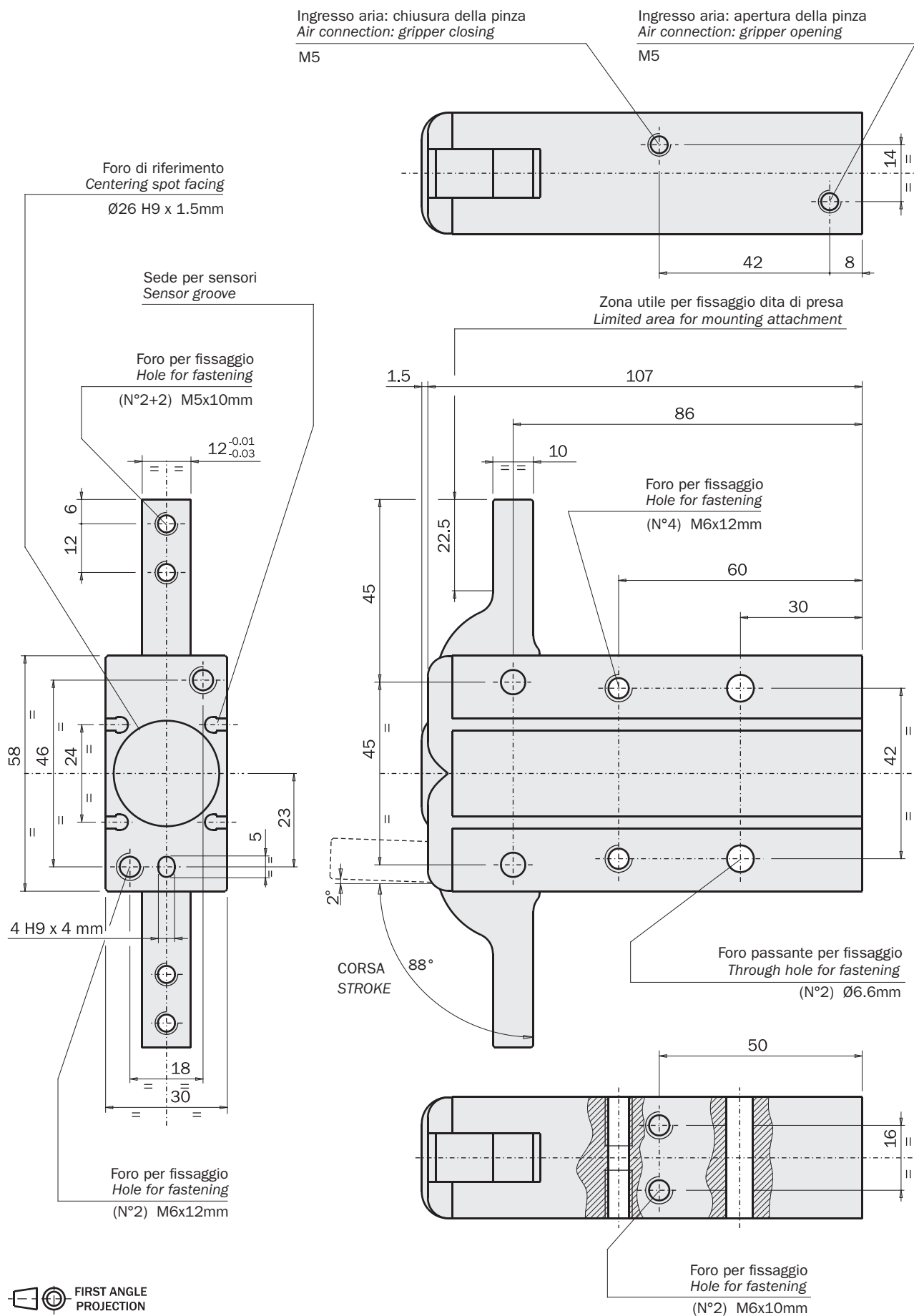
Dimensioni (mm)
Dimensions (mm)



Dimensioni (mm)
Dimensions (mm)

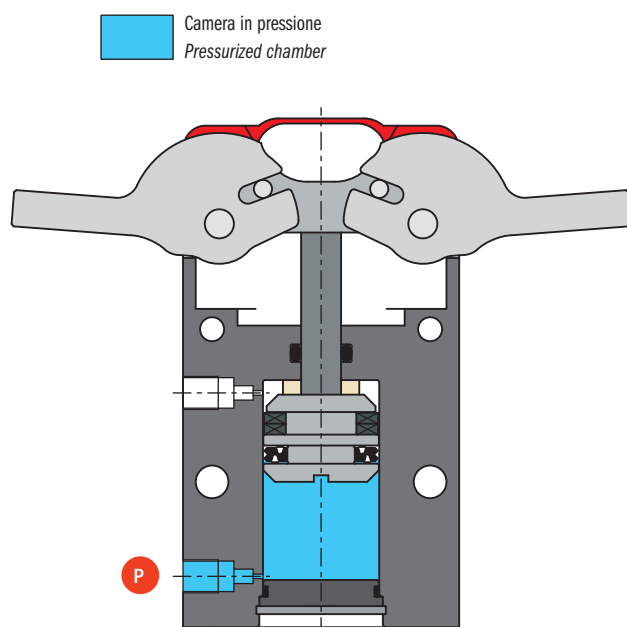
GX-20S

Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors



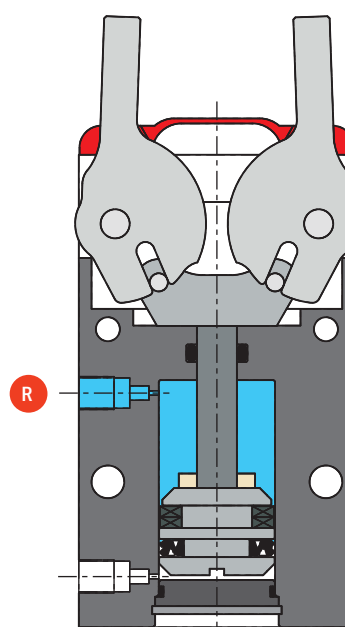
Serraggio

La pinza è a doppio effetto e quindi può essere usata per la presa di un pezzo indifferentemente sia in chiusura che in apertura delle griffe.



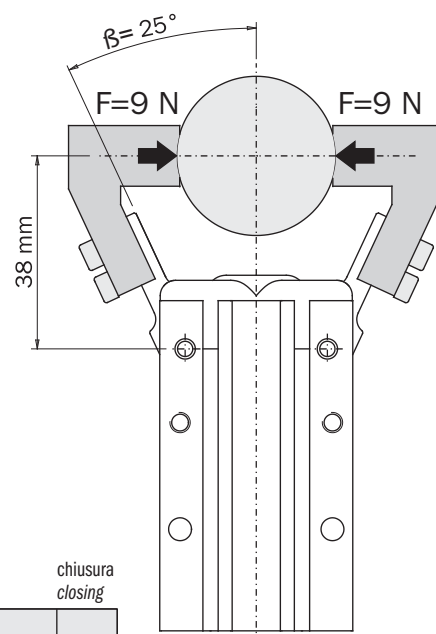
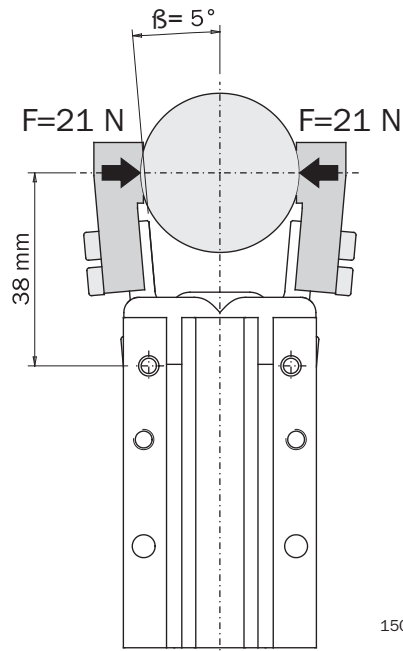
Gripping

As the gripper has a double acting motion, it can be used like internal or external gripping.

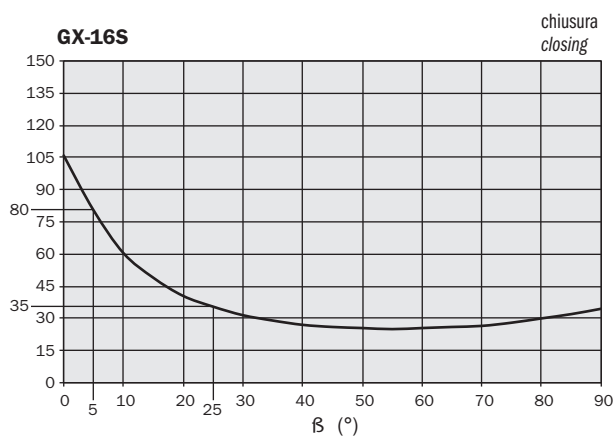


La forza di serraggio dipende dalla forma delle dita.

The gripping force depends on the shape of the gripping tools.



Coppia
Torque (Ncm)

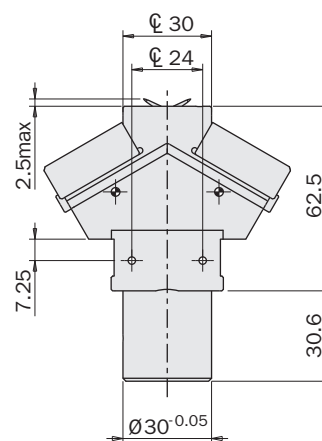
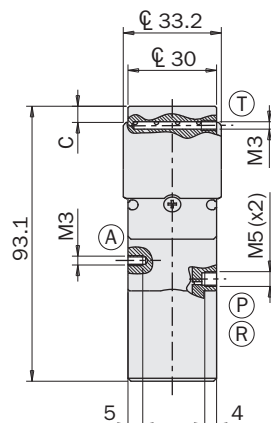
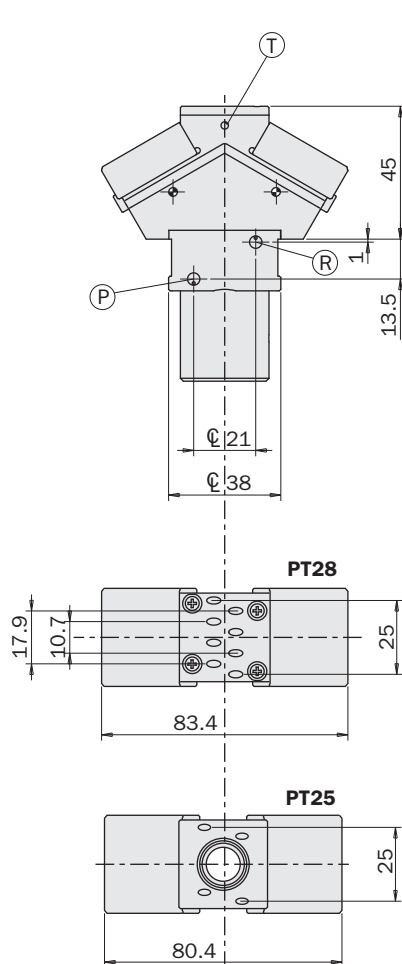


Pinza ad aghi pneumatica autocentrante serie PT

- 4 aghi (PT25) o 8 aghi (PT28) diametro 2mm.
- Adatta per l'industria plastica, tessile e alimentare.
- Azionamento a doppio effetto.
- Regolazione simultanea della corsa degli aghi (1).
- Vari accessori disponibili per il fissaggio (2).
- PT25: Ampio foro passante (3).
- PT28: Canale di soffiaggio (T) per pulizia e rilascio.
- PT28: Pastiglia in PTFE (4) per contatto con superfici calde.
- PT28: Sensori magnetici opzionali (5).

Self-centering pneumatic needle gripper series PT

- 4 needles (PT25) or 8 needles (PT28) with 2mm diameter.
- Suitable for plastics, textile and food industry.
- Double acting.
- Needle simultaneous stroke adjustment (1).
- Several mounting accessories (2).
- PT25: Large through hole (3).
- PT28: Blow-off port (T) for cleaning and releasing.
- PT28: Pad in PTFE (4) for hot surface contact.
- PT28: Optional magnetic sensors (5).



(A) Foro per fissaggio
Hole for fastening

(T) Soffiaggio
Air connection

(P) Aghi dentro
Needles in

(R) Aghi fuori
Needles out



	PT25	PT28
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]	
Pressione di esercizio Pressure range	3 ÷ 8 bar	
Temperatura di esercizio Temperature range	5° ÷ 60 °C.	
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	90 N	
Corsa degli aghi Needle stroke	1 ÷ 7 mm	
Consumo d'aria per ciclo Cycle air consumption	3.5 cm ³	
Peso Weight	165 g	182 g

Regolazione della corsa

La pinza è autocentrante.

Quindi il fine corsa del pistone determina la corsa di tutti gli aghi.

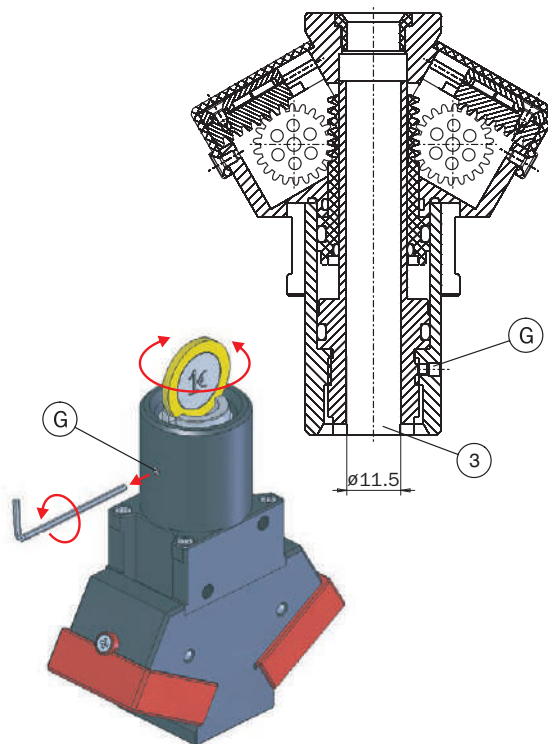
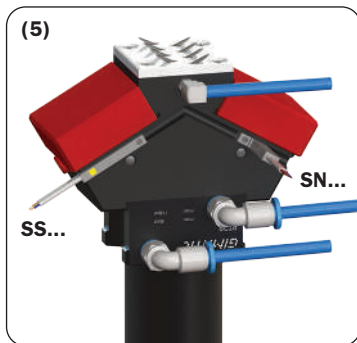
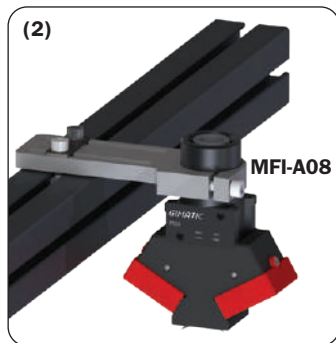
Questa si può regolare con una moneta da 1 euro, dopo aver allentato il grano di fermo (G).

Stroke adjustment

The gripper is self-centering.

Therefore the piston end-stroke determines the stroke of all needles.

It is possible to adjust this stroke, by an 1-euro coin, after the grub screw (G) has been loosened.



Manutenzione

Quando necessario, gli aghi possono essere facilmente rimpiazzati.

Il codice di ordinazione di un ago é PT-25-13.

Dopo cinque milioni di cicli la pinza deve essere re-ingrassata.

Grasso suggerito: BERULUB FG-H 2 SL

(Lubrificante NSF H1 Registrazione No. 135919).

Maintenance

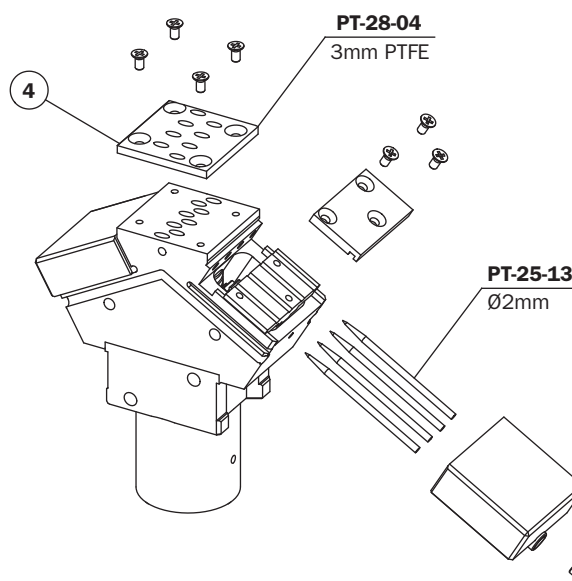
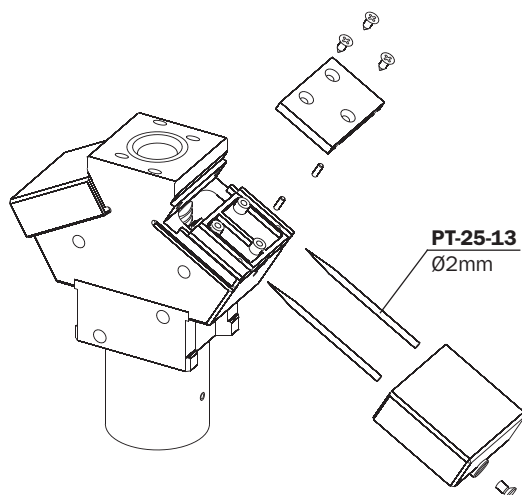
The needles can be easily replaced, when necessary.

The ordering code of one needle is PT-25-13.

After five million cycles re-lubricate the gripper.

Suggested grease: BERULUB FG-H 2 SL

(Lubricant NSF H1 Registration No. 135919).

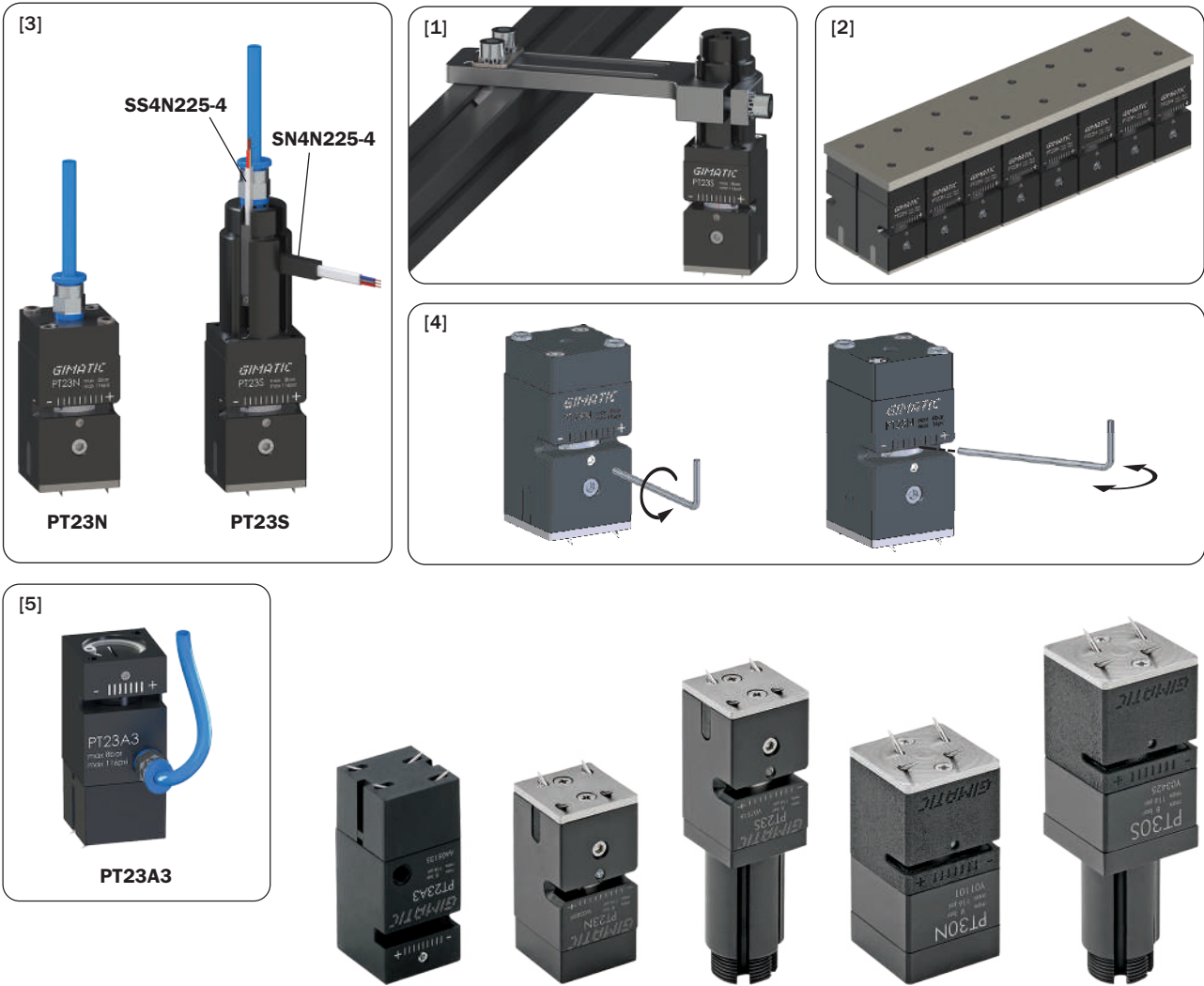


Minipinza ad aghi pneumatica autocentrante
serie PT

- 4 aghi diametro 1.5mm.
- Adatta per l'industria plastica, tessile e alimentare.
- Azionamento a semplice effetto (normale chiusa).
- Regolazione simultanea della corsa degli aghi [4].
- PT23S e PT30S: fissaggio a cravatta [1].
- PT23A3, PT23N e PT30N: fissaggio su piastra [2].
- Sensori magnetici opzionali per PT23S e PT30S [3].
- PT23A3 con alimentazione laterale [5].

Self-centering pneumatic needle mini-gripper
series PT

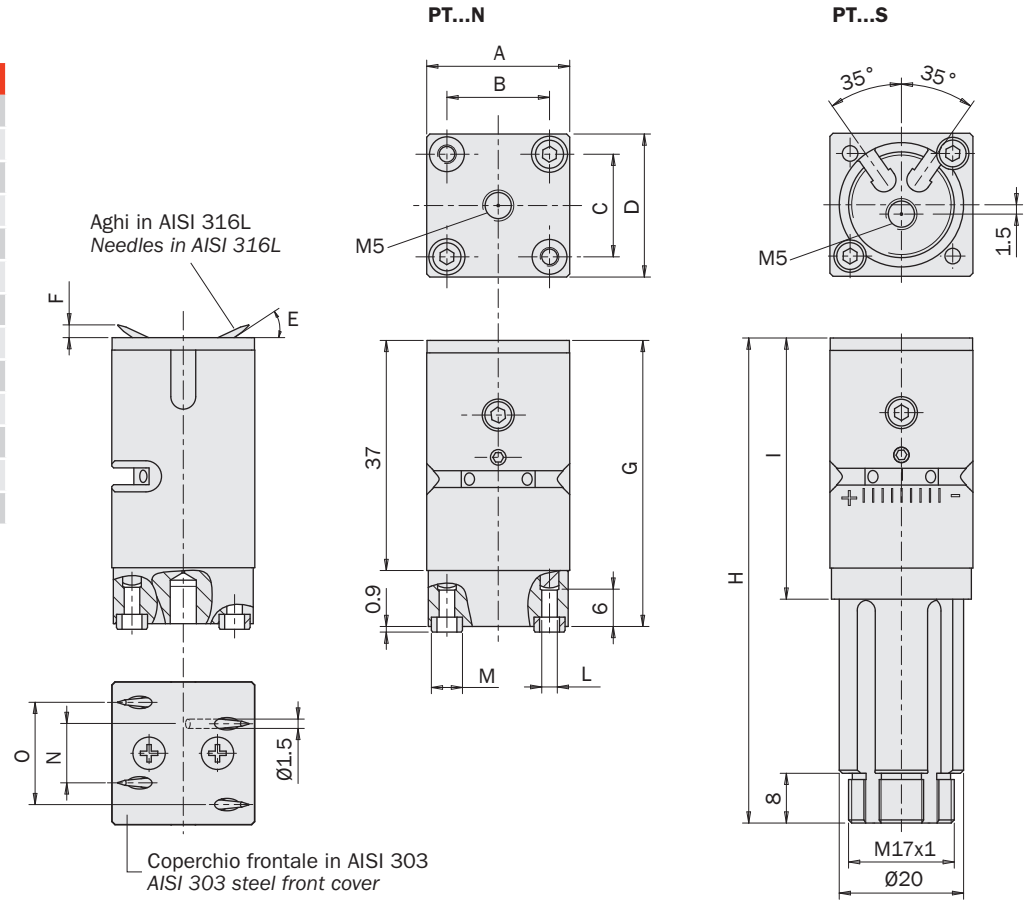
- 4 needles with diameter 1.5mm.
- Suitable for plastics, textile and food industry.
- Single acting (normally closed).
- Needle simultaneous stroke adjustment[4].
- PT23S and PT30S: clamp mounting [1].
- PT23A3 PT23N and PT30N: plate mounting [2].
- Optional magnetic sensors for PT23S and PT30S [3].
- PT23A3 with side air 2 part [5].



	PT23A3	PT23N	PT23S	PT30N	PT30S
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]				
Pressione di esercizio Pressure range	3 ÷ 8 bar				
Temperatura di esercizio Temperature range	5° ÷ 60 °C.				
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	40 N			50 N	
Corsa degli aghi Needle stroke	0 ÷ 4 mm			0 ÷ 7 mm	
Consumo d'aria per ciclo Cycle air consumption	0.6 cm³			1.1 cm³	
Peso Weight	63 g	74 g	92 g	115 g	134 g

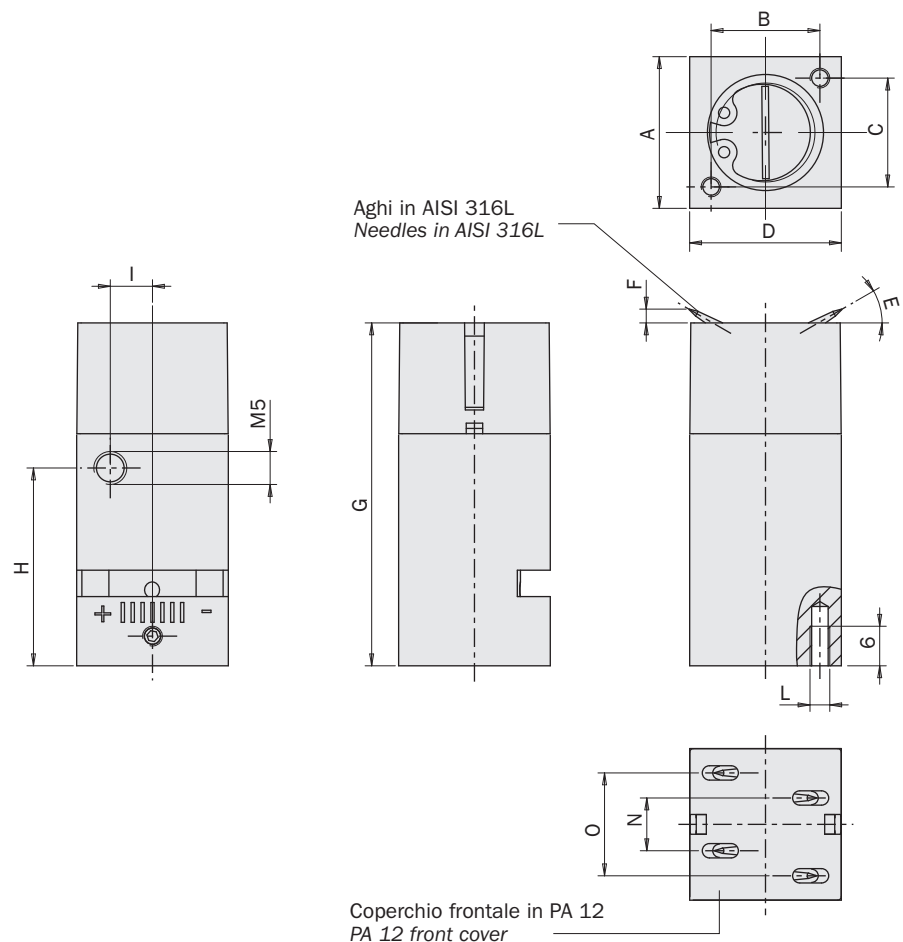
Dimensioni (mm)
Dimensions (mm)

	PT23...	PT30..
A	23	28
B	16.5	18
C	16.5	18
D	23	28
E	30°	35°
F	0÷2	0÷4
G	46.5	54
H	78.5	87.5
I	42.5	51.5
L	M3(x2)	M4(2x)
M	5 h8 (x2)	7 h8 (2x)
N	9.5	9
O	16.5	18



Dimensioni (mm)
Dimensions (mm)

	PT23A3
A	23
B	16.5
C	16.5
D	23
E	30°
F	1÷2
G	52
H	30
I	6.4
L	M3(x2)
M	-
N	8
O	15.6

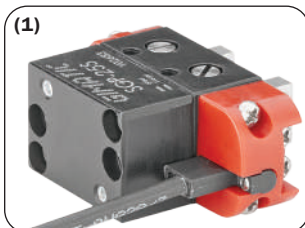


Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie SGP-S)

- Azionamento a doppio effetto.
- Meccanismo di regolazione del gioco.
- Prestazioni elevate in dimensioni ridotte.
- Costruzione robusta: grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio e alimentazione.
- Predisposta per sensore magnetico programmabile PRO-SN ...HS (1).
- Grasso alimentare FDA-H1.

2-jaw parallel self-centering pneumatic gripper (series SGP-S)

- Double acting.
- Backlash adjusting system.
- High performance in small dimensions.
- The rugged construction lends itself to heavy duty applications for a trouble free long life without maintenance.
- Various fastening and air feeding options.
- Ready for PRO-SN ...HS (1) programmable magnetic sensor.
- Food grade grease FDA-H1.



SGP-16S

SGP-20S

SGP-25S

SGP-32S

SGP-40S

SGP-50S

	SGP-16S	SGP-20S	SGP-25S	SGP-32S	SGP-40S	SGP-50S
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Operating pressure range	2.5 ÷ 8 bar		2 ÷ 8 bar			
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	16 N	23 N	52 N	67 N	80 N	145 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	32 N	46 N	104 N	134 N	160 N	290 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	14 N	20 N	47 N	60 N	73 N	126 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	28 N	40 N	94 N	120 N	146 N	252 N
Corsa totale Total stroke (±0.3 mm)	3 mm	4 mm	6 mm	8 mm	12 mm	16 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	3 Hz	3 Hz	3 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	0.2 cm³	0.5 cm³	1.4 cm³	2.4 cm³	4.5 cm³	10 cm³
Tempo di chiusura senza carico Closing time without load	0.02 s	0.02 s	0.02 s	0.02 s	0.05 s	0.05 s
Ripetibilità Repetition accuracy	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Peso Weight	19 g	33 g	43 g	86 g	170 g	250 g

Sensori

Le posizioni di funzionamento possono essere verificate grazie ad un sensore programmabile a 3 uscite (non incluso), che rileva la posizione del magnete nella griffa destra.

I sensori consigliati per le pinze SGP-20S/25S/32S/40S/50S sono:

The recommended sensors for the grippers SGP-20S/25S/32S/40S/50S are:

PRO-SN4N225HS-G	PNP	Cavo 2.5m 2.5m cable
PRO-SN4M225HS-G	NPN	
PRO-SN3N215HS-G	PNP	Connettore M8 M8 snap plug connector
PRO-SN3M215HS-G	NPN	

I sensori opzionali per la pinza SGP-16S sono:

The recommended sensors for the gripper SGP-16S are:

PRO-SN4N225-G	PNP	Cavo 2.5m 2.5m cable
PRO-SN4M225-G	NPN	
PRO-SN3N215-G	PNP	Connettore M8 M8 snap plug connector
PRO-SN3M215-G	NPN	

La posizioni rilevate possono essere regolate tramite la procedura di configurazione, in questo modo le 3 uscite digitali possono essere:

Uscita 1 – griffe completamente chiuse [1];

Uscita 2 – griffe in presa dell'oggetto (posizione intermedia) [2];

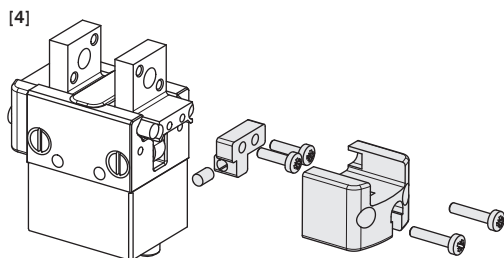
Uscita 3 – griffe completamente aperte [3].

Upgrade

Le vecchie pinze possono essere aggiornate per utilizzare il nuovo sensore programmabile [4].

Downgrade

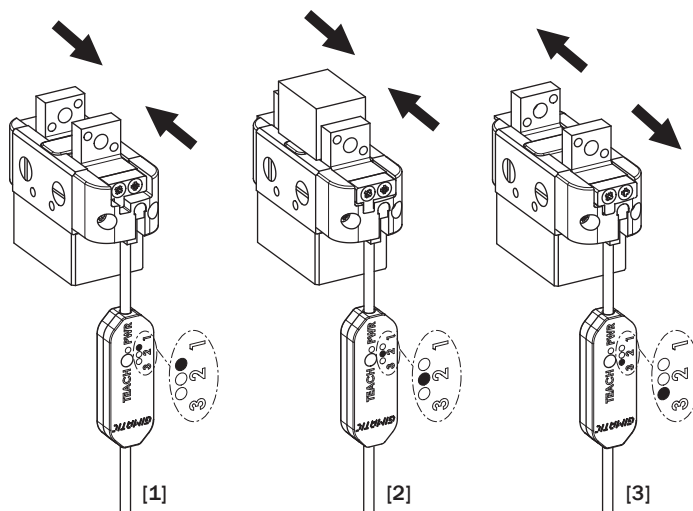
Le nuove pinze possono essere aggiornate per utilizzare i sensori induttivi [5 e 6].



	Upgrade [4]	Downgrade [5]	Downgrade [6]
SGP-16S	-	-	SGP-16S-KD
SGP-20S	SGP-20S-KU	SGP-20S-KD	-
SGP-25S	SGP-25S-KU	SGP-25S-KD	-
SGP-32S	SGP-32S-KU	SGP-32S-KD	-
SGP-40S	SGP-40S-KU	SGP-40S-KD	-
SGP-50S	-	SGP-50S-KD	-

Sensors

The operating position can be checked by one 3 - outputs programmable sensor (not included), detecting the position of the magnet on the right jaw.



The detected positions can be adjusted by a teaching procedure, so that 3 digital outputs can be:

Output 1 - totally closed jaws [1];

Output 2 - gripped part (intermediate position) [2];

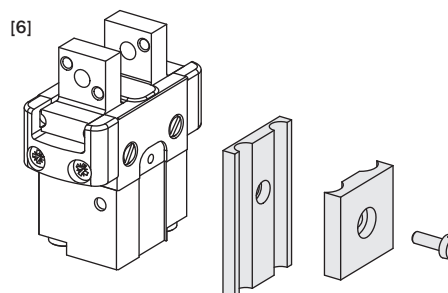
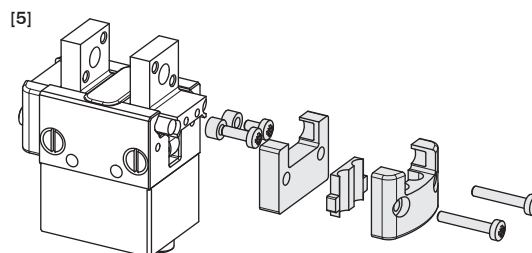
Output 3 - totally open jaws [3].

Upgrade

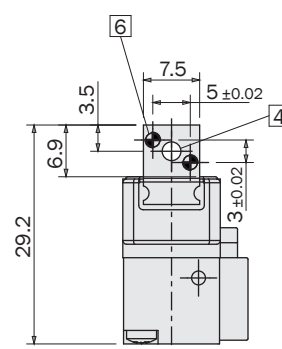
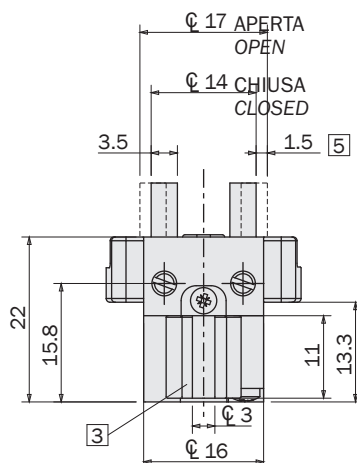
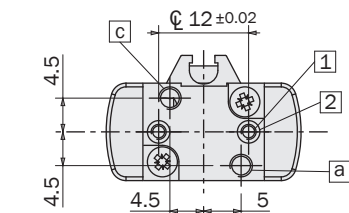
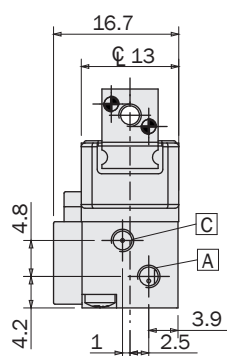
Old grippers can be upgraded in order to use the new teachable sensor [4].

Downgrade

New grippers can be downgraded in order to use the inductive sensors [5 and 6].

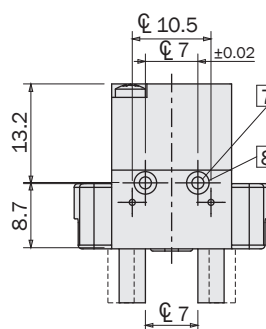
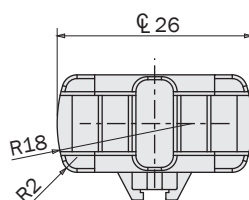
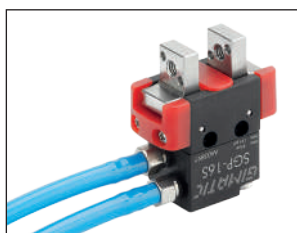


Dimensioni (mm)
Dimensions (mm)



RG.R0-1376-AS1

Raccordo M3 diritto
Straight M3 fitting



1 (N°2) M2x2.8mm
Foro per fissaggio
Hole for fastening

2 (N°2) Ø3H8x1.2mm
Sede per boccole di centraggio
Hole for fastening

3 Supporto per posizionamento sensore magnetico PRO-SN/SS
Magnetic sensor slot (PRO-SN/SS)

4 M3
Foro passante per fissaggio
Through hole for fastening

5 Corsa per griffa
Stroke each jaw

6 Ø1.5H8x3.5mm
Foro di riferimento
Dowel pin hole

7 (N°2) M2x1.5mm
Foro per fissaggio
Hole for fastening

8 (N°2) Ø3H8x1.5mm
Foro di riferimento
Hole for fastening

a M2.5
Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening

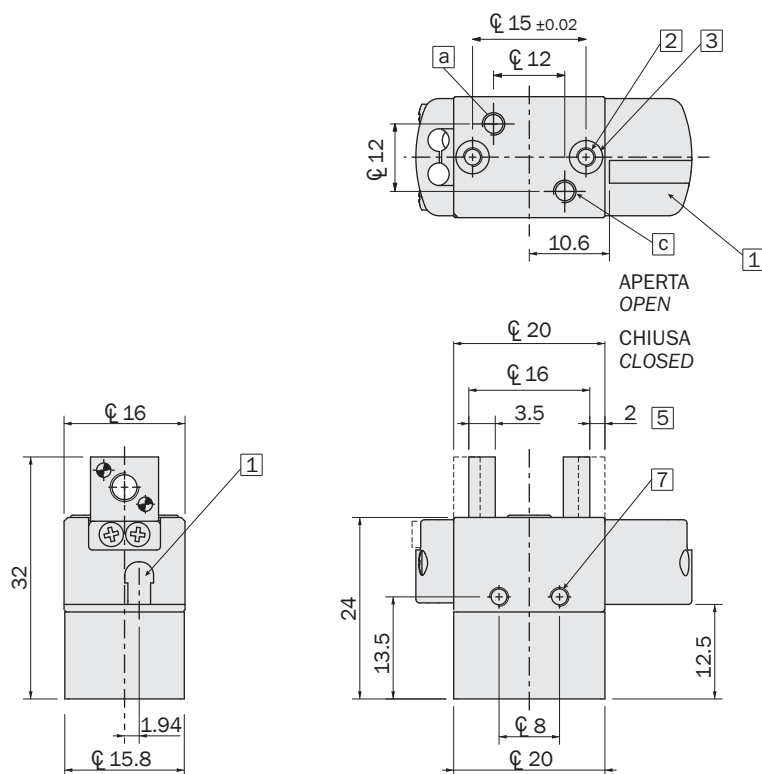
A M3
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

c M2.5
Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing

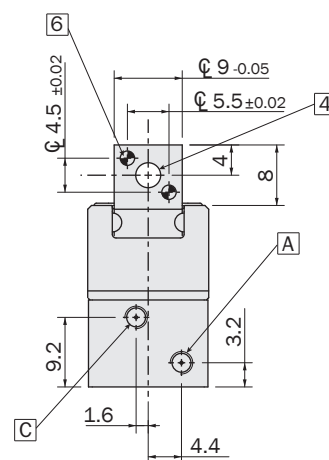
C M3
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

Dimensioni (mm)
Dimensions (mm)

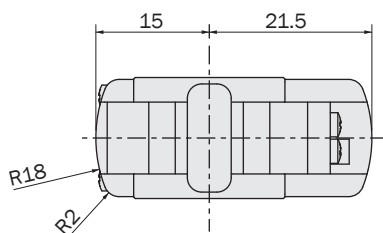
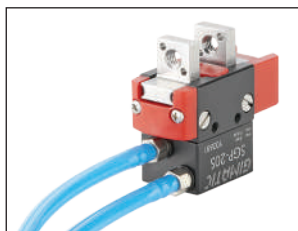
SGP-20S



- 1 Foro per sensore programmabile PRO-SN ...HS
Hole for programmable sensor PRO-SN ...HS
- 2 (N°2) M2.5x6mm
Foro per fissaggio
Hole for fastening
- 3 (N°2) Ø4H8x2mm
Sede per boccole di centraggio
Centering sleeve hole
- 4 M4
Foro passante per fissaggio
Through hole for fastening

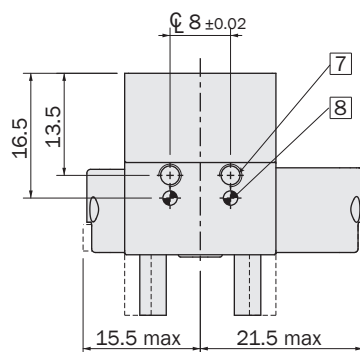
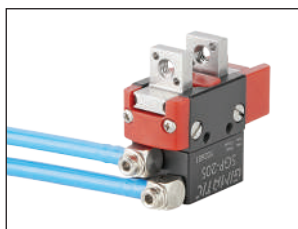


RG.R0-1376-AS1
Raccordo M3 diritto
Straight M3 fitting



- 5 Corsa per griffa
Stroke each jaw
- 6 Ø1.5H8x3.5mm
Foro di riferimento
Dowel pin hole
- 7 (N°2) M2.5x4mm
Foro per fissaggio
Hole for fastening
- 8 Ø1.5H8x3mm
Foro di riferimento
Dowel pin hole

RG.R0-1376-AS2
Raccordo M3 orientabile a "L"
Adjustable M3 fitting



- a M2.5
Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening
- A M3
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening
- c M2.5
Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing
- C M3
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing



FIRST ANGLE
PROJECTION

Dimensioni (mm)
Dimensions (mm)
SGP-25S

Foro per sensore programmabile
PRO-SN...HS
Hole for programmable sensor
PRO-SN...HS

1

(N°2) M3x7mm
Foro per fissaggio
Hole for fastening

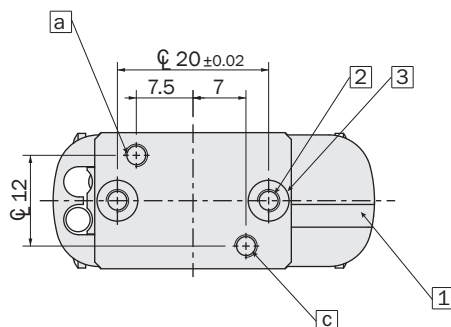
2

(N°2) Ø5H8x2.4mm
Sede per boccole di centraggio
Centering sleeve hole

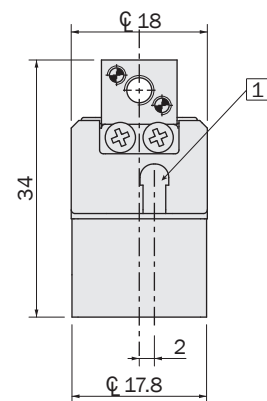
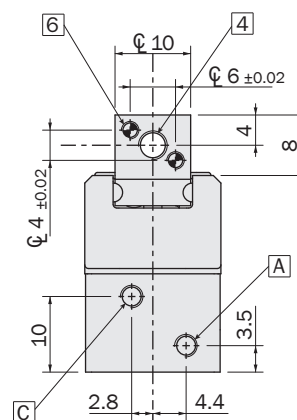
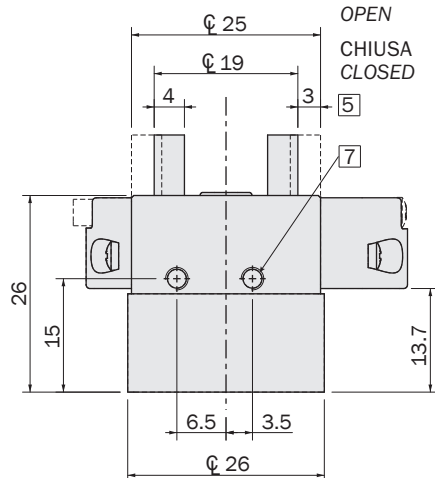
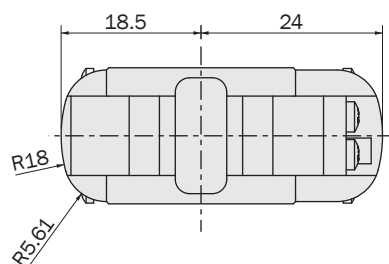
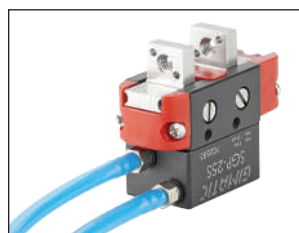
3

M4
Foro passante per fissaggio
Through hole for fastening

4



APERTA
OPEN
CHIUSA
CLOSED


RG.R0-1376-AS1
 Raccordo M3 diretto
 Straight M3 fitting


5 Corsa per griffa
Stroke each jaw

6 Ø1.5H8x4mm
Foro di riferimento
Dowel pin hole

7 (N°2) M3x5mm
Foro per fissaggio
Hole for fastening

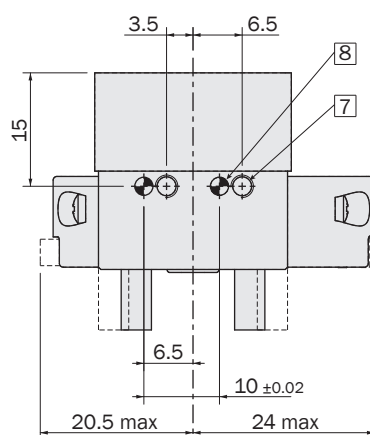
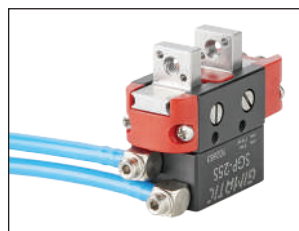
8 Ø2H8x4mm
Foro di riferimento
Dowel pin hole

a M3
Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening

A M3
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

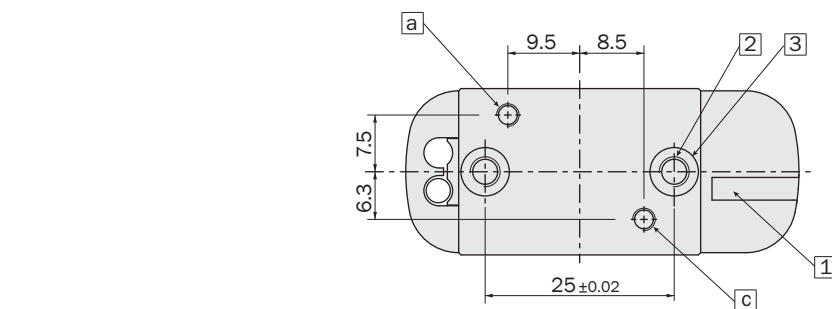
c M3
Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing

C M3
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

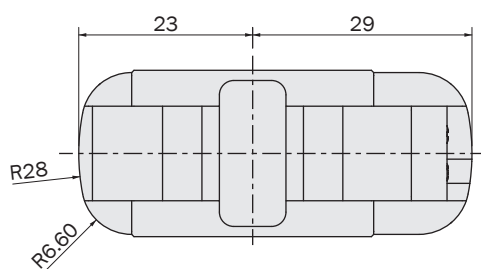
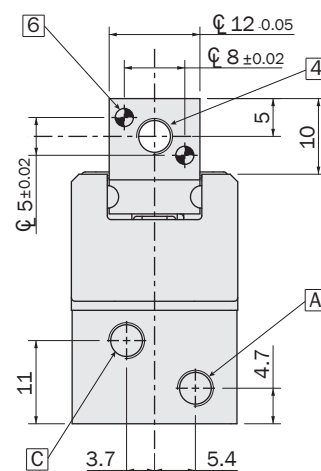
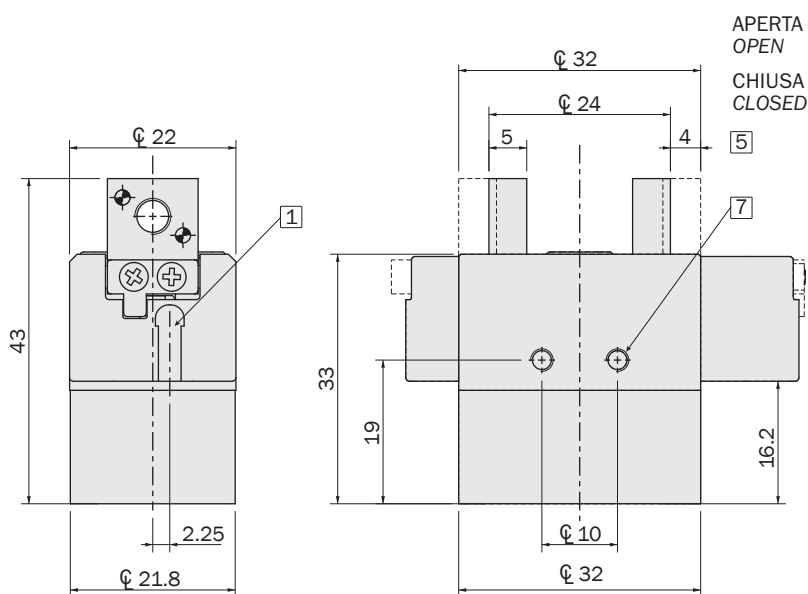
RG.R0-1376-AS2
 Raccordo M3 orientabile a "L"
 Adjustable M3 fitting


Dimensioni (mm)
Dimensions (mm)

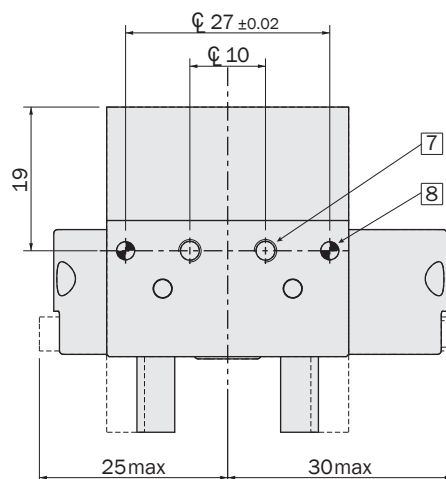
SGP-32S



- 1 Foro per sensore programmabile
PRO-SN...HS
*Hole for programmable sensor
PRO-SN...HS*
- 2 (N°2) M4x7.5mm
Foro per fissaggio
Hole for fastening
- 3 (N°2) Ø6H8x2.9mm
Sede per boccole di centraggio
Centering sleeve hole
- 4 M5
Foro passante per fissaggio
Through hole for fastening



- 5 Corsa per griffa
Stroke each jaw
- 6 Ø2H8x5mm
Foro di riferimento
Dowel pin hole
- 7 (N°2) M3x5mm
Foro per fissaggio
Hole for fastening



- 8 Ø2H8x5mm
Foro di riferimento
Dowel pin hole
- a M3
Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening
- A M5
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening
- c M3
Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing
- C M5
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing



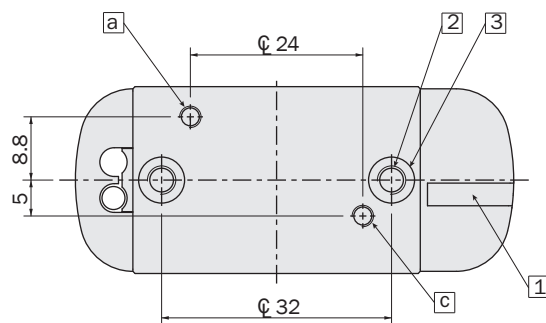
Dimensioni (mm)
Dimensions (mm)

Foro per sensore programmabile
PRO-SN...HS
Hole for programmable sensor
PRO-SN...HS

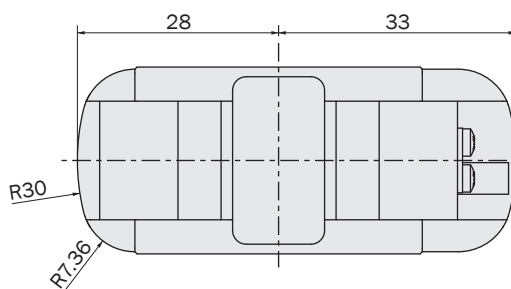
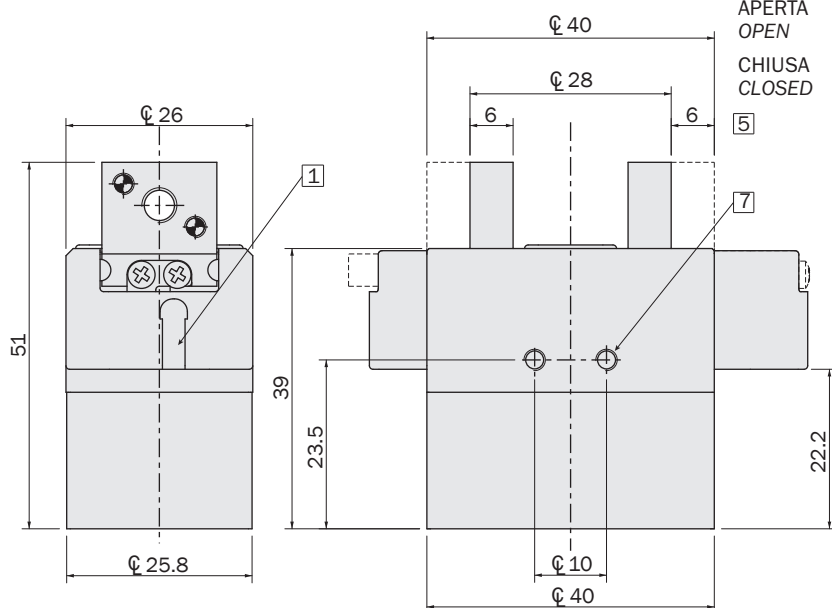
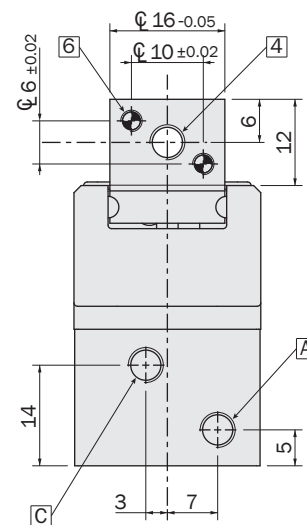
1 (N°2) M4x9.5mm
Foro per fissaggio
Hole for fastening

3 (N°2) Ø6H8x2.9mm
Sede per boccole di centraggio
Centering sleeve hole

4 M5
Foro passante per fissaggio
Through hole for fastening



APERTA
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5 Corsa per griffa
Stroke each jaw

6 Ø2.5H8x6mm
Foro di riferimento
Dowel pin hole

7 (N°2) M3x5mm
Foro per fissaggio
Hole for fastening

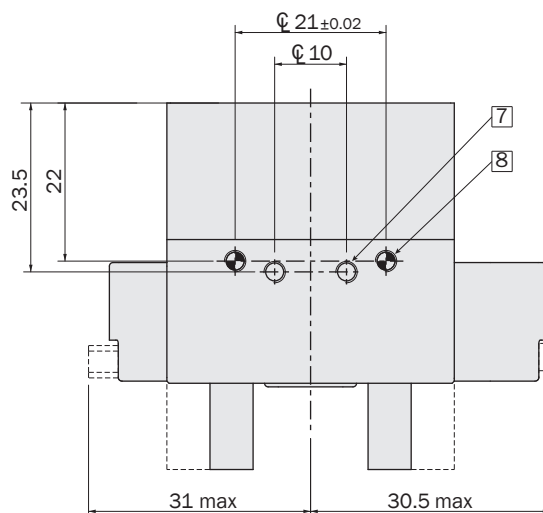
8 Ø2.5H8x6mm
Foro di riferimento
Dowel pin hole

a M3
Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening

A M5
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

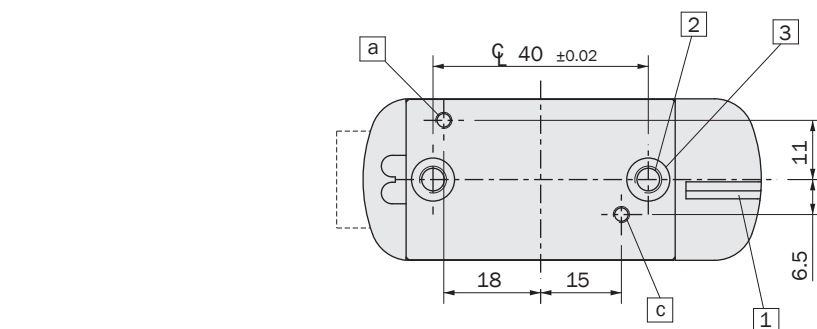
c M3
Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing

C M5
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

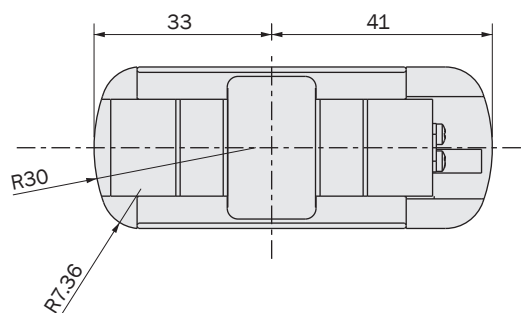
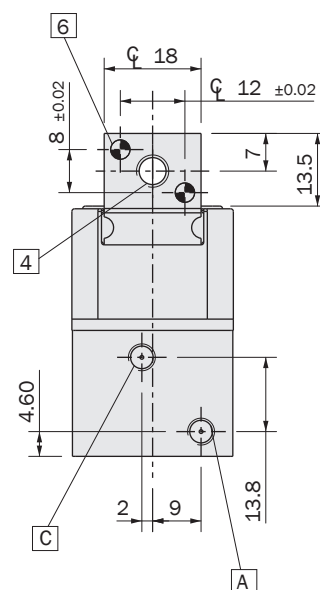
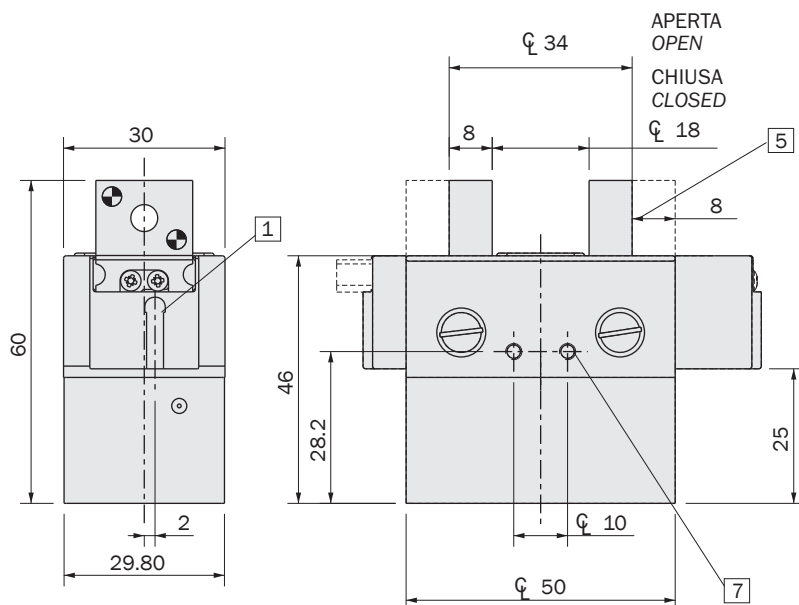


Dimensioni (mm)
Dimensions (mm)

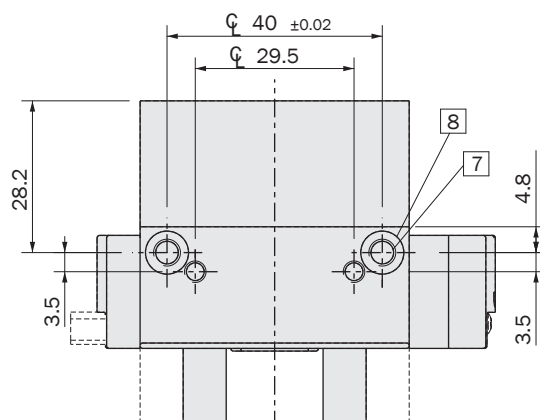
SGP-50S



- 1** Foro per sensore programmabile
PRO-SN...HS
*Hole for programmable sensor
PRO-SN...HS*
- 2** (N°2) M5x5.9mm
Foro per fissaggio
Hole for fastening
- 3** (N°2) Ø8H8x2.9mm
Sede per boccole di centraggio
Centering sleeve hole
- 4** M6
Foro passante per fissaggio
Through hole for fastening



- 5** Corsa per griffa
Stroke each jaw
- 6** Ø3H8x8mm
Foro di riferimento
Dowel pin hole
- 7** (N°2) M5x5.5mm
Foro per fissaggio
Hole for fastening
- 8** Ø8H8x2.5mm
Sede per boccole di centraggio
Centering sleeve hole
- a** M3
Aria compressa in a: apertura della pinza
Compressed air in a: gripper opening
- A** M5
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening
- c** M3
Aria compressa in c: chiusura della pinza
Compressed air in c: gripper closing
- C** M5
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing



Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie GS)

- Azionamento a doppio effetto.
- Meccanismo di regolazione del gioco esclusivo.
- Grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio.
- Sensori magnetici opzionali.
- Disponibile anche con molla in chiusura (-NC) o in apertura (-NO).
- Grasso alimentare FDA-H1.

2-jaw parallel self-centering pneumatic gripper (series GS)

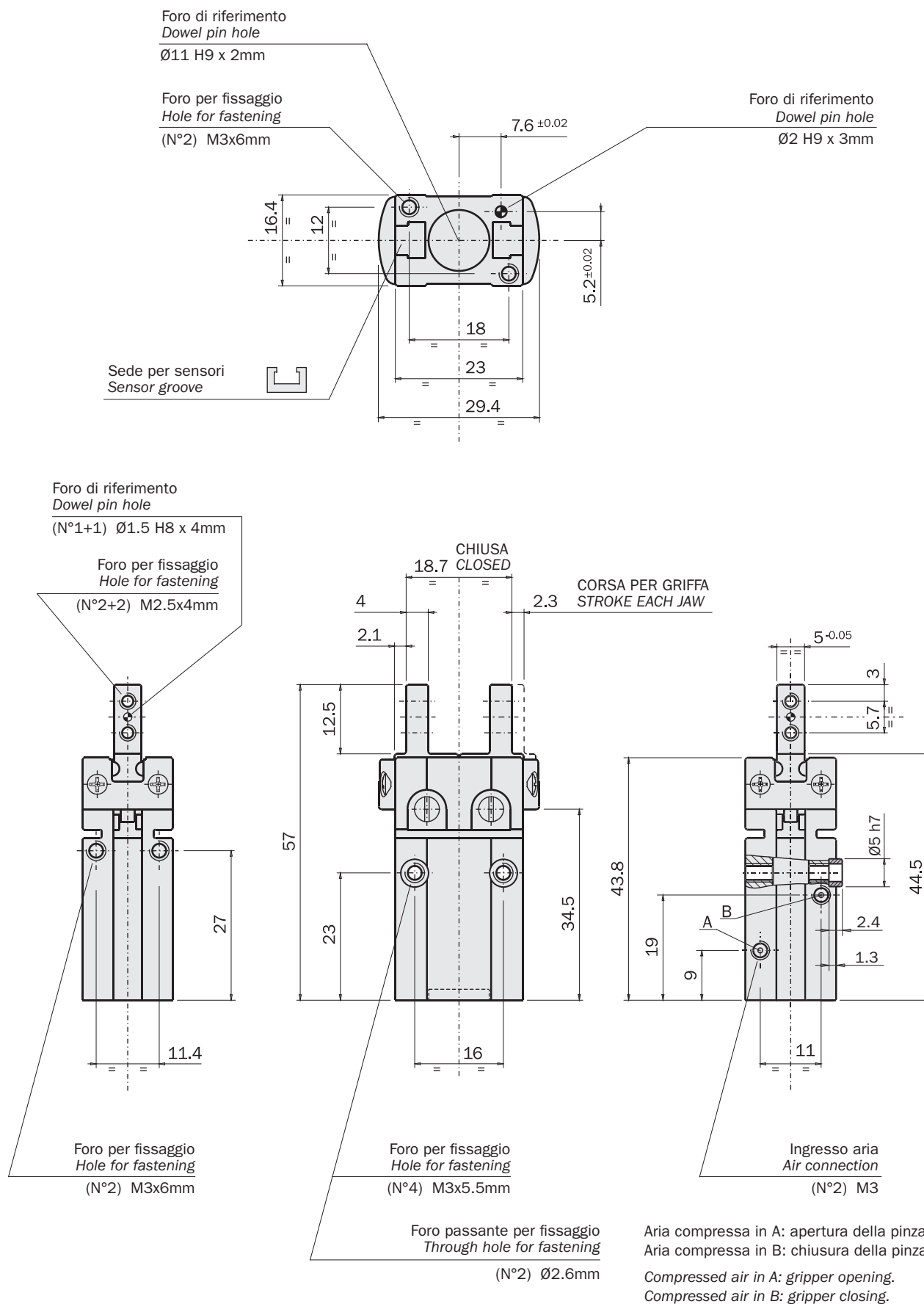
- Double acting.
- Exclusive backlash adjusting system.
- Long life and reliability, maintenance free.
- Various options for fastening.
- Optional proximity magnetic sensors.
- Spring closed (-NC) or spring open (-NO) option.
- FDA-H1 food-grade grease.



	GS-10	GS-16	GS-20	GS-25	GS-32	GS-40
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Operating pressure range	2.5 ÷ 8 bar	1.5 ÷ 8 bar			1 ÷ 8 bar	
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	18 N	50 N	106 N	141 N	250 N	350 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	36 N	100 N	212 N	282 N	500 N	700 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	14 N	43 N	93 N	127 N	215 N	307 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	28 N	86 N	186 N	254 N	430 N	614 N
Corsa totale Total stroke (±0.3 mm)	4.6 mm	6.8 mm	10.4 mm	14.4 mm	22 mm	30 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	3 Hz	2 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	0.7 cm³	3 cm³	7 cm³	14 cm³	28 cm³	61 cm³
Tempo di chiusura senza carico Closing time without load	0.01 s	0.02 s	0.05 s	0.07 s	0.09 s	0.12 s
Ripetibilità Repetition accuracy	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Peso Weight	45 g	98 g	207 g	365 g	645 g	1155 g

Dimensioni (mm)
Dimensions (mm)

GS-10



Dimensioni (mm)
Dimensions (mm)

Foro di riferimento
Centering spot facing
Ø17 H9 x 2mm

Sede per sensori
Sensor groove

Foro per fissaggio
Hole for fastening
(N°2) M4x8mm

Foro di riferimento
Dowel pin hole
Ø3 H9 x 3mm

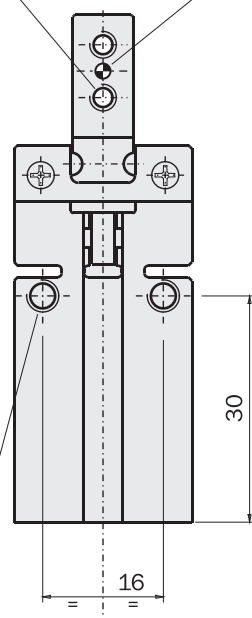
Sede per sensori
Sensor groove

Foro di riferimento
Dowel pin hole
(N°1+1) Ø2 H8 x 5mm

Foro per fissaggio
Hole for fastening
(N°2+2) M3x5mm

CHIUSA
CLOSED

CORSA PER GRIFFA
STROKE EACH JAW



Foro per fissaggio
Hole for fastening
(N°2) M4x4.5mm

Foro per fissaggio
Hole for fastening
(N°4) M4x8mm

Foro passante per fissaggio
Through hole for fastening
(N°2) Ø3.4mm

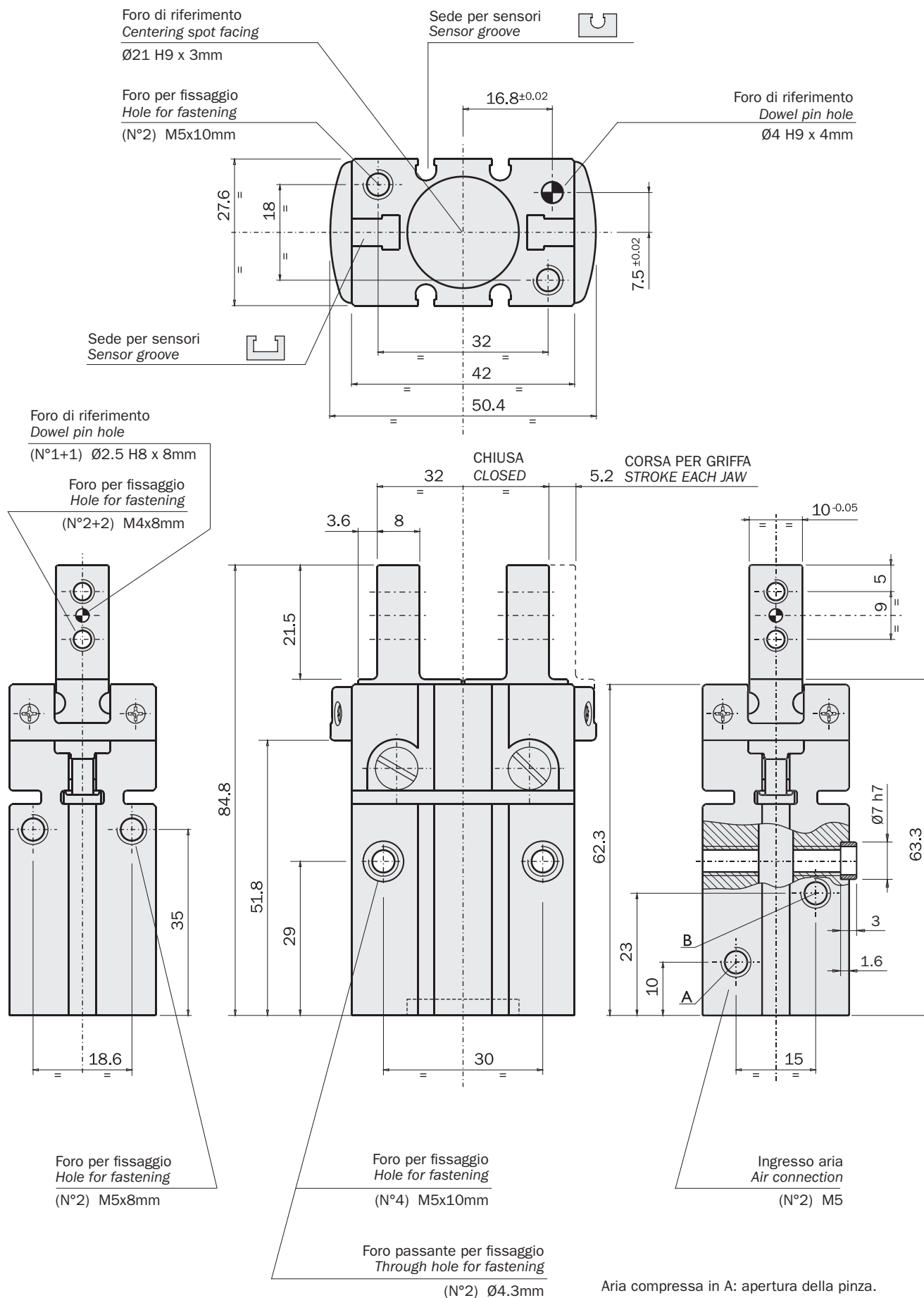
Ingresso aria
Air connection
(N°2) M5

Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.



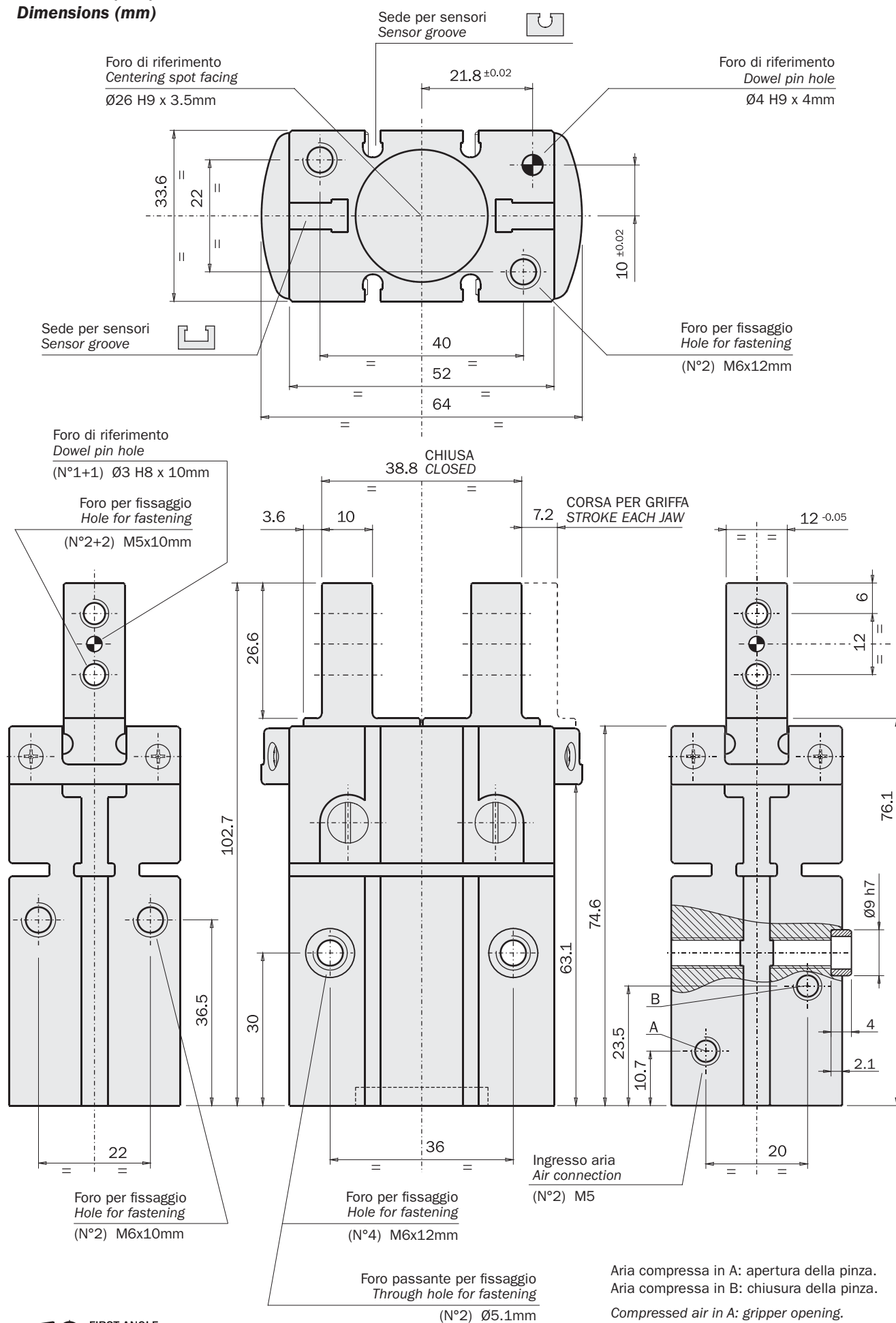
Dimensioni (mm)
Dimensions (mm)

GS-20



Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

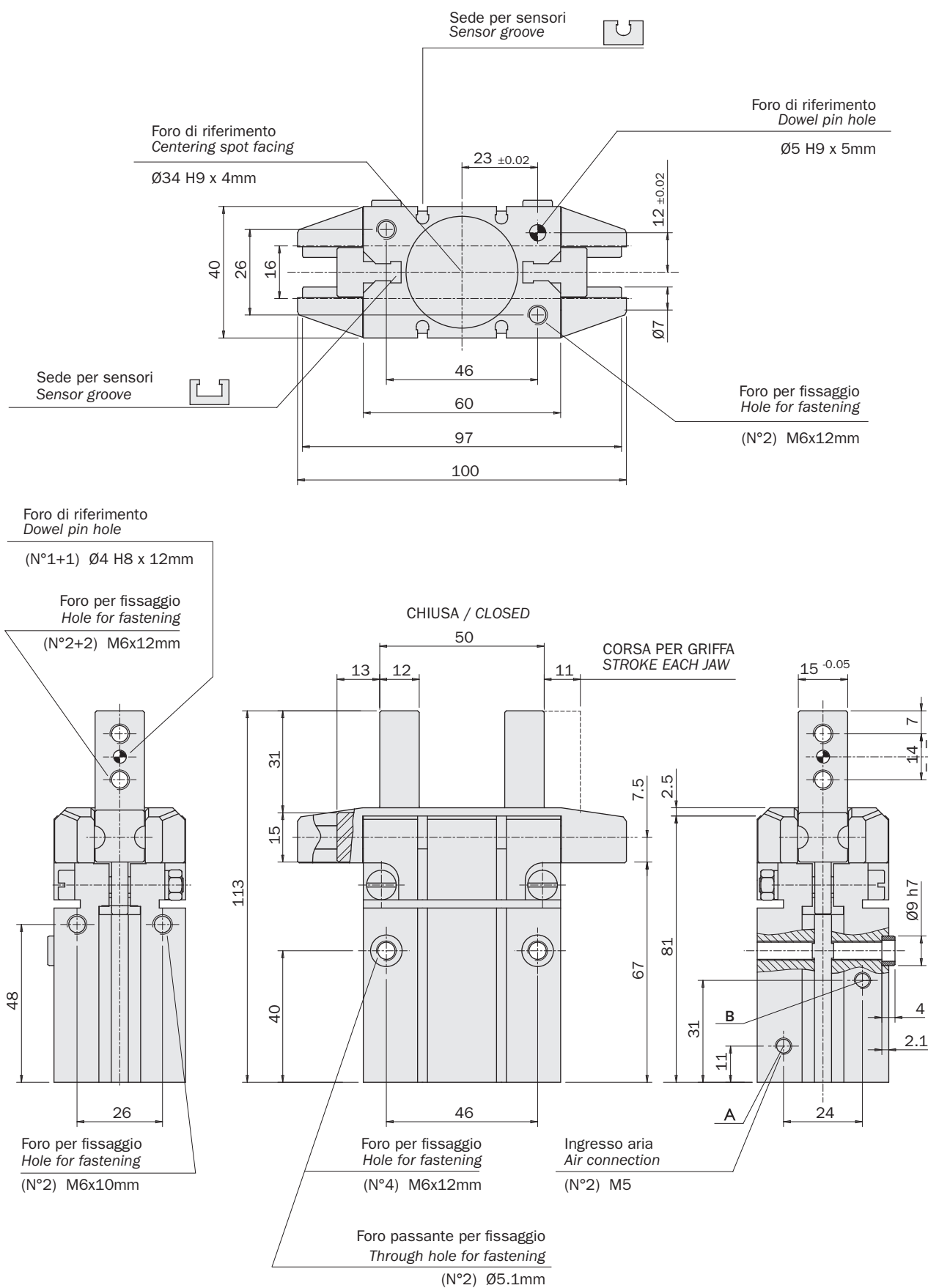
Dimensioni (mm)
Dimensions (mm)



Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

Dimensioni (mm)
Dimensions (mm)

GS-32

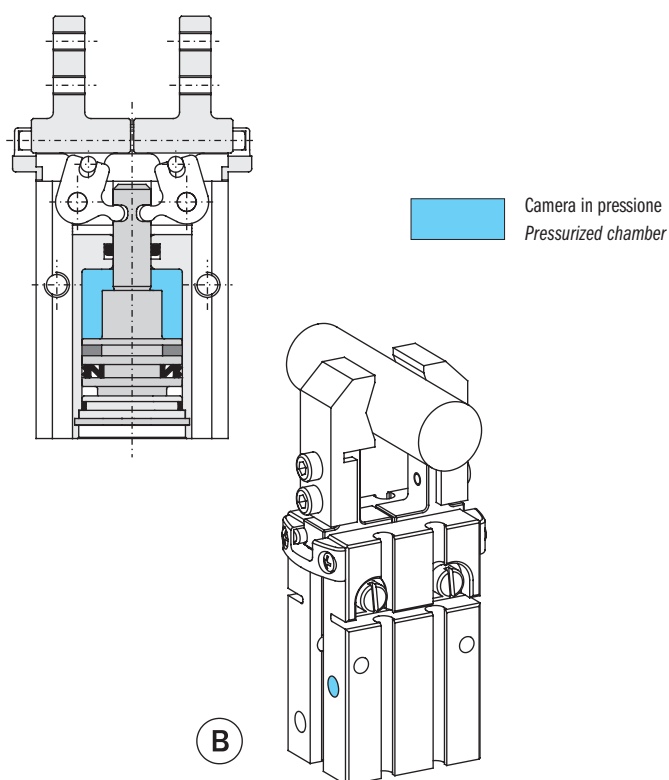
Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.

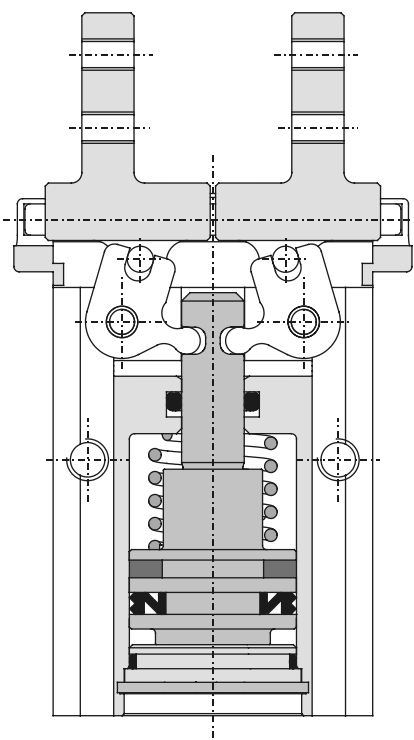


Serraggio

La pinza è a doppio effetto e può quindi essere usata per serrare il carico sia dall'esterno (B) che dall'interno (A). La forza di serraggio è maggiore in apertura.

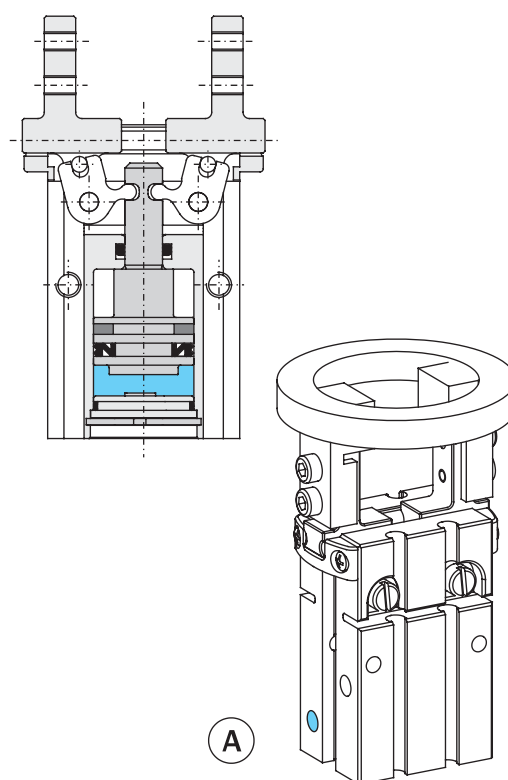


A richiesta è disponibile la versione con la molla in chiusura (-NC) o in apertura (-NO).

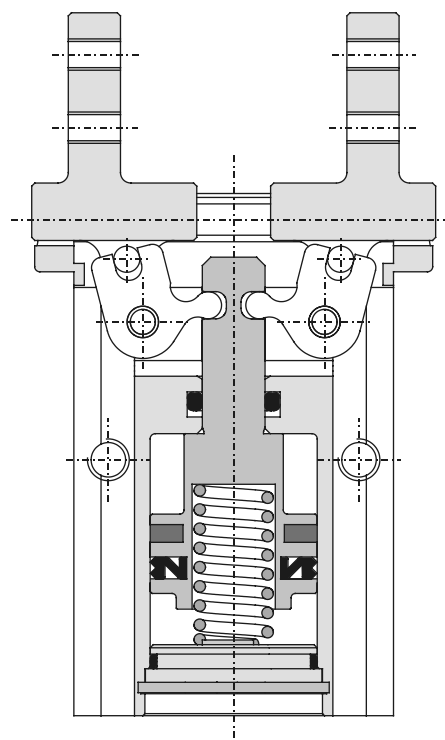


Gripping

The gripper is double-acting for either internal (A) or external (B) gripping applications. The opening force is higher.



It is also available, on request, with a closing (-NC) or opening (-NO) spring.



Unità Rotanti
Rotary Units

Cambia Utensile
Quick Changer

Profili e Staffe
Profiles and Brackets

Pinze
Grippers

Attuatori Lineari
Linear Actuators

Sospensioni
Suspensions

Taglierini
Nippers

Kit-Robot
Robot Kit

Accessori Opzionali
Options

Sensori
Sensors

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie SZ)

- Azionamento a doppio effetto.
- Su richiesta con molla in chiusura o apertura.
- Diverse possibilità di fissaggio e alimentazione.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.
- Griffe in acciaio inox.

2-jaw parallel self-centering pneumatic gripper (series SZ)

- Double acting.
- Available with normally closed or normally open spring on request.
- Various options for fastening and feeding.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.
- Stainless steel jaws.



SZ25



SZ32



SZ40



SZ08



SZ12



SZ16



SZ20

	SZ08	SZ12	SZ16	SZ20	SZ25	SZ32	SZ40
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]						
Pressione di esercizio Operating pressure range	2 ÷ 8 bar			1 ÷ 8 bar			
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.						
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	14 N	25 N	45 N	75 N	115 N	190 N	310 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	28 N	50 N	90 N	150 N	230 N	380 N	620 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	14 N	25 N	45 N	75 N	115 N	190 N	310 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	28 N	50 N	90 N	150 N	230 N	380 N	620 N
Corsa totale (±0.4 mm) Total stroke	7 mm	8 mm	12 mm	16 mm	20 mm	25 mm	30 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	3 Hz	3 Hz	2 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	0.5 cm³	1 cm³	3 cm³	7 cm³	12 cm³	24 cm³	48 cm³
Tempo di apertura / chiusura senza carico Opening / Closing time without load	0.02 s	0.02 s	0.03 s	0.05 s	0.06 s	0.08 s	0.10 s
Peso Weight	35 g	101 g	164 g	337 g	474 g	783 g	1214 g

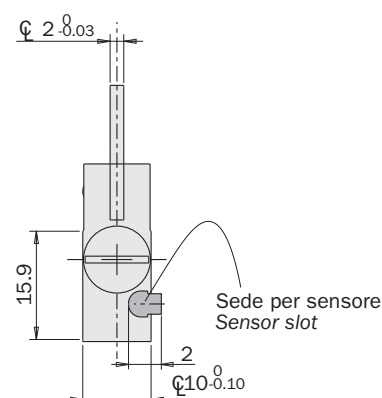
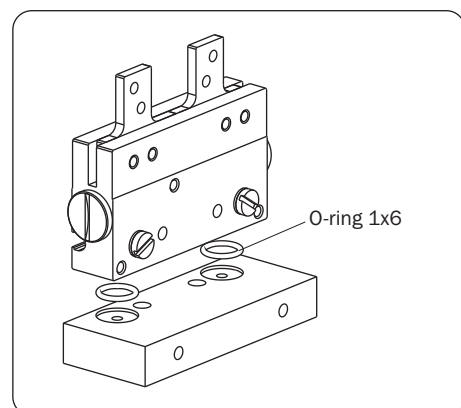
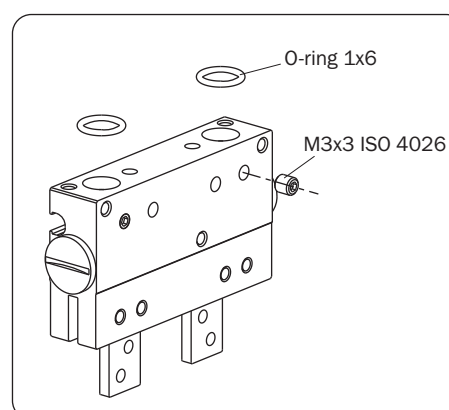
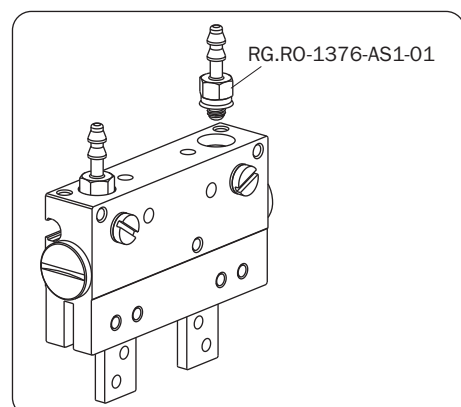
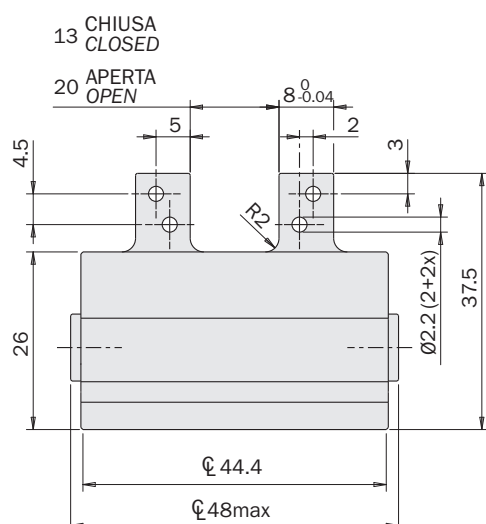
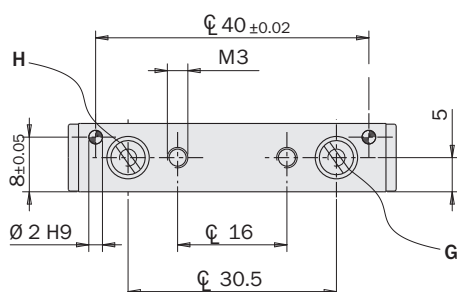
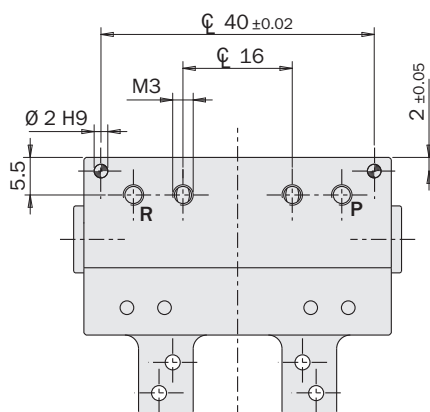
Dimensioni (mm)
Dimensions (mm)

SZ08



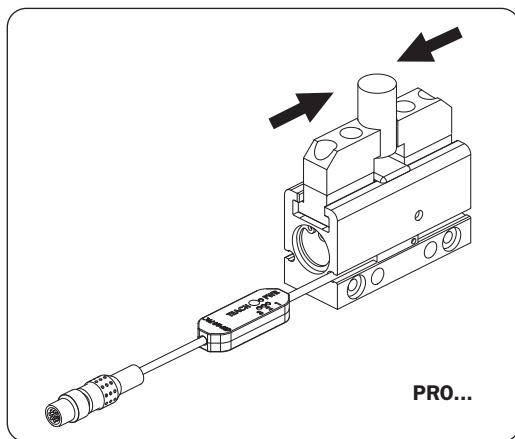
(G) (P) Aria compressa in G/P: apertura della pinza
Compressed air in G/P: gripper opening

(H) (R) Aria compressa in H/R: chiusura della pinza
Compressed air in H/R: gripper closing



Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso il magnete sul pistone. Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.



Sensors

The operating position is detected by proximity magnetic sensors (optional) through a magnet placed on the piston. Therefore, avoid using the gripper in the vicinity of intense magnetic fields or near a large mass of ferromagnetic material as this may cause detection errors.



Codice Code	OUTPUT	Connessione Connection	Tipo Type
PRO-SN3M215-G	3 output NPN	Connettore M8 M8 plug connector	Programmabile Programmable 3 set point
PRO-SN3N215-G	3 output PNP		
PRO-SN4M225-G	3 output NPN	Cavo 2.5m 2.5m cable	
PRO-SN4N225-G	3 output PNP		
PRO-SS3M215-G	3 output NPN	Connettore M8 M8 plug connector	Programmabile Programmable 3 set point
PRO-SS3N215-G	3 output PNP		
PRO-SS4M225-G	3 output NPN	Cavo 2.5m 2.5m cable	
PRO-SS4N225-G	3 output PNP		
PRO-SSR3M215-G	3 output NPN	Connettore M8 M8 plug connector	Programmabile Programmable 2 set point
PRO-SSR3N215-G	3 output PNP		
PRO-SSR4M225-G	3 output NPN	Cavo 2.5m 2.5m cable	
PRO-SSRN225-G	3 output PNP		
SN4N225-G	1 output PNP	Cavo 2.5m 2.5m cable	Isteresi standard Standard hysteresis
SN4M225-G	1 output NPN		
SN3N203-G	1 output PNP	Connettore M8 M8 plug connector	
SN3M203-G	1 output NPN		
SS4N225-G	1 output PNP	Cavo 2.5m 2.5m cable	Isteresi standard Standard hysteresis
SS4M225-G	1 output NPN		
SS3N203-G	1 output PNP	Connettore M8 M8 plug connector	
SS3M203-G	1 output NPN		
SSY3M203-G	1 output PNP	Connettore M8 M8 plug connector	Isteresi ridotta Reduced hysteresis
SSY3N203-G	1 output NPN		
SSY4M225-G	1 output PNP	Cavo 2.5m 2.5m cable	
SSY4N225-G	1 output NPN		
SSQ3M203-G	1 output PNP	Connettore M8 M8 plug connector	Isteresi ultra bassa Ultra low hysteresis
SSQ3N203-G	1 output NPN		
SSQ4M225-G	1 output PNP	Cavo 2.5m 2.5m cable	
SSQ4N225-G	1 output NPN		

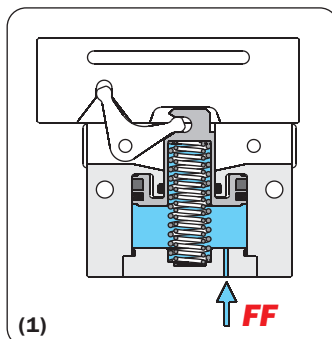
Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie PQ)

- Guida robusta.
- Corsa lunga.
- Molle integrate (1).
- Diverse possibilità di fissaggio ed alimentazione (2).
- Grasso alimentare FDA-H1.

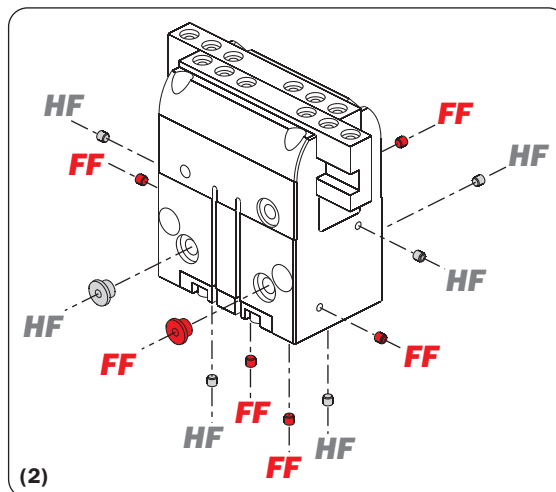
2-jaw self-centering pneumatic parallel gripper (series PQ)

- Robust guide.
- Long stroke.
- Integrated springs (1).
- Various fastening and air feeding options (2).
- FDA-H1 food-grade grease.

PQ6063



PQ5047



PQ1608



PQ2012



PQ2516



PQ3015



PQ3523



PQ4533



	PQ1608	PQ2012	PQ2516	PQ3015	PQ3523	PQ4533	PQ5047	PQ6063
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]							
Pressione di esercizio Operating pressure range	3.5 ÷ 8 bar							
Temperatura di esercizio Operating temperature range	5 ÷ 100 °C							
Forza di serraggio per griffa (6 bar in FF) Gripping force on each jaw (6 bar in FF)	60 N	90 N	150 N	200 N	280 N	460 N	670 N	930 N
Forza di serraggio totale (6 bar in FF) Total gripping force (6 bar in FF)	120 N	180 N	300 N	400 N	560 N	920 N	1340 N	1860 N
Corsa totale (±0.5 mm) Total stroke	8 mm	12 mm	16 mm	15 mm	23 mm	33 mm	47 mm	63 mm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	2 cm ³	4 cm ³	8 cm ³	12 cm ³	23 cm ³	55 cm ³	114 cm ³	210 cm ³
Tempo di serraggio (aria in FF) Gripping time (air in FF)	20 ms	40 ms	40 ms	60 ms	60 ms	100 ms	140 ms	190 ms
Tempo di rilascio (aria in HF) Release time (air in HF)	20 ms	50 ms	50 ms	110 ms	110 ms	160 ms	230 ms	400 ms
Ripetibilità Repetition accuracy	0.02 mm							
Peso Weight	63 g	110 g	200 g	330 g	610 g	1270 g	2430 g	4900 g

Circuito pneumatico

Possibili inconvenienti sul circuito di alimentazione dell'aria compressa:

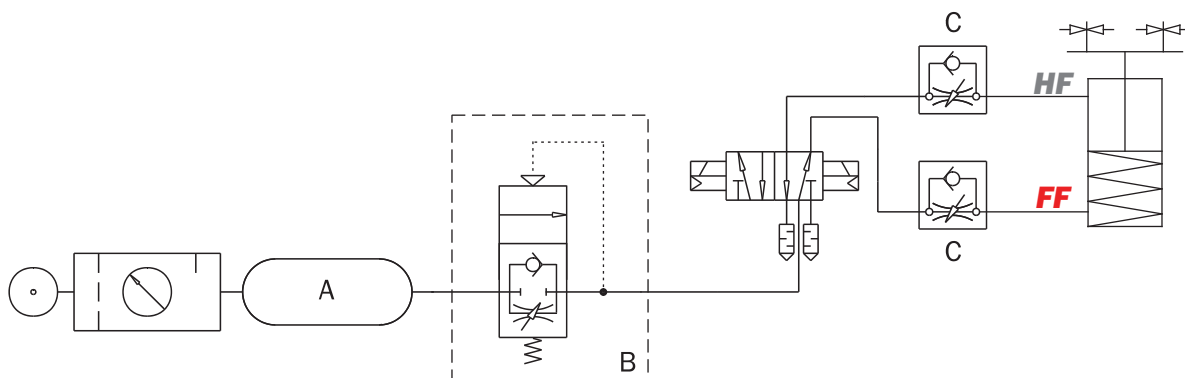
- 1- Oscillazioni di pressione;
- 2- Riempimento pinza vuota all'avvio;
- 3- Velocità di azionamento eccessiva.

Accorgimenti per risolvere i problemi:

- 1- Serbatoio esterno (A);
- 2- Valvola di avviamento progressivo (B);
- 3- Regolatore di flusso (C).

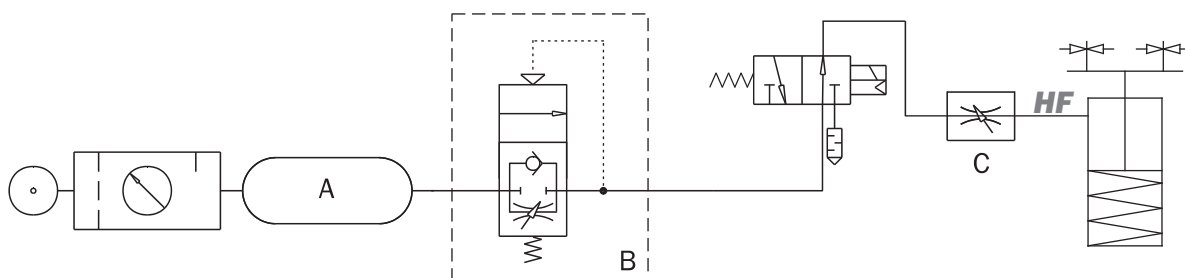
La pinza può funzionare sia a semplice effetto che a doppio effetto.

Quest'ultima soluzione (circuito sotto indicato, con valvola 5/2) è consigliata quando è necessaria una forza di serraggio elevata.

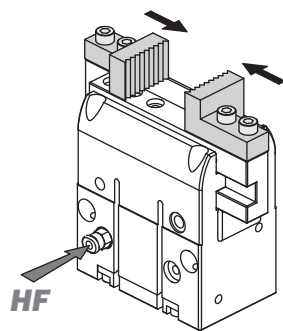


Per un funzionamento a semplice effetto, con molla di reset, il circuito pneumatico deve essere come quello sotto indicato, con valvola 3/2.

For single-effect operation with reset spring, the pneumatic circuit must be similar to that shown below, with a 3/2 valve.

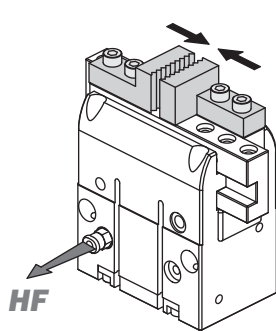


Normalmente aperta
con serraggio esterno



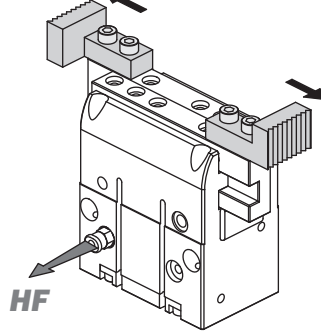
Normally open with
outside gripping

Normalmente chiusa
con serraggio esterno



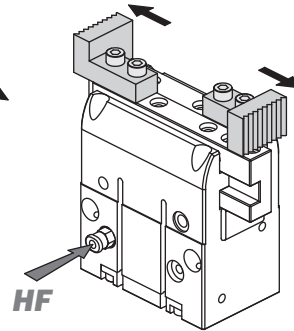
Normally closed with
outside gripping

Normalmente aperta
con serraggio interno



Normally open with
inside gripping

Normalmente chiusa
con serraggio interno

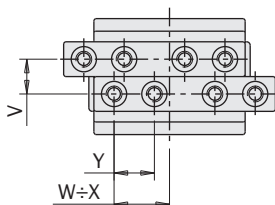
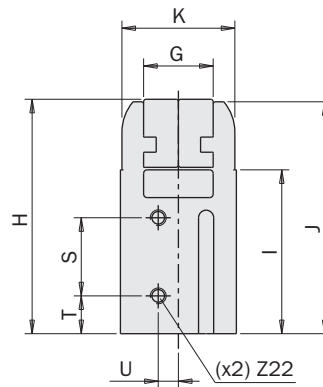
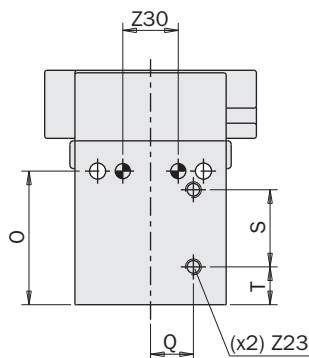
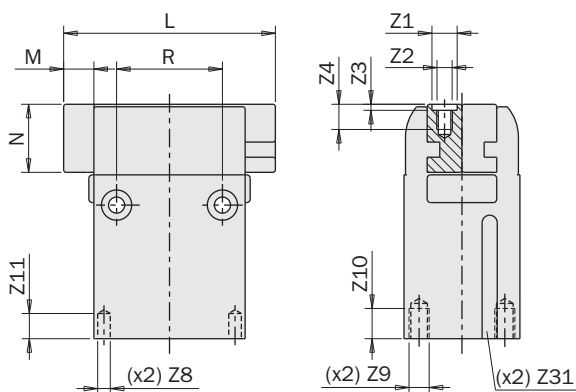
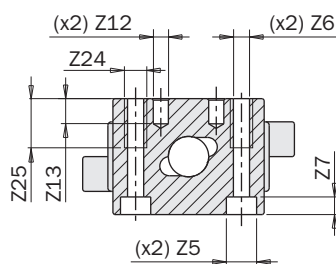
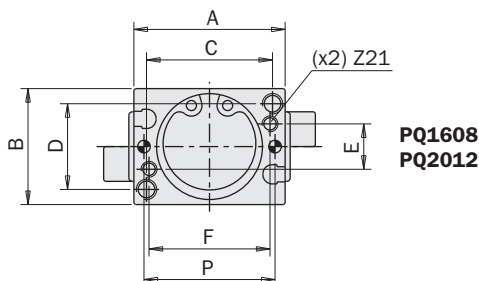
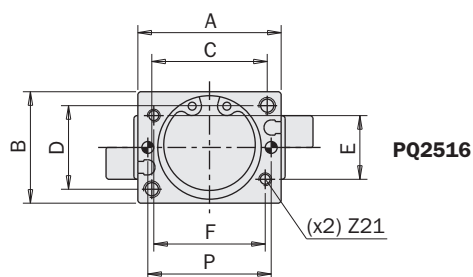


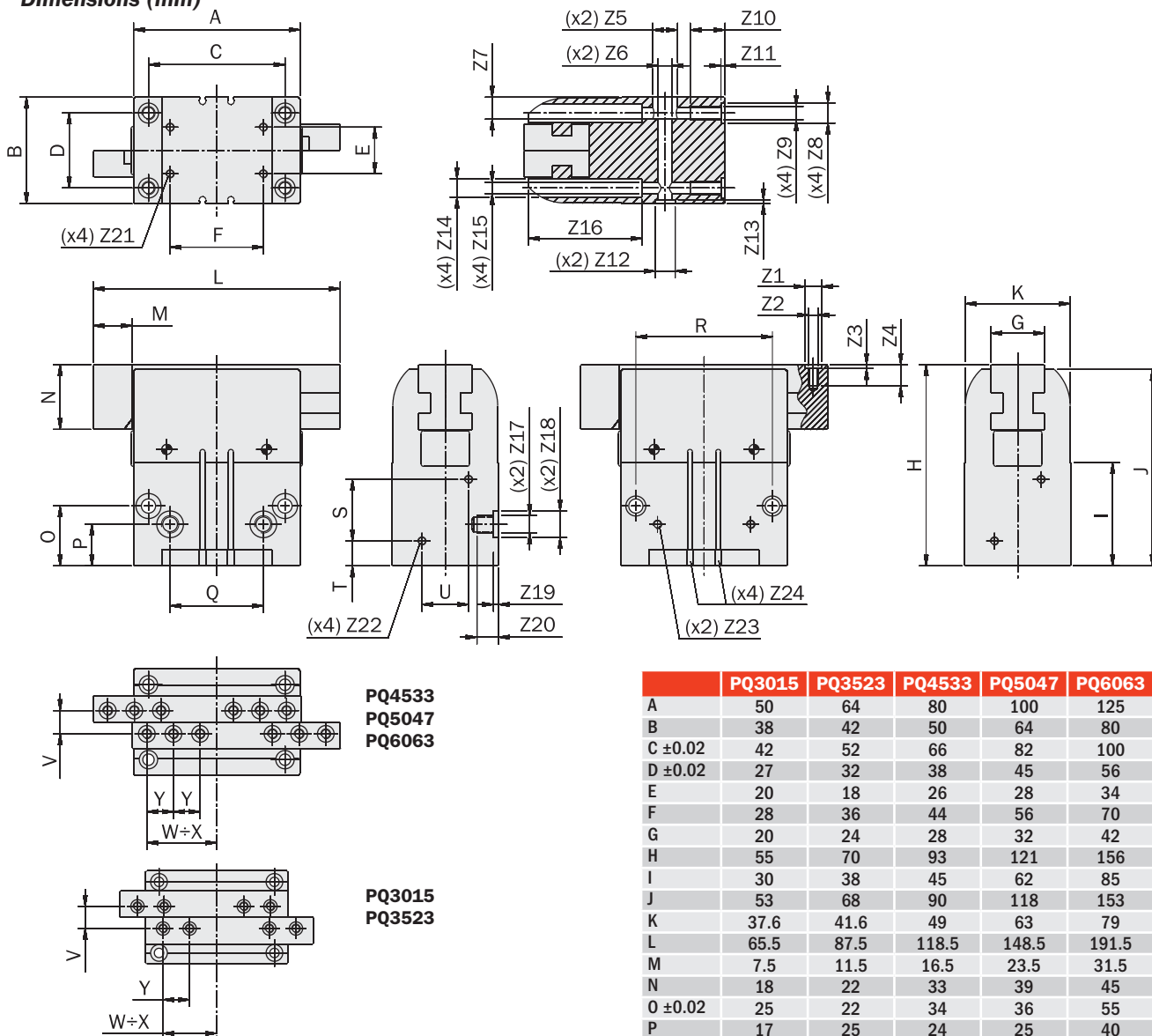
Normally closed with
inside gripping

Dimensioni (mm) Dimensions (mm)

- Z1** Lamatura boccola per centraggio del dito di presa
Spot face for the centering sleeve of the gripping tool
- Z2** Foro filettato per fissaggio del dito di presa
Threaded hole for the gripping tool fastening
- Z6** Foro passante per fissaggio laterale della pinza
Through hole for the gripper side fastening
- Z9** Foro filettato per fissaggio della pinza sulla base
Threaded hole for the gripper fastening on the bottom
- Z12** Lamatura boccola per centraggio del corpo pinza
Spot face for the centering sleeve of the gripper body
- Z21** Fori per alimentazione diretta dal fondo
Ports for direct air supply from the bottom
- Z22** Fori per alimentazione
Air supply ports
- Z23** Fori per alimentazione
Air supply ports
- Z31** Cave per sensori magnetici
Magnetic sensor slots

	PQ1608	PQ2012	PQ2516
A	24	30	36
B	18	23	28
C ±0.02	20	25	29
D ±0.02	14	17	21
E	6.6	8	16
F	20	25	28
G	11	13.8	16
H	44	46.5	57
I	32.5	32.5	37.5
J	43.5	46	56
K	17.5	22.4	27
L	32	42	52
M	4	6	8
N	11	13.5	18
O ±0.02	26	26.5	28.5
P	21	26	31
Q	7.5	8.5	11
R ±0.02	17	21	24
S	13.5	15.3	16
T	7	7.5	8
U	3.7	4	8
V	5.5	6.9	8
W	13	17	21
X	9	11	13
Y ±0.02	6	8	9
Z1	Ø5 H8	Ø5 H8	Ø6 H8
Z2	M3	M3	M4
Z3	1.2	1.2	2.5
Z4	4	5	7.5
Z5	Ø5	Ø6	Ø6
Z6	Ø2.6	Ø3.2	Ø3.2
Z7	3	3.5	3.5
Z8	Ø2 H7	Ø2.5 H7	Ø3 H7
Z9	M3	M4	M4
Z10	5	6	6
Z11	3	5	5
Z12	Ø2 H7	Ø2.5 H7	Ø3 H7
Z13	3	5	5
Z21	M2	M2.5	M3
Z22	M3	M3	M5
Z23	M2.5	M3	M3
Z24	M3	M4	M4
Z25	7	7	7
Z30 ±0.02	9	11	12



Dimensioni (mm)
Dimensions (mm)
Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

- Z1** Lamatura boccola per centraggio del dito di presa
Spot face for the centering sleeve of the gripping tool
- Z2** Foro filettato per fissaggio del dito di presa
Threaded hole for the gripping tool fastening
- Z6** Foro passante per fissaggio laterale della pinza
Through hole for the gripper side fastening
- Z9** Foro filettato per fissaggio della pinza sulla base
Threaded hole for the gripper fastening on the bottom
- Z12** Lamatura boccola per centraggio del corpo pinza
Spot face for the centering sleeve of the gripper body
- Z15** Foro passante per fissaggio della pinza sulla base
Through hole for the gripper fastening on the bottom
- Z17** Connessione principale per raccordi dell'aria
Main port for air fittings
- Z21** Fori per alimentazione diretta dal fondo
Ports for direct air supply from the bottom
- Z22** Fori per alimentazione
Air supply ports
- Z23** Fori per alimentazione
Air supply ports
- Z24** Cave per sensori magnetici
Magnetic sensor slots

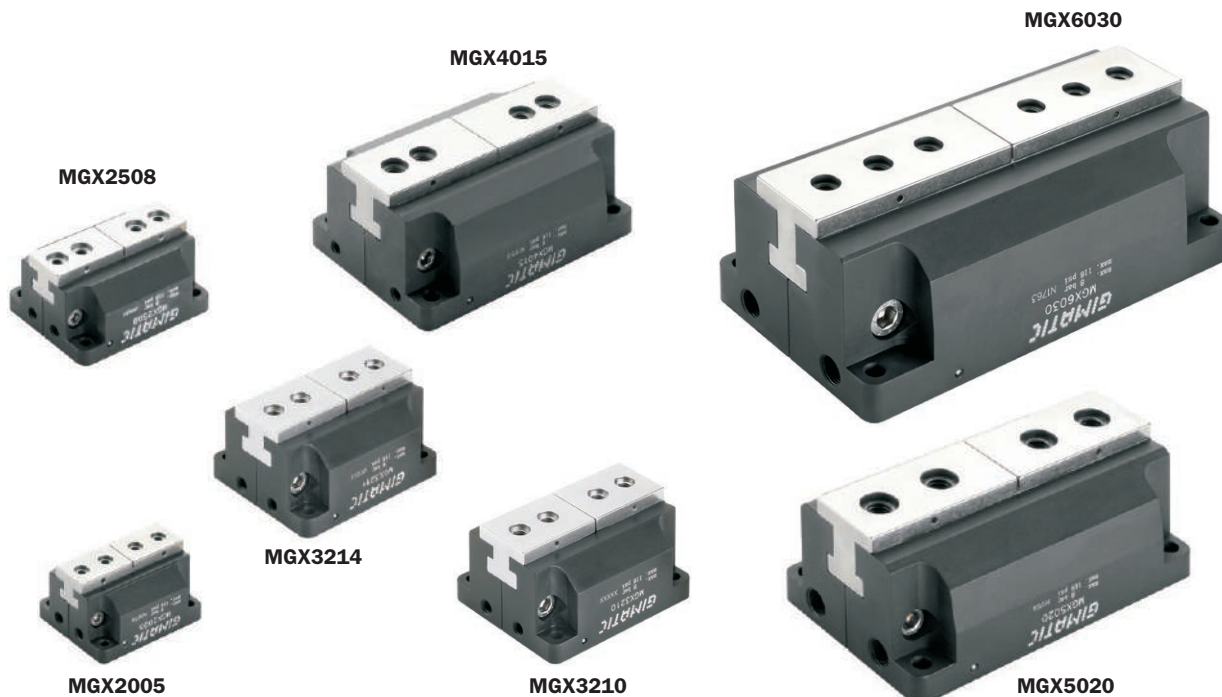
	PQ3015	PQ3523	PQ4533	PQ5047	PQ6063
A	50	64	80	100	125
B	38	42	50	64	80
C ±0.02	42	52	66	82	100
D ±0.02	27	32	38	45	56
E	20	18	26	28	34
F	28	36	44	56	70
G	20	24	28	32	42
H	55	70	93	121	156
I	30	38	45	62	85
J	53	68	90	118	153
K	37.6	41.6	49	63	79
L	65.5	87.5	118.5	148.5	191.5
M	7.5	11.5	16.5	23.5	31.5
N	18	22	33	39	45
O ±0.02	25	22	34	36	55
P	17	25	24	25	40
Q	28	35	44	56	70
R ±0.02	42	52	66	82	100
S	-	-	-	37	44
T	-	-	-	15	24
U	-	-	-	28	34
V	8	10	12	14	16
W	24.8	35.7	52.2	65.6	79.8
X	17.3	24.2	35.7	42	48.3
Y ±0.02	10	12	14	16	20
Z1	Ø5 H8	Ø6 H8	Ø8 H8	Ø10 H8	Ø12 H8
Z2	M3	M4	M5	M6	M6
Z3	1.2	2.5	2.5	2.5	2.5
Z4	7.2	9.5	11.5	13	12.5
Z5	Ø6	Ø9	Ø11	Ø15	Ø15
Z6	Ø3.5	Ø5.2	Ø6.6	Ø8.5	Ø8.5
Z7	10	10	9	13.2	17
Z8	Ø6 H8	Ø8 H8	Ø10 H8	Ø12 H8	Ø12 H8
Z9	M4	M5	M6	M8	M8
Z10	10.5	14	18	21	22.5
Z11	2.5	2.5	2.5	2.5	2.5
Z12	Ø6 H8	Ø8 H8	Ø10 H8	Ø12 H8	Ø12 H8
Z13	2.5	2.5	2.5	2.5	2.5
Z14	Ø6	Ø7.5	Ø9	Ø11	Ø11
Z15	Ø3.3	Ø4.2	Ø5	Ø6.8	Ø6.8
Z16	22	38	45	68	82
Z17	M5	M5	M5	G1/8"	G1/8"
Z18	-	-	Ø10	Ø16	Ø18
Z19	-	-	2.5	3	3
Z20	5	5	9.3	13	16.3
Z21	M3	M4	M5	M5	M5
Z22	-	-	-	M5	M5
Z23	M5	M5	M5	M5	M5

Pinza pneumatica a 2 griffe ad azione parallela autocentrante serie MGX

- Profilo piatto.
- Guida robusta.
- Elevata forza di serraggio.
- Peso ed ingombri ridotti.
- Precisione dimensionale elevata.
- Disponibile anche con molla in chiusura (-NC) o in apertura (-NO).
- Grasso alimentare FDA-H1.

2-jaw parallel self-centering pneumatic gripper series MGX

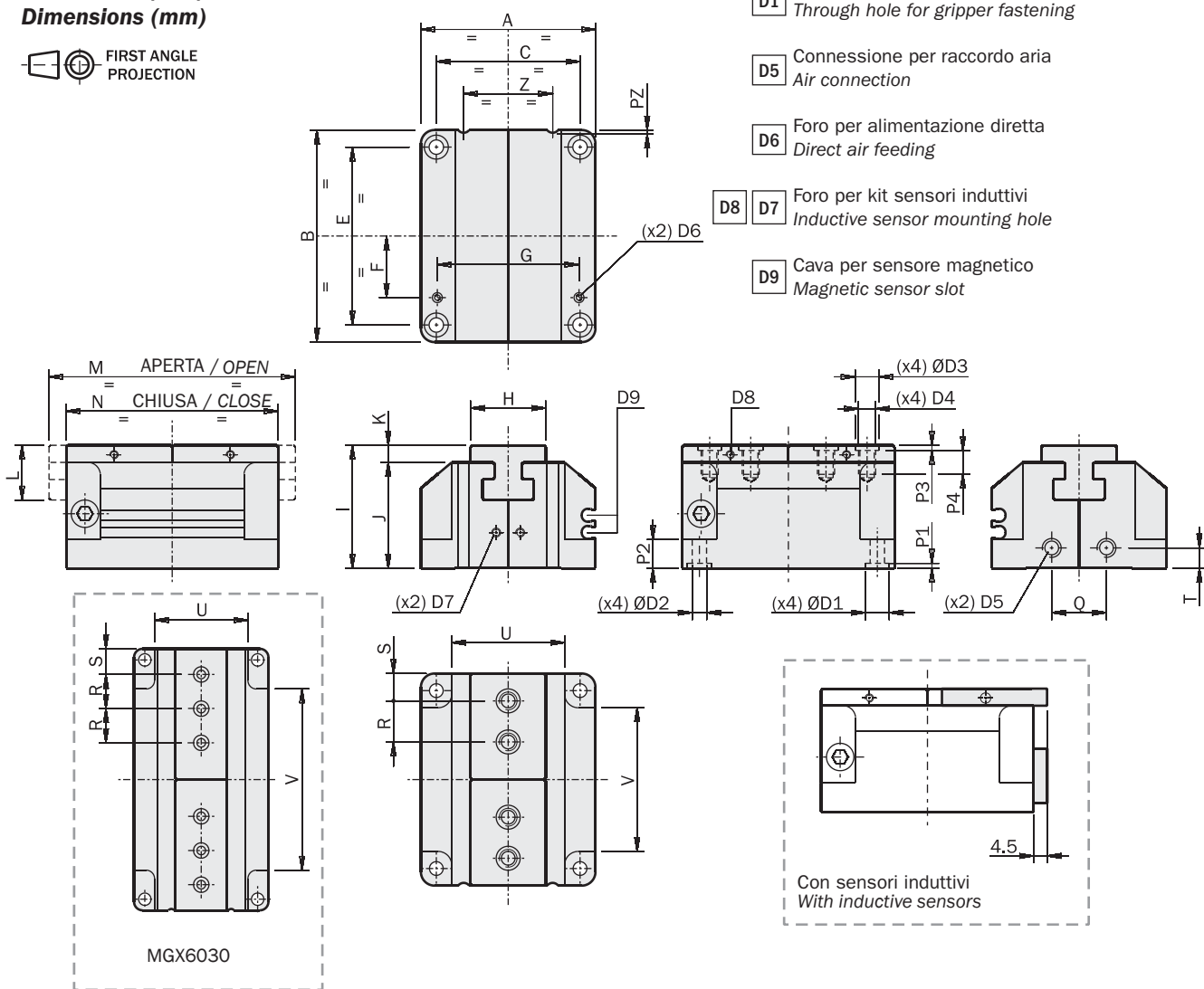
- Flat profile.
- Robust guide.
- High gripping force.
- Small weight and dimensions.
- High dimensional accuracy.
- Spring closed (-NC) or spring open (-NO) option.
- FDA-H1 food-grade grease.



	MGX2005	MGX2508	MGX3210	MGX3214	MGX4015	MGX5020	MGX6030
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]						
Pressione di esercizio Operating pressure range	1.5 ÷ 8 bar						
Temperatura di esercizio Operating temperature range	5° ÷ 50°C.						
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	90 N	145 N	230 N	160 N	375 N	650 N	830 N
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	180 N	290 N	460 N	320 N	750 N	1300 N	1660 N
Corsa totale Total stroke (±0.3 mm)	5 mm	8 mm	10 mm	14.6 mm	15 mm	20 mm	30 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	3 Hz	3 Hz	3 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	5 cm³	10 cm³	22 cm³	22 cm³	48 cm³	86 cm³	169 cm³
Tempo di apertura / chiusura senza carico Opening / Closing time without load	7 ms	10 ms	20 ms	20 ms	50 ms	70 ms	140 ms
Ripetibilità Repetition accuracy	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Peso Weight	95 g	150 g	270 g	270 g	545 g	900 g	1525 g

Dimensioni (mm)

Dimensions (mm)



		MGX2005	MGX2508	MGX3210	MGX3214	MGX4015	MGX5020	MGX6030
A		35.8	42	51	51	61.2	70	78.6
B		44	55	62	62	93	118	153
C	±0.04	28.3	33	42	42	51	58	66
D1		Ø5 H7	Ø7 H7	Ø7 H7	Ø7 H7	Ø7 H7	Ø9 H7	Ø9 H7
D2		Ø3.2	Ø4.2	Ø4.2	Ø4.2	Ø5.2	Ø6.2	Ø6.2
D3		Ø5 H7	Ø7 H7	Ø7 H7	Ø7 H7	Ø9 H7	Ø12 H7	Ø9 H7
D4		M3	M4	M5	M5	M6	M8	M6
D5		M5	M5	M5	M5	M5	G1/8"	G1/8"
D6		M3	M3	M3	M3	M3	M3	M3
E	±0.02	36.5	46	52	52	80	105	140
F		12.5	15.5	18	18	27.5	37	43.5
G		27.2	33.6	41.4	41.4	49.6	58.6	67.6
H	±0.05	14	16	22	22	25	28	30
I		26	28.5	36	36	42	49	58
J		22	24	31	31	37	43	51
K		4	4.5	5	5	5	6	7
L		11.2	12.7	16	16	20	25	29
M		49	63	72	76	108	138	183
N		44	55	62	62	93	118	153
P1		1.2	1.5	1.5	1.5	1.5	2	2
P2		5.5	6	8.4	8.4	9	10	13.5
P3		1.2	1.5	1.5	1.5	2	2.5	2.5
P4		5	5.2	7	7	9	12	12
Q		11	12	16	16	31.2	32	40
R	±0.02	9	10	12	12	12	24	20
S		5.5	6	8	8	12.5	14	15
T		5.8	6	6	6	6	8	8
U		20.8	24	33	33	41.2	46	54.6
V		29	37	42	42	65	88	106
Z		17	20	26	26	30	33	35
PZ		0.5	0.5	0.8	0.8	0.8	0.8	0.8

Sensori

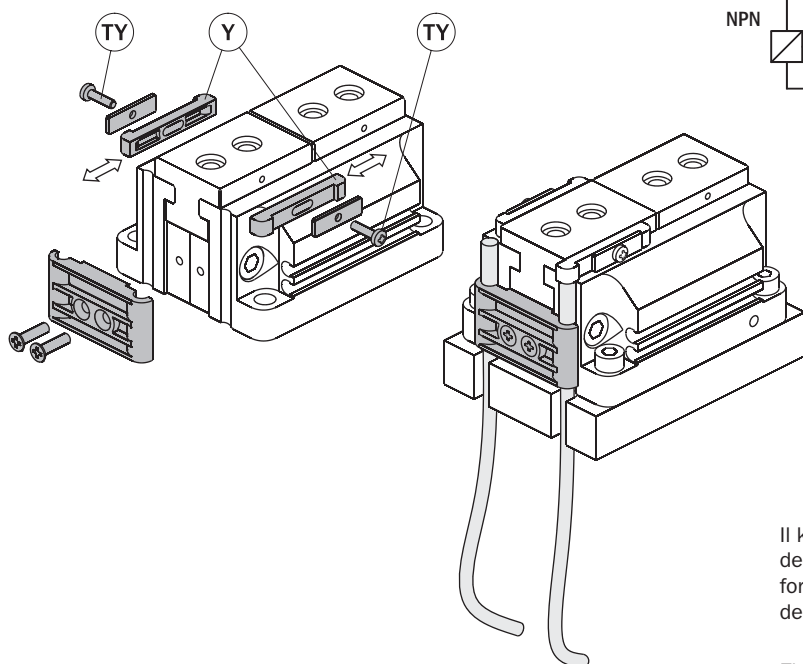
Il rilevamento della posizione di lavoro può essere effettuato con sensori magnetici (opzionali), che rilevano il magnete sul pistone, oppure con sensori induttivi (opzionali), che rilevano la presenza delle sfere (SY) inserite nell'appendice (Y).

Due appendici regolabili possono essere fissate alla griffa con le due viti (TY) fornite.

I sensori induttivi devono avere diametro 4mm.

Codici di ordinazione dei sensori induttivi:

SI4M225-G	NPN	Cavo 2.5m 2.5m cable
SI4N225-G	PNP	

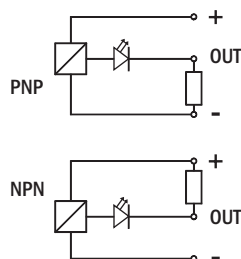


Sensors

The operating position can be checked by magnetic sensors (optional), detecting the magnet of the piston, or by inductive sensors (optional), detecting the ball (SY) in the appendix (Y). Two adjustable appendages can be mounted on the jaw using the supplied screws (TY).

Use 4mm diameter inductive sensors.

Ordering codes of the inductive sensors:



Il kit per il fissaggio dei sensori induttivi è fornito nella confezione della pinza.

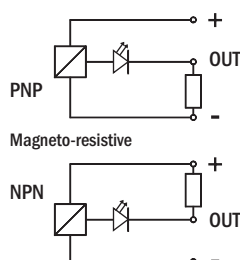
The accessories to fix the inductive sensors are supplied in the packaging.



I sensori magnetici utilizzabili sono i codici Gimatic:

SS4N225-G	PNP	Cavo 2.5m 2.5m cable
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 M8 snap plug connector
SS3M203-G	NPN	

The magnetic sensors from Gimatic are the codes:



Versioni a molla

A richiesta è disponibile la versione con la molla in chiusura (-NC) o in apertura (-NO), che in assenza d'aria garantisce circa un quarto della forza disponibile a 6 bar.

Spring option

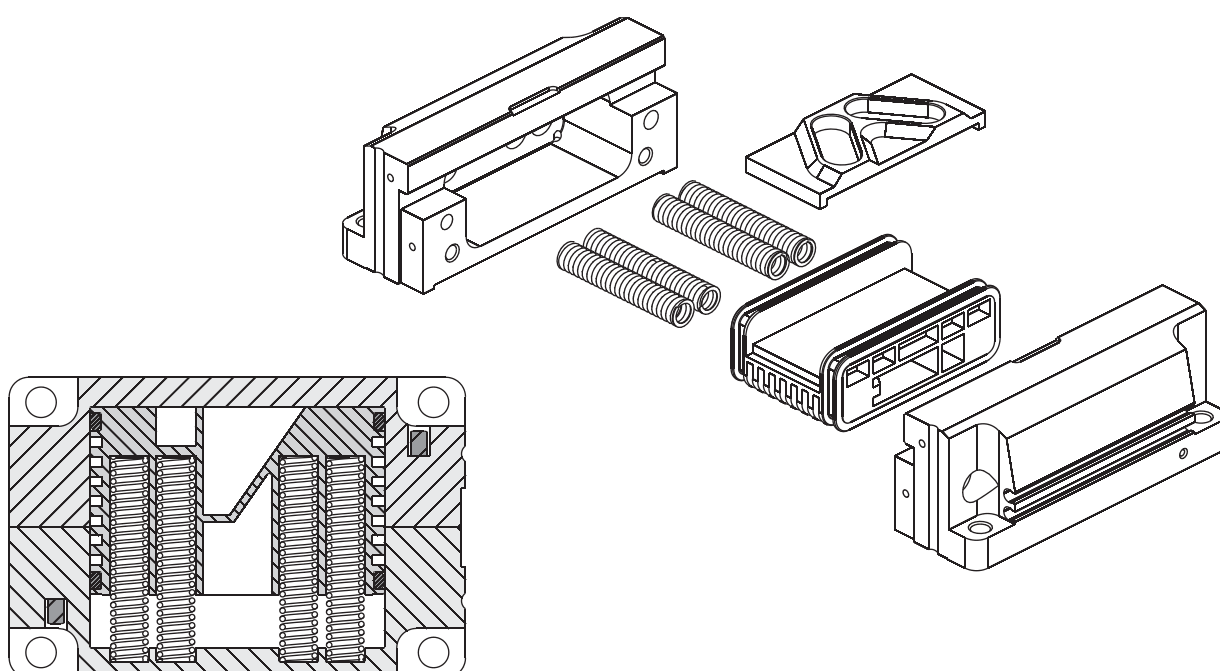
It is also available, on request, with a closing (-NC) or opening (-NO) spring, providing, after a pressure black-out, about one fourth of the output force at 6 bar.

	MGX2005-NC	MGX2508-NC	MGX3210-NC	MGX3214-NC	MGX4015-NC	MGX5020-NC	MGX6030-NC
Forza di chiusura per griffa a 6 bar <i>Closing force at 6 bar each jaw</i>	114÷121 N	179÷195 N	285÷306 N	199÷213 N	467÷510 N	792÷871 N	1016÷1110 N
Forza di apertura per griffa a 6 bar <i>Opening force at 6 bar each jaw</i>	59÷66 N	95÷111 N	154÷175 N	107÷122 N	240÷283 N	429÷508 N	550÷644 N
Forza di chiusura per griffa a 0 bar <i>Closing force at 0 bar each jaw</i>	24÷31 N	34÷50 N	55÷76 N	38÷53 N	92÷135 N	142÷221 N	186÷280 N
Forza di apertura per griffa a 0 bar <i>Opening force at 0 bar each jaw</i>	0 N	0 N	0 N	0 N	0 N	0 N	0 N

	MGX2005-NO	MGX2508-NO	MGX3210-NO	MGX3214-NO	MGX4015-NO	MGX5020-NO	MGX6030-NO
Forza di chiusura per griffa a 6 bar <i>Closing force at 6 bar each jaw</i>	59÷66 N	95÷111 N	154÷175 N	107÷122 N	240÷283 N	429÷508 N	550÷644 N
Forza di apertura per griffa a 6 bar <i>Opening force at 6 bar each jaw</i>	114÷121 N	179÷195 N	285÷306 N	199÷213 N	467÷510 N	792÷871 N	1016÷1110 N
Forza di chiusura per griffa a 0 bar <i>Closing force at 0 bar each jaw</i>	0 N	0 N	0 N	0 N	0 N	0 N	0 N
Forza di apertura per griffa a 0 bar <i>Opening force at 0 bar each jaw</i>	24÷31 N	34÷50 N	55÷76 N	38÷53 N	92÷135 N	142÷221 N	186÷280 N

Nelle versioni con le molle la lunghezza massima delle estremità di presa deve essere ridotta del 20%.
Nelle versioni con le molle la minima pressione di utilizzo è 3.5bar.

In the spring versions the maximum gripping tool length should be 20% shorter.
In the spring versions the minimum operating pressure is 3.5bar.

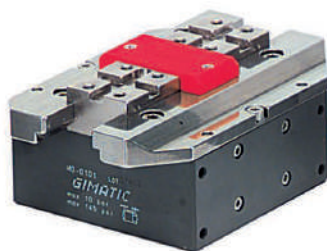


Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie MG)

- Azionamento a doppio effetto.
- Costruzione robusta: grande durata e affidabilità senza manutenzione.
- Possibilità di scelta su un'ampia gamma di corse e forze di serraggio.
- Forza di serraggio costante su tutta la corsa in apertura ed in chiusura.
- Profilo piatto.
- Predisposta per sensori induttivi.
- Grasso alimentare FDA-H1.

2-jaw parallel self-centering pneumatic gripper (series MG)

- Double acting.
- The rugged construction lends itself to heavy duty applications for a trouble free long life without maintenance.
- Wide choice of gripping force and stroke length options.
- The gripping force is constant on both directions along total stroke.
- Flat profile.
- Prepared for mounting inductive sensors.
- FDA-H1 food-grade grease.



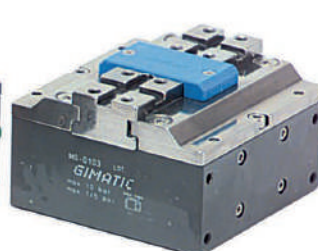
MG-0100



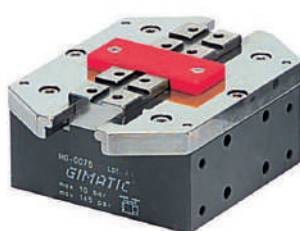
MG-0101



MG-0102



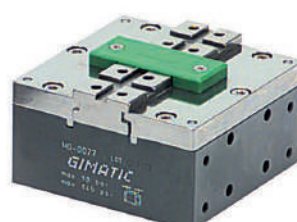
MG-0103



MG-0075



MG-0076



MG-0077



MG-0050



MG-0051



MG-0052



MG-0025



MG-0026



MG-0027



MG-0010



MG-0011



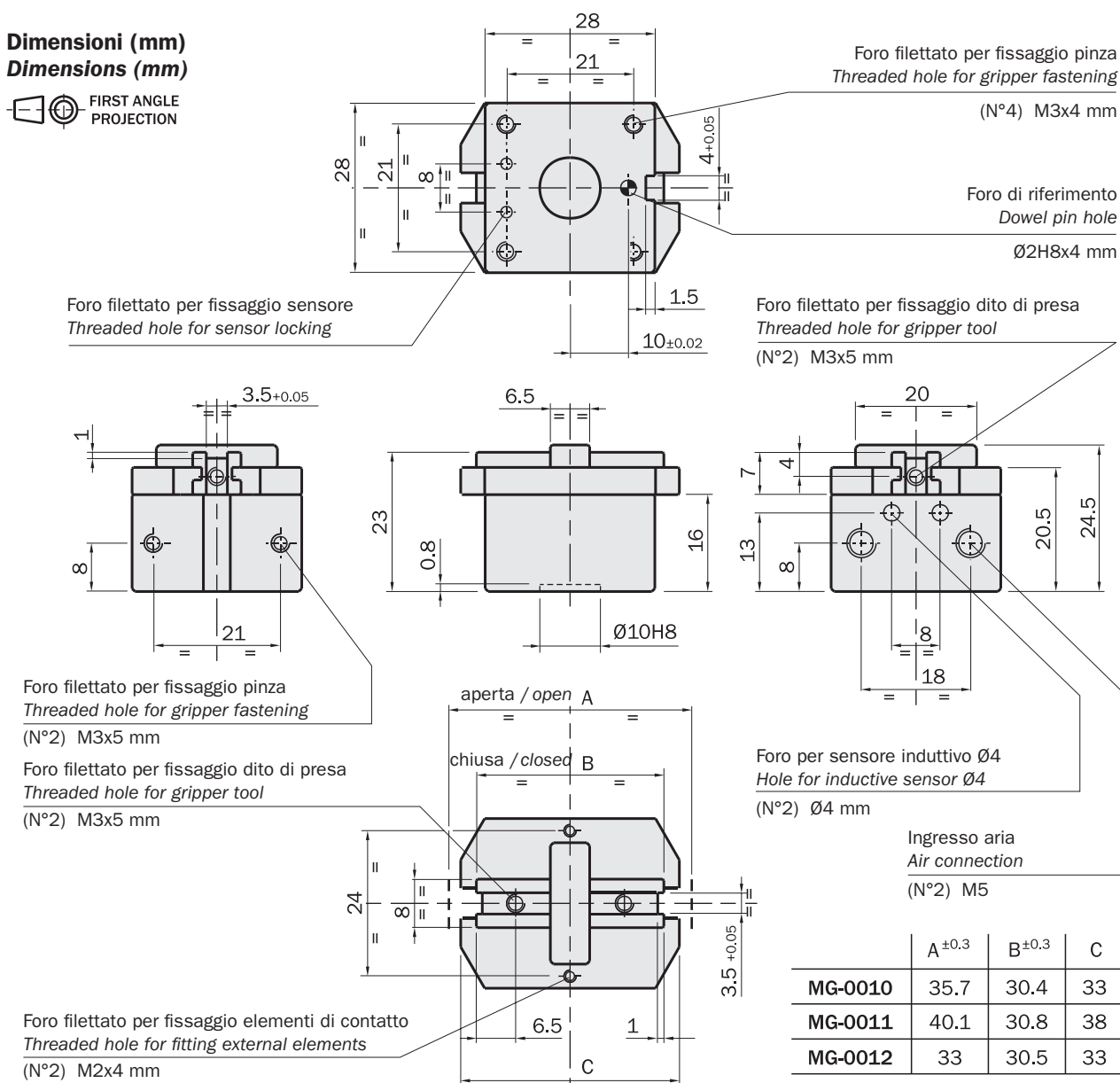
MG-0012

	MG-0010	MG-0011	MG-0012
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Operating pressure range	2÷8 bar		
Temperatura di esercizio Operating temperature range	5÷60 °C.		
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	35 N	18 N	70 N
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	70 N	36 N	140 N
Corsa totale (±0.3 mm) Total stroke	5.3 mm	9.3 mm	2.5 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz		
Consumo d'aria per ciclo Cycle air consumption	1.5 cm ³		
Tempo di chiusura senza carico Closing time without load	0.03 s		
Ripetibilità Repetition accuracy	0.02 mm		
Peso Weight	60 g	65 g	60 g

Dimensioni (mm) Dimensions (mm)

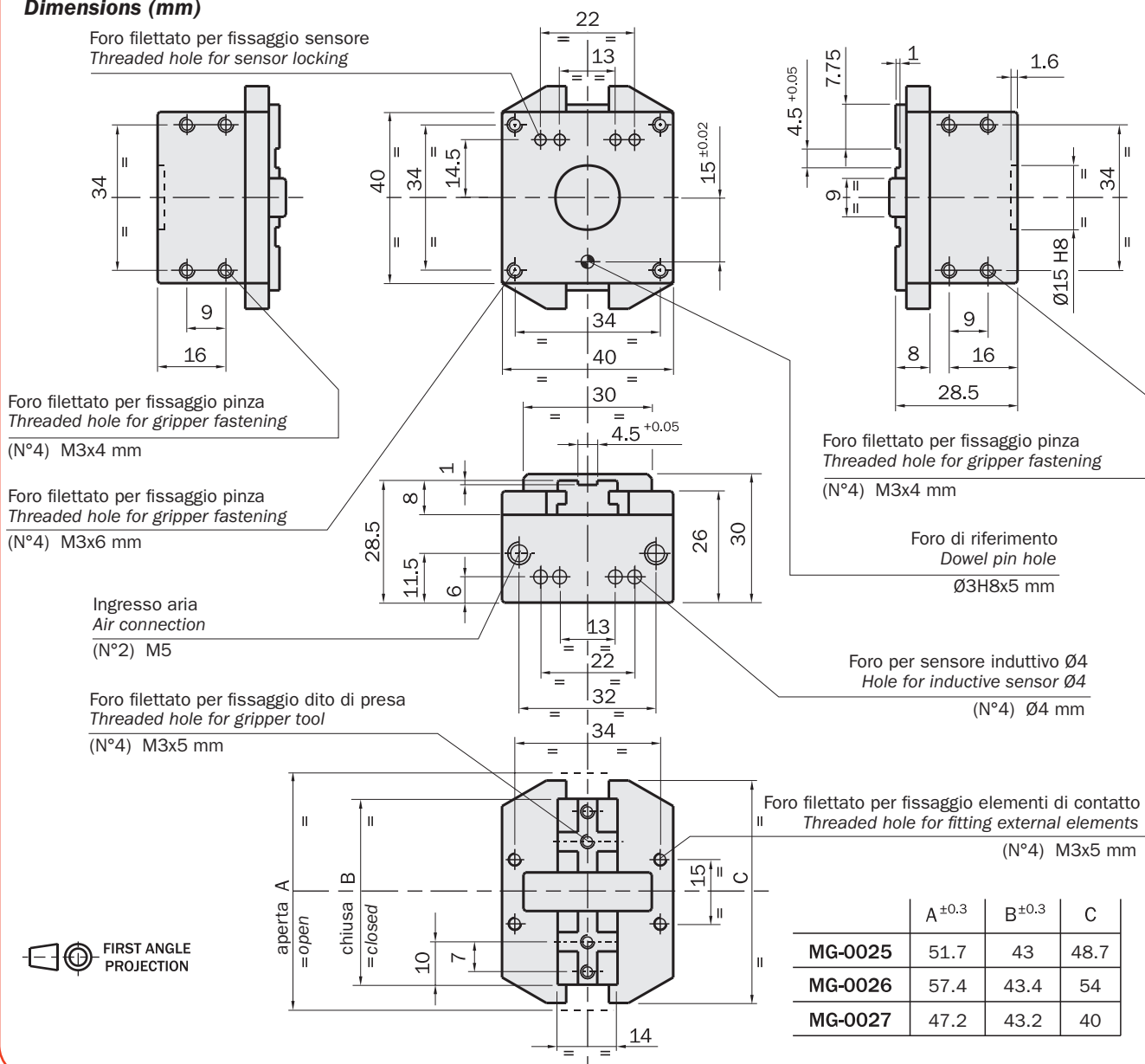


FIRST ANGLE
PROJECTION



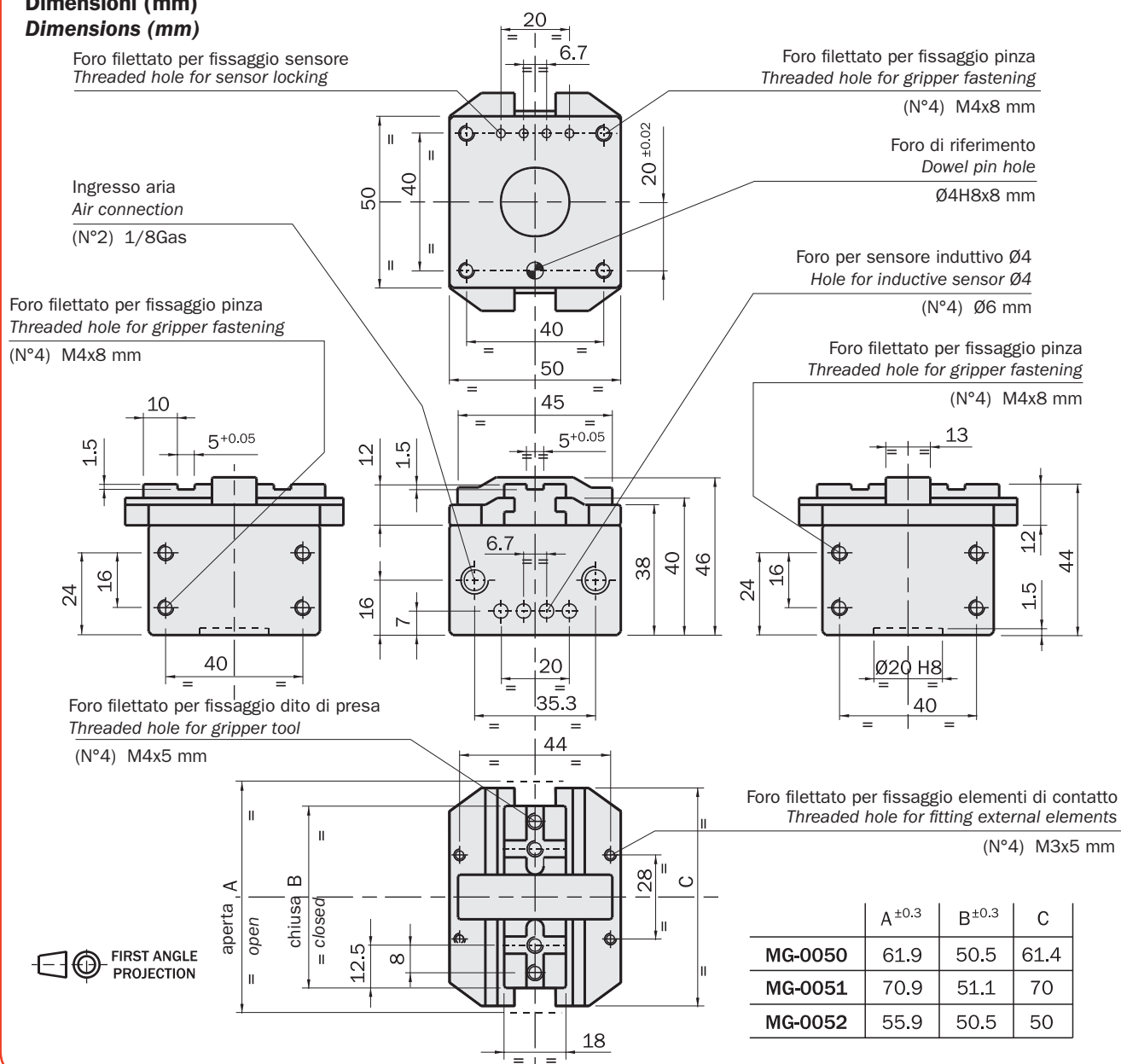
	MG-0025	MG-0026	MG-0027
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Operating pressure range	2÷8 bar		
Temperatura di esercizio Operating temperature range	5÷60 °C.		
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	70 N	40 N	130 N
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	140 N	80 N	260 N
Corsa totale (±0.3 mm) Total stroke	8.7 mm	14 mm	4 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz		
Consumo d'aria per ciclo Cycle air consumption	3.4 cm ³		
Tempo di chiusura senza carico Closing time without load	0.05 s		
Ripetibilità Repetition accuracy	0.02 mm		
Peso Weight	160 g	170 g	150 g

Dimensioni (mm) Dimensions (mm)



	MG-0050	MG-0051	MG-0052
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Operating pressure range	2÷8 bar		
Temperatura di esercizio Operating temperature range	5÷60 °C.		
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	160 N	90 N	300 N
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	320 N	180 N	600 N
Corsa totale (±0.3 mm) Total stroke	11.4 mm	19.8 mm	5.4 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz		
Consumo d'aria per ciclo Cycle air consumption	12 cm ³		
Tempo di chiusura senza carico Closing time without load	0.09 s		
Ripetibilità Repetition accuracy	0.02 mm		
Peso Weight	370 g	380 g	350 g

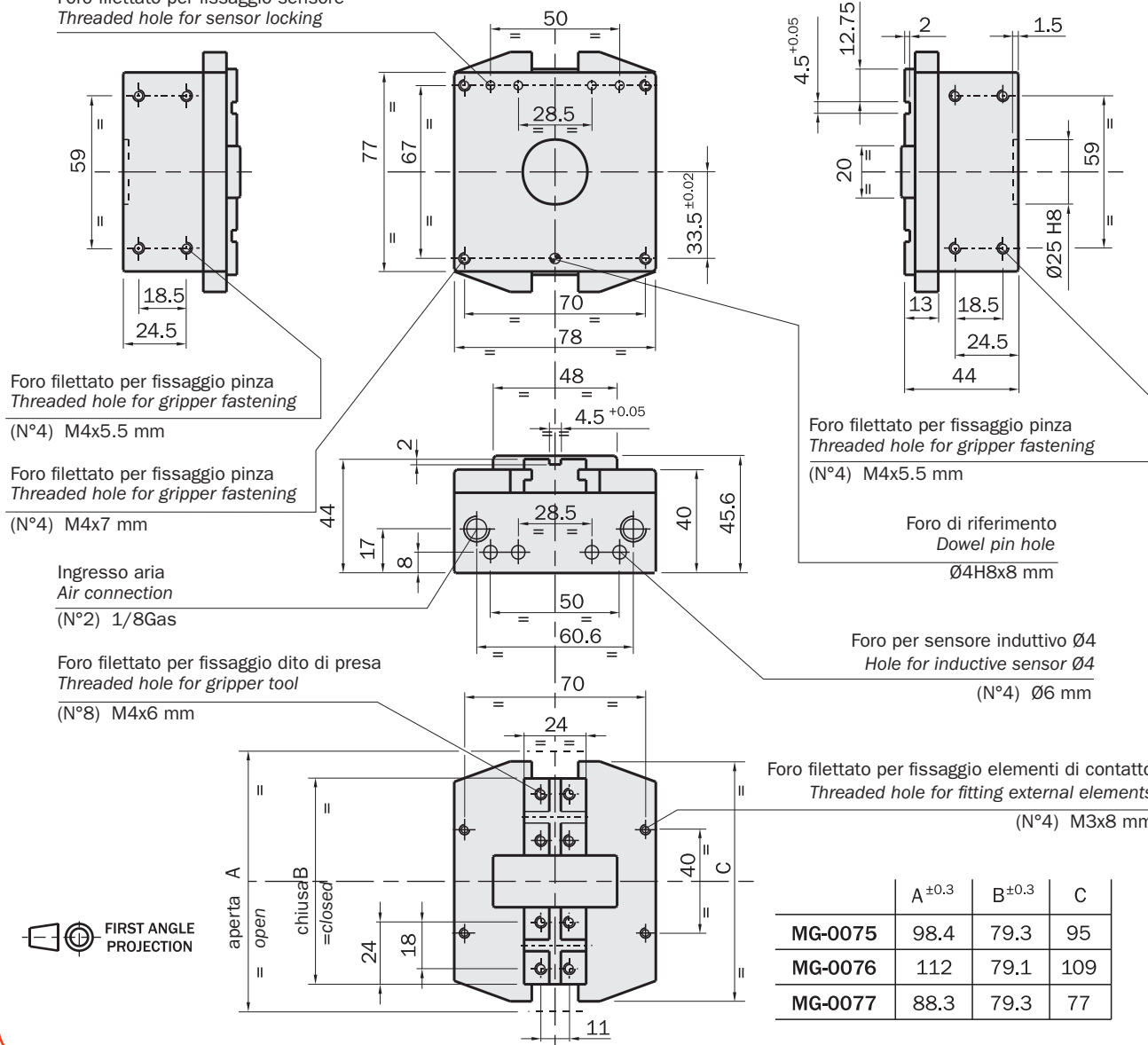
Dimensioni (mm) Dimensions (mm)



	MG-0075	MG-0076	MG-0077
Fluido <i>Medium</i>	Aria compressa a norma ISO 8573-1:2010 [7:4:4] <i>Compressed air in compliance with ISO 8573-1:2010 [7:4:4]</i>		
Pressione di esercizio <i>Operating pressure range</i>	2÷8 bar		
Temperatura di esercizio <i>Operating temperature range</i>	5÷60 °C.		
Forza di serraggio per griffa a 6 bar <i>Gripping force at 6 bar on each jaw</i>	250 N	160 N	540 N
Forza di serraggio totale a 6 bar <i>Total gripping force at 6 bar</i>	500 N	320 N	1080 N
Corsa totale (±0.3 mm) <i>Total stroke</i>	19.1 mm	32.9 mm	9 mm
Frequenza max funzionamento continuativo <i>Maximum working frequency</i>	2 Hz		
Consumo d'aria per ciclo <i>Cycle air consumption</i>	34 cm³		
Tempo di chiusura senza carico <i>Closing time without load</i>	0.14 s		
Ripetibilità <i>Repetition accuracy</i>	0.02 mm		
Peso <i>Weight</i>	940 g	980 g	900 g

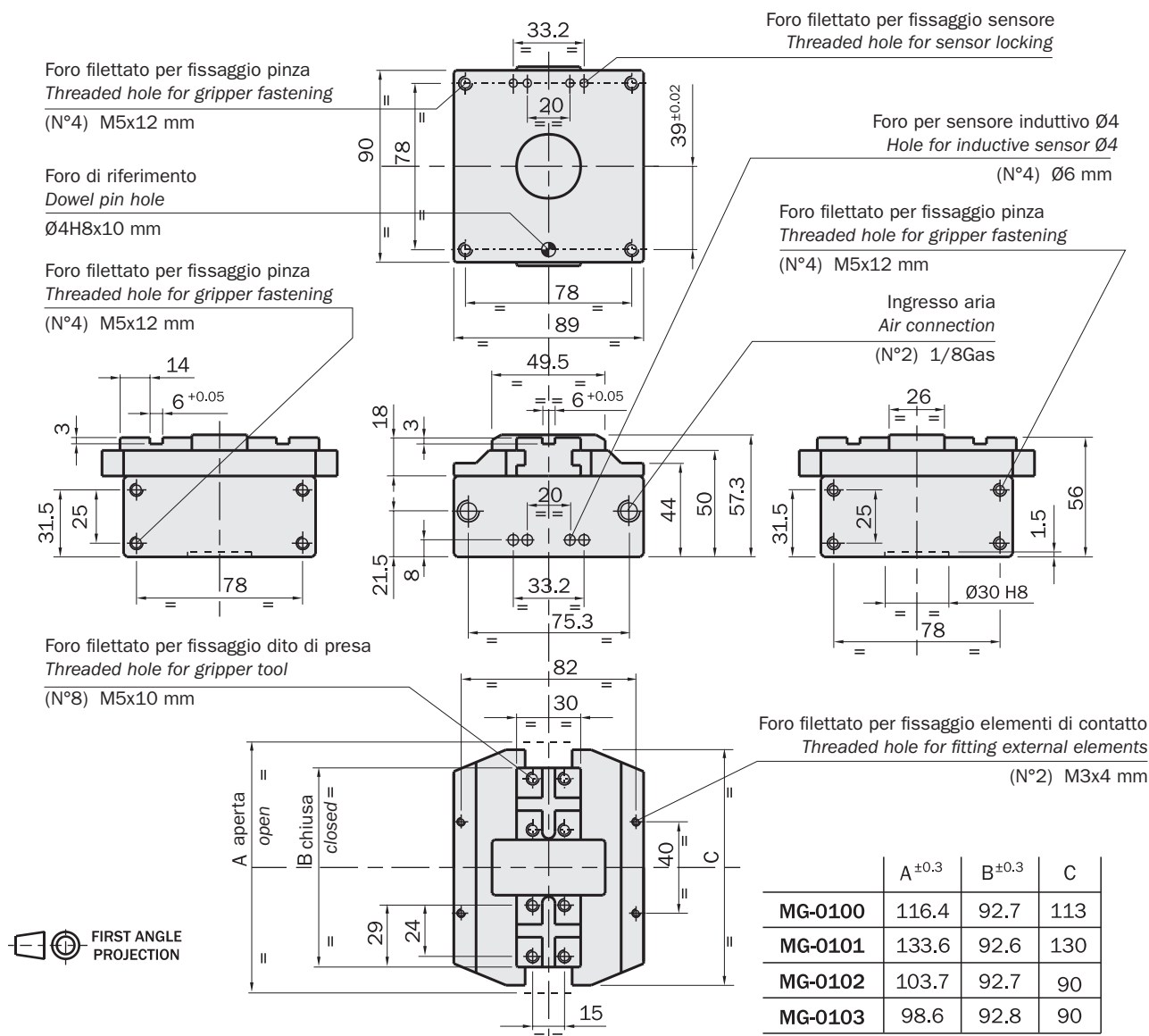
Dimensioni (mm)
Dimensions (mm)

Foro filettato per fissaggio sensore
Threaded hole for sensor locking



	MG-0100	MG-0101	MG-0102	MG-0103
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]			
Pressione di esercizio Operating pressure range	2÷8 bar			
Temperatura di esercizio Operating temperature range	5÷60 °C.			
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	450 N	210 N	770 N	1200 N
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	900 N	420 N	1540 N	2400 N
Corsa totale Total stroke (±0.3 mm)	23.7 mm	41 mm	11 mm	5.8 mm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz			
Consumo d'aria per ciclo Cycle air consumption	61 cm ³			
Tempo di chiusura senza carico Closing time without load	0.14 s			
Ripetibilità Repetition accuracy	0.02mm			
Peso Weight	1500 g	1600 g	1400 g	1400 g

Dimensioni (mm) Dimensions (mm)

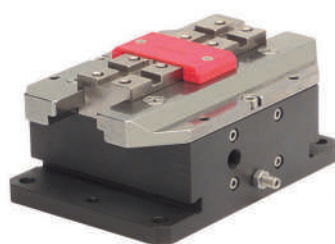


Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie GM)

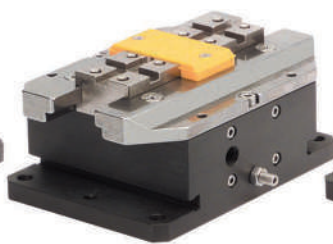
- Azionamento a doppio effetto.
- Costruzione robusta: grande durata e affidabilità senza manutenzione.
- Possibilità di scelta su un'ampia gamma di corse e forze di serraggio.
- Forza di serraggio costante su tutta la corsa in apertura ed in chiusura.
- Profilo piatto.
- Fissaggio semplificato attraverso una flangia dotata di fori passanti.
- Regolazione della corsa.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

2-jaw parallel self-centering pneumatic gripper (series GM)

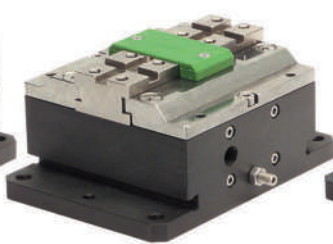
- Double acting.
- The rugged construction lends itself to heavy duty applications for a trouble free long life without maintenance.
- Wide choice of stroke length and gripping force options.
- The gripping force is constant on both directions along the total stroke.
- Flat profile.
- Easy fastening by through holes on the flange.
- Stroke adjustment.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.



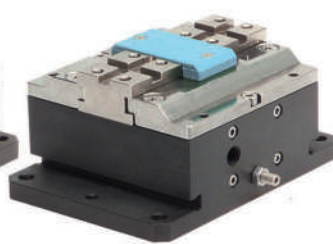
GM-0100



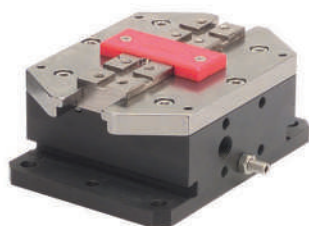
GM-0101



GM-0102



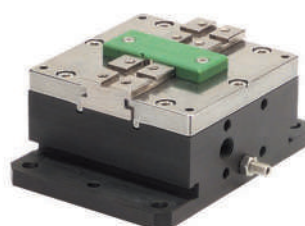
GM-0103



GM-0075



GM-0076



GM-0077



GM-0050



GM-0051



GM-0052



GM-0025



GM-0026



GM-0027



GM-0010



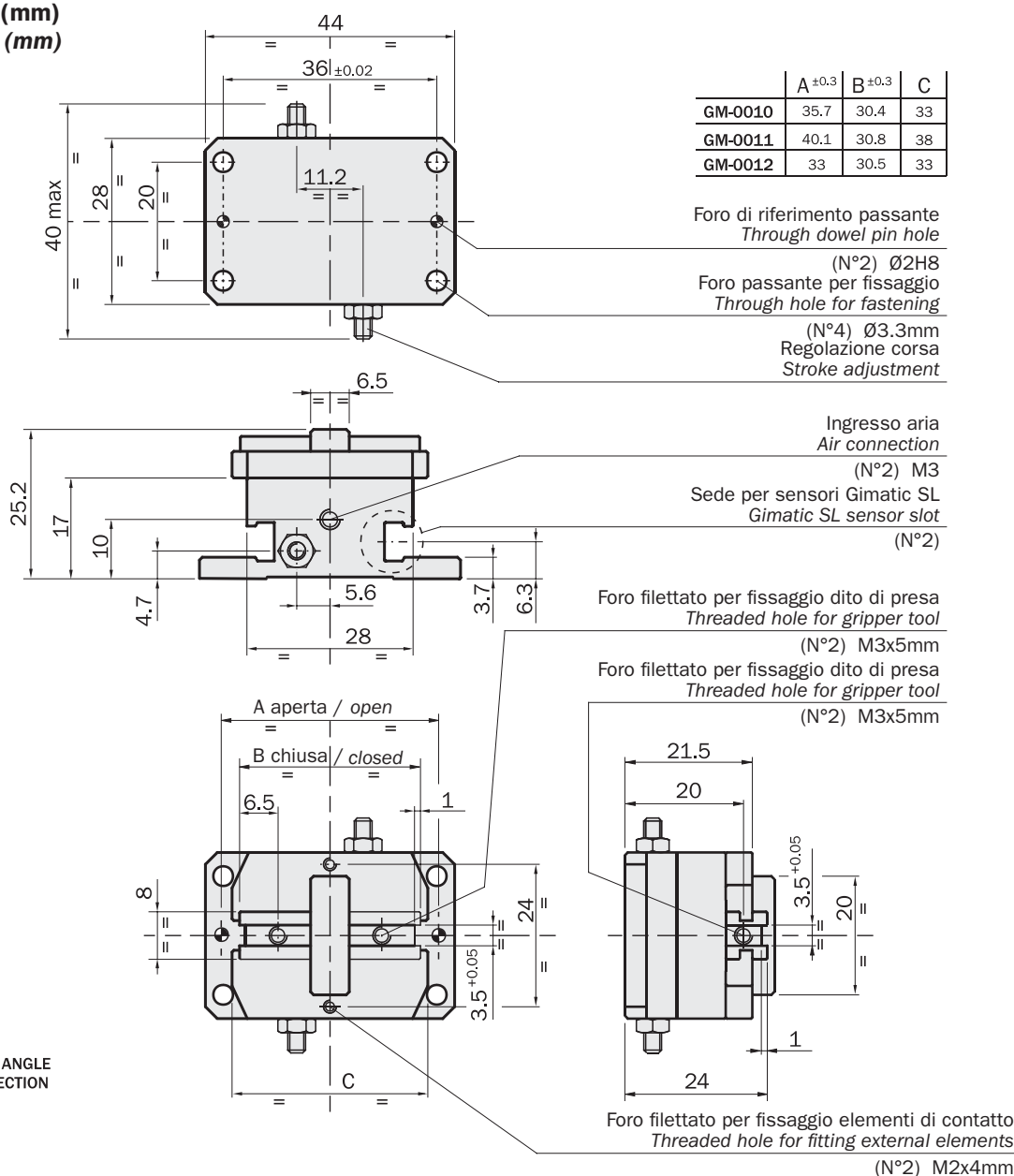
GM-0011



GM-0012

	GM-0010	GM-0011	GM-0012
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Pressure range	2÷8 bar		
Temperatura di esercizio Temperature range	5÷60 °C.		
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	35 N	18 N	70 N
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	70 N	36 N	140 N
Corsa totale (±0.3 mm) Total stroke	5.3 mm	9.3 mm	2.5 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz		
Consumo d'aria per ciclo Cycle air consumption	1.5 cm³		
Tempo di chiusura senza carico Closing time without load	0.03 s		
Ripetibilità Repetition accuracy	0.02 mm		
Peso Weight	70 g	75 g	70 g

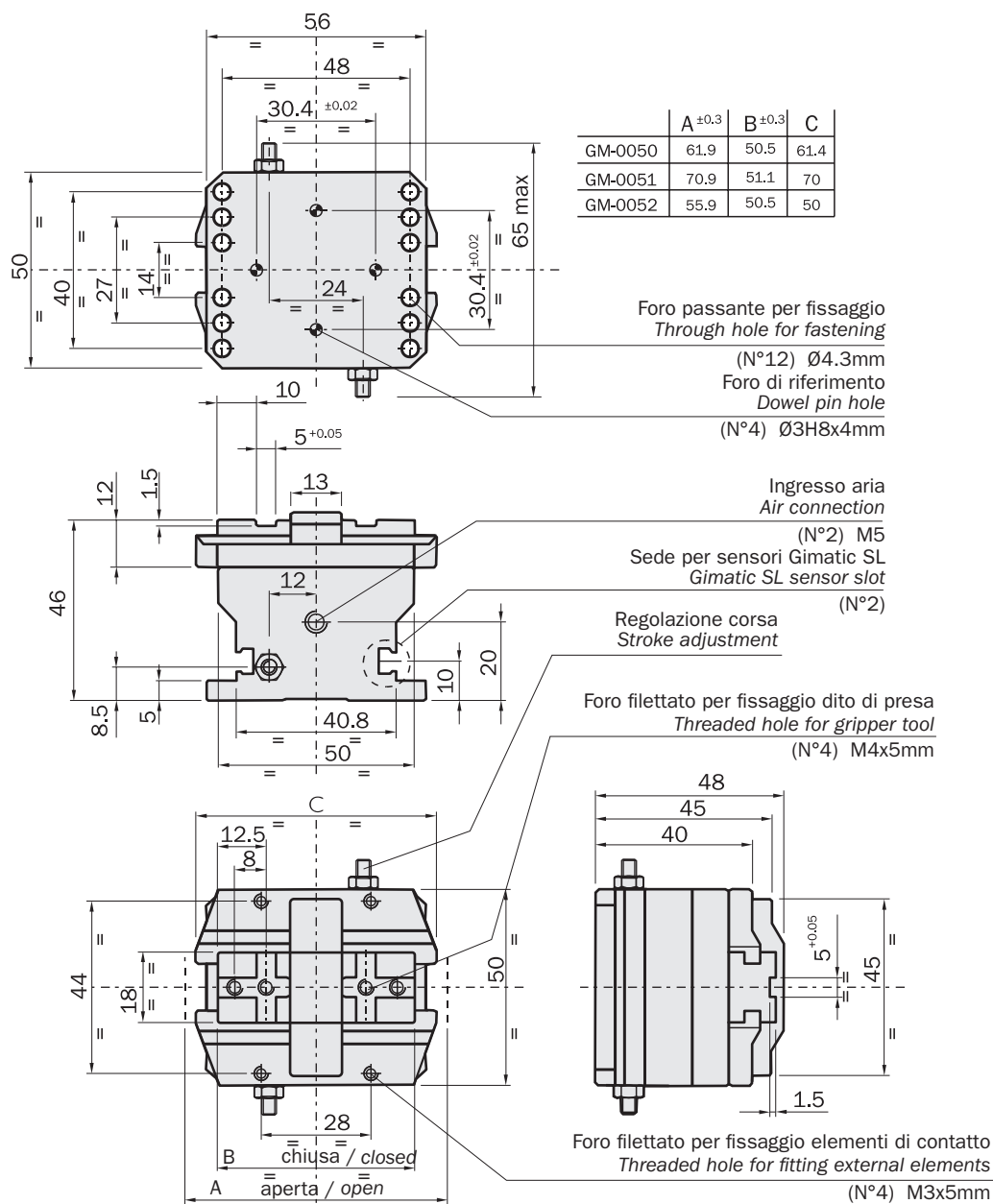
Dimensioni (mm) Dimensions (mm)



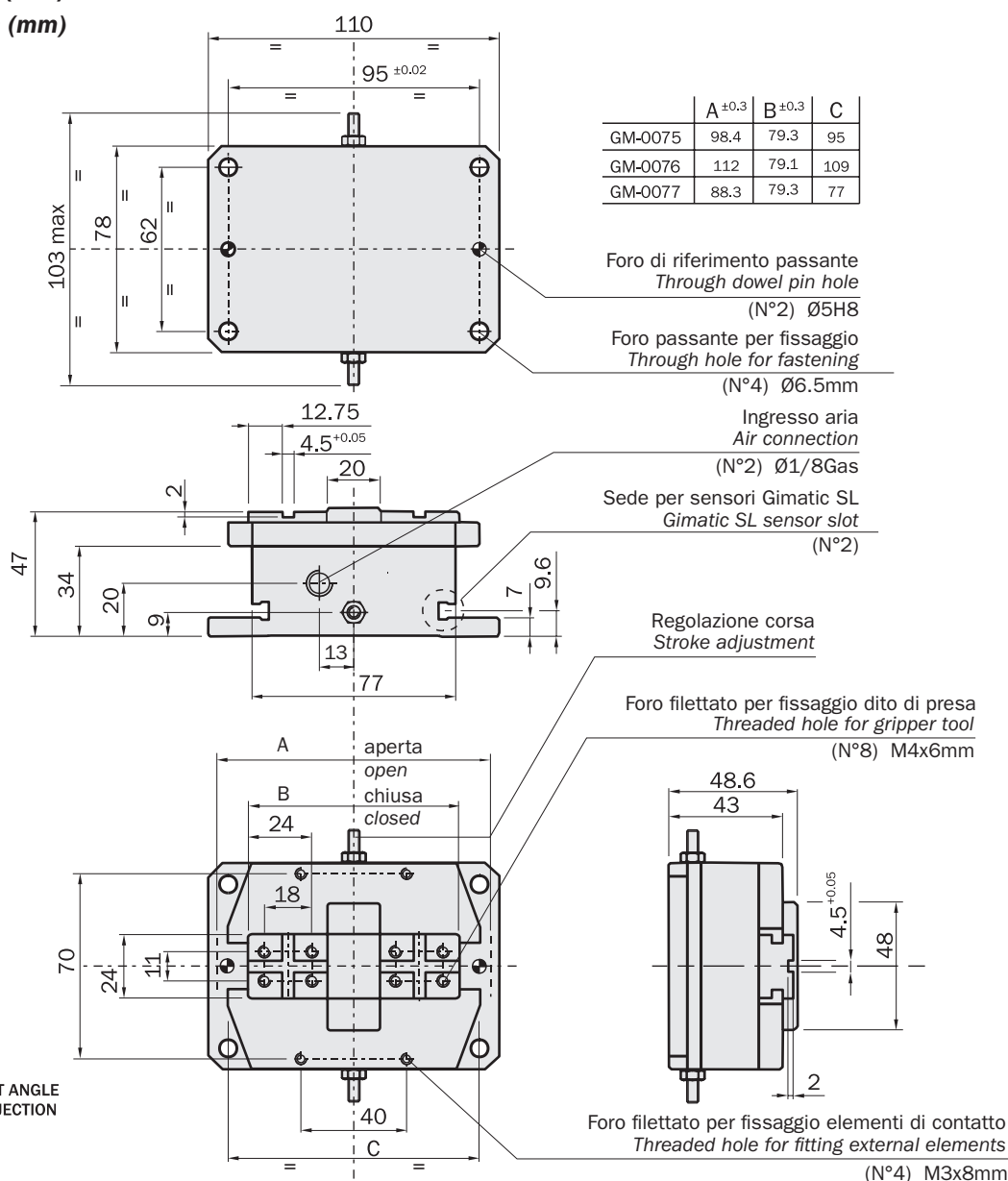
FIRST ANGLE
PROJECTION

	GM-0050	GM-0051	GM-0052
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Pressure range	2÷8 bar		
Temperatura di esercizio Temperature range	5÷60 °C.		
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	160 N	90 N	300 N
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	320 N	180 N	600 N
Corsa totale (±0.3 mm) Total stroke	11.4 mm	19.8 mm	5.4 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz		
Consumo d'aria per ciclo Cycle air consumption	12 cm³		
Tempo di chiusura senza carico Closing time without load	0.09 s		
Ripetibilità Repetition accuracy	0.02 mm		
Peso Weight	370 g	380 g	350 g

Dimensioni (mm) Dimensions (mm)



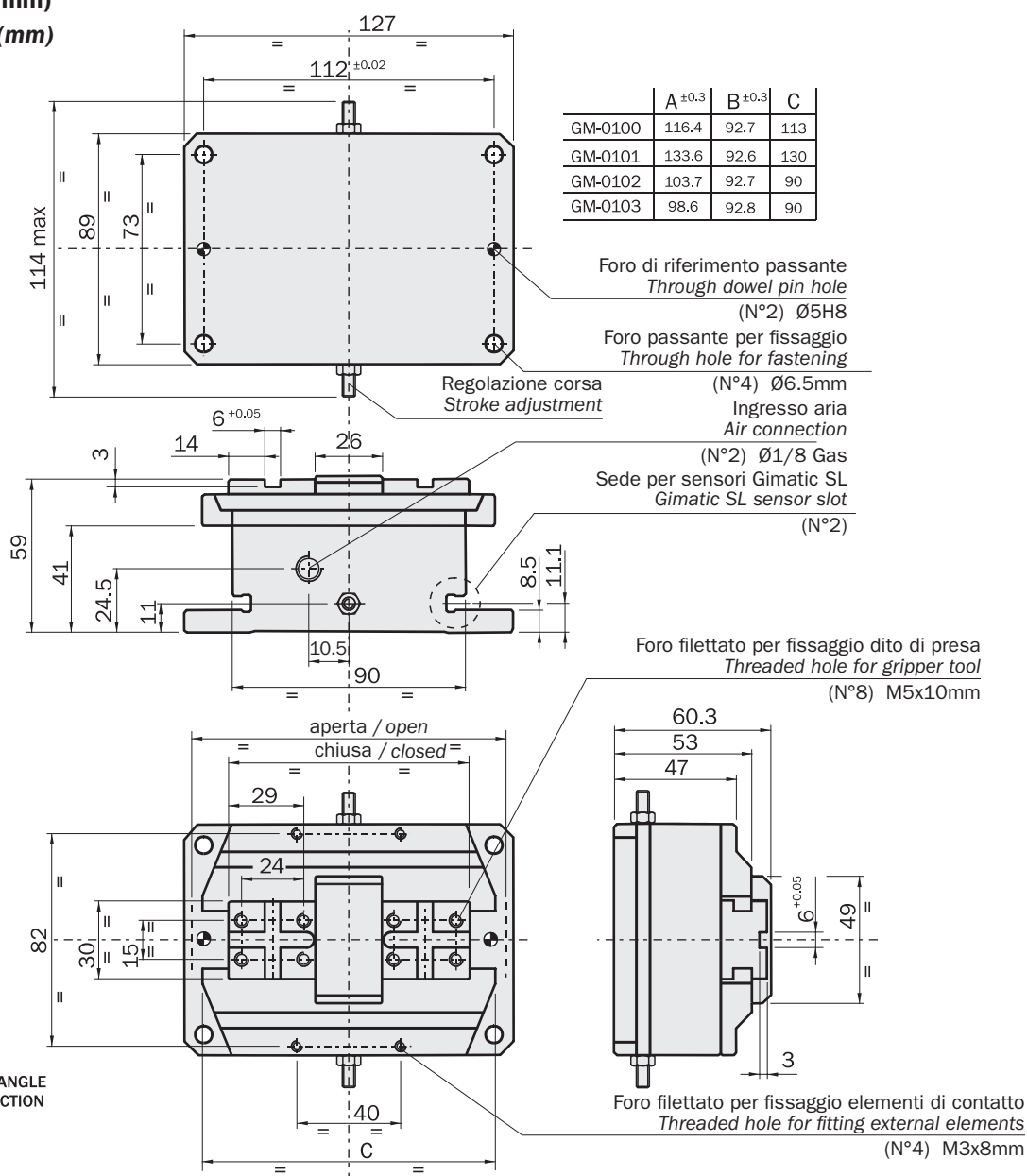
	GM-0075	GM-0076	GM-0077
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Pressure range	2÷8 bar		
Temperatura di esercizio Temperature range	5÷60 °C.		
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	250 N	160 N	540 N
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	500 N	320 N	1080 N
Corsa totale (±0.3 mm) Total stroke	19.1 mm	32.9 mm	9 mm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz		
Consumo d'aria per ciclo Cycle air consumption	34 cm³		
Tempo di chiusura senza carico Closing time without load	0.14 s		
Ripetibilità Repetition accuracy	0.02 mm		
Peso Weight	1050 g	1100 g	1000 g

Dimensioni (mm)**Dimensions (mm)**

	GM-0100	GM-0101	GM-0102	GM-0103
Fluido <i>Medium</i>	Aria compressa a norma ISO 8573-1:2010 [7:4:4] <i>Compressed air in compliance with ISO 8573-1:2010 [7:4:4]</i>			
Pressione di esercizio <i>Pressure range</i>	2÷8 bar			
Temperatura di esercizio <i>Temperature range</i>	5÷60 °C.			
Forza di serraggio per griffa a 6 bar <i>Gripping force at 6 bar on each jaw</i>	450 N	210 N	770 N	1200 N
Forza di serraggio totale a 6 bar <i>Total gripping force at 6 bar</i>	900 N	420 N	1540 N	2400 N
Corsa totale (±0.3 mm) <i>Total stroke</i>	23.7 mm	41 mm	11 mm	5.8 mm
Frequenza max funzionamento continuativo <i>Maximum working frequency</i>	2 Hz			
Consumo d'aria per ciclo <i>Cycle air consumption</i>	61 cm ³			
Tempo di chiusura senza carico <i>Closing time without load</i>	0.14 s			
Ripetibilità <i>Repetition accuracy</i>	0.02 mm			
Peso <i>Weight</i>	1600 g	1700 g	1600 g	1580 g

Dimensioni (mm)

Dimensions (mm)



Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie SX)

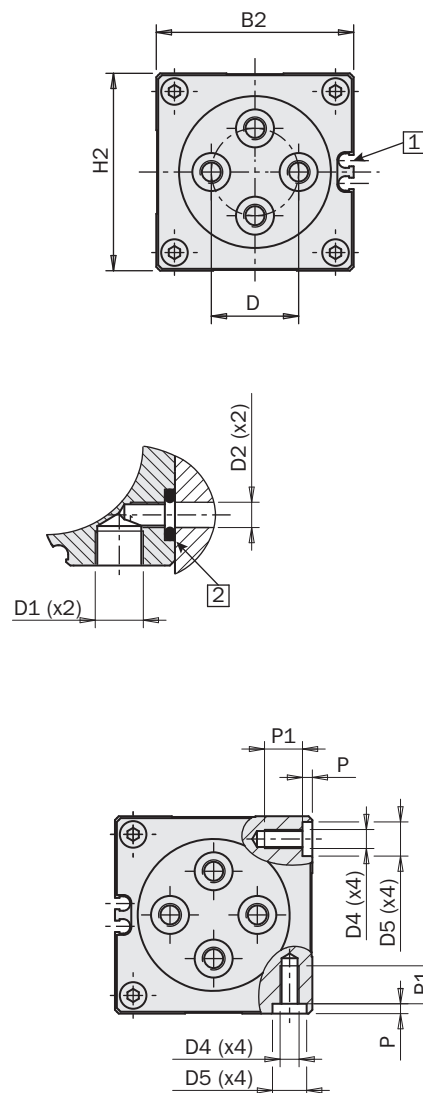
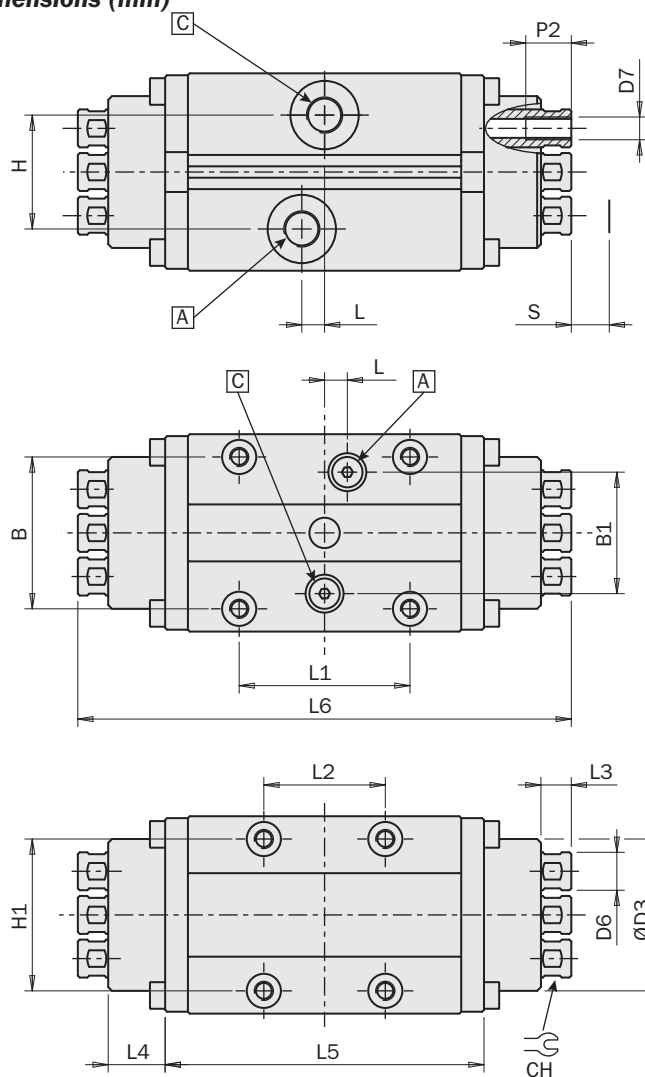
- Azionamento a doppio effetto (normale chiusa su richiesta).
- Forza di serraggio elevata.
- Grado di protezione IP67.
- Colonne sigillate con doppio O-Ring.
- Adatta per ambienti difficili.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

2-jaw self-centering pneumatic parallel gripper (series SX)

- Double acting (normally closed on request).
- High gripping force.
- Protection class: IP67.
- Double O-Ring sealing on the columns.
- Suitable for harsh environments.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.



	SX2510	SX2520	SX4020	SX4040	SX5030	SX5060	SX6340	SX6380
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]							
Pressione di esercizio Operating pressure range	2 ÷ 8 bar							
Temperatura di esercizio Operating temperature range	5 ÷ 100 °C							
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force on each jaw at 6 bar	250 N	250 N	650 N	650 N	1050 N	1050 N	1700 N	1700 N
Forza di serraggio totale in apertura a 6 bar Total opening gripping force at 6 bar	500 N	500 N	1300 N	1300 N	2100 N	2100 N	3400 N	3400 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force on each jaw at 6 bar	195 N	195 N	500 N	500 N	800 N	800 N	1250 N	1250 N
Forza di serraggio totale in chiusura a 6 bar Total closing gripping force at 6 bar	390 N	390 N	1000 N	1000 N	1600 N	1600 N	2500 N	2500 N
Corsa totale Total stroke (±0.5 mm)	10 mm	20 mm	20 mm	40 mm	30 mm	60 mm	40 mm	80 mm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz	2 Hz	2 Hz	2 Hz	2 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	11 cm³	20 cm³	50 cm³	95 cm³	115 cm³	220 cm³	230 cm³	450 cm³
Tempo di apertura / chiusura senza carico Opening / Closing time without load	0.03 s	0.05 s	0.03 s	0.08 s	0.06 s	0.10 s	0.20 s	0.30 s
Ripetibilità Repetition accuracy	0.05 mm							
Peso Weight	260 g	310 g	750 g	900 g	1300 g	1700 g	2800 g	3500 g

Dimensioni (mm)
Dimensions (mm)


		SX2510	SX2520	SX4020	SX4040	SX5030	SX5060	SX6340	SX6380
B	±0.02	23	23	40	40	50	50	60	60
B1		22.5	22.5	32	32	38	38	45	45
B2		38	38	52	52	64	64	79	79
D	±0.02	15	15	Ø23	Ø23	Ø33	Ø33	Ø38	Ø38
D1		M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8
D2		M5	M5	M5	M5	M5	M5	G1/8	G1/8
D3		27	27	Ø40	Ø40	Ø50	Ø50	Ø63	Ø63
D4		M4	M4	M5	M5	M6	M6	M8	M8
D5	H8	7	7	Ø9	Ø9	Ø9	Ø9	Ø12	Ø12
D6	f7	Ø6	Ø6	Ø10	Ø10	Ø12	Ø12	Ø16	Ø16
D7		M3	M3	M6	M6	M8	M8	M10	M10
H		22.5	22.5	30	30	40	40	45	45
H1	±0.02	23	23	40	40	50	50	60	60
H2		38	38	52	52	64	64	79	79
L		-	-	6	6	10	10	10	10
L1	±0.02	30	30	45	45	50	50	70	70
L2	±0.02	30	30	32	32	35	35	50	50
L3		7.5	7.5	8	8	8.5	8.5	9.5	9.5
L4		7.5	7.5	15	15	18	18	26	26
L5		59	73	84	110	106	146	133	185
L6		89	103	130	156	159	199	204	256
P		2.1	2.1	2.6	2.6	2.6	2.6	2.6	2.6
P1		6.5	6.5	10	10	10	10	15	15
P2		6	6	12	12	20	20	20	20
S (x2)		5	10	10	20	15	30	20	40
CH		5	5	9	9	11	11	14	14

FIRST ANGLE PROJECTION

1
Sede per sensori
Sensor seat

2
O-Ring (non fornito)
O-Ring (not supplied)

A
Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

C
Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie PE)

- Azionamento a doppio effetto (a semplice effetto su richiesta per PE-25... e PE-45...).
- Assenza di organi di trasmissione: elevato rendimento e affidabilità.
- Possibilità di scelta su un'ampia gamma di corse.
- Forza di serraggio costante su tutta la corsa in apertura ed in chiusura.
- Basso peso ottenuto con una costruzione interamente in lega leggera.
- Grasso alimentare FDA-H1.

2-jaw parallel self-centering pneumatic gripper (series PE)

- Double acting (single acting upon request for PE-25... and PE-45...).
- High efficiency and reliability due to the lack of driving parts.
- Wide choice of stroke length options.
- The gripping force is constant on both directions along total stroke.
- Light weight; due to its alloy construction.
- FDA-H1 food-grade grease.



PE-4580



PE-4560



PE-4540



PE-4520



PE-45200

PE-25100



PE-25200



PE-2560



PE-2540



PE-2520



PE-16200



PE-16150



PE-1680



PE-1640



PE-1625



PE-1610

	PE-1610	PE-1625	PE-1640	PE-1680	PE-16150	PE-16200
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Operating pressure range	2÷8 bar					
Temperatura di esercizio Operating temperature range	5÷60 °C.					
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	100 N					
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	200 N					
Corsa Stroke (±0.25 mm)	2x5 mm	2x12.5 mm	2x20 mm	2x40 mm	2x75 mm	2x100 mm
Frequenza max funzionamento Maximum working frequency	3 Hz	2 Hz	2 Hz	2 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	7 cm ³	14 cm ³	21 cm ³	39 cm ³	71 cm ³	97 cm ³
Tempo di chiusura senza carico Closing time without load	0.02 s	0.05 s	0.1 s	0.2 s	0.4 s	0.5 s
Ripetibilità Repetition accuracy	0.03 mm	0.03 mm	0.03 mm	0.03 mm	0.03 mm	0.03 mm
Peso Weight	200 g	250 g	350 g	500 g	900 g	1200 g

Forza di serraggio

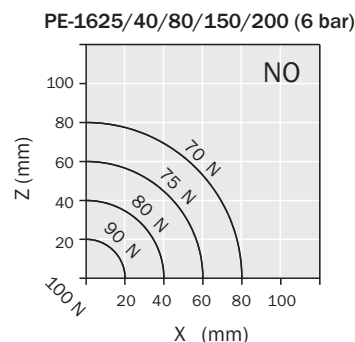
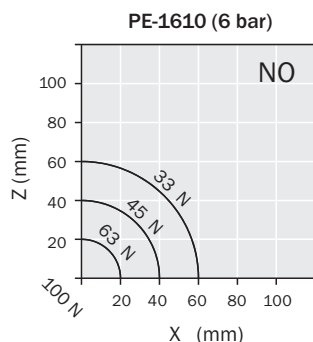
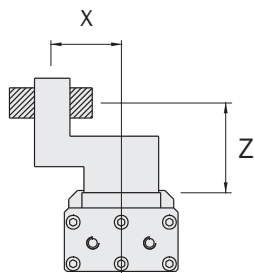
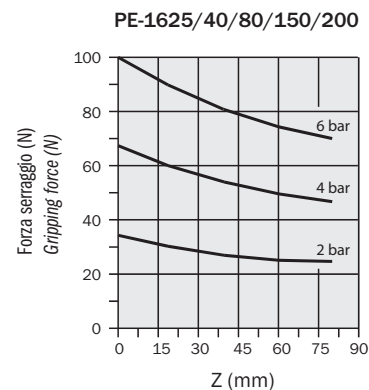
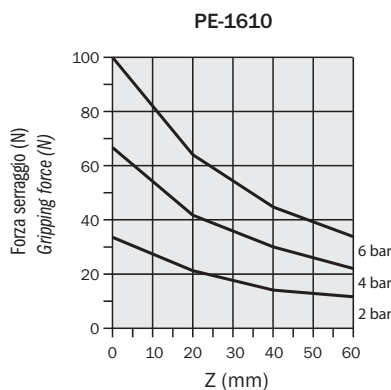
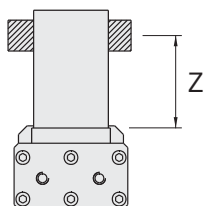
I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione, del braccio Z e del disassamento del punto di presa X.

Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure, the gripping tool length Z and the overhanging X.

La forza indicata in questi grafici è riferita alla singola griffa.
La forza totale è il doppio.

The force shown in these graphs refers to one jaw.
The total force is double.



	PE-2520	PE-2540	PE-2560	PE-25100	PE-25200
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]				
Pressione di esercizio Operating pressure range	2÷8 bar				
Temperatura di esercizio Operating temperature range	5÷60 °C.				
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	230 N				
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	460 N				
Corsa Stroke (±0.25 mm)	2x10 mm	2x20 mm	2x30 mm	2x50 mm	2x100 mm
Frequenza max funzionamento Maximum working frequency	3 Hz	2 Hz	2 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	44 cm ³	74 cm ³	102 cm ³	146 cm ³	263 cm ³
Tempo di chiusura senza carico Closing time without load	0.02 s	0.04 s	0.06 s	0.08 s	0.17 s
Ripetibilità Repetition accuracy	0.04 mm	0.04 mm	0.04 mm	0.04 mm	0.04 mm
Peso Weight	700 g	980 g	1285 g	1235 g	2080 g

Forza di serraggio

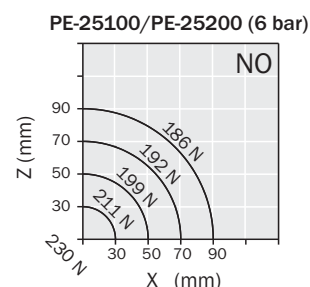
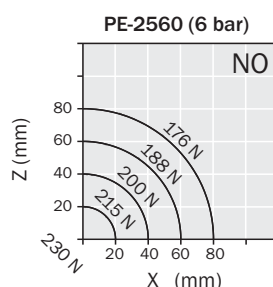
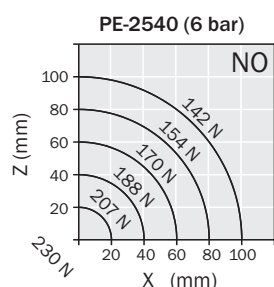
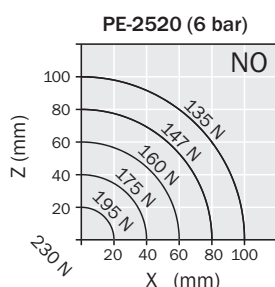
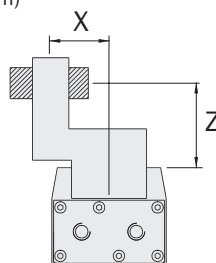
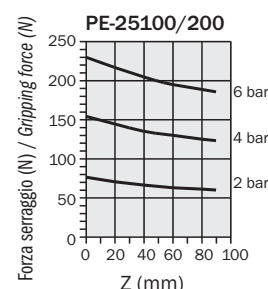
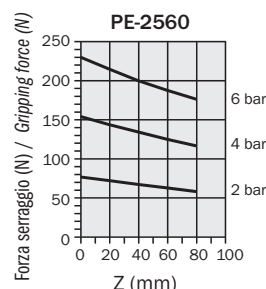
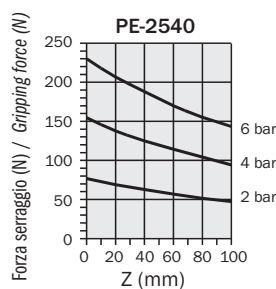
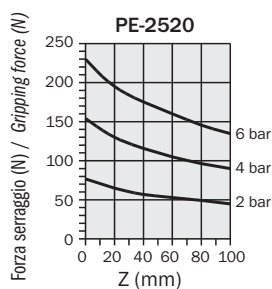
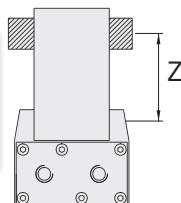
I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione, del braccio Z e del disassamento del punto di presa X.

Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure, the gripping tool length Z and the overhanging X.

La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il doppio.

The force shown in these graphs refers to one jaw. The total force is double.



	PE-4520	PE-4540	PE-4560	PE-4580	PE-45200
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]				
Pressione di esercizio Operating pressure range	2÷8 bar				
Temperatura di esercizio Operating temperature range	5÷60 °C.				
Forza di serraggio per griffa a 6 bar Gripping force at 6 bar on each jaw	700 N	700 N	700 N	700 N	900 N
Forza di serraggio totale a 6 bar Total gripping force at 6 bar	1400 N	1400 N	1400 N	1400 N	1800 N
Corsa Stroke (±0.25 mm)	2x10 mm	2x20 mm	2x30 mm	2x40 mm	2x100 mm
Frequenza max funzionamento Maximum working frequency	3 Hz	2 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	132 cm ³	208 cm ³	257 cm ³	371 cm ³	940 cm ³
Tempo di chiusura senza carico Closing time without load	0.05 s	0.1 s	0.15 s	0.2 s	0.2 s
Ripetibilità Repetition accuracy	0.04 mm	0.04 mm	0.04 mm	0.04 mm	0.04 mm
Peso Weight	1840 g	2250 g	2715 g	3300 g	3800 g

Forza di serraggio

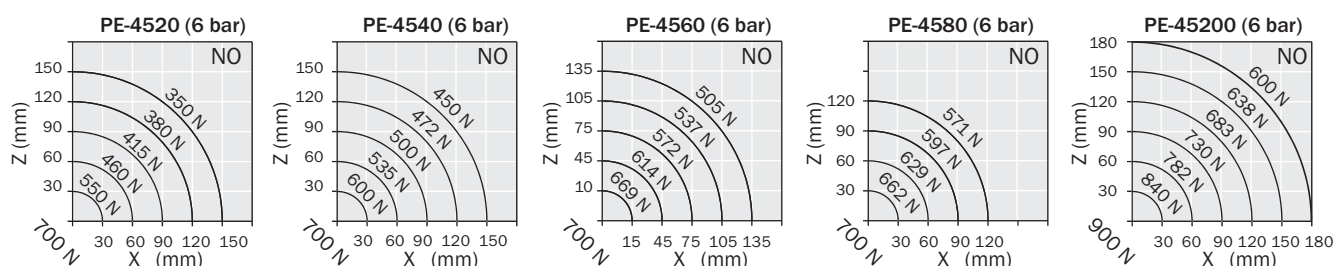
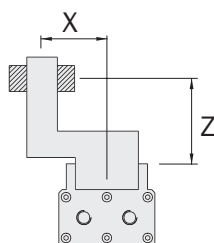
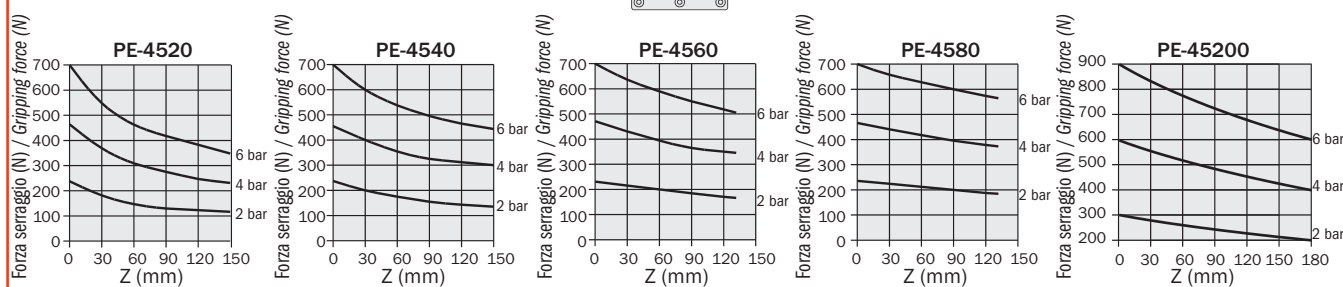
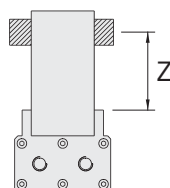
I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione, del braccio Z e del disassamento del punto di presa X.

Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure, the gripping tool length Z and the overhanging X.

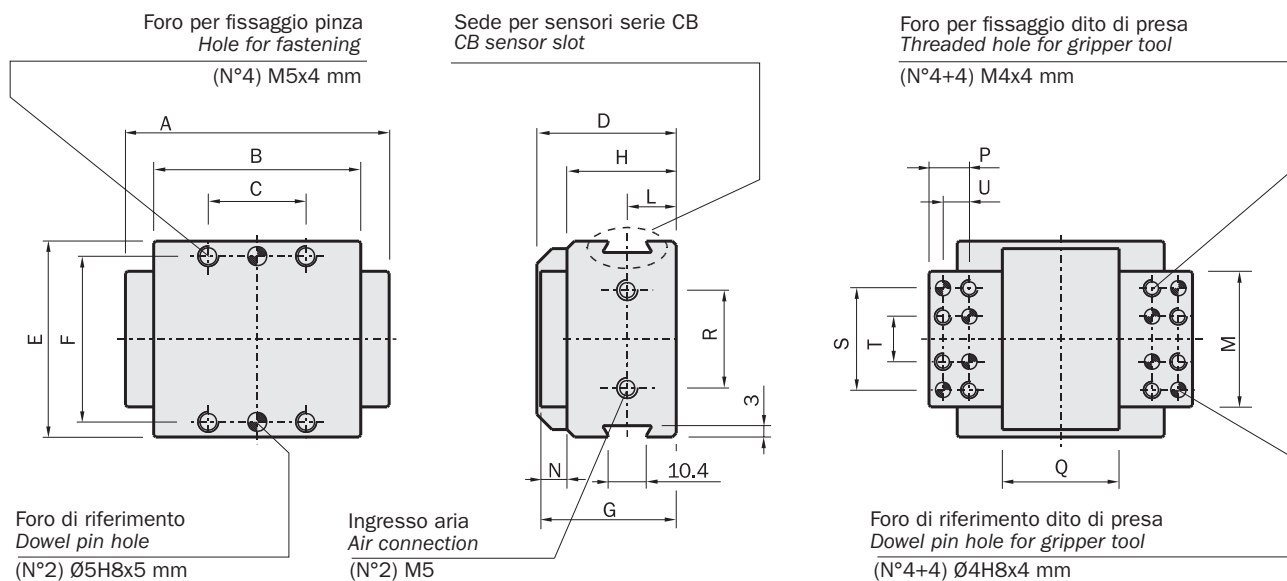
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il doppio.

The force shown in these graphs refers to one jaw. The total force is double.

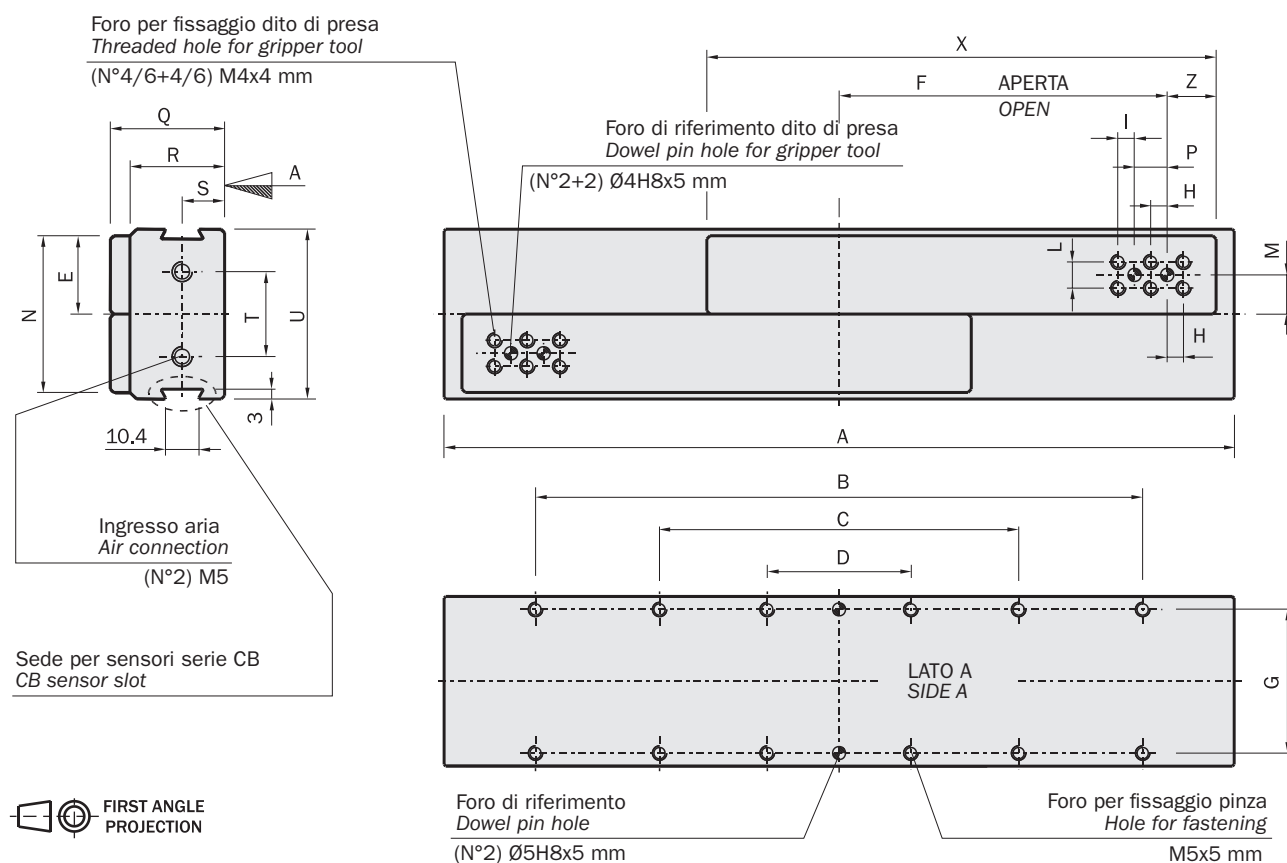


Dimensioni (mm) Dimensions (mm)

	A	B	C	D	E	F ±0.02	G	H	L	M	N	P	Q	R ±0.02	S ±0.02	T ±0.02	U ±0.02
PE-1610	62	60	26	37	52	44	36	29	13	36	7	11.75	31	26	27	12	7



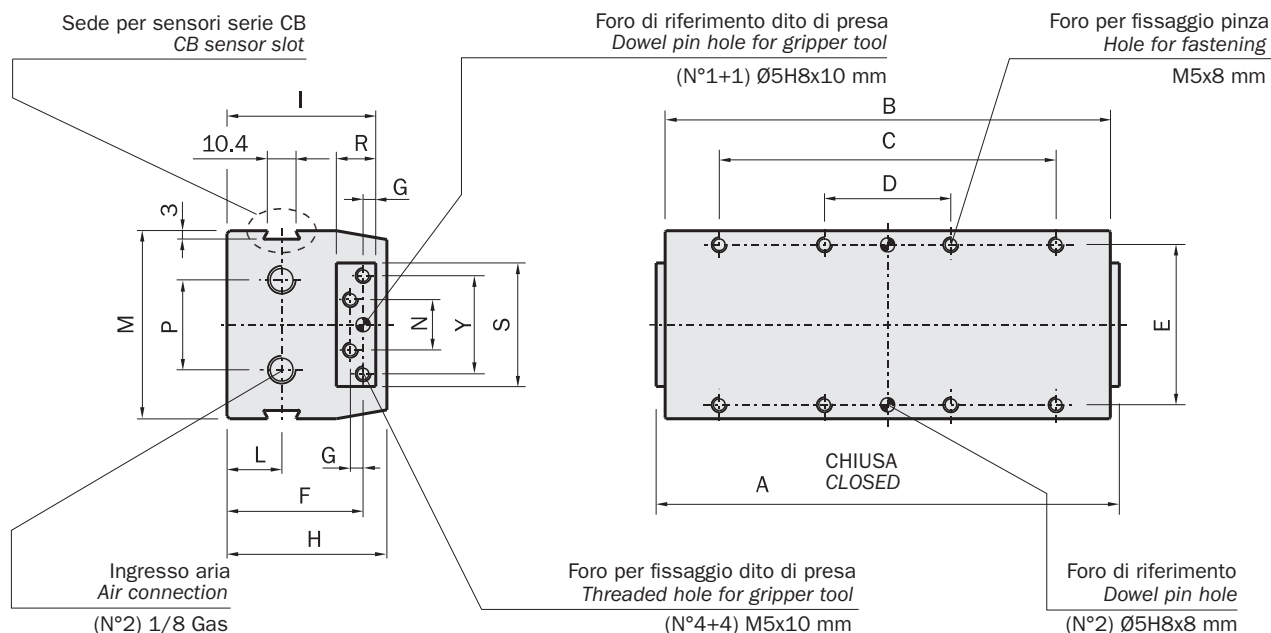
	A	B	C	D	E	F	G ±0.02	H	I	L	M	N	P ±0.02	Q	R	S	T	U	X	Z
PE-1625	70	-	-	26	24	12.5	44	5	-	12	12	48	12	37	29	13	26	52	41.5	14.5
PE-1640	99	-	-	60	24	26.5	44	5	-	8	12	48	10	37	29	13	26	52	63	15
PE-1680	155	-	-	60	24	54.5	44	5	5	8	12	48	10	37	29	13	26	52	99	15
PE-16150	263	-	200	60	24	108.5	44	5	5	8	12	48	10	37	29	13	26	52	172	15
PE-16200	337	280	200	60	24	145.5	44	5	5	8	12	48	10	37	29	13	26	52	221	15



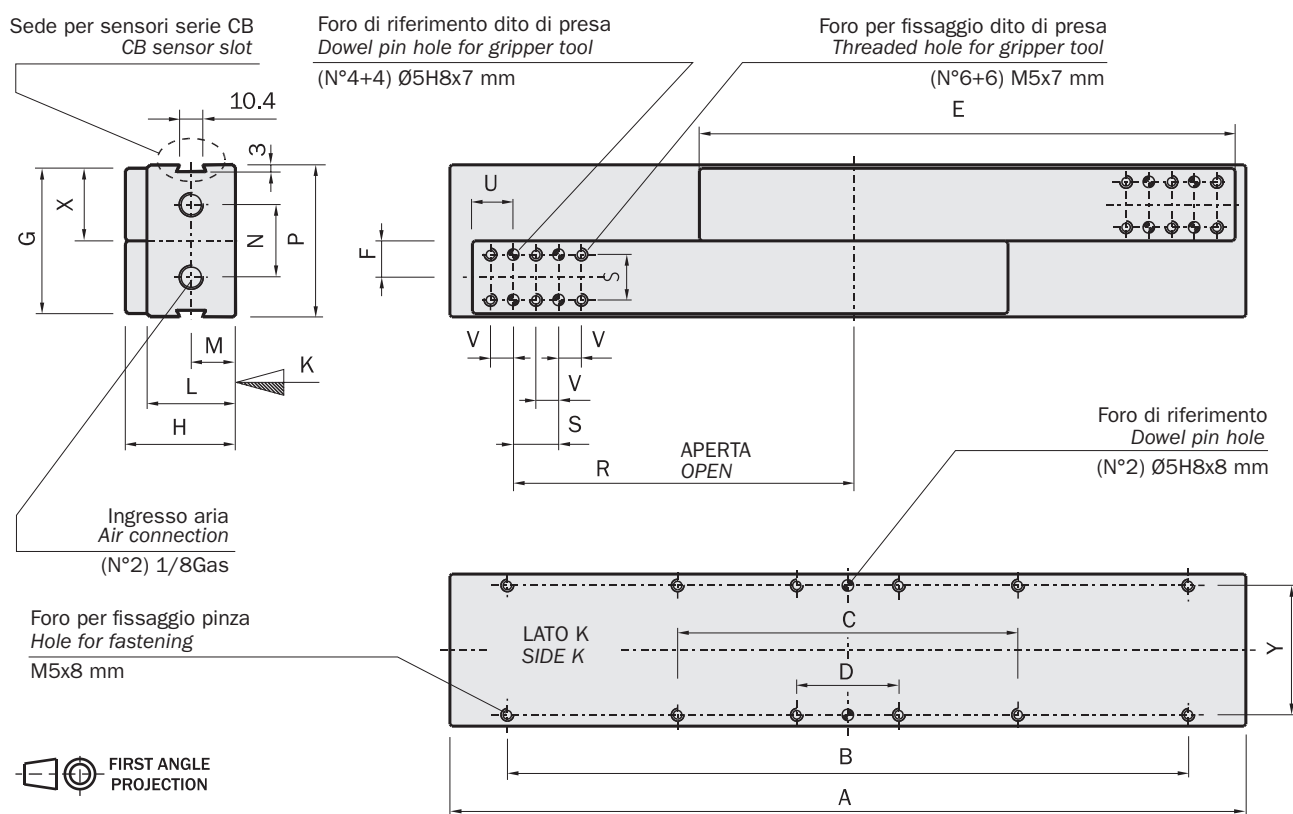
FIRST ANGLE
PROJECTION

Dimensioni (mm)
Dimensions (mm)

	A	B	C	D	E ±0.02	F	G ±0.02	H	I	L	M	N	P	Y	R -0.05	S -0.05
PE-2520	90	83.6	-	45	57	48.5	4.5	57	53	19.5	67	18	32	35	14	44
PE-2540	130	123.6	-	45	57	48.5	4.5	57	53	19.5	67	18	32	35	14	44
PE-2560	165	158.6	120	45	57	48.5	4.5	57	53	19.5	67	18	32	35	14	44

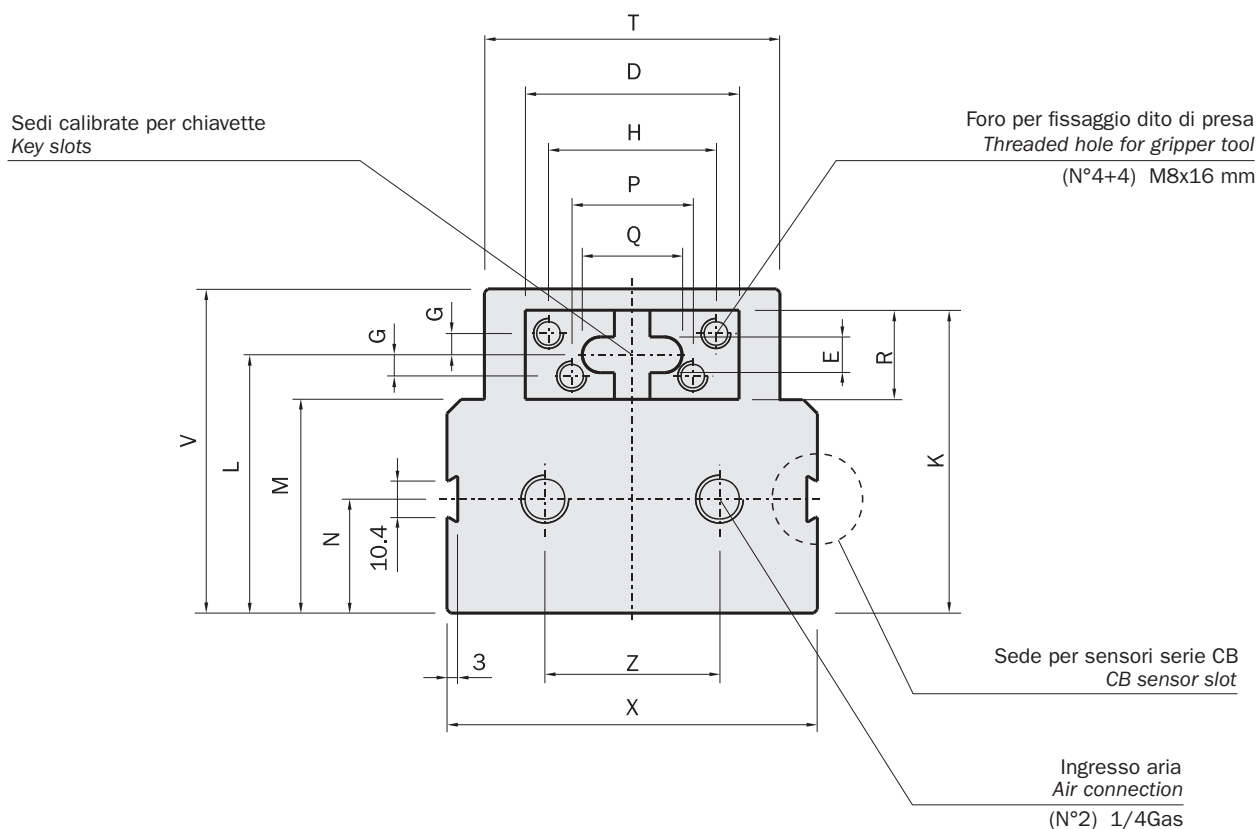
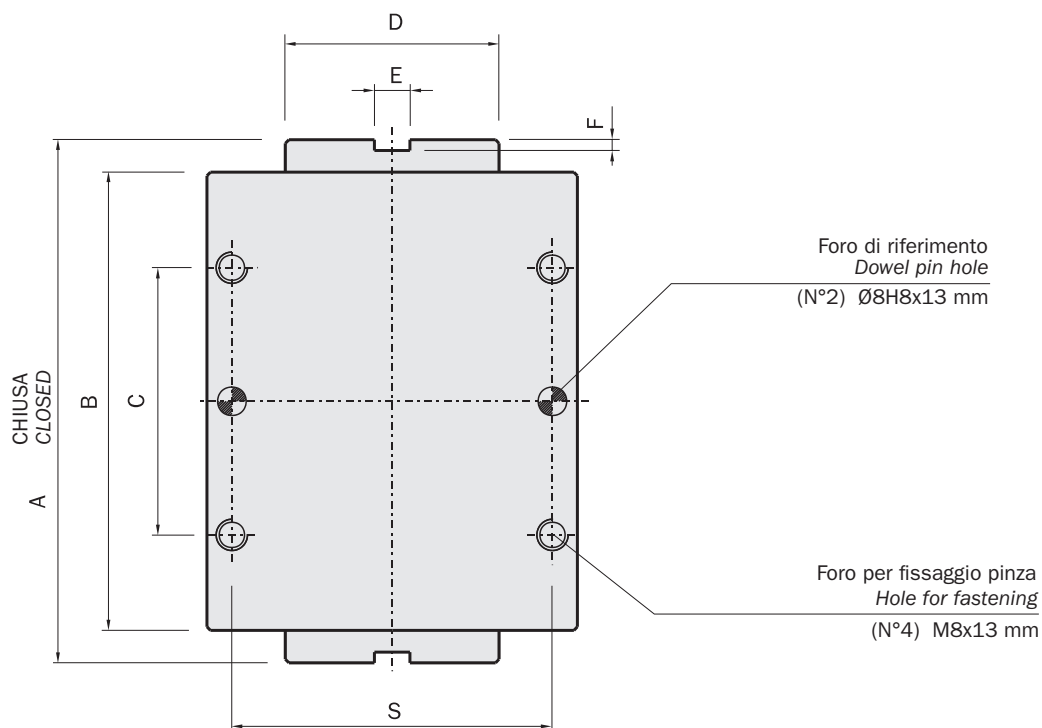


	A	B	C	D	E	F	G	H	L	M	N	P	Y ±0.02	R	S ±0.02	U	X	V
PE-25100	200.6	-	150	45	136	16	64	48.5	39	19.5	32	67	57	75	20	18	32	10
PE-25200	350.6	300	150	45	236	16	64	48.5	39	19.5	32	67	57	150	20	18	32	10



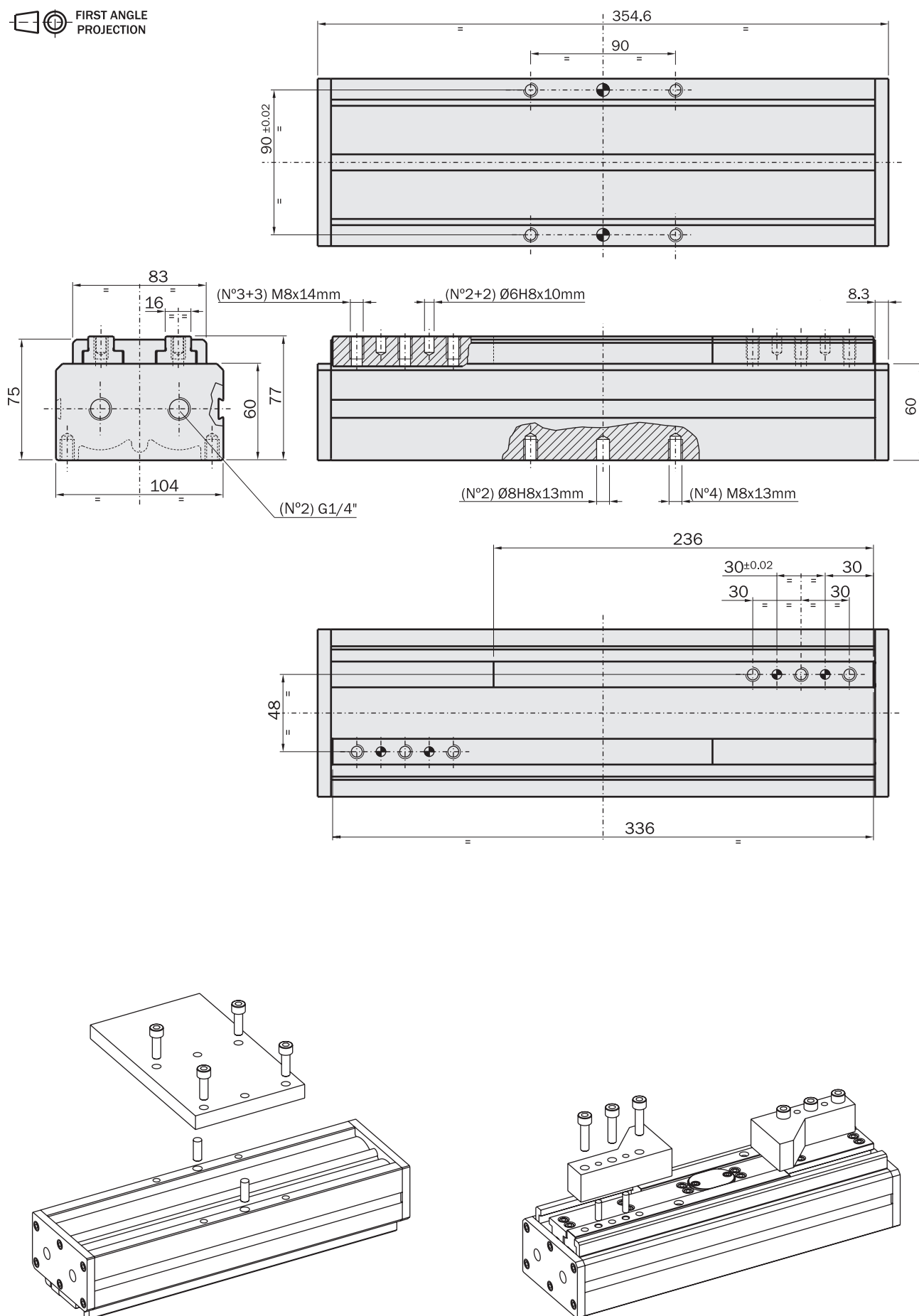
Dimensioni (mm)
Dimensions (mm)

	A	B	C	D -0.05	E +0.05	F	G	H	L	M	N	P	Q	R -0.05	S ±0.02	T	V	X	K	Z
PE-4520	110	100.6	50	60	10	3	6	47	72.5	60	32	34	28	25	90	83	91	104	85	49
PE-4540	140	128.6	75	60	10	3	6	47	72.5	60	32	34	28	25	90	83	91	104	85	49
PE-4560	170	160.6	90	60	10	3	6	47	72.5	60	32	34	28	25	90	83	91	104	85	49
PE-4580	210	200.6	90	60	10	3	6	47	72.5	60	32	34	28	25	90	83	91	104	85	49



Dimensioni (mm)
Dimensions (mm)

PE-45200

Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie DH)

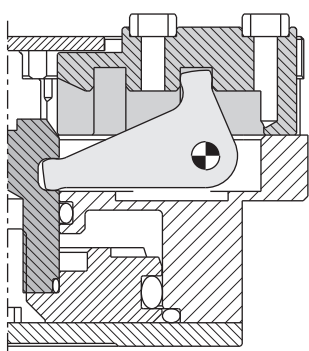
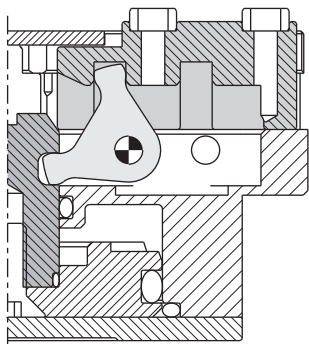
- Azionamento a doppio effetto, con molle opzionali (in chiusura o apertura).
- Corsa lunga o corsa corta (1).
- Possibilità di fissaggio frontale con viti passanti (2).
- Meccanismo di trasmissione ad alta efficienza (1).
- Sensori magnetici o induttivi opzionali (3).
- Grasso alimentare FDA-H1.

2-jaw self-centering pneumatic parallel gripper (series DH)

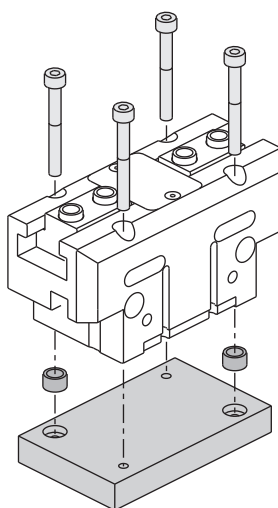
- Double acting with optional springs (normally closed or normally open).
- Long stroke or short stroke (1).
- Possibility of front fastening with through screws (2).
- High efficiency force transmission (1).
- Optional magnetic or inductive sensors (3).
- FDA-H1 food-grade grease.



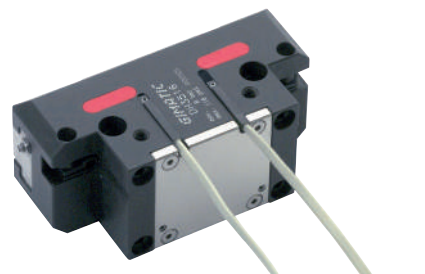
[1]



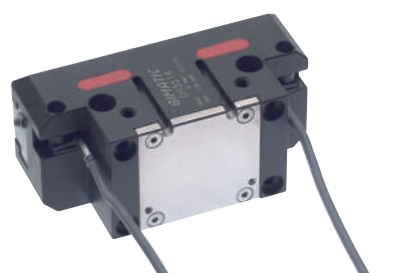
[2]



[3]



[3]



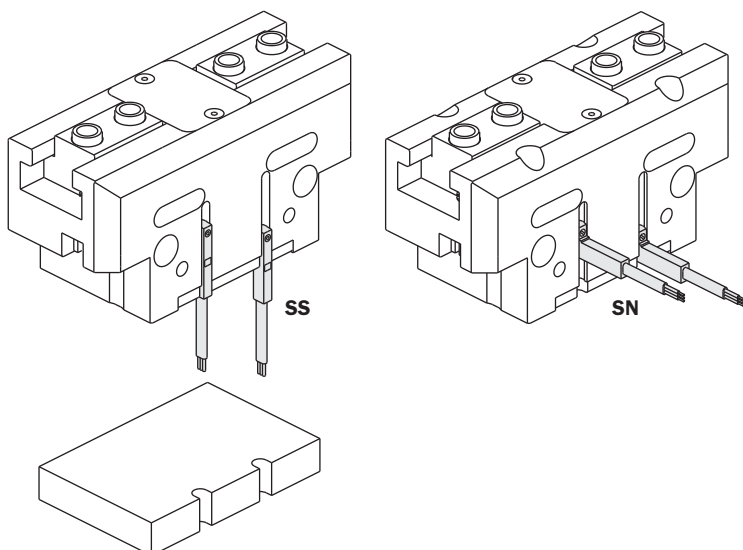
Sensori (opzionali)

Il rilevamento della posizione di lavoro può essere effettuato con sensori magnetici che rilevano il magnete sul pistone, oppure con sensori induttivi (diametro 4mm), che rilevano una parte metallica (M) la cui posizione nella griffa è regolabile.

I sensori magnetici utilizzabili sono i codici Gimatic:

SN4N225-G	PNP	Cavo 2.5m
SN4M225-G	NPN	2.5m cable
SN3N203-G	PNP	Connettore M8
SN3M203-G	NPN	M8 snap plug connector
SS4N225-G	PNP	Cavo 2.5m
SS4M225-G	NPN	2.5m cable
SS3N203-G	PNP	Connettore M8
SS3M203-G	NPN	M8 snap plug connector

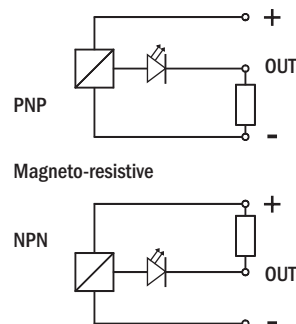
Sono tutti dotati di un cavo piatto a tre fili e di un led.



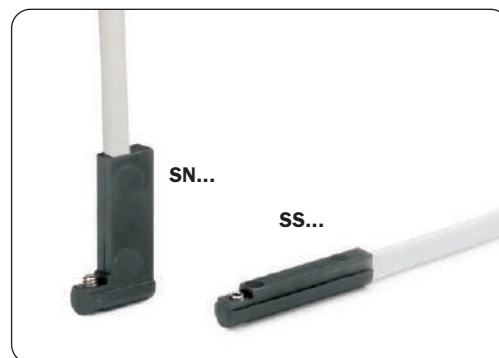
Sensors (optional)

The operating position can be checked by magnetic sensors which detect a magnet on the piston, or by inductive sensors (4mm diameter), which detect a metal part (M) in an adjustable position into the jaw.

The magnetic sensors from Gimatic are the codes:

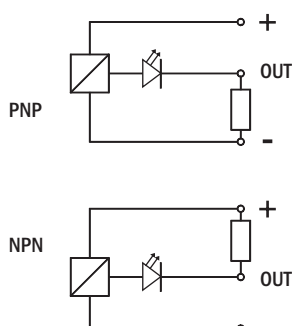


They are all provided with a 3-wire flat cable and a LED.

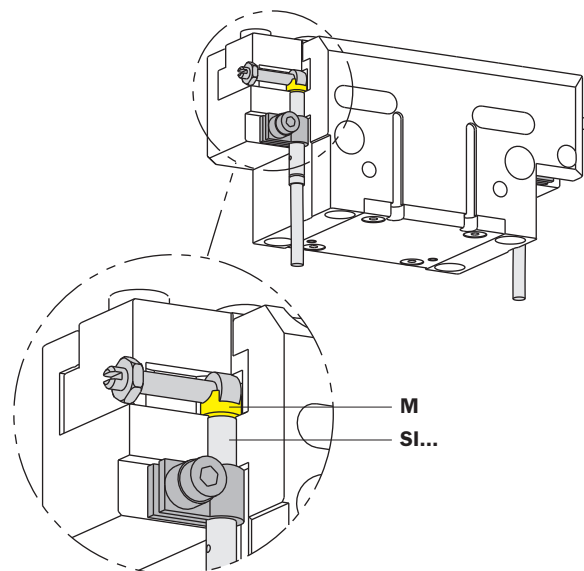


Sensori induttivi regolabili (non per DH19 e DH22):

			DH27 DH35 DH44 DH55 DH66 DH87
SI4M225-G	NPN	Cavo 2.5m	
SI4N225-G	PNP	2.5m cable	☒

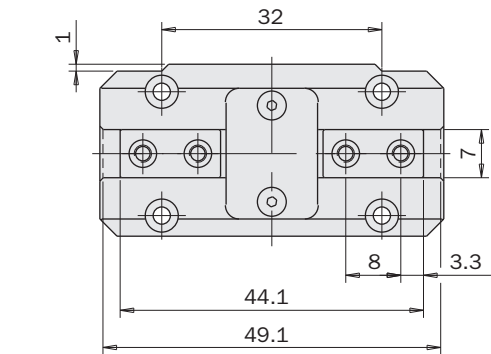
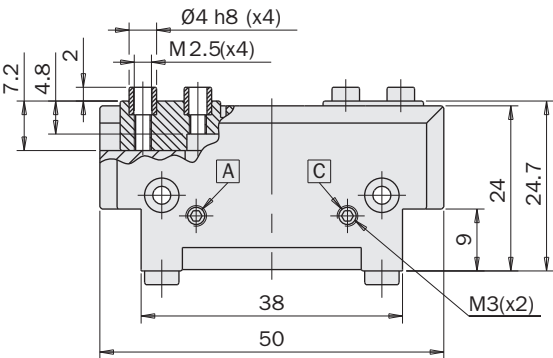
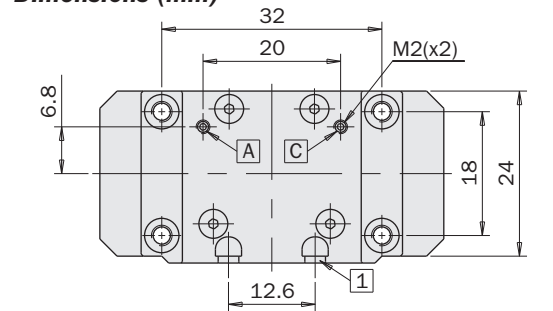


Adjustable inductive sensors (not for DH19 and DH22):

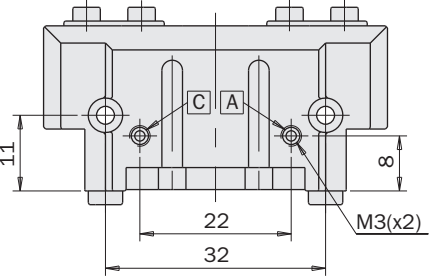
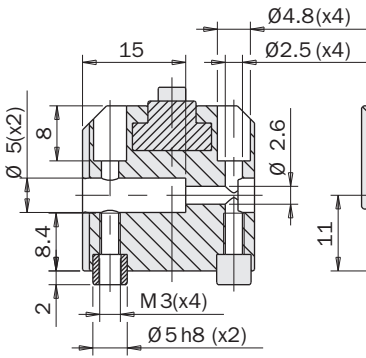
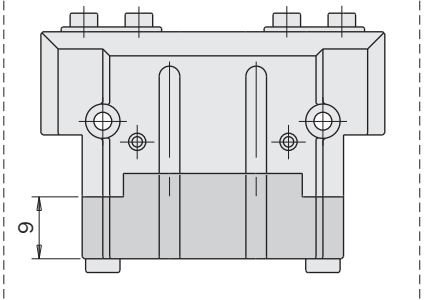


	DH1905	DH1905-NC	DH1905-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Pressure range	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio Temperature range	5 ÷ 100°C.		
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar each jaw	75N	43 ÷ 49N	101 ÷ 107N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	150N	86 ÷ 98N	202 ÷ 214N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar each jaw	68N	94 ÷ 100N	36 ÷ 42N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	136N	188 ÷ 200N	72 ÷ 84N
Corsa totale (±0.3mm) Total stroke	5mm		
Frequenza max funzionamento continuativo Maximum working frequency	3Hz		
Consumo d'aria per ciclo Cycle air consumption	2cm³	3cm³	3cm³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.01s / 0.01s	0.01s / 0.02s	0.02s / 0.01s
Ripetibilità Repetition accuracy	0.02mm		
Peso Weight	87g	100g	98g

Dimensioni (mm)
Dimensions (mm)



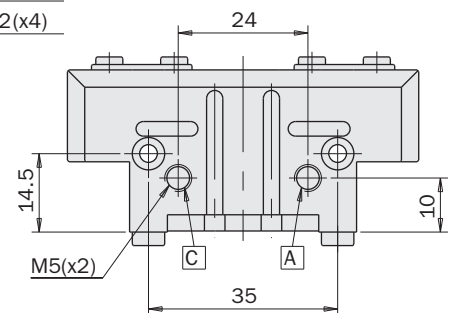
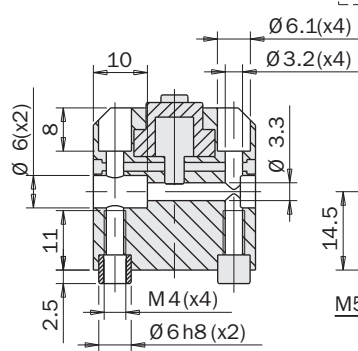
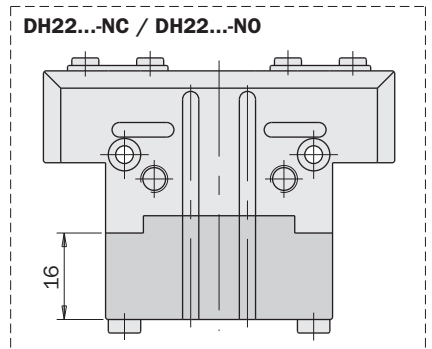
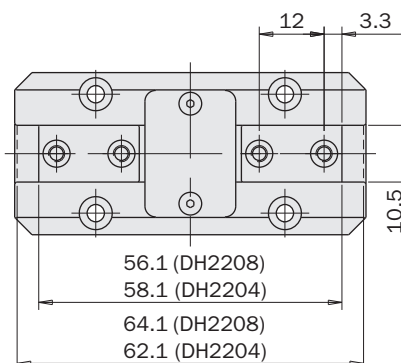
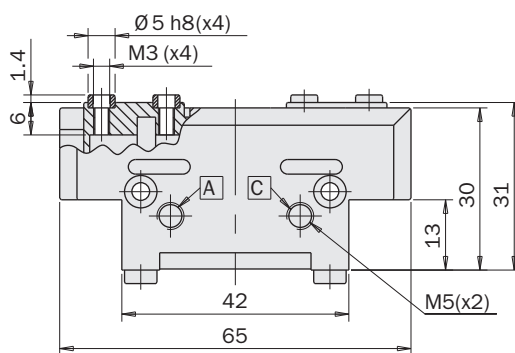
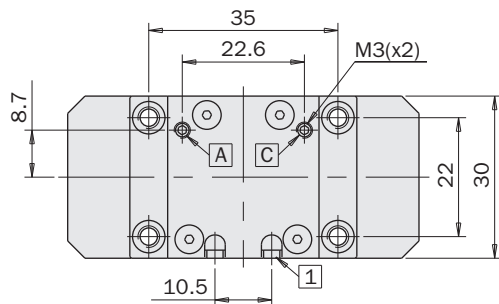
DH1905-NC / DH1905-NO



- 1 Sede per sensori
Sensor groove
- A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening
- C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

	DH2208	DH2208-NC	DH2208-NO	DH2204	DH2204-NC	DH2204-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Pressure range	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio Temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar each jaw	100N	58 ÷ 67N	134 ÷ 142N	200N	116 ÷ 133N	267 ÷ 284N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	200N	116 ÷ 134N	268 ÷ 284N	400N	232 ÷ 266N	534 ÷ 568N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar each jaw	90N	123 ÷ 132N	48 ÷ 56N	180N	247 ÷ 264N	96 ÷ 113N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	180N	246 ÷ 264N	96 ÷ 112N	360N	494 ÷ 528N	192 ÷ 226N
Corsa totale (±0.3mm) Total stroke	8mm			4mm		
Frequenza max funzionamento continuativo Maximum working frequency	3Hz					
Consumo d'aria per ciclo Cycle air consumption	4cm³	7cm³	7cm³	4cm³	7cm³	7cm³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.02s / 0.02s	0.02s / 0.03s	0.03s / 0.02s	0.02s / 0.02s	0.02s / 0.03s	0.03s / 0.02s
Ripetibilità Repetition accuracy	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso Weight	148g	188g	184g	150g	190g	186g

Dimensioni (mm) Dimensions (mm)



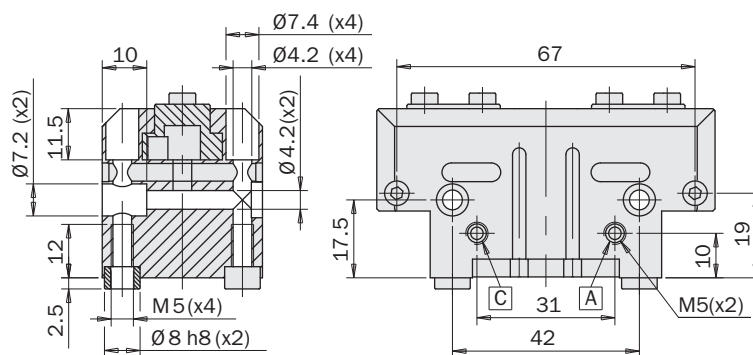
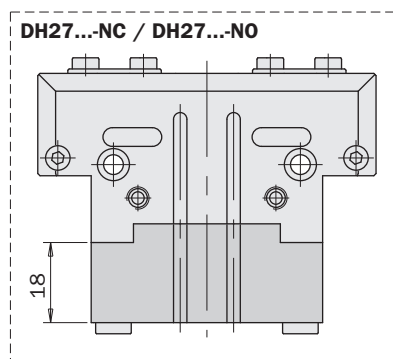
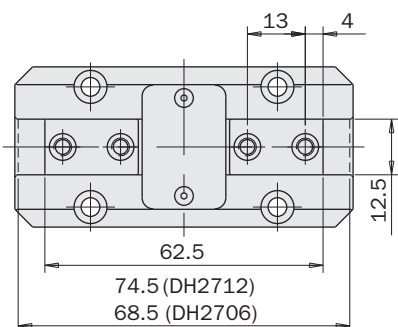
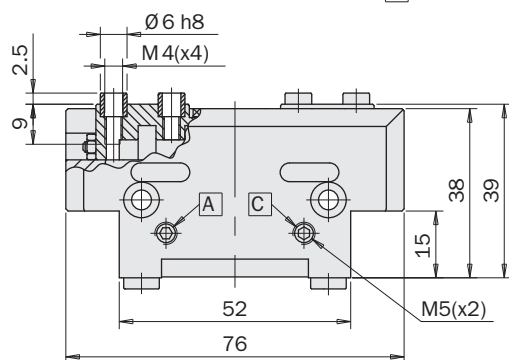
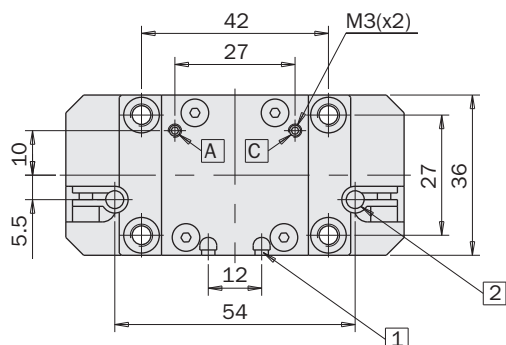
1 Sede per sensori
Sensor groove

A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

	DH2712	DH2712-NC	DH2712-NO	DH2706	DH2706-NC	DH2706-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Pressure range	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	2 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio Temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar each jaw	145N	85 ÷ 97N	194 ÷ 206N	290N	170 ÷ 194N	389 ÷ 413N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	290N	170 ÷ 194N	388 ÷ 412N	580N	340 ÷ 388N	778 ÷ 826N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar each jaw	130N	178 ÷ 190N	69 ÷ 81N	260N	356 ÷ 380N	138 ÷ 162N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	260N	356 ÷ 380N	138 ÷ 162N	520N	712 ÷ 760N	276 ÷ 324N
Corsa totale (±0.3mm) Total stroke	12mm			6mm		
Frequenza max funzionamento continuativo Maximum working frequency	3Hz					
Consumo d'aria per ciclo Cycle air consumption	9cm³	13cm³	13cm³	9cm³	13cm³	13cm³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.03s / 0.03s	0.03s / 0.04s	0.04s / 0.03s	0.03s / 0.03s	0.03s / 0.04s	0.04s / 0.03s
Ripetibilità Repetition accuracy	0.02mm					
Peso Weight	255g	325g	315g	260g	330g	320g

Dimensioni (mm) Dimensions (mm)



1 Sede per sensori
Sensor groove

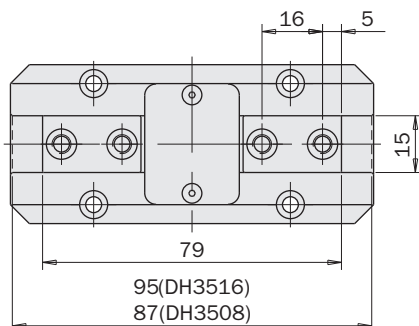
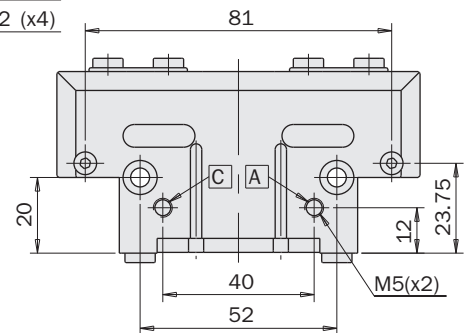
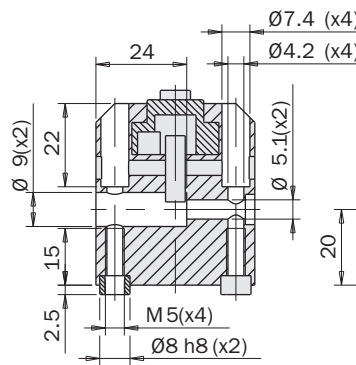
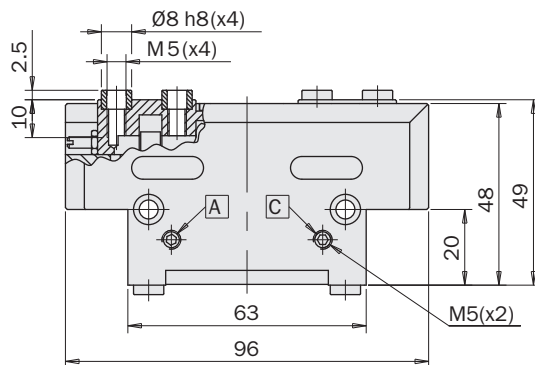
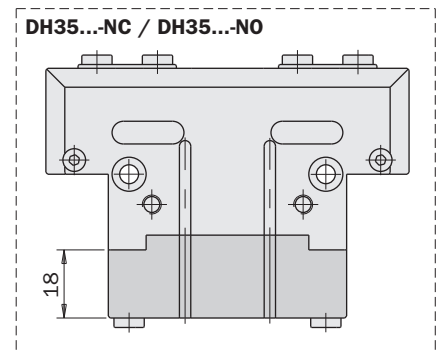
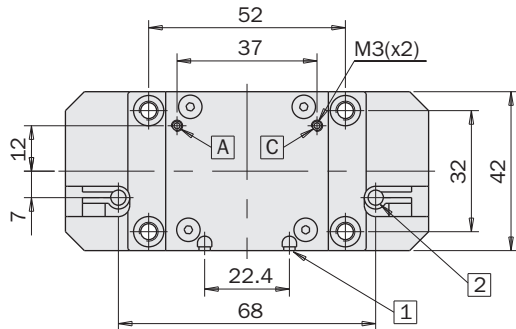
2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder

A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

	DH3516	DH3516-NC	DH3516-NO	DH3508	DH3508-NC	DH3508-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Pressure range	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio Temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar each jaw	250N	140 ÷ 177N	323 ÷ 360N	500N	280 ÷ 353N	647 ÷ 720N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	500N	280 ÷ 354N	646 ÷ 720N	1000N	560 ÷ 706N	1294 ÷ 1440N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar each jaw	220N	298 ÷ 319N	122 ÷ 143N	440N	595 ÷ 639N	244 ÷ 287N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	440N	596 ÷ 638N	244 ÷ 286N	880N	1190 ÷ 1278N	488 ÷ 574N
Corsa totale (±0.3mm) Total stroke	16mm			8mm		
Frequenza max funzionamento continuativo Maximum working frequency	3Hz					
Consumo d'aria per ciclo Cycle air consumption	18cm³	25cm³	25cm³	18cm³	25cm³	25cm³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.03s / 0.03s	0.03s / 0.04s	0.04s / 0.03s	0.03s / 0.03s	0.03s / 0.04s	0.04s / 0.03s
Ripetibilità Repetition accuracy	0.02mm					
Peso Weight	460g	550g	540g	470g	560g	550g

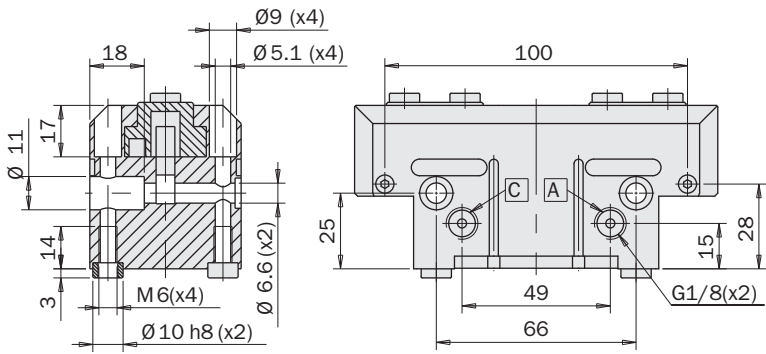
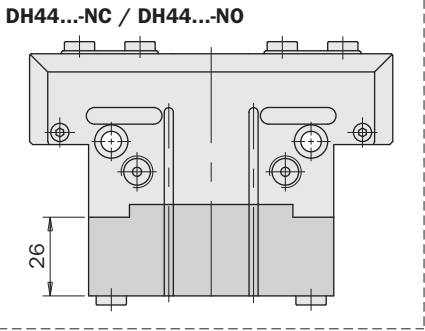
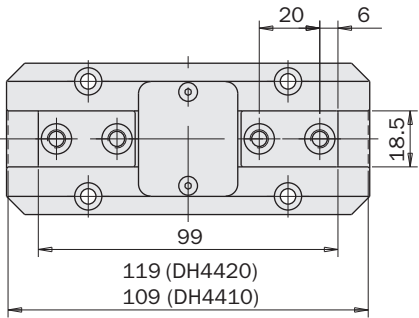
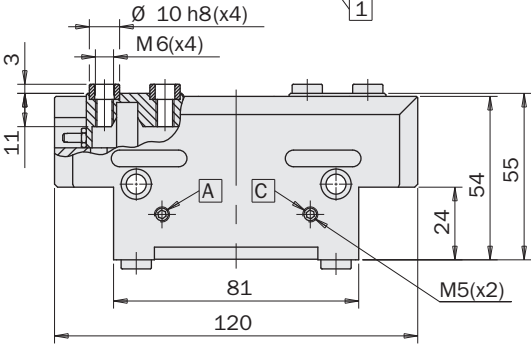
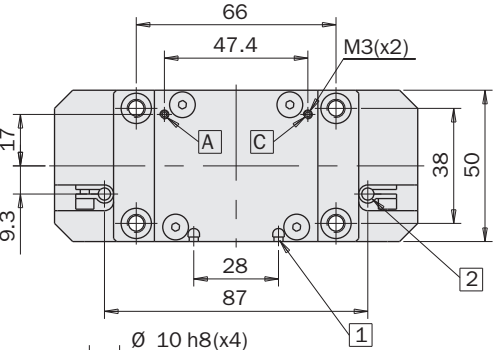
Dimensioni (mm) Dimensions (mm)



- 1 Sede per sensori
Sensor groove
- 2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder
- A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening
- C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

	DH4420	DH4420-NC	DH4420-NO	DH4410	DH4410-NC	DH4410-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Pressure range	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio Temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar each jaw	405N	236 ÷ 298N	513 ÷ 575N	810N	472 ÷ 595N	1027 ÷ 1150N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	810N	472 ÷ 596N	1026 ÷ 1150N	1620N	944 ÷ 1190N	2054 ÷ 2300N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar each jaw	365N	472 ÷ 534N	195 ÷ 257N	730N	945 ÷ 1068N	390 ÷ 513N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	730N	944 ÷ 1068N	390 ÷ 514N	1460N	1890 ÷ 2136N	780 ÷ 1026N
Corsa totale ±0.3mm Total stroke	20mm			10mm		
Frequenza max funzionamento continuativo Maximum working frequency	2Hz					
Consumo d'aria per ciclo Cycle air consumption	36cm³	52cm³	52cm³	36cm³	52cm³	52cm³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.08s / 0.08s	0.06s / 0.13s	0.13s / 0.06s	0.08s / 0.08s	0.06s / 0.13s	0.13s / 0.06s
Ripetibilità Repetition accuracy	0.02mm					
Peso Weight	780g	990g	960g	800g	1010g	980g

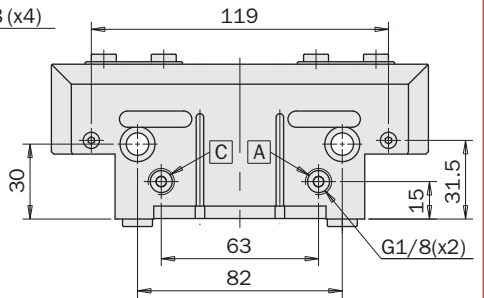
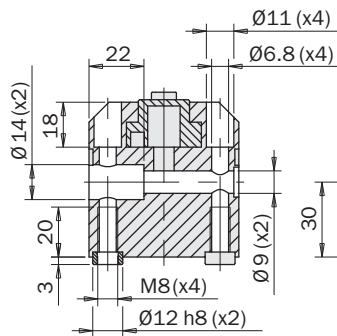
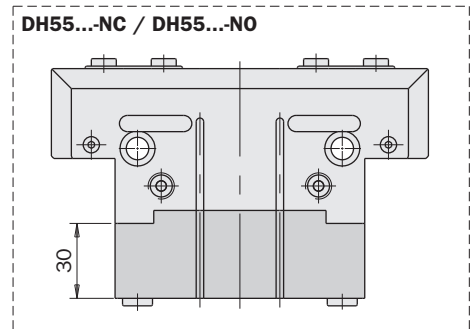
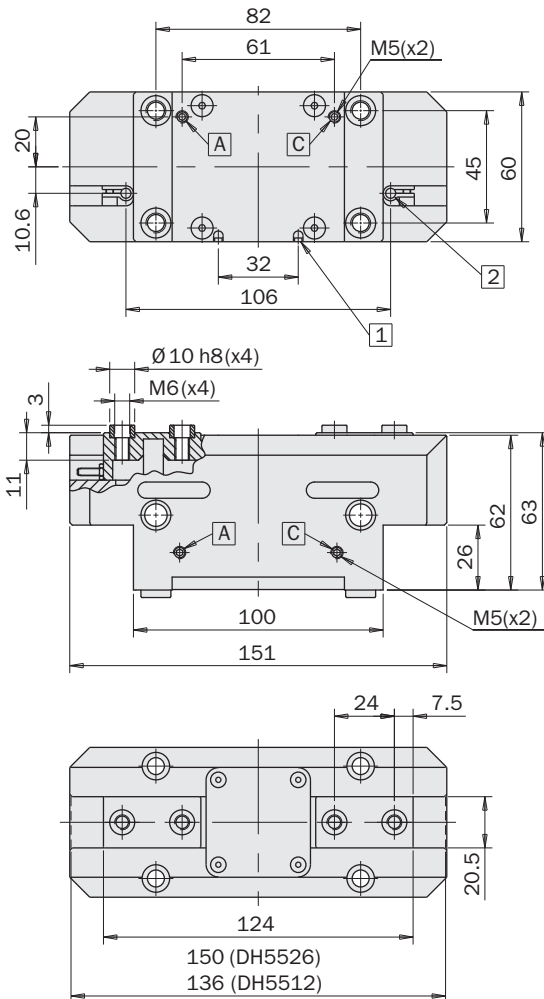
Dimensioni (mm)
Dimensions (mm)



- 1 Sede per sensori
Sensor groove
- 2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder
- A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening
- C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

	DH5526	DH5526-NC	DH5526-NO	DH5512	DH5512-NC	DH5512-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Pressure range	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio Temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar each jaw	625N	359 ÷ 443N	807 ÷ 891N	1350N	774 ÷ 957N	1742 ÷ 1924N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	1250N	718 ÷ 886N	1614 ÷ 1782N	2700N	1548 ÷ 1914N	3484 ÷ 3884N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar each jaw	555N	739 ÷ 823N	290 ÷ 375N	1200N	1595 ÷ 1777N	627 ÷ 809N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	1110N	1478 ÷ 1646N	580 ÷ 750N	2400N	3190 ÷ 3554N	1254 ÷ 1618N
Corsa totale (±0.3mm) Total stroke	26mm			12mm		
Frequenza max funzionamento continuativo Maximum working frequency	2Hz					
Consumo d'aria per ciclo Cycle air consumption	70cm³	97cm³	97cm³	70cm³	97cm³	97cm³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.11s / 0.11s	0.08s / 0.13s	0.13s / 0.08s	0.08s / 0.08s	0.06s / 0.13s	0.13s / 0.06s
Ripetibilità Repetition accuracy	0.02mm					
Peso Weight	1350g	1750g	1700g	1370g	1770g	1720g

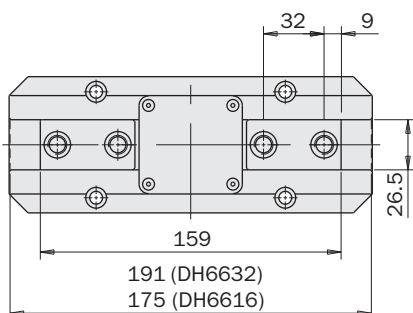
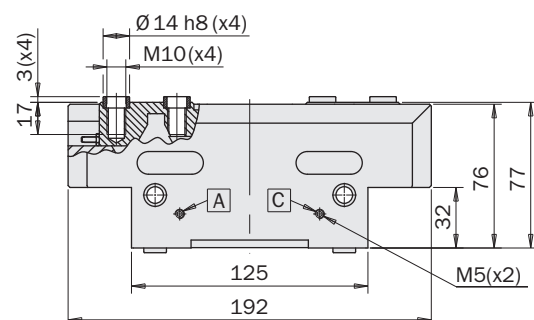
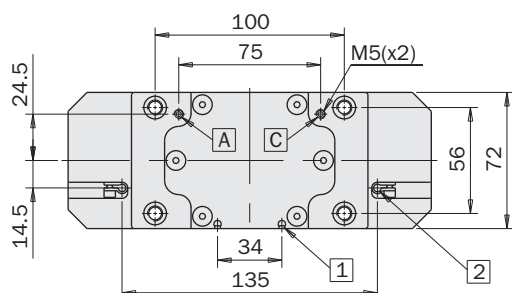
Dimensioni (mm)
Dimensions (mm)



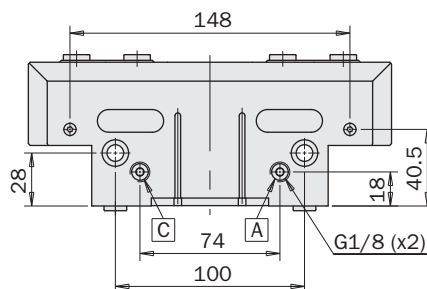
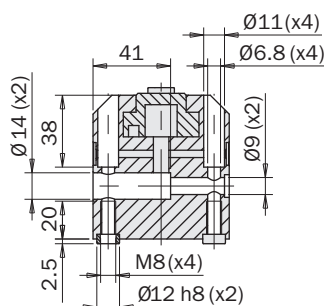
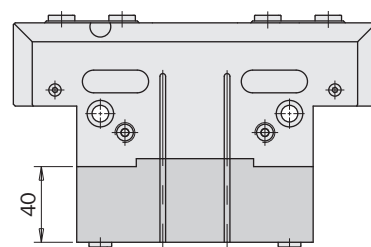
- 1 Sede per sensori
Sensor groove
- 2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder
- A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening
- C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

	DH6632	DH6632-NC	DH6632-NO	DH6616	DH6616-NC	DH6616-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Pressure range	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio Temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar each jaw	920N	559 ÷ 663N	1180 ÷ 1284N	1840N	1119 ÷ 1326N	2361 ÷ 2568N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	1840N	1118 ÷ 1326N	2360 ÷ 2568N	3680N	2238 ÷ 2652N	4722 ÷ 5136N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar each jaw	820N	1078 ÷ 1181N	457 ÷ 560N	1640N	2156 ÷ 2363N	914 ÷ 1121N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	1640N	2156 ÷ 2362N	914 ÷ 1120N	3280N	4312 ÷ 4726N	1828 ÷ 2242N
Corsa totale (±0.3mm) Total stroke	32mm			16mm		
Frequenza max funzionamento continuativo Maximum working frequency	2Hz					
Consumo d'aria per ciclo Cycle air consumption	127cm³	178cm³	178cm³	127cm³	178cm³	178cm³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.15s / 0.15s	0.12s / 0.18s	0.18s / 0.12s	0.15s / 0.15s	0.12s / 0.18s	0.18s / 0.12s
Ripetibilità Repetition accuracy	0.02mm					
Peso Weight	2630g	3430g	3300g	2670g	3470g	3340g

Dimensioni (mm) Dimensions (mm)



DH66...-NC / DH66...-NO



1 Sede per sensori
Sensor groove

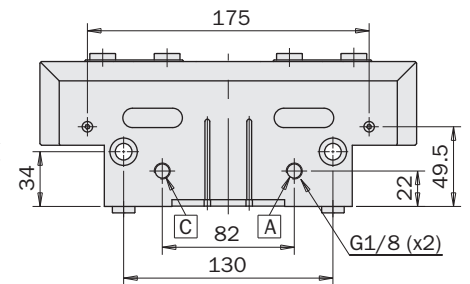
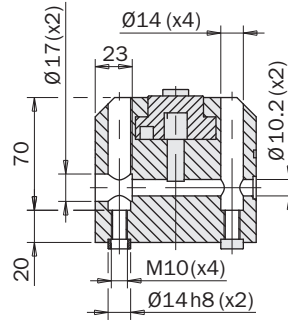
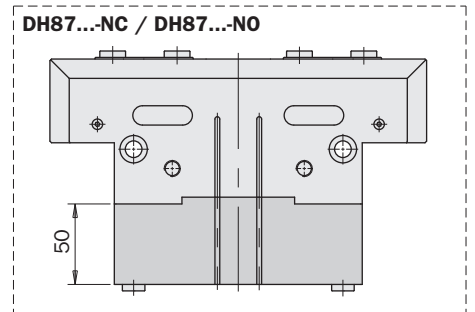
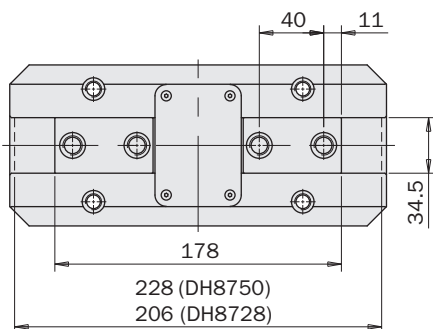
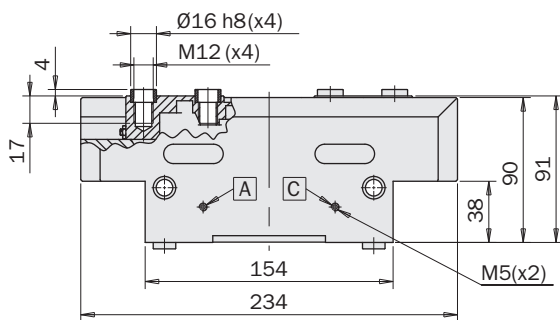
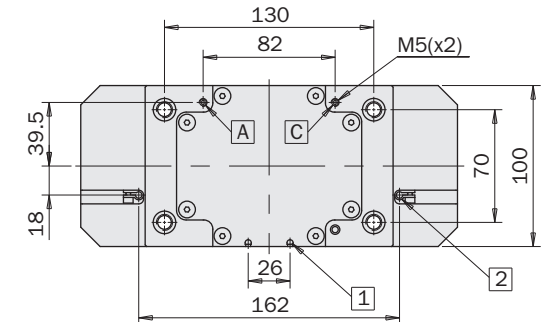
2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder

A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening

C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

	DH8750	DH8750-NC	DH8750-NO	DH8728	DH8728-NC	DH8728-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Pressure range	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar	1.5 ÷ 8bar	4 ÷ 8bar	4 ÷ 8bar
Temperatura di esercizio Temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar each jaw	1560N	977 ÷ 1129N	1992 ÷ 2144N	2750N	1720 ÷ 1988N	3509 ÷ 3776N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	3120N	1954 ÷ 2258N	3984 ÷ 4288N	5500N	3440 ÷ 3976N	7018 ÷ 7552N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar each jaw	1420N	1853 ÷ 2005N	837 ÷ 989N	2500N	3263 ÷ 3531N	1475 ÷ 1742N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	2840N	3706 ÷ 4010N	1674 +1978N	5000N	6526 ÷ 7026N	2950 ÷ 3484N
Corsa totale (±0.3mm) Total stroke	50mm			28mm		
Frequenza max funzionamento continuativo Maximum working frequency	1Hz					
Consumo d'aria per ciclo Cycle air consumption	347cm³	472cm³	472cm³	347cm³	472cm³	472cm³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.21s / 0.21s	0.19s / 0.31s	0.31s / 0.19s	0.21s / 0.21s	0.19s / 0.31s	0.31s / 0.19s
Ripetibilità Repetition accuracy	0.02mm					
Peso Weight	4990g	6920g	6750g	5050g	6980g	6810g

Dimensioni (mm)
Dimensions (mm)



- 1 Sede per sensori
Sensor groove
- 2 Porta sensori induttivi Ø4
Ø4 inductive sensor holder
- A Aria compressa in A: apertura della pinza
Compressed air in A: gripper opening
- C Aria compressa in C: chiusura della pinza
Compressed air in C: gripper closing

Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie SP)

- Azionamento a doppio effetto.
- Meccanismo di regolazione del gioco.
- Grande durata e affidabilità senza manutenzione.
- Diverse possibilità di fissaggio e alimentazione.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

2-jaw self-centering parallel pneumatic gripper (series SP)

- Double-acting drive.
- Backlash adjusting system.
- Maintenance-free long life and reliability.
- Various mounting and feeding options.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.

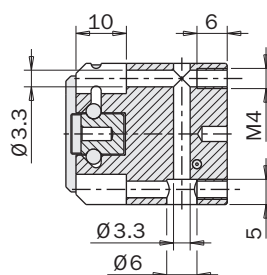
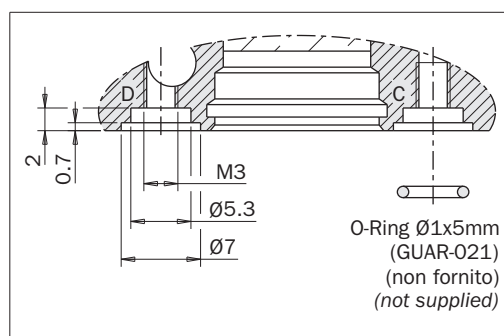
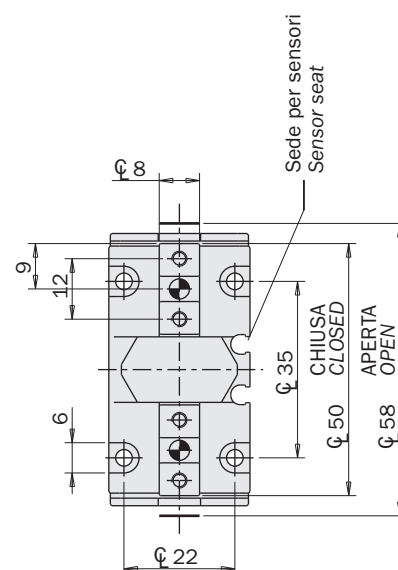
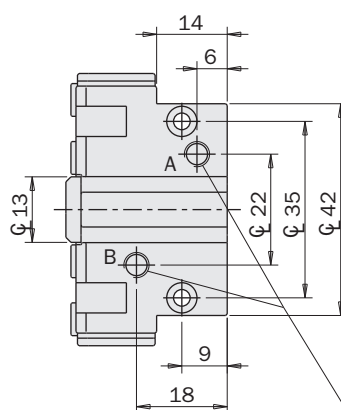
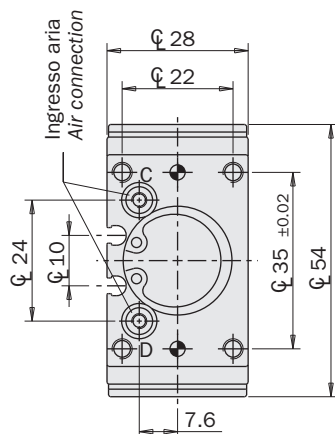
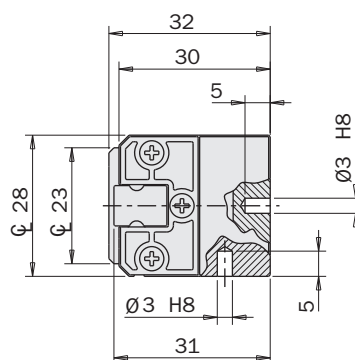
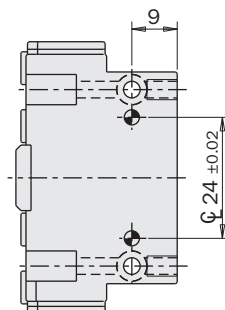
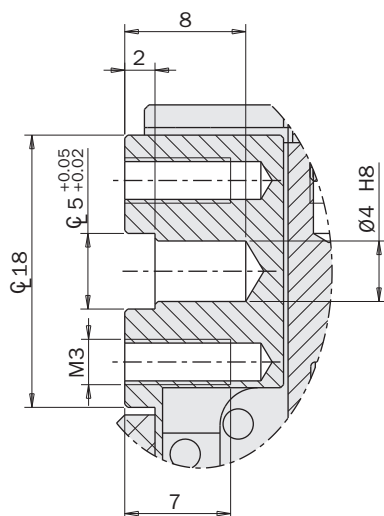


	SP-20	SP-25	SP-32	SP-40
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]			
Pressione di esercizio Operating pressure range	2.5 ÷ 8 bar			
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.			
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	70 N	120 N	220 N	350 N
Forza di serraggio totale in apertura a 6 bar Total opening gripping force at 6 bar	140 N	240 N	440 N	700 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	65 N	110 N	200 N	320 N
Forza di serraggio totale in chiusura a 6 bar Total closing gripping force at 6 bar	130 N	220 N	400 N	640 N
Corsa totale (± 0.2 mm) Total stroke	8 mm	12 mm	16 mm	20 mm
Frequenza max funzionamento continuativo Maximum continuous operating frequency	3 Hz	2 Hz	2 Hz	2 Hz
Consumo d'aria per ciclo Air consumption per cycle	3 cm³	6 cm³	13 cm³	31 cm³
Tempo di chiusura senza carico Closing time without load	0.03 s	0.05 s	0.05 s	0.05 s
Tolleranza max ripetibilità Maximum repeatability tolerance	±0.02 mm	±0.02 mm	±0.02 mm	±0.02 mm
Peso Weight	105 g	210 g	380 g	600 g

Dimensioni (mm)
Dimensions (mm)

SP-20

Dettaglio griffa sezionata
Jaw cross section

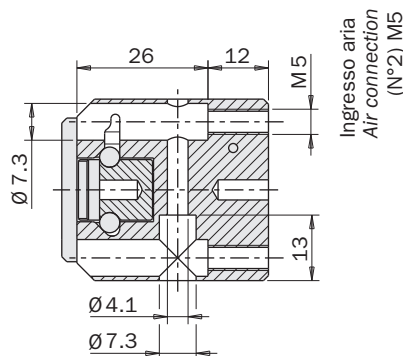
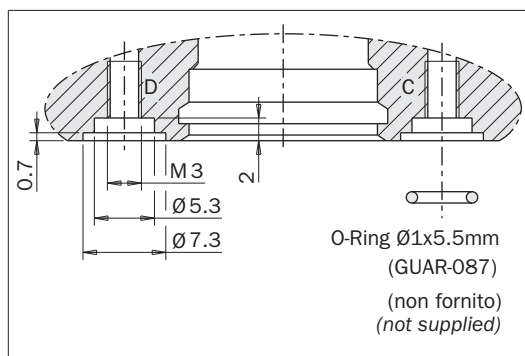
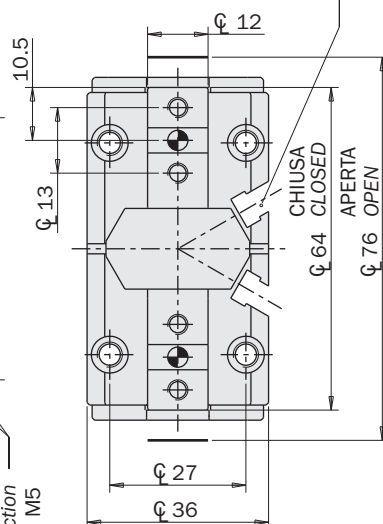
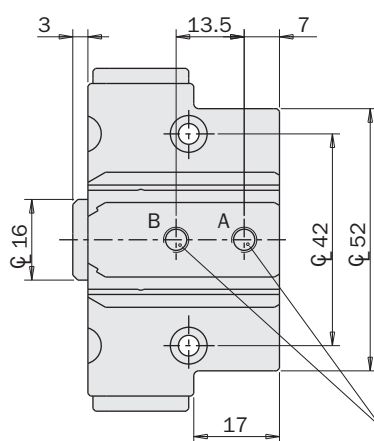
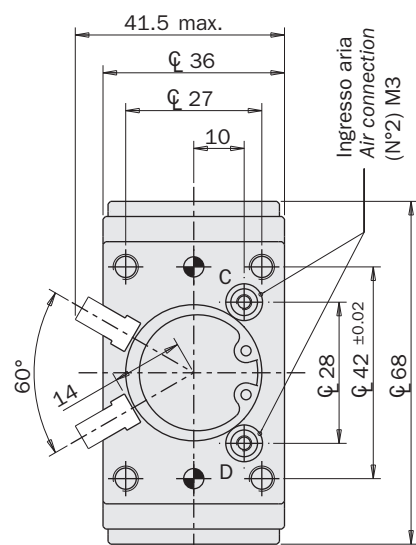
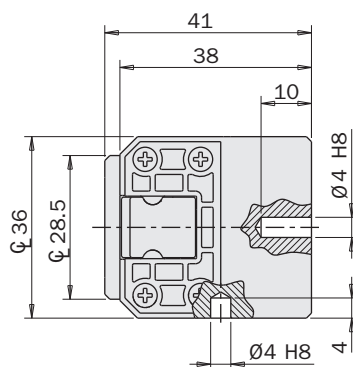
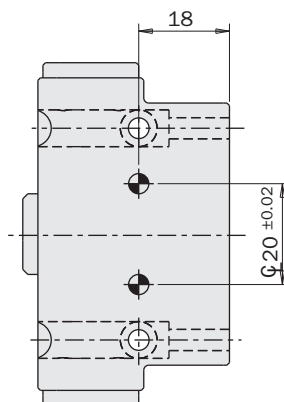
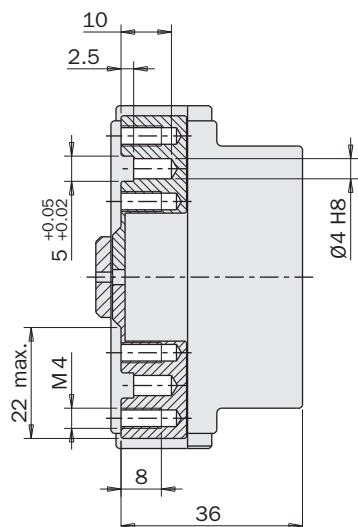


Ingresso aria
Air connection
(N°2) M5



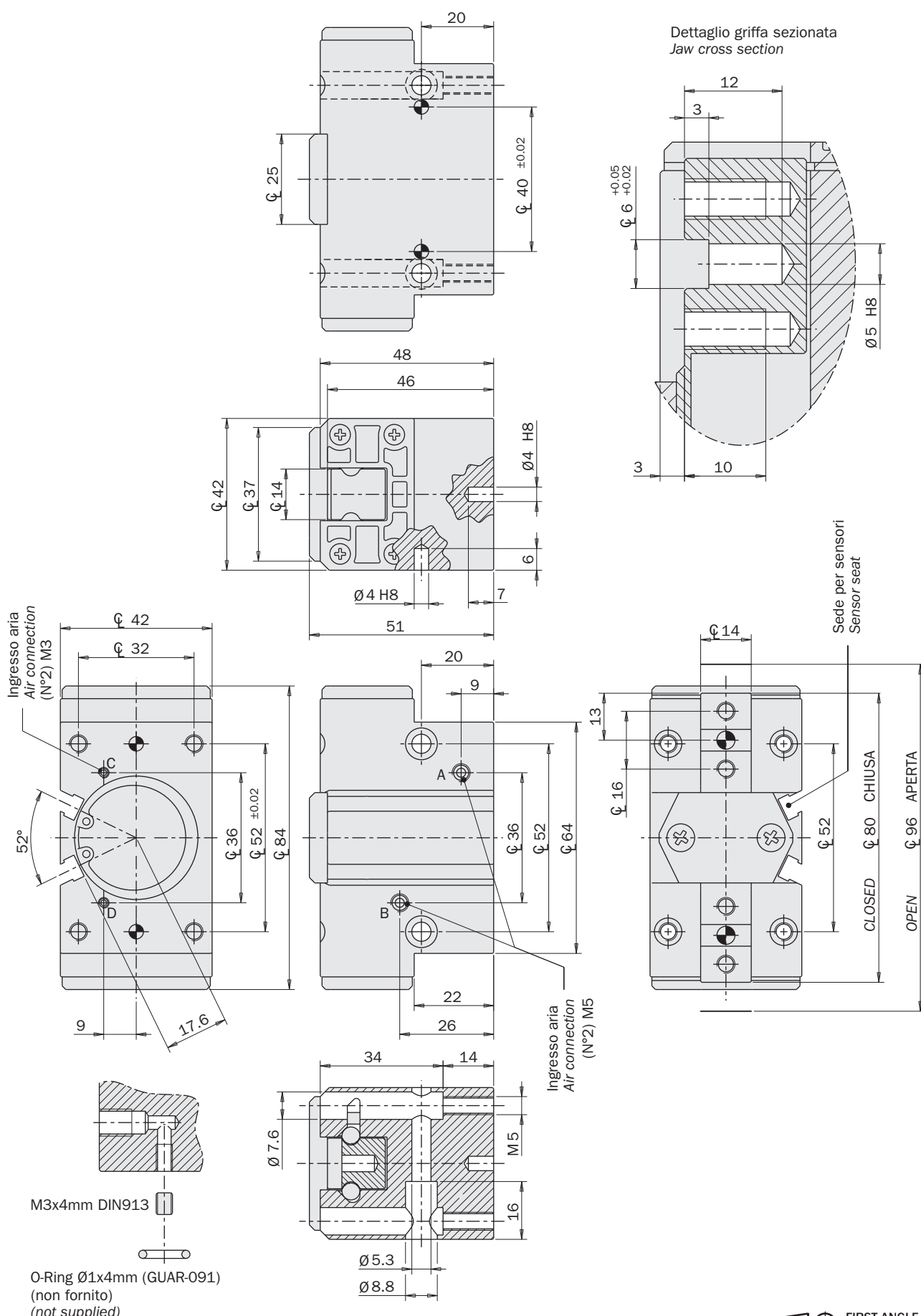
Dimensioni (mm)
Dimensions (mm)

Dettaglio griffa sezionata
Jaw cross section



Dimensioni (mm)
Dimensions (mm)

SP-32



FIRST ANGLE
PROJECTION

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso il magnete sul pistone.

Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

I sensori utilizzabili sono:

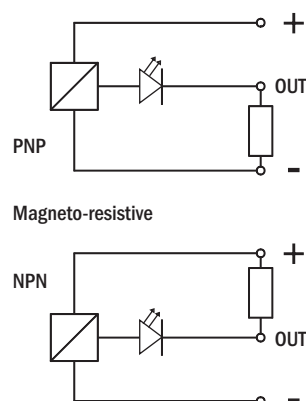


Sensors

The operating position is detected by magnetic proximity sensors (optional) through a magnet placed on the piston.

The use of magnetic proximity sensors is to be avoided in the vicinity of large masses of ferromagnetic material or intense magnetic fields as this may cause detection problems.

The sensors that can be used are:



			SP-20 U	SP-25 / SP-32 / SP-40 U
SL4N225-G	PNP	Cavo 2.5m 2.5m cable	☐	☒
SL4M225-G	NPN			
SL3N203-G	PNP	Connettore M8 M8 connector	☐	☒
SL3M203-G	NPN			
SN4N225-G	PNP	Cavo 2.5m 2.5m cable	☒	☒ (*)
SN4M225-G	NPN			
SN3N203-G	PNP	Connettore M8 M8 connector	☒	☒ (*)
SN3M203-G	NPN			
SS4N225-G	PNP	Cavo 2.5m 2.5m cable	☒	☒ (*)
SS4M225-G	NPN			
SS3N203-G	PNP	Connettore M8 M8 connector	☒	☒ (*)
SS3M203-G	NPN			

(*)

Utilizzando l'adattatore SS.004.000 fornito con il sensore.

(*)

Using the adapter SS.004.000 supplied with the sensor.



Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie JP)

- Azionamento a doppio effetto.
- Forza di serraggio elevata.
- Adatta per applicazioni pesanti.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

2-jaw self-centering pneumatic parallel gripper (series JP)

- Double acting.
- High gripping force.
- Suitable for heavy duty applications.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.



JP-45



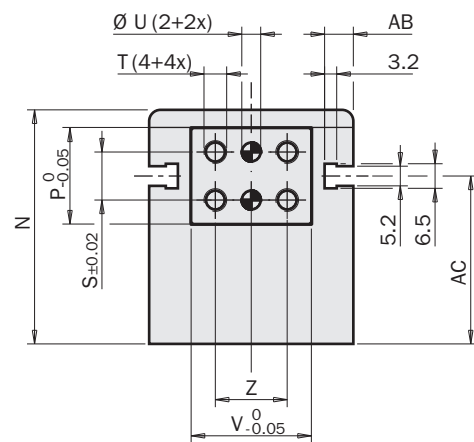
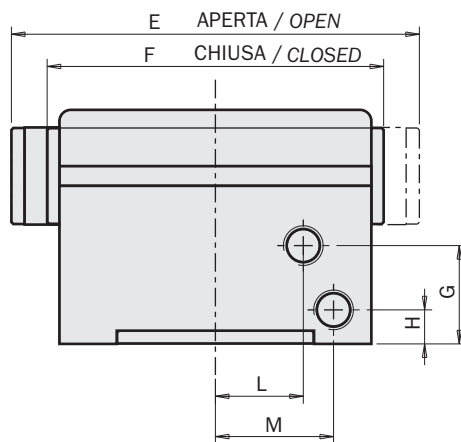
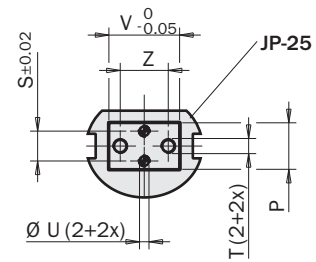
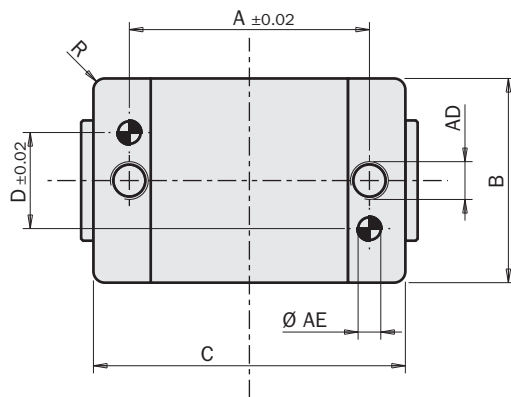
JP-32



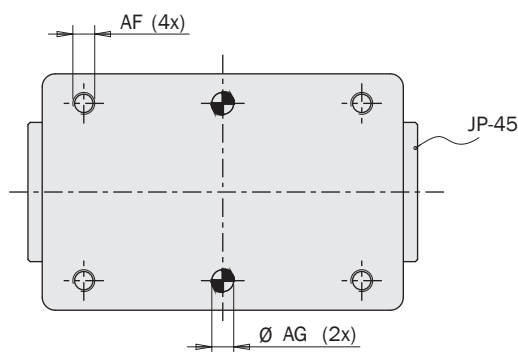
JP-25

	JP-25	JP-32	JP-45
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Operating pressure range	2.5 ÷ 8 bar		
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.		
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	135 N	350 N	500 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	270 N	700 N	1000 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	120 N	300 N	465 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	240 N	600 N	930 N
Corsa totale (±0.2 mm) Total stroke	9.5 mm	12 mm	18.9 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	3 Hz	3 Hz
Consumo d'aria per ciclo Cycle air consumption	6 cm ³	16 cm ³	20 cm ³
Tempo di chiusura senza carico Closing time without load	0.02 s	0.04 s	0.09 s
Ripetibilità Repetition accuracy	0.02 mm	0.02 mm	0.02 mm
Peso Weight	240 g	450 g	1050 g

Dimensioni (mm)
Dimensions (mm)



	A	B	C	D	E	F	G	H	L	M	N	P	R	S	T	U	V	Z	AB	AC	AD	AE	AF	AG
JP-25	38.1	38.1	50.8	25.4	63.5	54	14.8	6	11.3	18.1	35.9	12.3	2	7.9	M4 x6.5mm	Ø2.5H8 x6mm	18.7	12.7	6.2	26.3	M6 x12mm	Ø5H8 x6mm	-	-
JP-32	50.8	41.3	63.5	19	80	68	22.5	6	-	24	47.3	18.7	3	9.5	M5 x10mm	Ø4H8 x10mm	25	17.5	4.6	33.2	M6 x12mm	Ø5H8 x6mm	-	-
JP-45	63.5	54	82.5	25.4	107.9	89	26	9	23.2	31.2	61.9	25.4	3	12.7	M6 x12mm	Ø5H8 x10mm	31.8	19	7.6	44.4	M10 x18mm	Ø6H8 x12mm	M5x4 mm	Ø5H9x4 x12mm



Pinza pneumatica a 2 griffe ad azione parallela autocentrante (serie HS)

- Progettata per macchine ad alta velocità.
- Tempo di chiusura / apertura ridottissimo.
- Basso peso.
- Grande durata e affidabilità senza manutenzione.
- Corsa lunga.
- Possibilità di ridurre la corsa (su richiesta).
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

2-jaw parallel self-centering pneumatic gripper (series HS)

- Specially suited for high speed machines.
- Very short closing/opening time.
- Low weight.
- Trouble free long life without maintenance.
- Long stroke.
- Reduced stroke (upon request).
- Optional magnetic sensors.
- FDA-H1 food-grade grease.



HS-2012



HS-2518

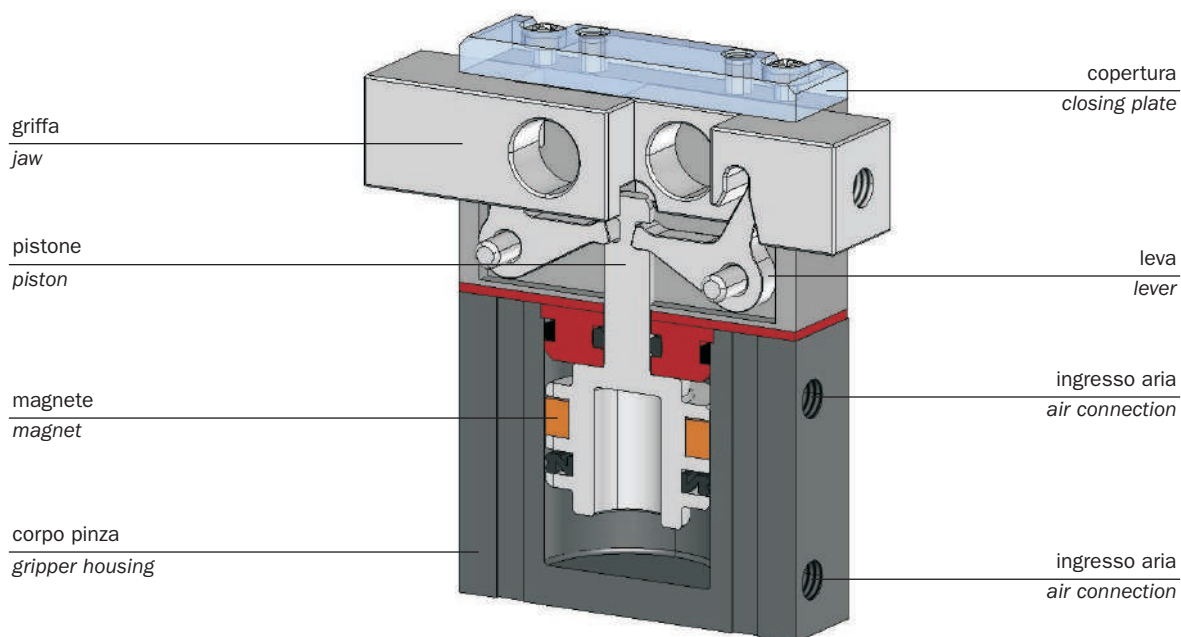
	HS-2012	HS-2518
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]	
Pressione di esercizio Operating pressure range	2.5 ÷ 8 bar	
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.	
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	60 N	90 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	120 N	180 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	55 N	83 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	110 N	166 N
Corsa totale Total stroke (±0.3 mm)	11.6 mm	17.6 mm
Frequenza max funzionamento continuativo Maximum working frequency	6 Hz	5 Hz
Consumo d'aria per ciclo Cycle air consumption	5 cm ³	12 cm ³
Tempo minimo di chiusura / apertura Closing / opening time minimum	0.007 s	0.018 s
Ripetibilità Repetition accuracy	0.02 mm	0.02 mm
Peso Weight	144 g	270 g

Schema di funzionamento

Le griffe sono azionate tramite leve dallo stelo del pistone.

Lay-out

The gripper is driven by the piston rod, that operates the jaws by levers.



Riduzione della corsa

È possibile ridurre la corsa con distanziali che limitano l'apertura delle griffe.

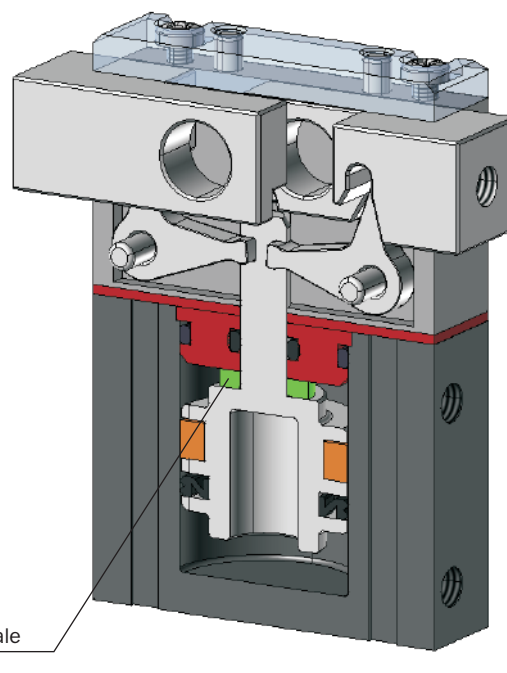
In questo modo diminuisce ulteriormente il tempo di apertura e chiusura della pinza.

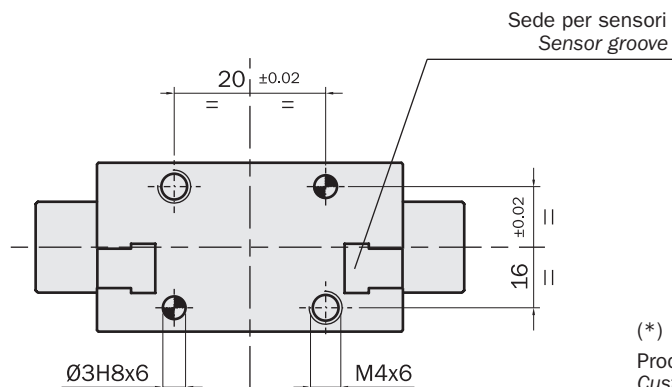
Stroke reduction

The stroke can be reduced by spacers which limit the jaw opening. In this way the opening and closing time can be further decreased.

	Distanziale Spacer	Corsa Stroke
HS-2012	/	2 x 5.8 mm
HS-2008 (*)	1 x XP-16-3	2 x 3.9 mm
HS-2004 (*)	2 x XP-16-3	2 x 2 mm
HS-2518	/	2 x 8.9 mm
HS-2512 (*)	1 x XA-26-3	2 x 6.1 mm
HS-2506 (*)	2 x XA-26-3	2 x 3.25 mm

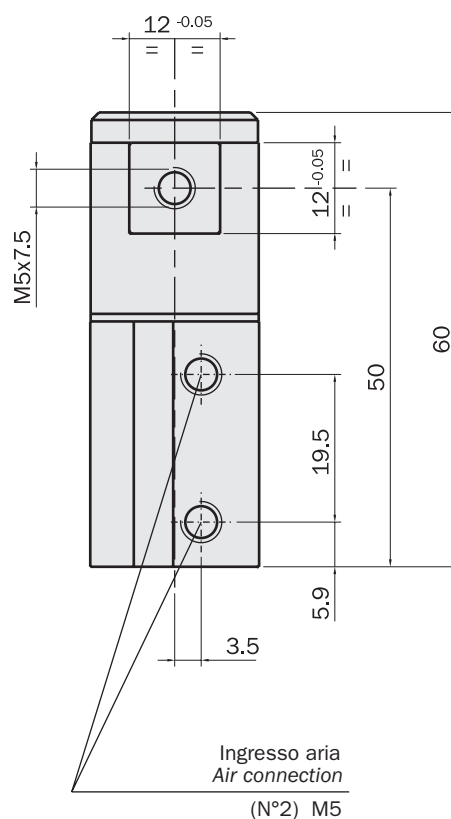
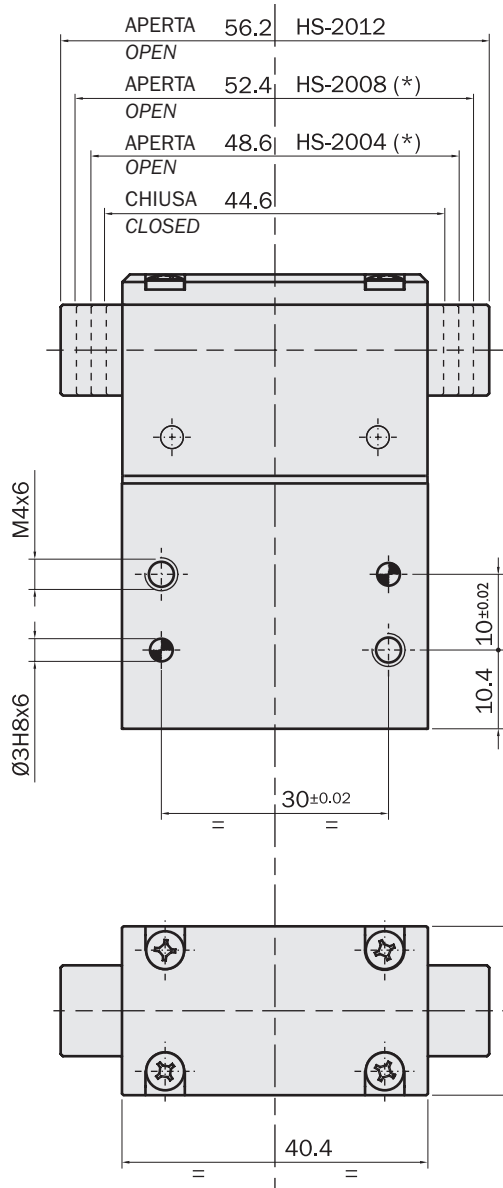
(*)
Prodotto speciale (chiedere in Fabbrica)
Custom product (consult Factory)



Dimensioni (mm)
Dimensions (mm)


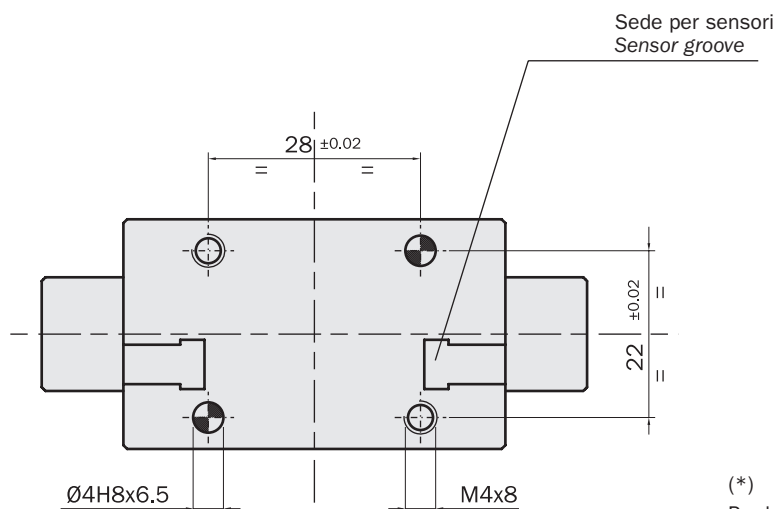
(*)

Prodotto speciale (chiedere in Fabbrica)
 Custom product (consult Factory)

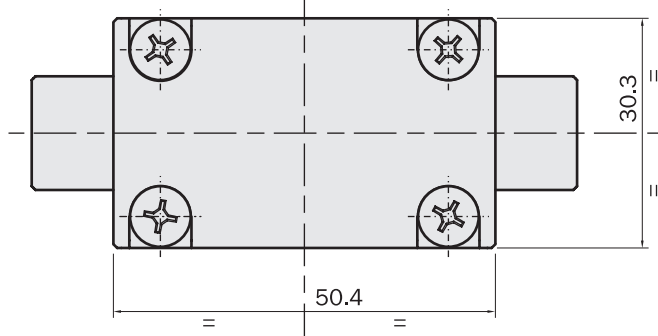
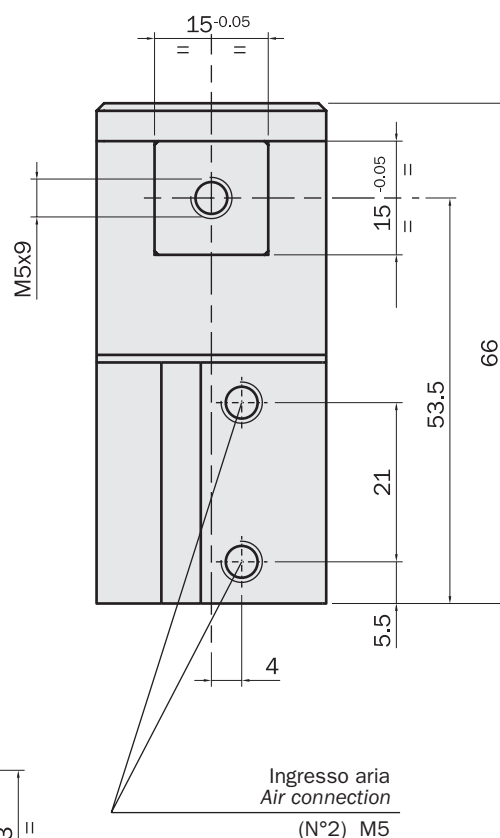
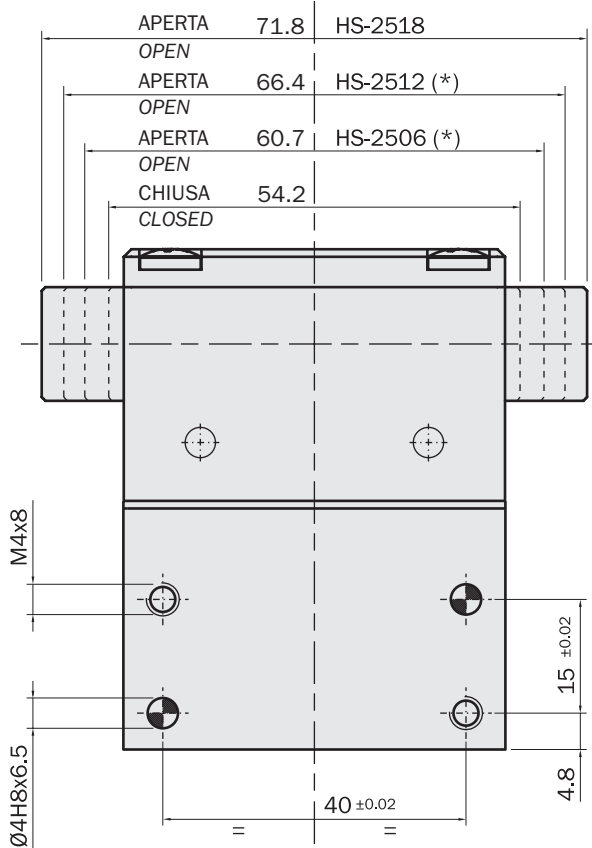


Dimensioni (mm)
Dimensions (mm)

HS-2518



(*)
Prodotto speciale (chiedere in Fabbrica)
Custom product (consult Factory)



FIRST ANGLE
PROJECTION

Pinza pneumatica autocentrante (serie X)

- XP-...: pinza parallela a 2 griffe.
- XT-...: pinza parallela a 3 griffe.
- XA-...: pinza angolare a 2 griffe.
- XR-...: pinza radiale a 2 griffe.
- Azionamento a doppio effetto.
- Rapporto qualità/prezzo molto favorevole.
- Basso peso ottenuto utilizzando leghe leggere e polimeri.
- Doppia possibilità di fissaggio.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

Self-centering pneumatic gripper (series X)

- XP-...: 2 jaw parallel gripper.
- XT-...: 3 jaw parallel gripper.
- XA-...: 2 jaw angular gripper.
- XR-...: 2 jaw radial gripper.
- Double acting.
- Excellent cost/performance ratio.
- Light weight, due to its alloy and plastic resin construction.
- Gripper mounting possible on two sides.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.



XR-26



XR-20



XA-26



XA-20



XP-26



XP-20



XT-26



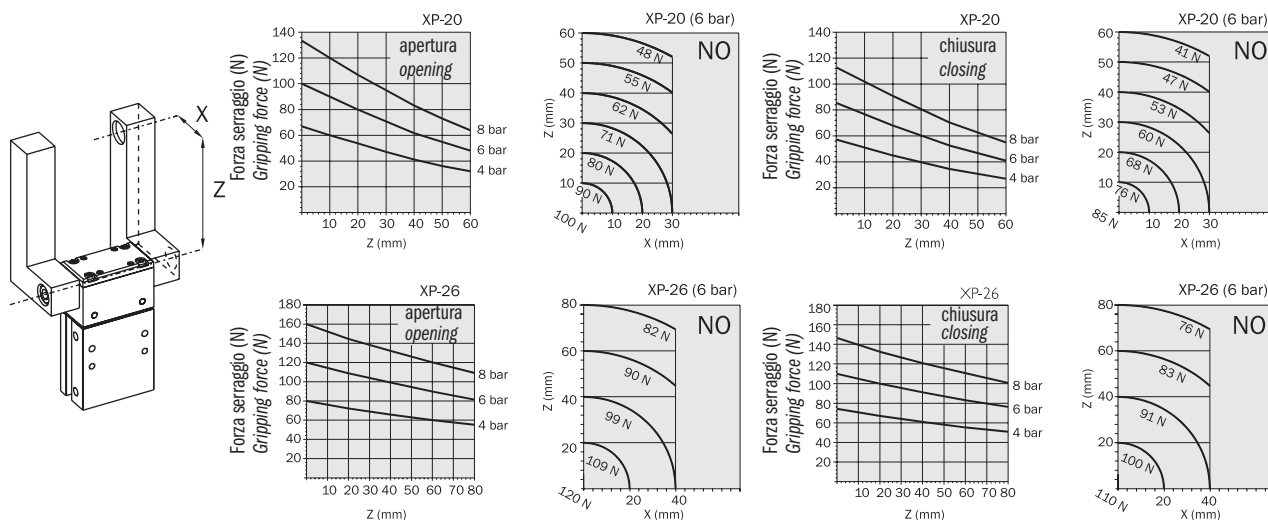
XT-20

Forza di serraggio

XP... I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione, del braccio di leva Z e del disassamento del punto di presa X.

Gripping force

XP... The graphs show the gripping force on each jaw, as a function of the operating pressure, the gripping tool length Z and the overhanging X.

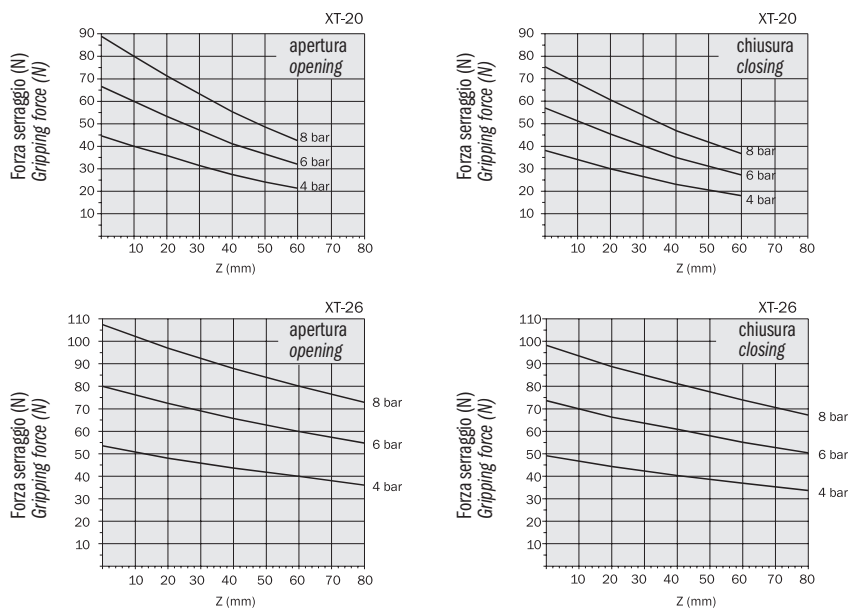


XT... I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

XT... The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.

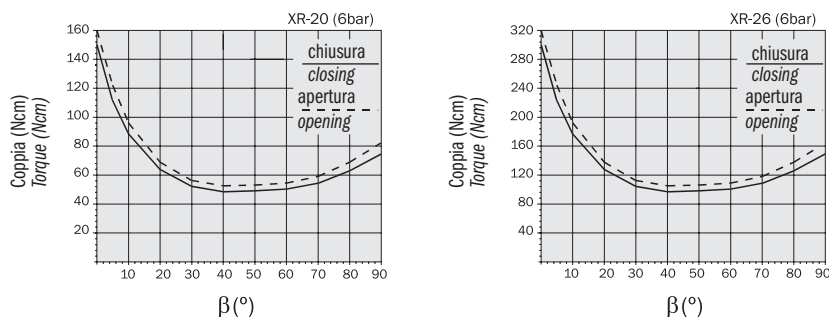
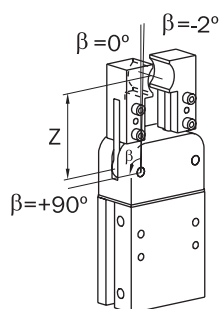
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il doppio.

The force shown in these graphs refers to one jaw. The total force is double.



XR... I grafici mostrano la coppia per griffa espressa dalla pinza in funzione della posizione angolare β della griffa.

XR... The graphs show the gripping torque on each jaw, as a function of the angular position β of the jaw.

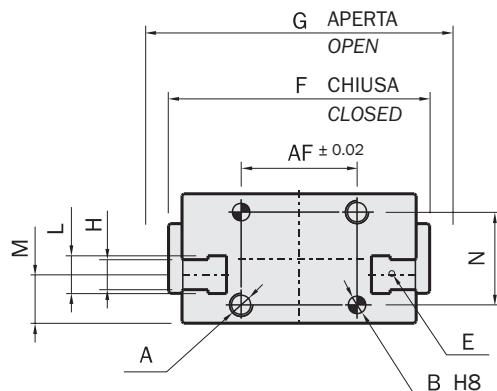


	XP-20	XP-26
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]	
Pressione di esercizio Operating pressure range	2 ÷ 8 bar	
Temperatura di esercizio Operating temperature range	5 ÷ 60 °C.	
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	85 N	110 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	170 N	220 N
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	100 N	120 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	200 N	240 N
Corsa totale (±0.2 mm) Total stroke	8 mm	13.2 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	7 cm ³	12 cm ³
Tempo di chiusura senza carico Closing time without load	0.02 s	0.05 s
Ripetibilità Repetition accuracy	0.02 mm	0.02 mm
Peso Weight	160 g	300 g

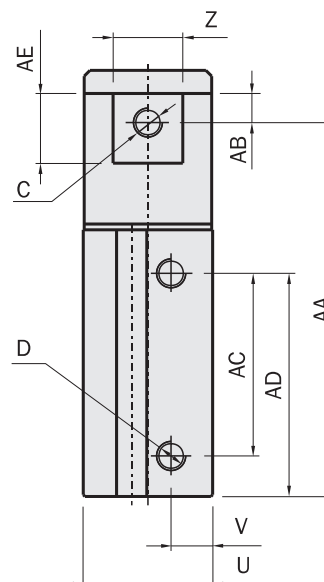
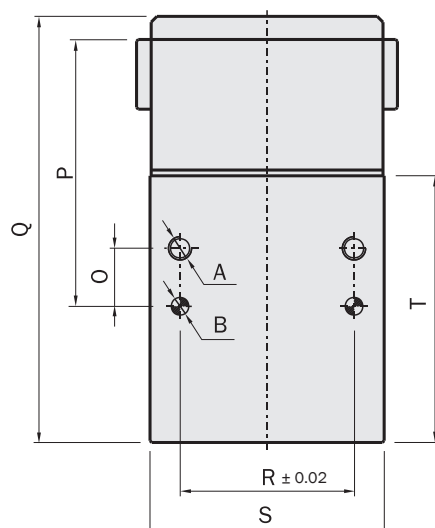
Dimensioni (mm) Dimensions (mm)



	XP-20	XP-26
A	M4x6	M5x10
B	Ø3x6	Ø4x6
C	M5x8	M6x9
D	M5	
E	SC - SL - SS - SN	
F	44.8	54.6
G	52.8	67.8
H	5.2	
L	6.5	
M	8.35	11.15
N	16	21
O	10	12
P	46	56
Q	73.5	77
R	30	36
S	40.4	50.4
T	46	42.8
U	22.3	30.3
V	7.15	10.15
Z	12	15
AA	64.5	65.5
AB	5	6.5
AC	31.5	30
AD	38.5	36.5
AE	12	15
AF	20	25



- A** Foro filettato per fissaggio
Threaded hole for fastening
- B** Foro di riferimento
Dowel pin hole
- C** Foro filettato per fissaggio dita di presa
Threaded hole for gripping tool fastening
- D** Ingresso aria
Air connection
- E** Sede per sensori Gimatic
Gimatic sensor slot

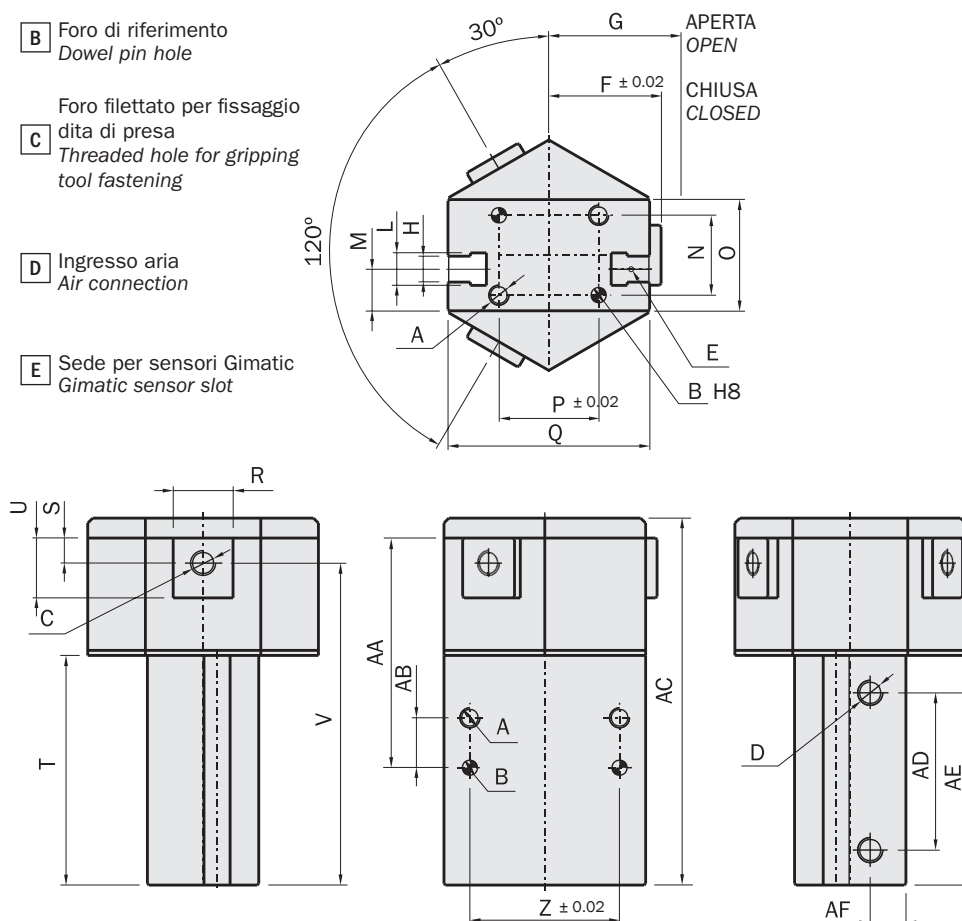


	XT-20	XT-26
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]	
Pressione di esercizio Operating pressure range	2.5 ÷ 8 bar	
Temperatura di esercizio Operating temperature range	5 ÷ 60 °C.	
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	57 N	73 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	171 N	219 N
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	67 N	80 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	201 N	240 N
Corsa Stroke (±0.2 mm)	3 x 3.6 mm	3 x 6.6 mm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	7 cm ³	12 cm ³
Tempo di chiusura senza carico Closing time without load	0.02 s	0.05 s
Ripetibilità Repetition accuracy	0.02 mm	0.02 mm
Peso Weight	210 g	350 g

Dimensioni (mm) Dimensions (mm)



- A** Foro filettato per fissaggio
Threaded hole for fastening
- B** Foro di riferimento
Dowel pin hole
- C** Foro filettato per fissaggio
dita di presa
Threaded hole for gripping
tool fastening
- D** Ingresso aria
Air connection
- E** Sede per sensori Gimatic
Gimatic sensor slot



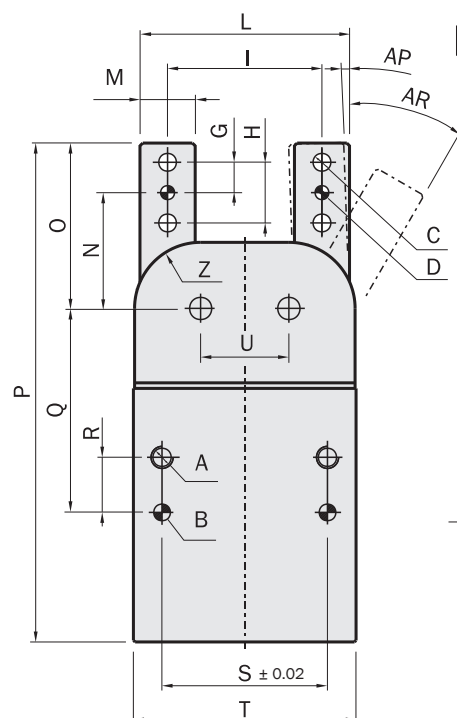
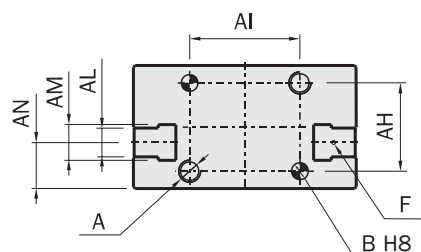
	XT-20	XT-26
A	M4x6	M5x10
B	Ø3x6	Ø4x6
C	M5x8	M6x9
D	M5	
E	SC - SL - SS - SN	
F	22.4	27.1
G	26	33.7
H	5.2	
L	6.5	
M	8.35	11.15
N	16	21
O	22.3	30.3
P	20	25
Q	40.4	50.4
R	12	15
S	5	6.5
T	46	42.8
U	12	15
V	64.5	65.5
Z	30	36
AA	46	56
AB	10	12
AC	73.5	77
AD	31.5	30
AE	38.5	36.5
AF	7.15	10.15

	XA-20	XA-26
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]	
Pressione di esercizio Operating pressure range	2 ÷ 8 bar	
Temperatura di esercizio Operating temperature range	5 ÷ 60 °C.	
Coppia per griffa in chiusura a 6 bar Closing torque at 6 bar on each jaw	46 Ncm	79 Ncm
Coppia totale in chiusura a 6 bar Closing torque force at 6 bar	92 Ncm	158 Ncm
Coppia per griffa in apertura a 6 bar Opening torque at 6 bar on each jaw	50 Ncm	85 Ncm
Coppia totale in apertura a 6 bar Opening torque force at 6 bar	100 Ncm	170 Ncm
Corsa Stroke (±2°)	2 x 30°	2 x 32°
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	6 cm ³	11 cm ³
Tempo di chiusura senza carico Closing time without load	0.02 s	0.03 s
Ripetibilità Repetition accuracy	0.04°	0.04°
Peso Weight	140 g	250 g

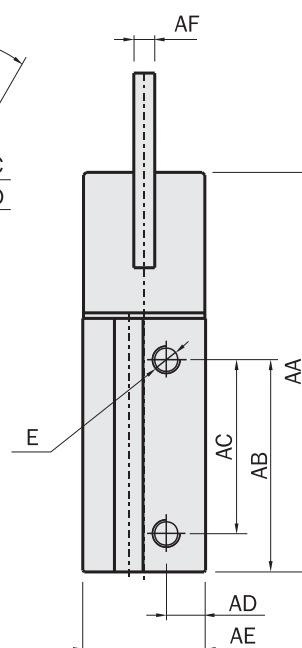
Dimensioni (mm)

Dimensions (mm)

	XA-20	XA-26
A	M4x6	M5x10
B	Ø3x6	Ø4x8
C	Ø3.2	Ø4.3
D	Ø2.5H8	Ø3H8
G	5.5	6
H	11	12
I	28	31
L	38	45
M	10	14
N	21	25.7
O	30	36.7
P	90.5	95.1
Q	37	42.4
R	10	12
S	30	36
T	40.4	50.4
U	16	19.3
Z	R=12	R=16
AA	72.5	73.6
AB	38.5	36.5
AC	31.5	30
AD	7.15	10.15
AE	22.3	30.3
AF	3.8	5.4
AH	16	21
AI	20	25
AL	5.2	
AM	6.5	
AN	8.35	11.15
AP	4°	2°
AR	26°	30°

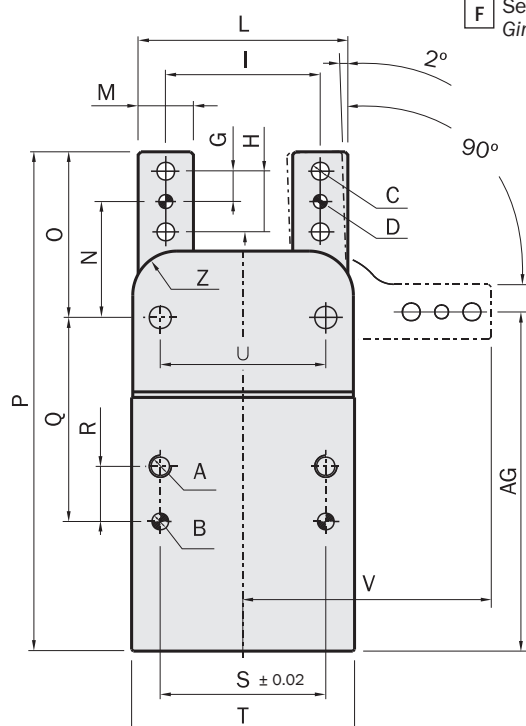
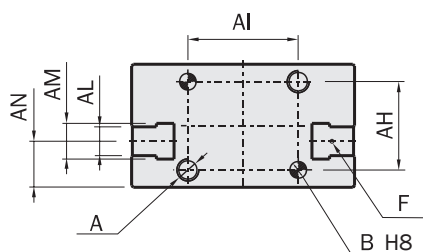
FIRST ANGLE
PROJECTION

- A** Foro filettato per fissaggio
Threaded hole for fastening
- B** Foro di riferimento
Dowel pin hole
- C** Foro passante per fissaggio dita di presa
Through hole for gripping tool fastening
- D** Foro di riferimento passante per dita
Through dowel pin hole for gripping tool
- E** Ingresso aria
Air connection
- F** Sede per sensori Gimatic
Gimatic sensor slot



	XR-20	XR-26
Fluido <i>Medium</i>	Aria compressa a norma ISO 8573-1:2010 [7:4:4] <i>Compressed air in compliance with ISO 8573-1:2010 [7:4:4]</i>	
Pressione di esercizio <i>Operating pressure range</i>	2 ÷ 8 bar	
Temperatura di esercizio <i>Operating temperature range</i>	5 ÷ 60 °C.	
Coppia massima per griffa in chiusura a 6 bar <i>Closing maximum torque at 6 bar on each jaw</i>	150 Ncm	300 Ncm
Coppia massima per griffa in apertura a 6 bar <i>Opening maximum torque at 6 bar on each jaw</i>	160 Ncm	320 Ncm
Corsa <i>Stroke</i> (±2°)	2 x 92°	2 x 92°
Frequenza max funzionamento continuativo <i>Maximum working frequency</i>	2 Hz	2 Hz
Consumo d'aria per ciclo <i>Cycle air consumption</i>	11 cm ³	19 cm ³
Tempo di chiusura senza carico <i>Closing time without load</i>	0.08 s	0.12 s
Ripetibilità <i>Repetition accuracy</i>	0.06°	0.06°
Peso <i>Weight</i>	140 g	260 g

Dimensioni (mm) Dimensions (mm)



- A** Foro filettato per fissaggio
Threaded hole for fastening
- B** Foro di riferimento
Dowel pin hole
- C** Foro passante per fissaggio dita di presa
Through hole for gripping tool fastening
- D** Foro di riferimento passante per dita
Through dowel pin hole for gripping tool
- E** Ingresso aria
Air connection
- F** Sede per sensori Gimatic
Gimatic sensor slot

	XR-20	XR-26
A	M4x6	M5x10
B	Ø3x6	Ø4x8
C	Ø3.2	Ø4.3
D	Ø2.5H8	Ø3H8
E	M5	
F	SC - SL - SS - SN	
G	5.5	6
H	11	12
I	28	31
L	38	45
M	10	14
N	21	25.7
O	30	36.7
P	90.5	95.1
Q	37	42.4
R	10	12
S	30	36
T	40.4	50.4
U	30	39
V	45	56.2
Z	R=8	
AA	72.5	73.6
AB	38.5	36.5
AC	31.5	30
AD	7.15	10.15
AE	22.3	30.3
AF	3.8	5.4
AG	61.5	62.4
AH	16	21
AI	20	25
AL	5.2	
AM	6.5	
AN	8.35	11.15

Pinza elettrica parallela 2 griffe autocentrante

- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando la pinza è in presa.
- Nessuna programmazione richiesta.
- Tenuta pezzo garantita in caso di interruzione d'energia.
- Si adatta ad ogni dimensione di pezzo entro griffe.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nella pinza.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con attuatori rotanti.
- Sensori magnetici opzionali.

2-jaw parallel self-centering electric gripper

- Plug & play user friendly gripper.
- No electricity consumption when gripper is engaged.
- No programming required.
- Gripper retention guaranteed in event of blackout.
- Self Adapting jaws part.
- Long life Brushless motor (Brushless DC).
- Built-in motor driver.
- 24 Vdc Low Voltage Power Supply.
- M8x1, 3 poles standard connection.
- Controllable by PLC as a pneumatic valve.
- Fiber-carbon gear reduction.
- 10 million cycle maintenance-free.
- T-slot style jaws for heavy loads.
- Weight-dimensions-force best trade off.
- Rotary actuator fitting compatible.
- Optional magnetic sensors.



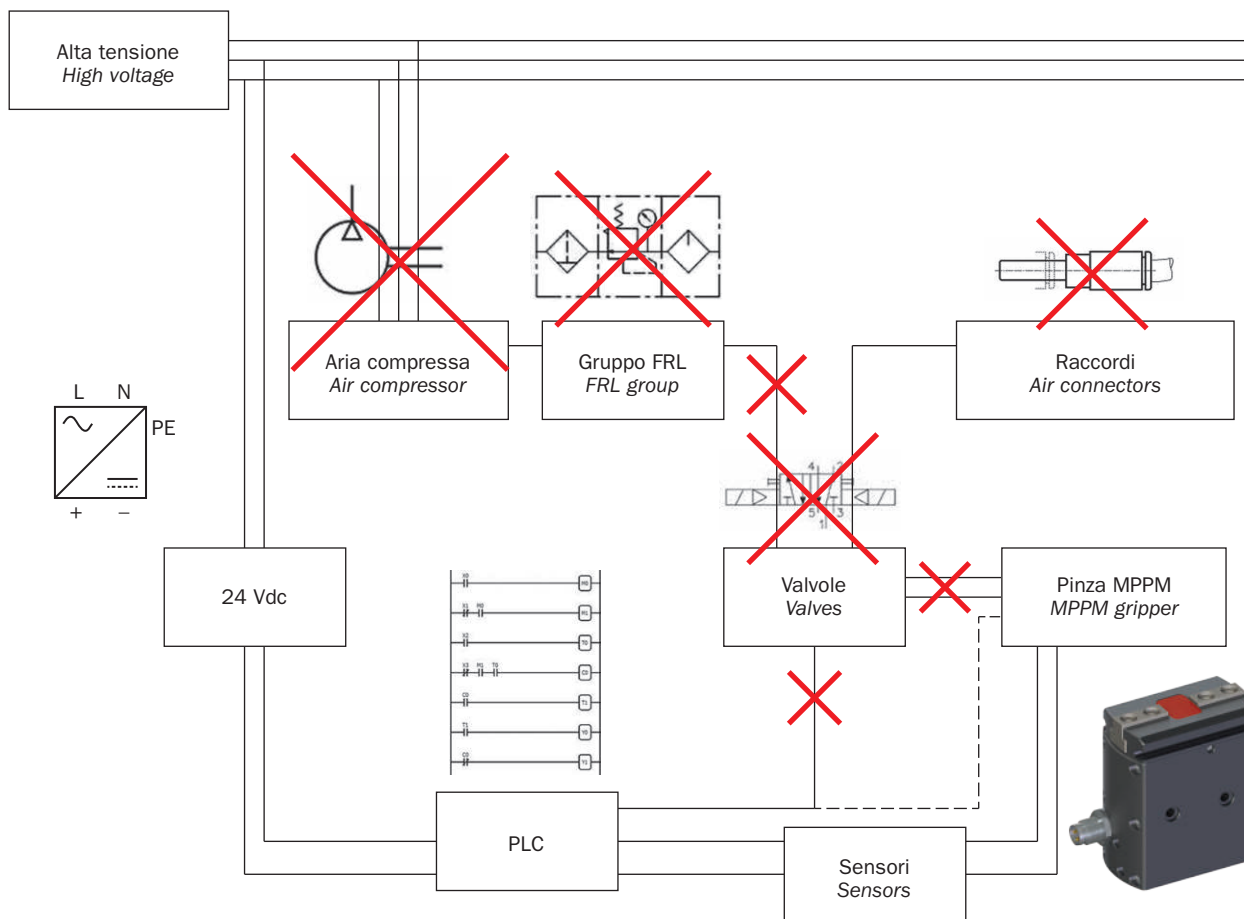
MPPM1606



MPPM2508



MPPM3210

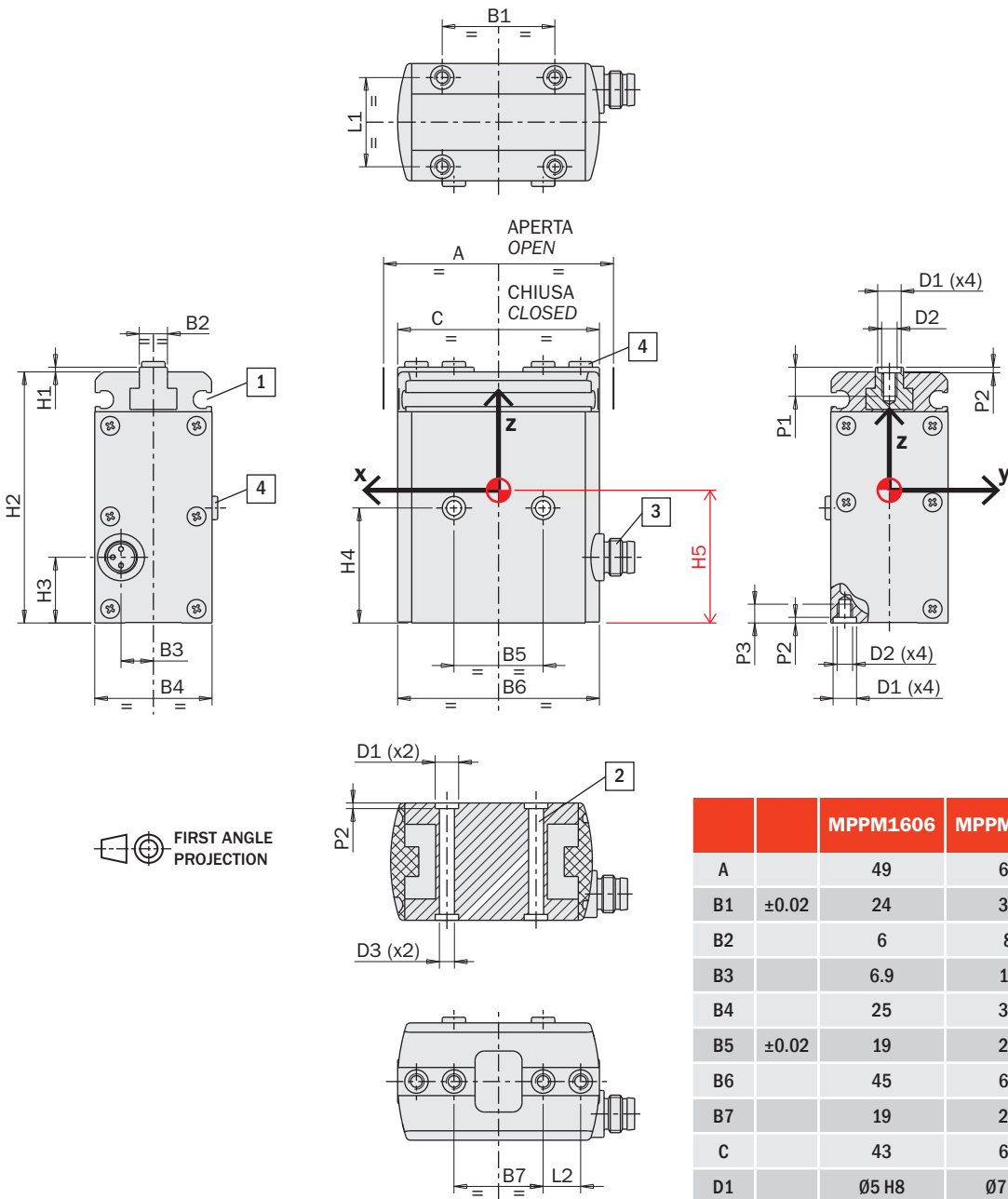




	MPPM1606	MPPM2508	MPPM3210
Forza di serraggio totale <i>Total gripping force</i>	67 N	125 N	245 N
Corsa <i>Stroke</i>	2x3 mm	2x4 mm	2x5 mm
Frequenza alla temperatura ambiente di 30°C <i>Frequency at an ambient temperature of 30°C</i>	1 Hz	0.91 Hz	0.91 Hz
Tempo chiusura griffe <i>Jaw closing time</i>	0.08 s	0.121 s	0.15 s
Tempo di lavoro pinza <i>Working gripper time</i>	0.21 s	0.3 s	0.27 s
Ciclo di lavoro alla temperatura ambiente di 30°C <i>Duty cycle at an ambient temperature of 30°C</i>	43%	55%	50%
Tensione d'alimentazione <i>Power supply</i>	24 Vdc ±10%	24 Vdc ±10%	24 Vdc ±10%
Corrente di picco <i>Peak current</i>	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale <i>Nominal current</i>	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless <i>Brushless motor power</i>	6 W	11 W	23 W
Connessione <i>Connection</i>	M8 - 3 poli <i>M8 - 3 poles</i>		
Segnale d'ingresso apertura/chiusura <i>Open/closed input signal</i>	PNP open collector <i>PNP open collector</i>		
Ripetibilità <i>Repetition accuracy</i>	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio <i>Operating temperature</i>	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione <i>Environmntal Degree</i>	IP54	IP54	IP54
Rumorosità <i>Noise level</i>	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) <i>Mass (motor included)</i>	145 g	330 g	525 g
Certificazione Camera Bianca ISO14644-1 <i>ISO14644-1 Clean Room Certification</i>	CLASS 4	-	-
Normative di riferimento <i>Reference standards</i>	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jxx	0.42 kgcm²	1.68 kgcm²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jyy	0.54 kgcm²	2.22 kgcm²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jzz	0.25 kgcm²	1.03 kgcm²
Tecnologia e opzioni <i>Technology and options</i>	Pagina 570 - 571 <i>Page 570 - 571</i>		

Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

Dimensioni (mm)
Dimensions (mm)

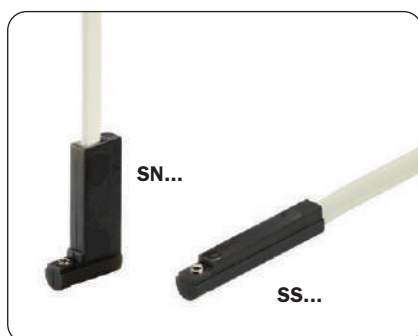


- 1 Cava per sensore magnetico
Magnetic sensor slot
- 2 Foro passante per fissaggio pinza
Through hole for gripper fastening
- 3 Connessione elettrica
Electrical connection
- 4 Boccole di centraggio
Centering sleeves

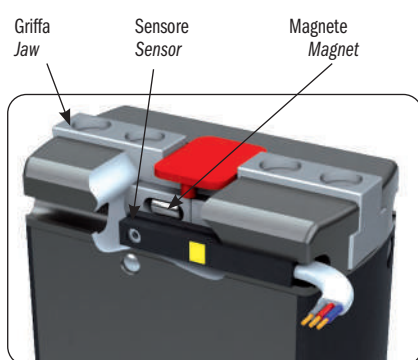
		MPPM1606	MPPM2508	MPPM3210
A		49	68	83
B1	±0.02	24	30	36
B2		6	8	9
B3		6.9	10	11
B4		25	32	35
B5	±0.02	19	25	30
B6		45	60	73
B7		19	26	32
C		43	60	73
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
D3		Ø3.2	Ø4.2	Ø5.2
H1		1	1	1
H2		53.5	70	80
H3		14	17	19
H4	±0.02	24.5	32	38
H5		32.5	42.6	48.4
L1	±0.02	19	24	26
L2	±0.02	8	12	14
P1		6.2	8	8.5
P2	+0.1	1.2	1.5	1.5
P3		4	6	8

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe. Per i dettagli si veda la sezione "Accessori".



Sono tutti dotati di un cavo piatto a tre fili e di un led.

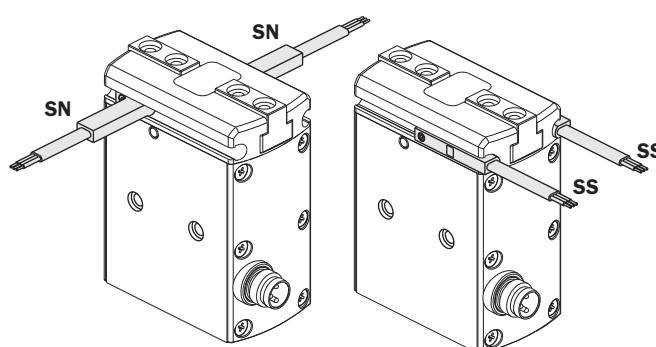


Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside.

For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili. Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.

F_s , $M_x s$, $M_y s$, $M_z s$, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.

F_d , $M_x d$, $M_y d$, $M_z d$, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.

La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.

La figura sotto mostra anche il gioco massimo delle griffe.

	MPPM1606	MPPM2508	MPPM3210
F_s	60 N	120 N	200 N
$M_x s$	3 Nm	8 Nm	20 Nm
$M_y s$	3 Nm	8 Nm	20 Nm
$M_z s$	3 Nm	8 Nm	20 Nm
F_d	0.6 N	1.2 N	2 N
$M_x d$	3 Ncm	8 Ncm	20 Ncm
$M_y d$	3 Ncm	8 Ncm	20 Ncm
$M_z d$	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g

Safety loads and backlashes

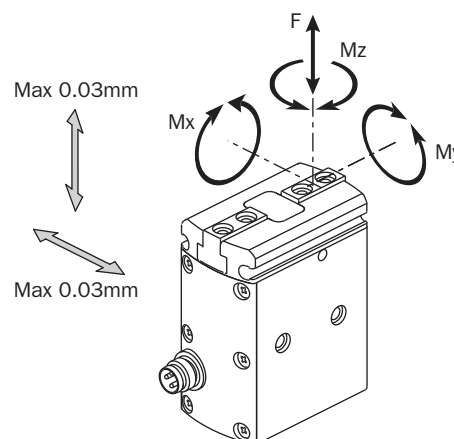
Check the table for the maximum permitted loads.

Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator. F_s , $M_x s$, $M_y s$, $M_z s$, are the maximum permitted loads under static conditions, that is with motionless jaws.

F_d , $M_x d$, $M_y d$, $M_z d$, are the maximum permitted loads under dynamic conditions, that is with running jaws.

The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.

The picture below shows also the jaw maximum backlash.



Soluzione per manipolazione in camera bianca

Le pinze elettriche Gimatic possono operare in aree produttive ad elevato livello di pulizia e igiene mediante integrazione del KIT-GMP-G. L'uso di un adattatore consente di fissare la pinza elettrica ad un'interfaccia robot (non inclusa) e di proteggerne il funzionamento con una cover siliconica sterilizzabile.

Il fissaggio delle dita di presa (non incluse) è reso possibile mediante speciali viti igieniche in acciaio inossidabile.

Il sistema soddisfa i requisiti richiesti dalle massime classi di pulizia GMP (good manufacturing practice) di livello A e B.

Le principali caratteristiche sono:

- Adatto per pinza MPPM1606.
- Classi di pulizia GMP A e B.
- Cover realizzata in Silicone Silpuran® Wacker FDA 21 CFR §177.2600.
- Compatibile con procedura di pulizia con perossido di idrogeno (VHP-H2O2) e raggi ultravioletti UV.
- Grado di protezione del sistema completo IP65.
- Il Kit MPPM1606-KIT-GMP ha la Certificazione ISO14644-1 per camera bianca ISO 2, mentre la singola pinza MPPM1606 ha la certificazione ISO14644-1 per camera bianca ISO4.
- Viti igieniche in acciaio inossidabile (Novonox).
- Superficie trasparente che permette la lettura dei LED dei sensori interni o dei LED di stato dell'alimentazione.
- Superfici dal design igienico che prevengono l'accumulo di batteri.
- Semplice fissaggio delle dita di presa con sistema antirotazione.

Cleanroom Gripping Solution

Gimatic electric grippers can operate in environments characterised by a high standard of cleanliness and hygiene by integrating the KIT-GMP-G. An adapter enables fastening the electric gripper to a robot interface (not included) and protecting its operation by means of a sterilisable silicone cover. The gripping fingers (not included) can be fastened by means of special hygienic stainless steel screws. The systems meets the most stringent GMP (Good Manufacturing Practice) cleanliness standards for Grade A and B.

Its main characteristics are:

- Suitable for gripper MPPM1606.
- Compliant with GMP Grade A and B cleanliness standards.
- Cover made in Silicone Silpuran® Wacker FDA 21 CFR §177.2600.
- Compatible with hydrogen peroxide (VHP-H2O2) and UV cleaning procedures.
- Complete system with IP65 protection rating.
- The MPPM1606-KIT-GMP kit is certified to ISO14644-1 for ISO 2 cleanrooms, while the single gripper MPPM1606 is certified to ISO14644-1 for ISO 4 cleanrooms.
- Stainless steel hygienic screws (Novonox).
- Transparent surface that enables reading the LEDs of the internal sensors and the power supply status LEDs.
- Hygienic design surfaces preventing the build-up of bacteria.
- Easy fastening of gripping fingers with anti-rotation system.



**MPPM1606-KIT-GMP
AIR CLEANING CLASS 2**



**MPPM1606
AIR CLEANING CLASS 4**



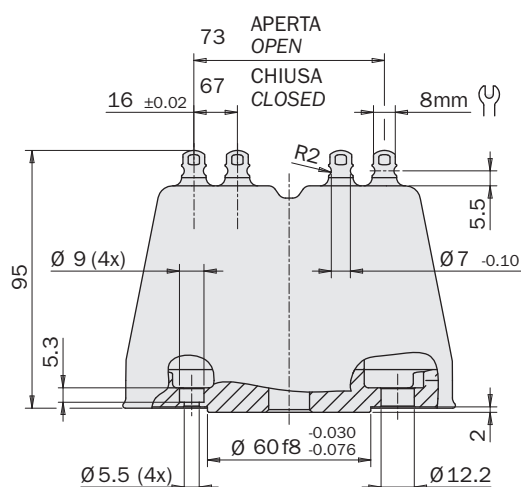
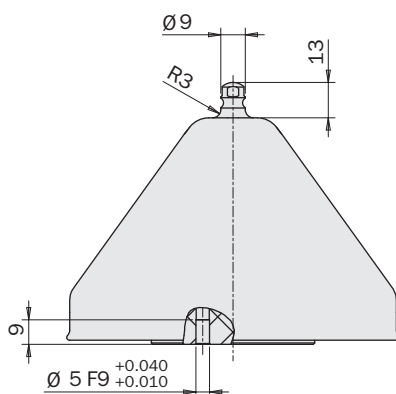
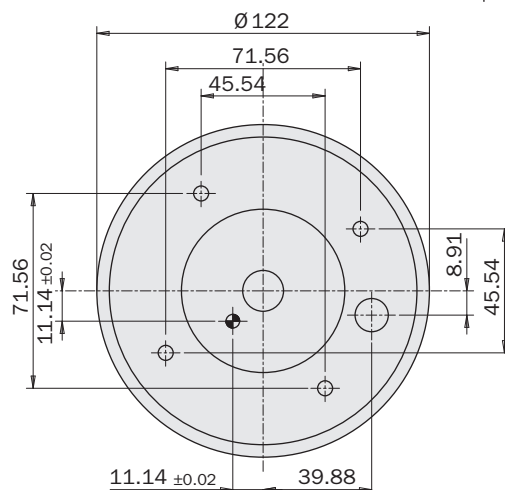
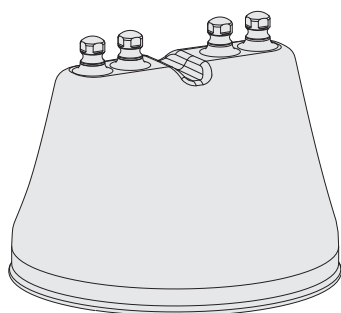
**IP65
ENVIRONMENT DEGREE**

**H₂O₂
CLEANING PROCEDURE**

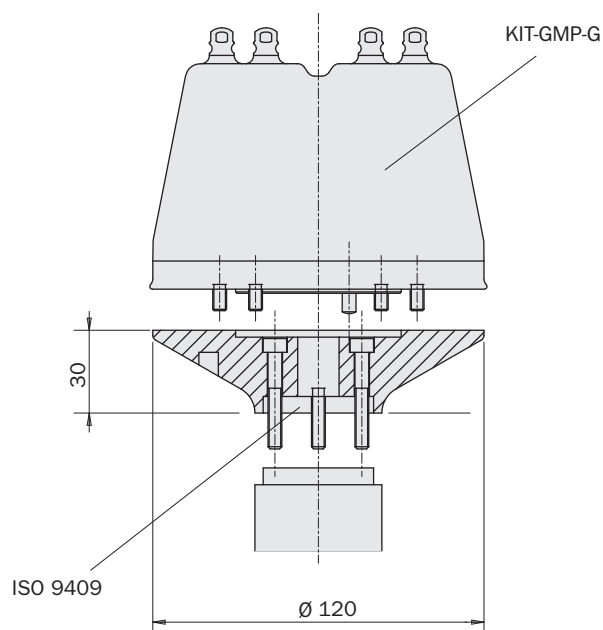
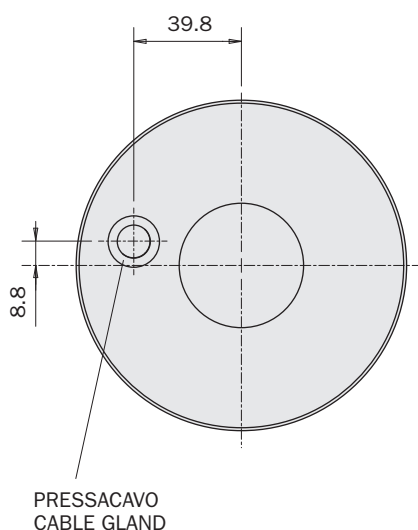
EMC / CE



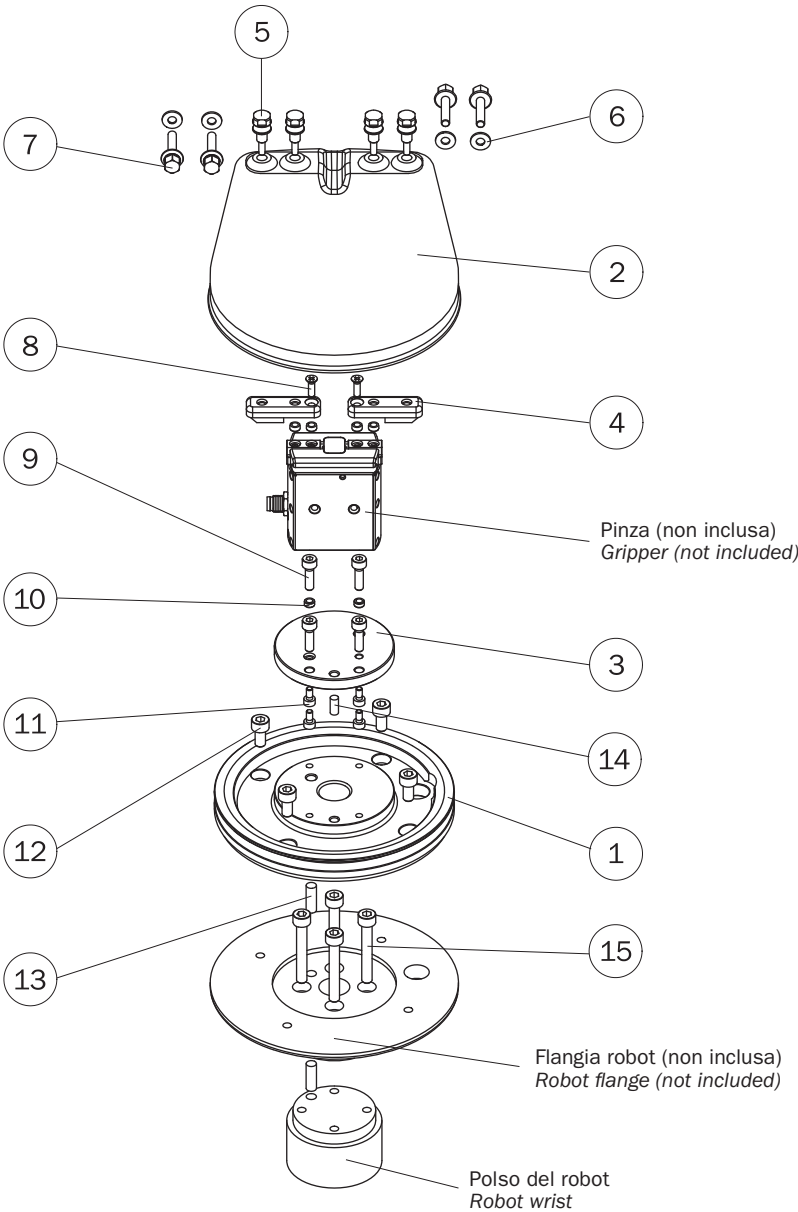
Dimensioni (mm)
Dimensions (mm)



Esempio di applicazione
Application example



Elenco delle parti
Part list



Parti incluse
Included parts

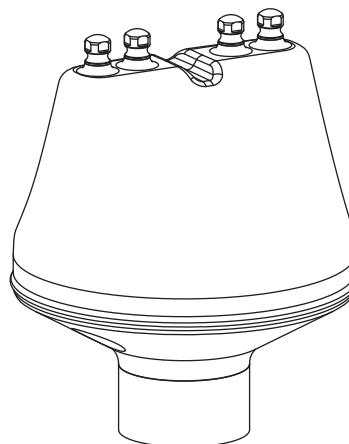
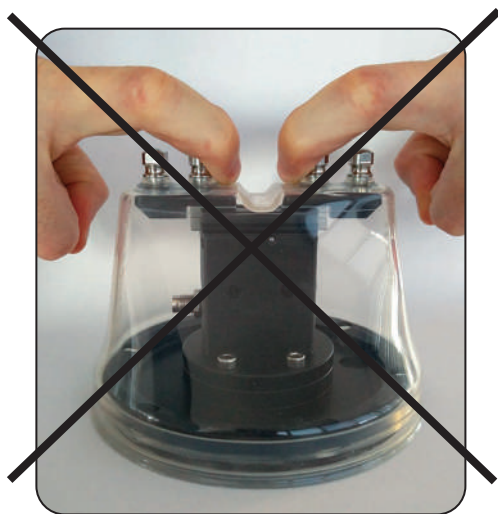
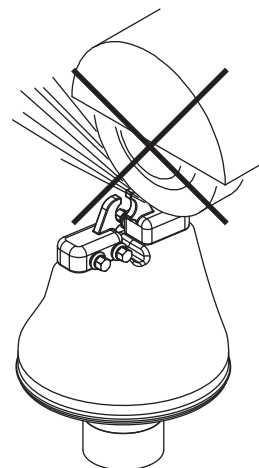
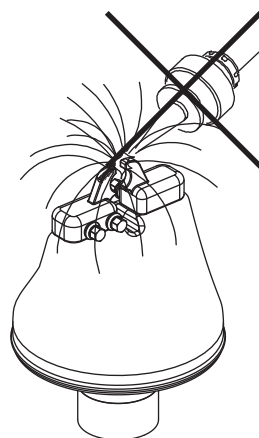
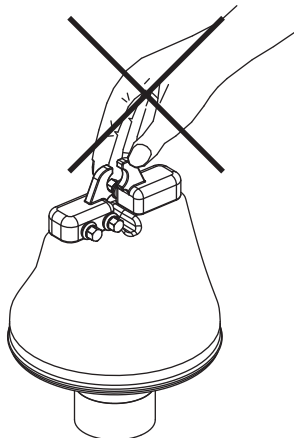
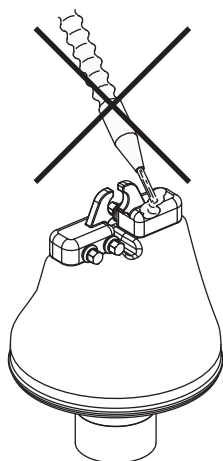
1	Interfaccia robot	1	1 x 142 g	Robot interface	1
2	Cover	1	1 x 86 g	Cover	2
3	Interfaccia pinza	1	1 x 41 g	Gripper interface	3
4	Griffe interne	2	2 x 6.2 g	Internal jaws	4
5	Spina	4	4 x 5.3 g	Pin	5
6	Rondella igienica 4.1x9.7 (Novonox)	4	4 x 0.1 g	Hygienic sealing 4.1x9.7 (Novonox)	6
7	Vite lucidata a testa esagonale M4x20 (Novonox)	4	4 x 5.0 g	Hex head screw polished M4x20 (Novonox)	7
8	Vite testa svasata taglio a croce M3x10 A4	2	2 x 0.5 g	Cross recessed flat countersunk head M3x10 A4	8
9	Vite testa cilindrica esagono incassato M4x14 A4	4	4 x 1.8 g	Hex socket head cap screw M4x14 A4	9
10	Boccole di centraggio Ø5x3.2x2.4	6	6 x 0.3 g	Centering Sleeve Ø5x3.2x2.4	10
11	Vite testa cilindrica esagono incassato M3x6 A4	4	4 x 0.8 g	Hex socket head cap screw M3x6 A4	11
12	Vite testa cilindrica esagono incassato M5x10 A4	4	4 x 2.9 g	Hex socket head cap screw M5x10 A4	12
13	Spina di centraggio Ø5x16 (m6)	1	2 x 1.7 g	Dowel pin Ø5x16 (m6)	13
14	Spina di centraggio Ø4x10 (m6)	1	1 x 1.5 g	Dowel pin Ø4x10 (m6)	14
15	Vite testa cilindrica esagono incassato M5x35 A4	4	4 x 6.2 g	Hex socket head cap screw M5x35 A4	15

Avvertenze

- Non mettere il prodotto in posti dove potrebbe entrare in contatto con corpi estranei, materiali simili a olii, oppure in atmosfere con gas corrosivi, infiammabili, ne vicino ad altrettanti materiali infiammabili.
- Non installare il prodotto vicino ad elementi riscaldanti.
- Non eseguire il cablaggio ne utilizzare il prodotto con le mani bagnate.
- Non spostare il prodotto tramite il cavo.
- Non forzare il movimento delle griffe manualmente.

Caution

- Do not place the product in place where it may come in contact with foreign matter such as oil nor in an atmosphere of corrosive gas or flammable gases nor in place near inflammable material.
- Do not install the product near heating element.
- Do not perform wiring nor operate the product with wet hand.
- Do not transfer the product by holding only the cable.
- Do not attempt to force gripper jaws' movement by hand.



Marcatura CE

Il sistema è conforme con:

Directive 2004/108/CE, EN 62233 (2008-04), EN 61000-6-2+EC+IS1 (2005-08; 2005-09; 2005-11), EN 61000-6-3+A1 (2007-01; 2011-03), EN 61000-6-4 (2007-01), EN 55016-2-1+A1 (2004-10; 2005-08), EN 55016-2-3 (2006-12), EN 61000-4-2 (2009-03), EN 61000-4-3+A1+IS1+A2 (2006-05; 2008-02; 2009-02; 2010-07), EN 61000-4-4+A1 (2004-12; 2010-03), EN 61000-4-5 (2006-11), EN 61000-4-6+A1+IS1 (1996-07; 2001-12; 2004-07), EN 61000-4-6 (2009-03), CEI EN 60529 (1997-06).

Certificazioni IPA

Il sistema è dichiarato adatto per l'uso in camera bianca dall'istituto Fraunhofer, come indicato nella relazione N° GI1410-728

CE Marking reference

The system is in conformance with:

IPA Certification reference

The system has been declared suitable for use in hygienic areas by Fraunhofer IPA Institute as stated in report No. GI 1410-728

Pinza elettrica parallela 2 griffe autocentrante

- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando la pinza è in presa.
- Nessuna programmazione richiesta.
- Tenuta pezzo garantita in caso di interruzione d'energia.
- Si adatta ad ogni dimensione di pezzo entro griffe.
- Corsa extra.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nella pinza.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con attuatori rotanti.
- Sensori magnetici opzionali.

2-jaw parallel self-centering electric gripper

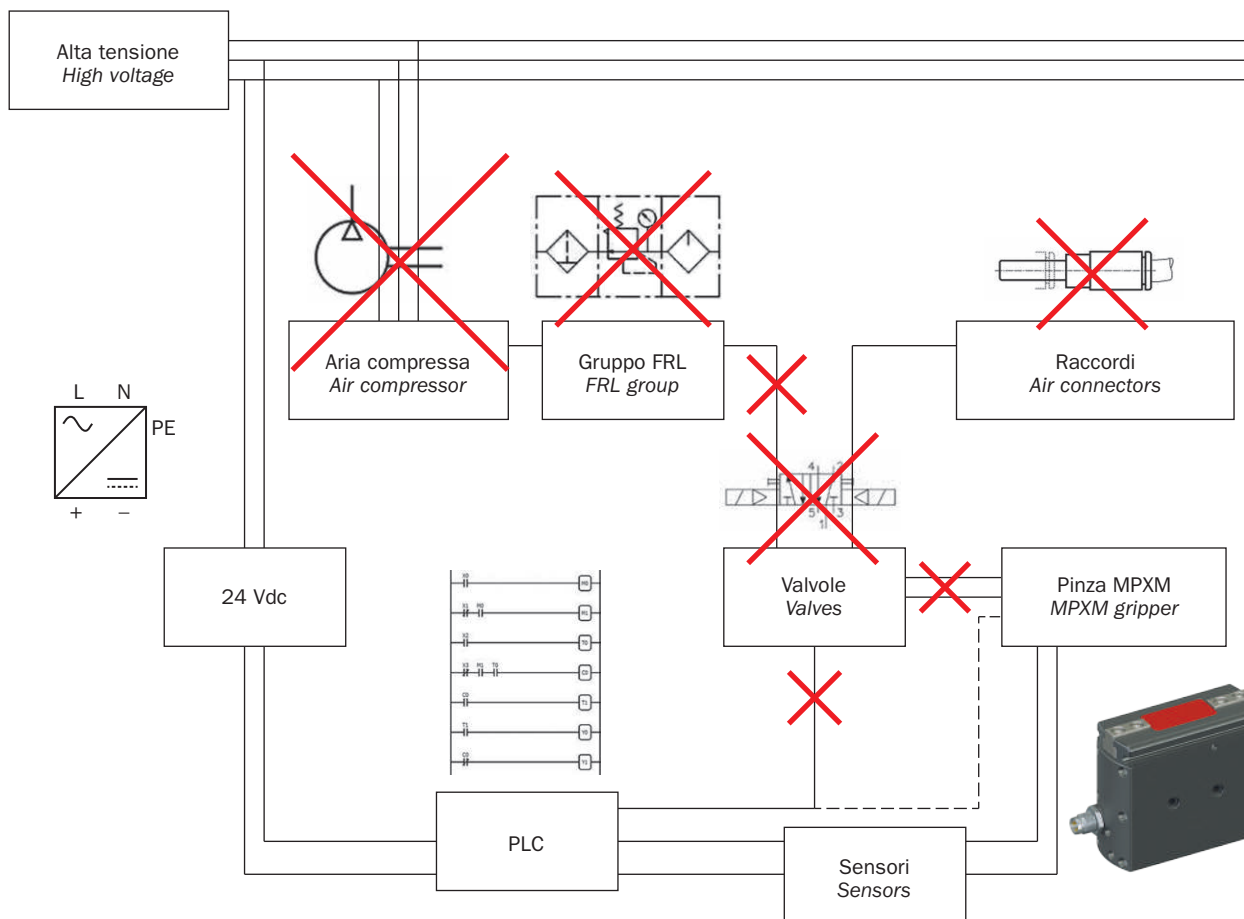
- Plug & play user friendly gripper.
- No electricity consumption when gripper is engaged.
- No programming required.
- Gripper retention guaranteed in event of blackout.
- Self Adapting jaws part.
- Extra stroke.
- Long life Brushless motor (Brushless DC).
- Built-in motor driver.
- 24 Vdc Low Voltage Power Supply.
- M8x1, 3 poles standard connection.
- Controllable by PLC as a pneumatic valve.
- Fiber-carbon gear reduction.
- 10 million cycle maintenance-free.
- T-slot style jaws for heavy loads.
- Weight-dimensions-force best trade off.
- Rotary actuator fitting compatible.
- Optional magnetic sensors.



MPXM1612

MPXM2516

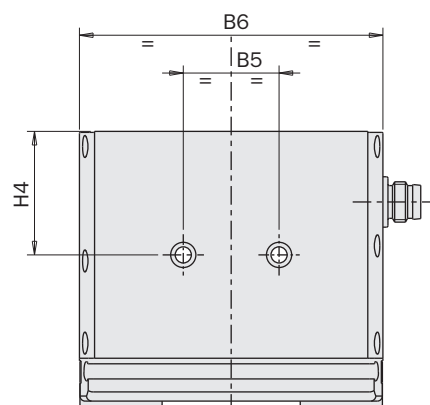
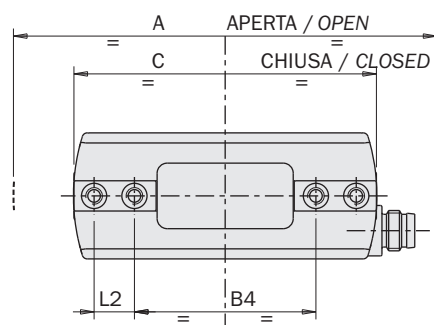
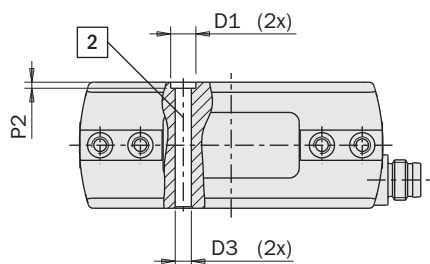
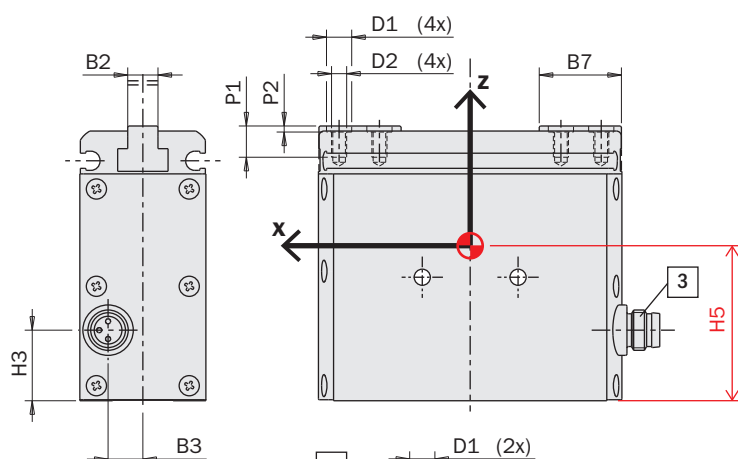
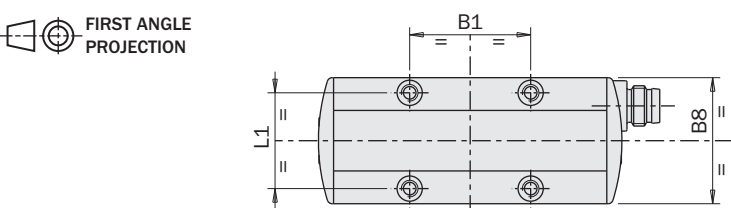
MPXM3220



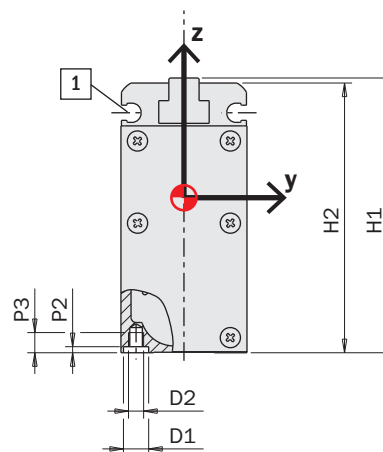


	MPXM1612	MPXM2516	MPXM3220
Forza di serraggio totale <i>Total gripping force</i>	68 N	95 N	215 N
Corsa <i>Stroke</i>	2x6 mm ($\pm 2^\circ$)	2x8 mm ($\pm 2^\circ$)	2x10 mm ($\pm 2^\circ$)
Frequenza alla temperatura ambiente di 30°C <i>Frequency at an ambient temperature of 30°C</i>	0.75 Hz	1.2 Hz	0.85 Hz
Tempo chiusura griffe <i>Jaw closing time</i>	0.21 s	0.19 s	0.23 s
Tempo di lavoro pinza <i>Working gripper time</i>	0.3 s	0.28 s	0.3 s
Ciclo di lavoro alla temperatura ambiente di 30°C <i>Duty cycle at an ambient temperature of 30°C</i>	45%	68%	51%
Tensione d'alimentazione <i>Power supply</i>	24 Vdc $\pm 10\%$	24 Vdc $\pm 10\%$	24 Vdc $\pm 10\%$
Corrente di picco <i>Peak current</i>	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale <i>Nominal current</i>	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless <i>Brushless motor power</i>	6 W	11 W	23 W
Connessione <i>Connection</i>	M8 - 3 poli M8 - 3 poles		
Segnale d'ingresso apertura/chiusura <i>Open/closed input signal</i>	PNP open collector PNP open collector		
Ripetibilità <i>Repetition accuracy</i>	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio <i>Operating temperature</i>	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione <i>Environmental Degree</i>	IP54	IP54	IP54
Rumorosità <i>Noise level</i>	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) <i>Mass (motor included)</i>	184 g	390 g	604 g
Certificazione Camera Bianca IPA <i>IPA Clean Room Certification</i>	-	-	-
Normative di riferimento <i>Reference standards</i>	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jxx	0.55 kgcm ²	2.02 kgcm ²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jyy	0.93 kgcm ²	3.18 kgcm ²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jzz	0.55 kgcm ²	1.76 kgcm ²
Tecnologia e opzioni <i>Technology and options</i>	Pagina 570 - 571 Page 570 - 571		

Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

Dimensioni (mm)
Dimensions (mm)
 FIRST ANGLE
PROJECTION


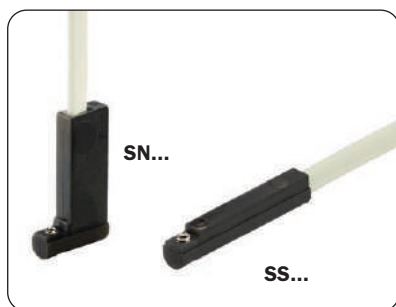
- 1 Cava per sensore magnetico
Magnetic sensor slot
- 2 Foro passante per fissaggio pinza
Through hole for gripper fastening
- 3 Connessione elettrica
Electrical connection



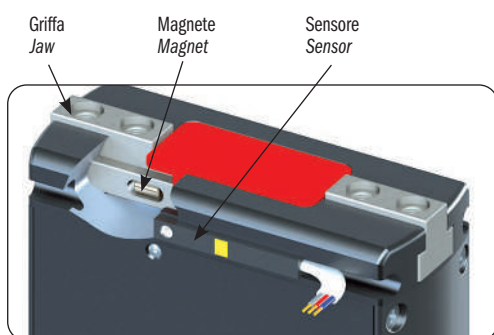
		MPXM1612	MPXM2516	MPXM3220
A		72	91	109
B1	±0.02	24	30	36
B2		6	8	9
B3		6.9	10	11
B4		36	41	48
B5	±0.02	19	25	30
B6		62.2	75	89
B7		16.3	22.5	28
B8		25	32	35
C		60	75	89
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
D3		Ø3.2	Ø4.2	Ø5.2
H1		54.5	71	81
H2		53.5	70	80
H3		14	17	19
H4	±0.02	24.5	32	38
H5		32.3	42.6	48.4
L1	±0.02	19	24	26
L2	±0.02	8	12	14
P1		6.2	8	8.5
P2	+0.1	1.2	1.5	1.5
P3		4	7	8

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe. Per i dettagli si veda la sezione "Accessori".



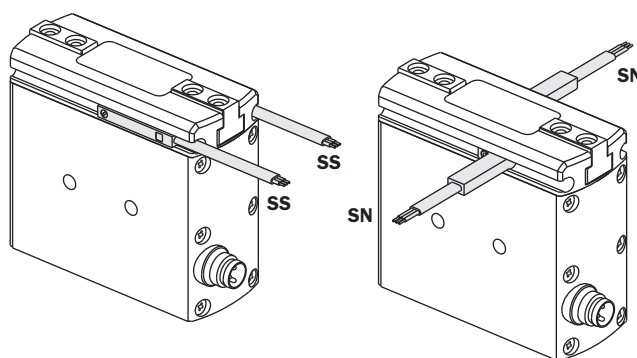
Sono tutti dotati di un cavo piatto a tre fili e di un led.



Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside. For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



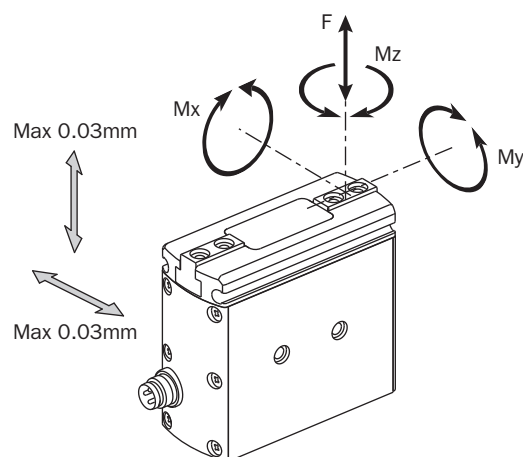
Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili. Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore. F_s , $M_x s$, $M_y s$, $M_z s$, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme. F_d , $M_x d$, $M_y d$, $M_z d$, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento. La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni. La figura sotto mostra anche il gioco massimo delle griffe.

	MPXM1612	MPXM2516	MPXM3220
F_s	60 N	120 N	200 N
$M_x s$	3 Nm	8 Nm	20 Nm
$M_y s$	3 Nm	8 Nm	20 Nm
$M_z s$	3 Nm	8 Nm	20 Nm
F_d	0.6 N	1.2 N	2 N
$M_x d$	3 Ncm	8 Ncm	20 Ncm
$M_y d$	3 Ncm	8 Ncm	20 Ncm
$M_z d$	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g

Safety loads and backlashes

Check the table for the maximum permitted loads. Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator. F_s , $M_x s$, $M_y s$, $M_z s$, are the maximum permitted loads under static conditions, that is with motionless jaws. F_d , $M_x d$, $M_y d$, $M_z d$, are the maximum permitted loads under dynamic conditions, that is with running jaws. The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance. The picture below shows also the jaw maximum backlash.



Pinza elettrica parallela corsa lunga 2 griffe autocentrante

- Semplice azionamento Plug&Play.
- Nessun consumo elettrico quando la pinza è in presa.
- Nessuna programmazione richiesta.
- Tenuta pezzo garantita in caso di interruzione d'energia.
- Si adatta ad ogni dimensione di pezzo entro griffe.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Azionamento motore integrato nella pinza.
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M8x1, 3 poli standard.
- Controllabile con segnale PLC come una Valvola Pneumatica.
- Sistema di riduzione in fibra di carbonio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Compatibile con attuatori rotanti.
- Sensori magnetici opzionali.

Self-centering 2-jaw electric parallel gripper with long stroke

- Plug & play user friendly gripper.
- No electricity consumption when gripper is engaged.
- No programming required.
- Gripper retention guaranteed in event of blackout.
- Self Adapting jaws part.
- Long life Brushless motor (Brushless DC).
- Built-in motor driver.
- 24 Vdc Low Voltage Power Supply.
- M8x1, 3 poles standard connection.
- Controllable by PLC as a pneumatic valve.
- Fiber-carbon gear reduction.
- 10 million cycle maintenance-free.
- T-slot style jaws for heavy loads.
- Weight-dimensions-force best trade off.
- Rotary actuator fitting compatible.
- Optional magnetic sensors.



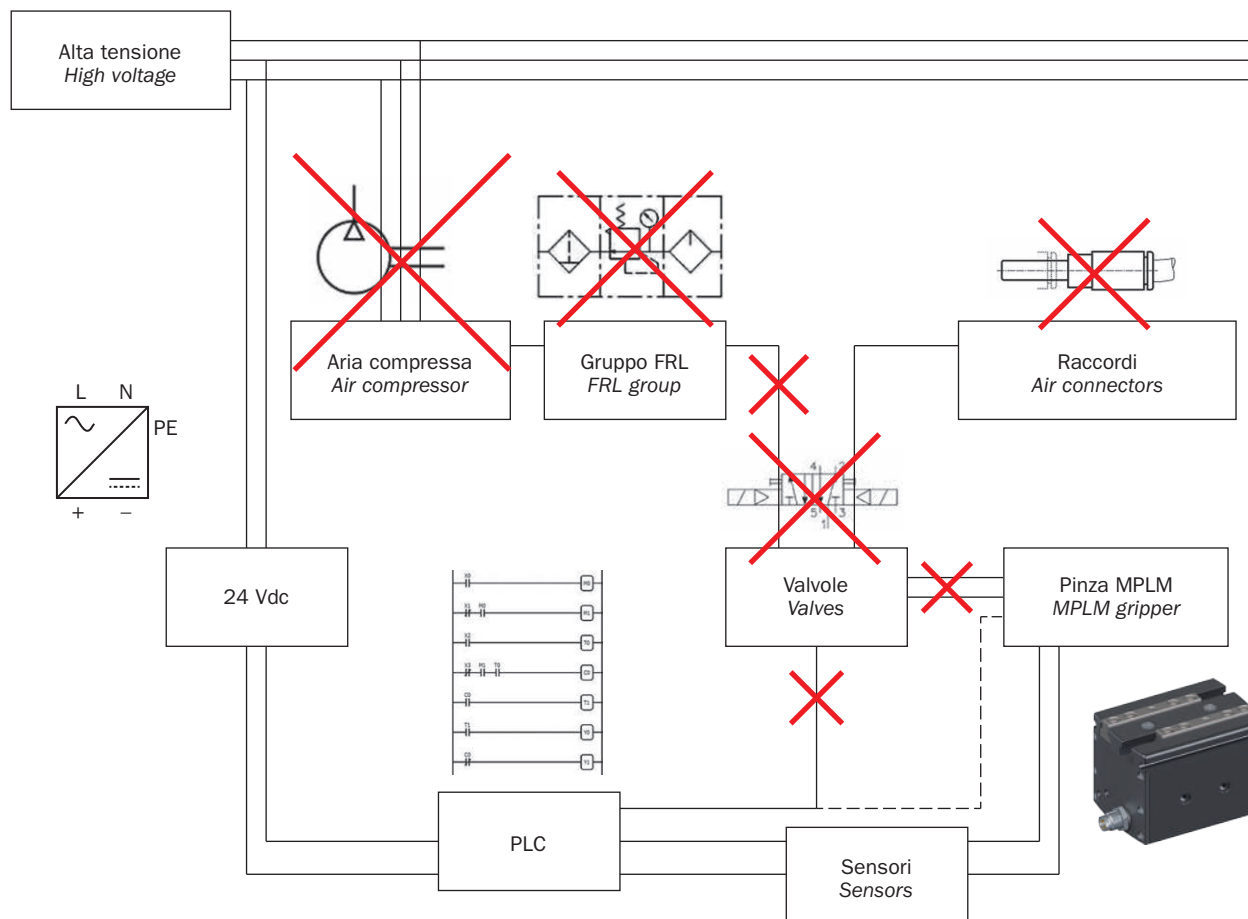
MPLM1630



MPLM2535



MPLM3240

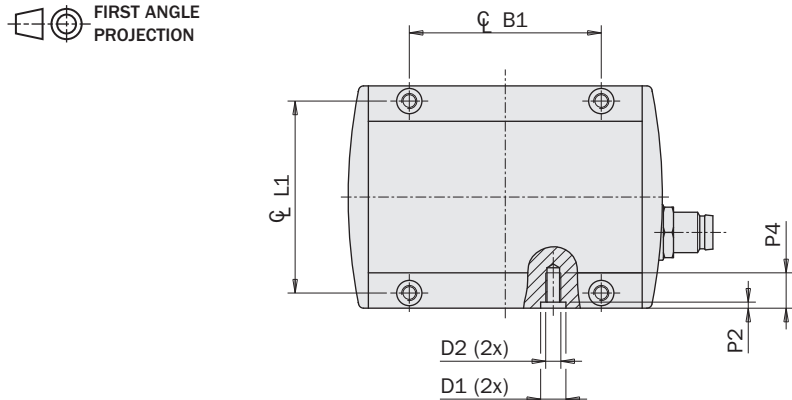




	MPLM1630	MPLM2535	MPLM3240
Forza di serraggio totale <i>Total gripping force</i>	63 N	98 N	210 N
Corsa <i>Stroke (±0.3 mm)</i>	2x15 mm	2x17.5 mm	2x20 mm
Frequenza alla temperatura ambiente di 30°C <i>Frequency at an ambient temperature of 30°C</i>	0.51 Hz	0.93 Hz	0.70 Hz
Tempo chiusura griffe <i>Jaw closing time</i>	0.37 s	0.42 s	0.50 s
Tempo di lavoro pinza <i>Working gripper time</i>	0.52 s	0.53 s	0.53 s
Ciclo di lavoro alla temperatura ambiente di 30°C <i>Duty cycle at an ambient temperature of 30°C</i>	54%	100%	74%
Tensione d'alimentazione <i>Power supply</i>	24 Vdc ±10%	24 Vdc ±10%	24 Vdc ±10%
Corrente di picco <i>Peak current</i>	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale <i>Nominal current</i>	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless <i>Brushless motor power</i>	6 W	11 W	23 W
Connessione <i>Connection</i>	M8 - 3 poli M8 - 3 poles		
Segnale d'ingresso apertura/chiusura <i>Open/closed input signal</i>	PNP open collector PNP open collector		
Ripetibilità <i>Repetition accuracy</i>	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio <i>Operating temperature</i>	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione <i>Environmental Degree</i>	IP54	IP54	IP54
Rumorosità <i>Noise level</i>	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) <i>Mass (motor included)</i>	263 g	500 g	844 g
Certificazione Camera Bianca IPA <i>IPA Clean Room Certification</i>	-	-	-
Normative di riferimento <i>Reference standards</i>	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jxx	0.82 kgcm ²	2.32 kgcm ²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jyy	1.07 kgcm ²	3.03 kgcm ²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jzz	0.98 kgcm ²	2.96 kgcm ²
Tecnologia e opzioni <i>Technology and options</i>	Pagina 570 - 571 Page 570 - 571		

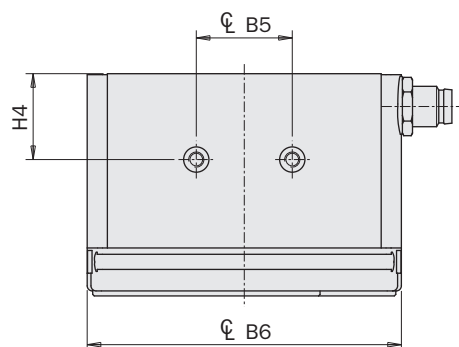
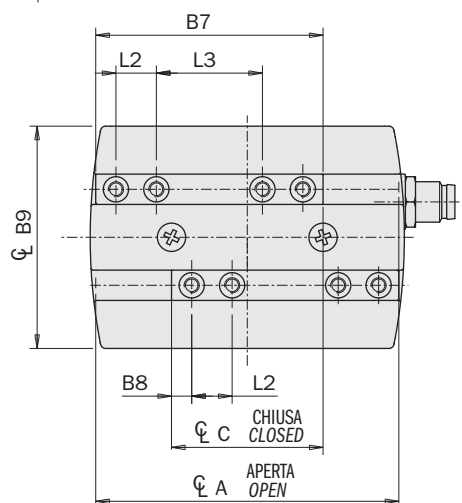
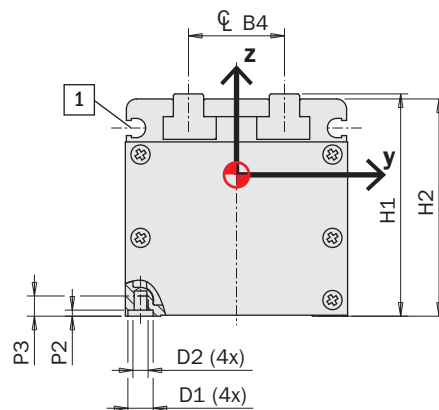
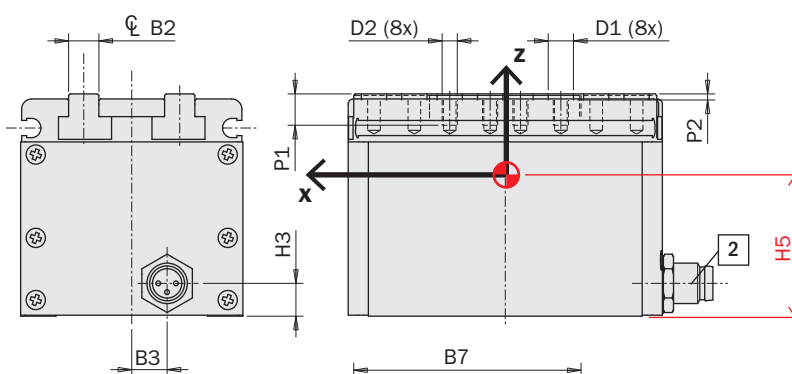
Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
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Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

Dimensioni (mm) Dimensions (mm)



1 Cava per sensore magnetico
Magnetic sensor slot

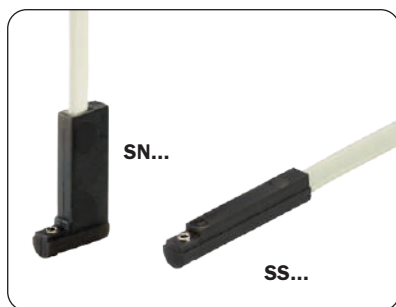
2 Connessione elettrica
Electrical connection



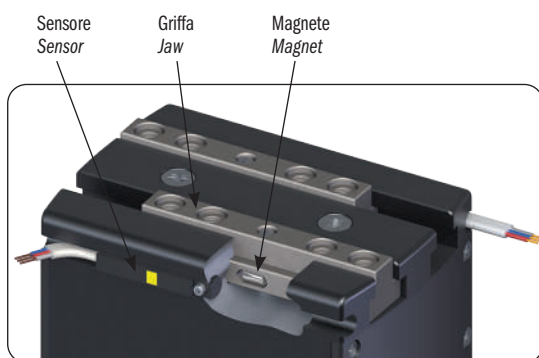
		MPLM1630	MPLM2535	MPLM3240
A		60	74	88
B1	±0.02	38	45	54
B2		6	8	9
B3		7	17	15
B4		19	23	28
B5	±0.02	19	25	30
B6		62.2	77	91
B7		45	56.5	68
B8		4	5	6.5
B9		44	54	62
C		30	39	48
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
H1		44	54	62
H2		43	53	61
H3		6.5	11.7	9.5
H4	±0.02	17	19.5	23
H5		26.6	32.2	36.7
L1	±0.02	38	45	54
L2	±0.02	8	12	14
L3		21	22.5	27
P1		6.2	8	8.5
P2	+0.1	1.2	1.5	1.5
P3		4	6	8
P4		7	6	14

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe. Per i dettagli si veda la sezione "Accessori".



Sono tutti dotati di un cavo piatto a tre fili e di un led.

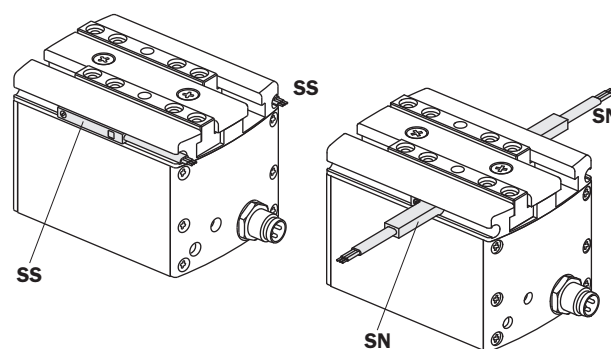


Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside.

For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili.

Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.

F_s , $M_x s$, $M_y s$, $M_z s$, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.

F_d , $M_x d$, $M_y d$, $M_z d$, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.

La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.

La figura sotto mostra anche il gioco massimo delle griffe.

	MPLM1630	MPLM2535	MPLM3240
F_s	60 N	120 N	180 N
$M_x s$	3 Nm	8 Nm	20 Nm
$M_y s$	3 Nm	8 Nm	20 Nm
$M_z s$	3 Nm	8 Nm	20 Nm
F_d	0.6 N	1.2 N	2 N
$M_x d$	3 Ncm	8 Ncm	20 Ncm
$M_y d$	3 Ncm	8 Ncm	20 Ncm
$M_z d$	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g

Safety loads and backlashes

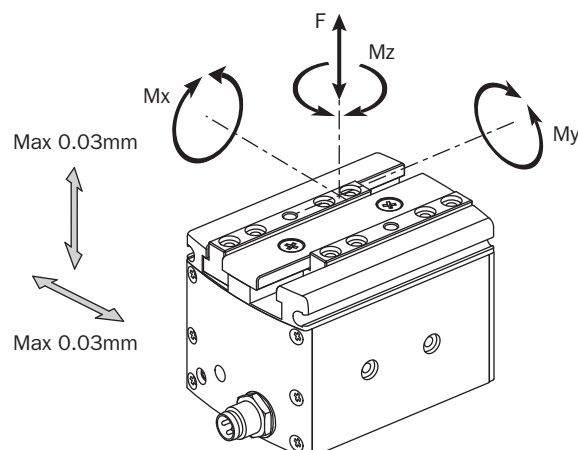
Check the table for the maximum permitted loads.

Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator. F_s , $M_x s$, $M_y s$, $M_z s$, are the maximum permitted loads under static conditions, that is with motionless jaws.

F_d , $M_x d$, $M_y d$, $M_z d$, are the maximum permitted loads under dynamic conditions, that is with running jaws.

The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.

The picture below shows also the jaw maximum backlash.



Soluzione per manipolazione in camera bianca

Le pinze elettriche Gimatic possono operare in aree produttive ad elevato livello di pulizia e igiene mediante integrazione del KIT-GMPLM3240. L'uso di un adattatore consente di fissare la pinza elettrica ad un'interfaccia robot (non inclusa) e di proteggerne il funzionamento con una cover silconica sterilizzabile.

Il fissaggio delle dita di presa (non incluse) è reso possibile mediante speciali viti igieniche in acciaio inossidabile.

Il sistema soddisfa i requisiti richiesti dalle massime classi di pulizia GMP (good manufacturing practice) di livello A e B.

Le principali caratteristiche sono:

- Adatto per pinze MPLM3240 (1), MPLF3270 (2) e MPCF3270 (3).
- Classi di pulizia GMP A e B.
- Cover realizzata in Silicone Silpuran® Wacker FDA 21 CFR §177.2600.
- Compatibile con procedura di pulizia con perossido di idrogeno (VHP-H₂O₂) e raggi ultravioletti UV.
- Grado di protezione del sistema completo IP65.
- Certificazione ISO14644-1 per camera bianca ISO 5.
- Viti igieniche in acciaio inossidabile (Novonox).
- Superficie trasparente che permette la lettura dei LED dei sensori interni o dei LED di stato dell'alimentazione.
- Superfici dal design igienico che prevengono l'accumulo di batteri.
- Semplice fissaggio delle dita di presa con sistema antirotazione.

Cleanroom Gripping Solution

Gimatic electric grippers can operate in environments characterised by a high standard of cleanliness and hygiene by integrating the KIT-GMPLM3240. An adapter enables fastening the electric gripper to a robot interface (not included) and protecting its operation by means of a sterilisable silicone cover. The gripping fingers (not included) can be fastened by means of special hygienic stainless steel screws. The systems meets the most stringent GMP (Good Manufacturing Practice) cleanliness standards for Grade A and B.

Its main characteristics are:

- Suitable for the MPLM3240 (1), MPLF3270 (2) and MPCF3270 (3) grippers.
- Compliant with GMP Grade A and B cleanliness standards.
- Cover made in Silicone Silpuran® Wacker FDA 21 CFR §177.2600.
- Compatible with hydrogen peroxide (VHP-H₂O₂) and UV cleaning procedures.
- Complete system with IP65 protection rating.
- ISO14644-1 certification for ISO 5 cleanrooms.
- Stainless steel hygienic screws (Novonox).
- Transparent surface that enables reading the LEDs of the internal sensors and the power supply status LEDs.
- Hygienic design surfaces preventing the build-up of bacteria.
- Easy fastening of gripping fingers with anti-rotation system.



KIT-GMPLM3240

(1)



MPLM3240

+



MPLM32-KIT-02

(2)



MPLF3270

+



MPLF-KIT-02

(3)



MPCF3270

+



MPCF-KIT-01

COMING SOON

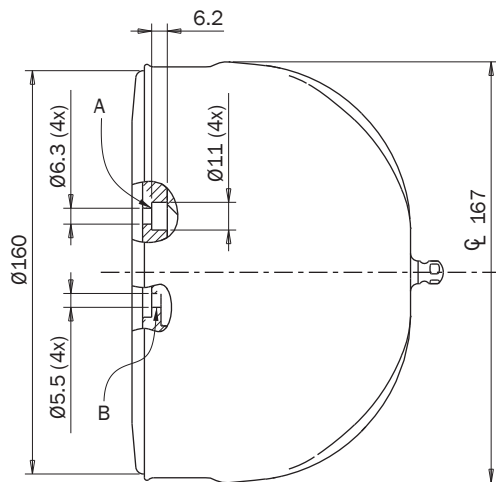
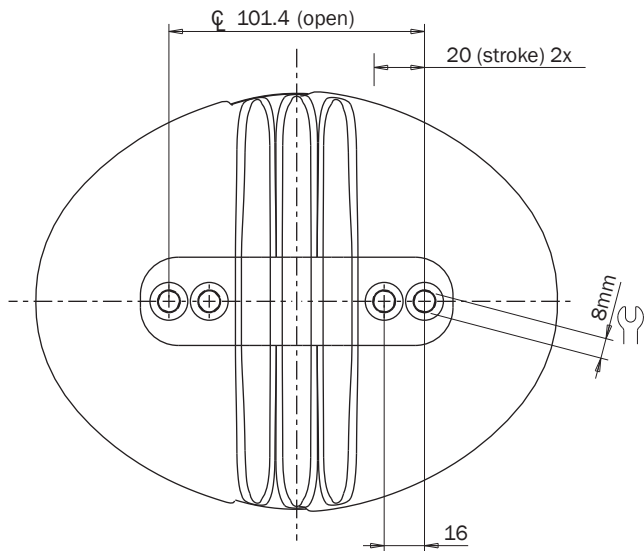
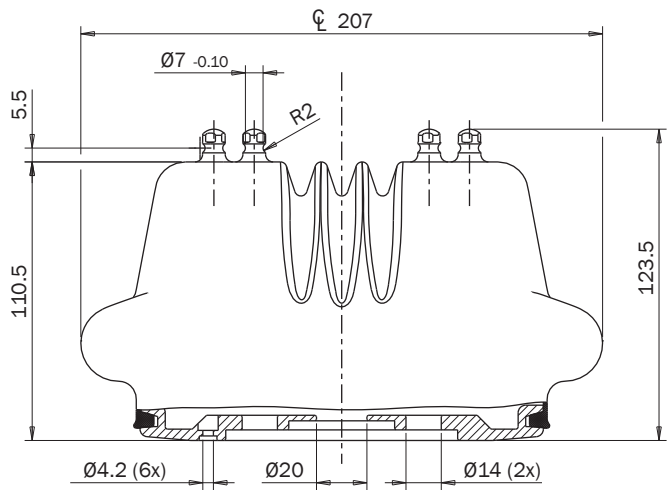
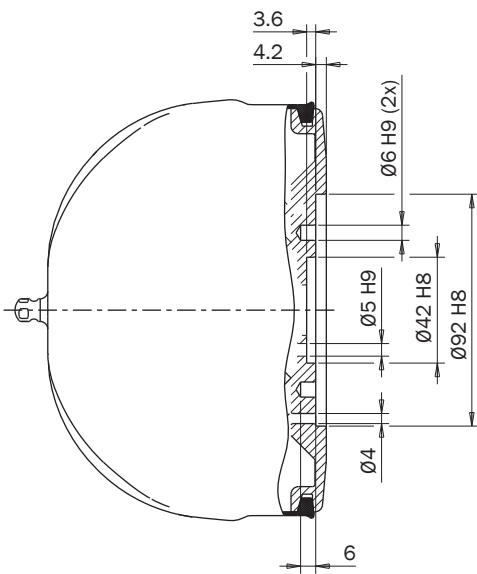
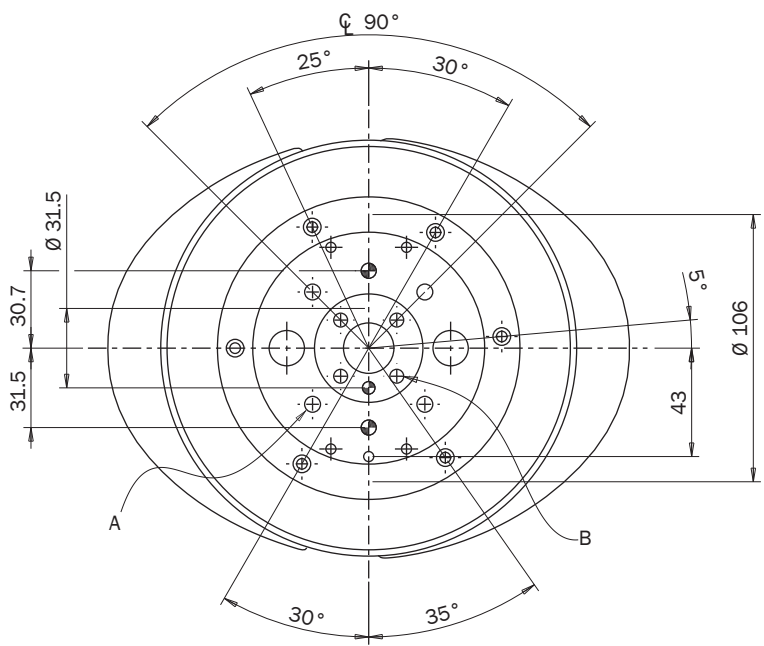


IP65
ENVIRONMENT DEGREE

H₂O₂
CLEANING PROCEDURE

EMC / CE

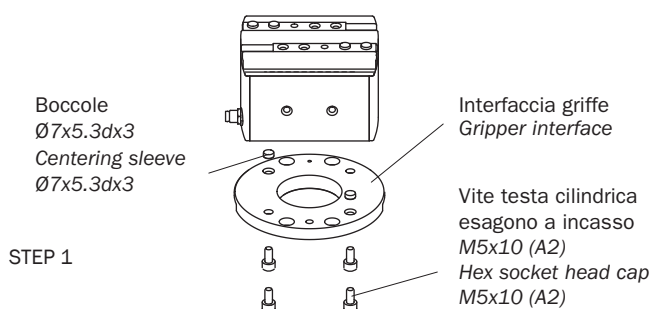
Dimensioni (mm)
Dimensions (mm)



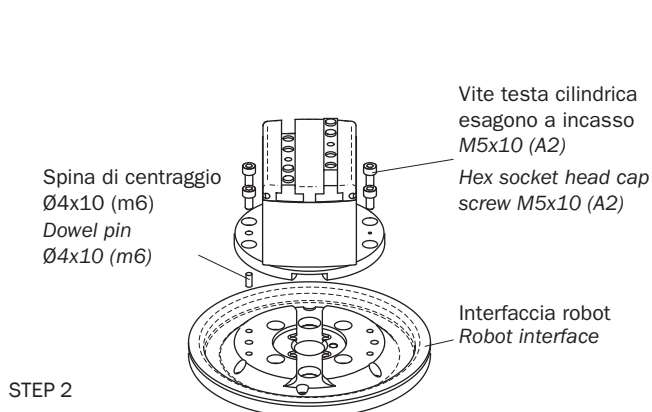
Assemblaggio Assembly

- Montare la pinza (non inclusa nel KIT-GMPLM3240) sulla piastra di interfaccia della pinza utilizzando le viti a testa cilindrica con esagono incassato e le boccole di centraggio incluse nel kit, formando così il sottosistema pinza.

- Mount the gripper (not included in the KIT-GMPLM3240 box) onto the gripper interface using the hex socket head cap screws and the centering sleeves included in the box and forming the gripper subsystem.



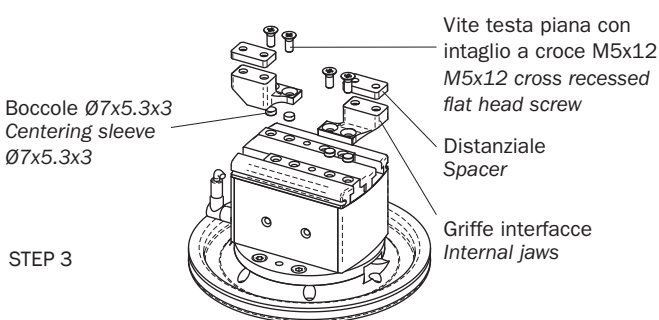
- Connettere il connettore M8 femmina alla pinza ed eventualmente guidare il cavo attraverso il foro al centro della piastra di interfaccia della pinza (a seconda dell'applicazione e della messa in funzione del robot).
- Fissare il sottosistema pinza sulla piastra di interfaccia del robot utilizzando le viti e spine di centraggio, formando così il sotto assieme pinza.
- Coppia di serraggio applicabile alle viti = 1.5 Nm.



- Connect the female M8 connector to the gripper and eventually drive the cable below the gripper interface along the central groove of the robot interface (depending on the application constraint and commissioning of the robot).
- Fix gripper subsystem onto the robot interface using the screws and the centering pin forming the gripper subassembly.
- Maximum clamping torque of the screws = 1.5 Nm.

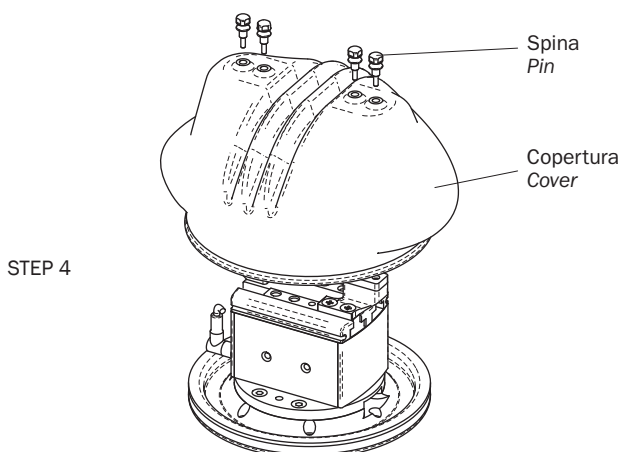
- Fissare le griffe interne e i distanziali utilizzando le viti a testa piana con intaglio a croce e le boccole di centraggio incluse nel kit.

- Fix the internal jaws and the spacers using the cross recessed countersunk head screws and the centering sleeves included in the box.

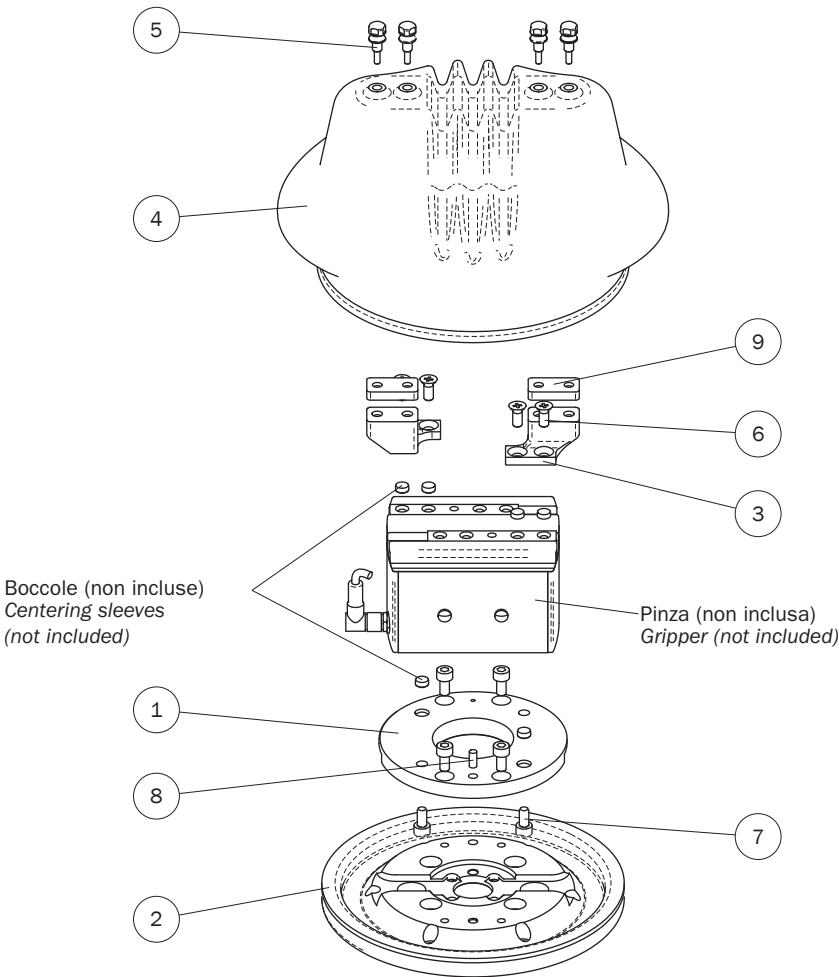


- Infine, installare la cover di silicone e i pin esterni. Prestare attenzione che la cover di silicone sia correttamente inserita in ogni punto nella cava circolare della interfaccia del robot.

- Finally, install the silicon cover and the external pins. Pay attention the silicon cover is correctly in place inside the circular groove of the robot interface all around the part.



Elenco delle parti
Part list



Parti incluse
Included parts

1	Interfaccia pinza	1	120 g	Gripper interface	1
2	Interfaccia robot	1	400 g	Robot interface	2
3	Griffe interfacce	2	20 g	Internal jaws	3
4	Cover	1	152 g	Cover	4
5	Spina	4	5.3 g	Pin	5
6	Vite testa piana M5x12 inox a2	4	2 g	Cross recessed flat countersunk head M5x12 inox a2	6
7	Vite testa cilindrica esagono incassato M5x10 inox a2	8	2.9 g	Hex socket head cap M5x10 inox a2	7
8	Spina di centraggio ø4x10 (m6)	1	1.5 g	Dowel pin ø4x10 (m6)	8
9	Distanziale	2	1 g	Spacer	9

Marcatura CE

Il sistema è conforme con:

Directive 2004/108/CE, EN 62233 (2008-04), EN 61000-6-2+EC+IS1 (2005-08; 2005-09; 2005-11), EN 61000-6-3+A1 (2007-01; 2011-03), EN 61000-6-4 (2007-01), EN 55016-2-1+A1 (2004-10; 2005-08), EN 55016-2-3 (2006-12), EN 61000-4-2 (2009-03), EN 61000-4-3+A1+IS1+A2 (2006-05; 2008-02; 2009-02; 2010-07), EN 61000-4-4+A1 (2004-12; 2010-03), EN 61000-4-5 (2006-11), EN 61000-4-6+A1+IS1 (1996-07; 2001-12; 2004-07), EN 61000-4-6 (2009-03), CEI EN 60529 (1997-06).

Certificazioni IPA

Il sistema è dichiarato adatto per l'uso in camera bianca dall'istituto Fraunhofer, come indicato nella relazione N° GI 1904-1109.

CE Marking reference

The system is in conformance with:

IPA Certification reference

The system has been declared suitable for use in hygienic areas by Fraunhofer IPA Institute as stated in report No. GI 1904-1109.

Pinza servo elettrica parallela corsa lunga 2 griffe autocentrante

- Controllo tramite elettronica esterna.
- Motore senza spazzole a lunga vita elettrica (Brushless DC).
- Alimentazione in bassa tensione 24 Vdc.
- Connessione M12-12 poli standard.
- Meccanismo di autocentraggio.
- Esente da manutenzione per 10 milioni di cicli.
- Griffe a T per carichi elevati.
- Miglior compromesso peso-dimensioni-forza.
- Sensori magnetici opzionali.
- Encoder incrementale integrato.

Self-centering 2-jaw servo-electric parallel gripper with long stroke

- Control via external electronics.
- Long life Brushless motor (Brushless DC).
- 24 Vdc Low voltage power supply.
- M12-12 poles standard connection.
- Self-centering system.
- 10 million cycle maintenance-free.
- T-slot style jaws for heavy loads.
- Weight-dimensions-force best trade off.
- Optional magnetic sensors.
- Integrated incremental encoder.



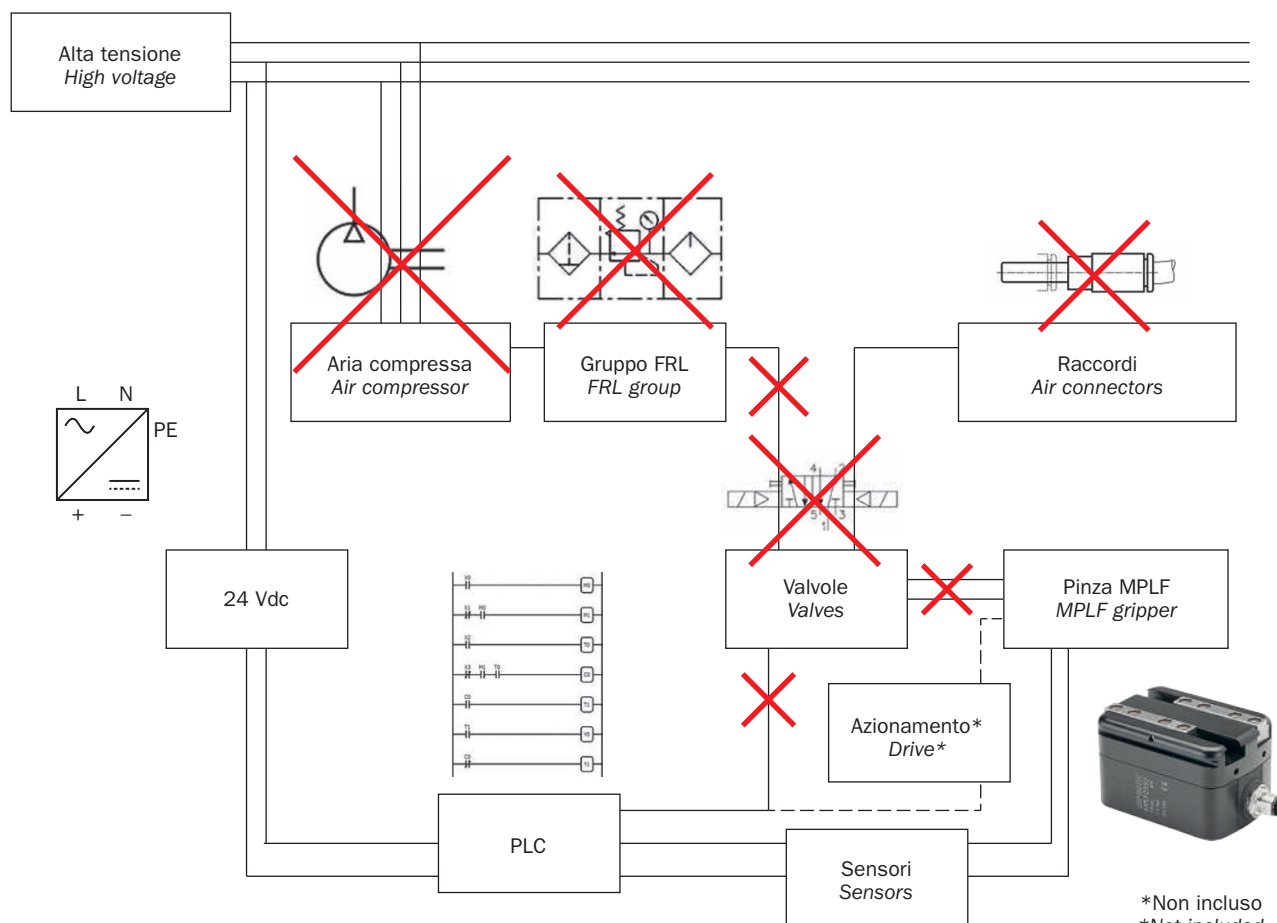
MPLF1630



MPLF2550



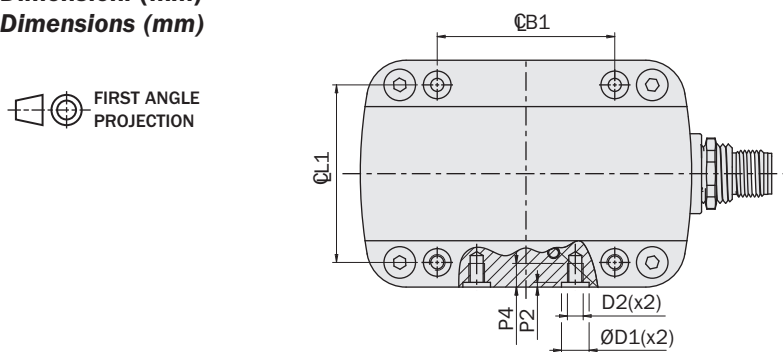
MPLF3270





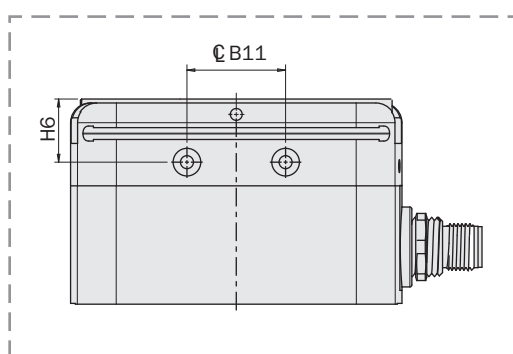
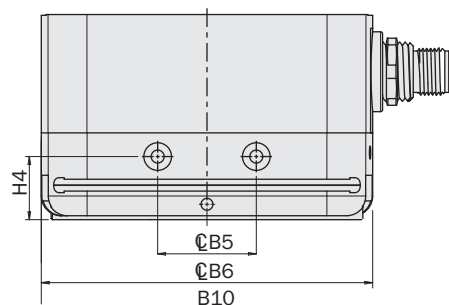
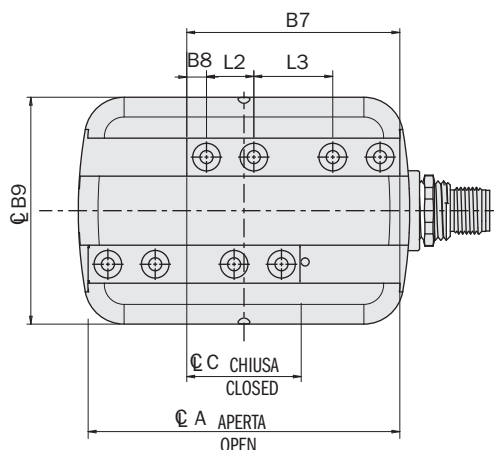
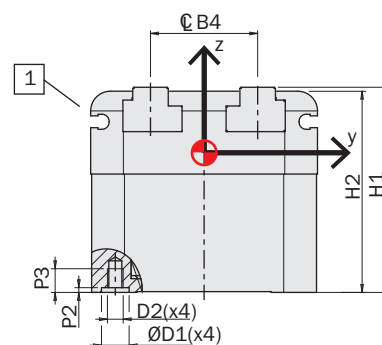
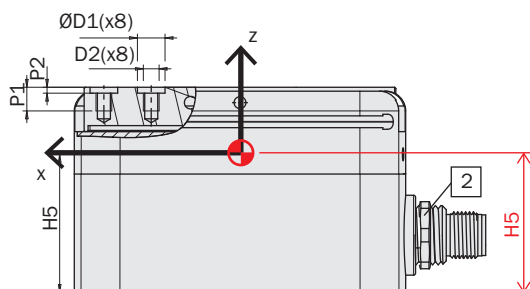
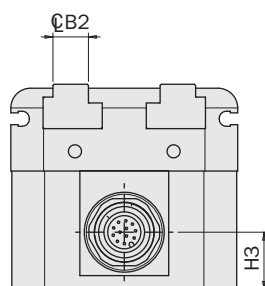
	MPLF1630	MPLF2550	MPLF3270
Corsa Stroke	30 mm (2x15mm)	50 mm (2x25mm)	70 mm (2x35mm)
Forza di presa nominale (picco) Nominal gripping force (peak)	45 N (100 N)	100 N (250 N)	160 N (470 N)
Tempo di chiusura griffe (corsa completa) Jaw closing time (full stroke)	0.15 s	0.2 s	0.25 s
Massa totale Total mass	250 g	500 g	840 g
Corrente nominale Rated current	0.32 A	0.4 A	1.5 A
Corrente di picco Peak current	0.8 A	1.4 A	4.8 A
Alimentazione Supply	24 V	24 V	24 V
Velocità senza carico No load speed	9500 rpm	4500 rpm	6500 rpm
Numero di coppie polari Number of Pole Pairs	4	6	8
Rapporto trasmissione encoder/motore Gear ratio encoder/motor	1/5	2/9	1/5
Resistenza fase-fase Line to Line resistance	25.8 ohm	12.9 ohm	1.47 ohm
Induttanza fase-fase Line to Line inductance	2.8 mH	5.34 mH	0.61 mH
Grado di protezione Environmental degree	IP40		
Temperatura di esercizio Temperature range	+5°C - 60°C		
Risoluzione all'asse del motore Resolution @ motor axis	51 impulsi / giro 51 pulse/turn	57 impulsi / giro 57 pulse/turn	51 impulsi / giro 51 pulse/turn
Risoluzione all'asse dell'encoder Resolution @ encoder axis	256 impulsi / giro 256 pulse/turn		
Tipo di feedback Feedback type	Encoder incrementale ABZ ABZ incremental encoder		
Tipo di motore Motor type	Motore brushless + sensore Hall Brushless Motor +Hall sensor		
Configurazione di avvolgimenti Winding configuration	Stella Star		
Costante termica motore Thermal time constant winding	3 s	5 s	10 s
	RISOLUZIONE ALLE GRIFFE POSITION RESOLUTION @ JAWS		
MPLF1630	0.06 mm/impulsi 0.06 mm/pulse		
MPLF2550	0.06 mm/impulsi 0.06 mm/pulse		
MPLF3270	0.07 mm/impulsi 0.07 mm/pulse		

Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

Dimensioni (mm)
Dimensions (mm)


1 Cava per sensore magnetico
Magnetic sensor slot

2 Connessione elettrica
Electrical connection



		MPLF 1630	MPLF 2550	MPLF 3270
A		50	79	95
B1	+0.02	38	45	54
B2		6	9	10
B3		/	/	/
B4		22.2	27.2	30.5
B5		20	25	/
B6		52.2	84	100
B7		35	54	60
B8		4	5	6.5
B9		45.5	57.5	62.5
B10		79.7	105	111
B11		/	/	30
C		20	29	25
D1		5 H8	7 H8	7 H8
D2		M3	M4	M5
H1	+0.02	47	52	55
H2		46	51	54
H3		14.5	14.5	14.5
H4		14.5	16	/
H5		36.3	29.5	31.5
H6		/	/	20.5
L1	+0.02	38	45	54
L2		8	12	14
L3		11	20	19
P1		6	6	7.2
P2	+0.1 +0	1.2	1.5	1.5
P3		6	6	8
P4		6	6	8

Connessione elettrica

La pinza è dotata di connettore maschio M12-12 poli per l'alimentazione e la connessione dei sensori di HALL e del feedback (encoder incrementale) con l'elettronica esterna.

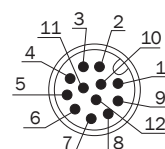
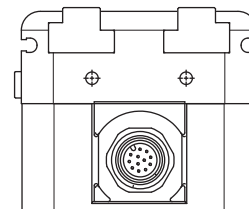
Il motore è un Brushless con sensori di HALL.

Electrical connection

The gripper is equipped with a M12-12 poles male connector for power supply, HALL sensors and feedback (incremental encoder) with an external drive.

The Brushless motor has HALL sensors.

PIN	Colore Color	Nome Name	Descrizione Description
1	Marrone Brown	HU	Sensore HALL 1 Hall sensor 1
2	Blu Blue	HW	Sensore HALL 3 Hall sensor 3
3	Bianco White	B	Segnale Encoder Encoder Signal
4	Verde Green	A	Segnale Encoder Encoder Signal
5	Rosa Pink	U	Fase 1 Phase 1
6	Giallo Yellow	V	Fase 2 Phase 2
7	Nero Black	W	Fase 3 Phase 3
8	Grigio Grey	GND	GND Ground
9	Rosso Red	+5V	Alimentazione 5V Power Supply 5V
10	Viola Violet	HV	Sensore HALL 2 Hall sensor 2
11	Grigio-Rosa Grey-Pink	Z	Segnale Encoder Encoder Signal
12	Rosso-Blu Red-Blue	N.C	Non Connesso Not Connected



Il segnale Z non è indicativo della corsa, ma solo dei giri del motore.

Z signal doesn't indicate the stroke, but only motor rotations.

Kit di valutazione

La scelta del drive è a discrezione dell'utente. Gimatic offre due Kit di valutazione per le pinze MPLF. Includono drive compatibili, cablaggio e istruzioni d'uso.

MPLF-KIT-01: Basato su drive Maxon Epos4. Può essere configurato tramite applicativo Windows ed è adatto in applicazioni che prevedono un puro nodo CanOpen slave.

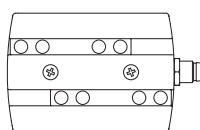
MPLF-KIT-11: Basato su drive miControl mcDSA-E50. Può essere configurato tramite applicativo Windows ed è adatto sia per applicazioni basate su un Fielbus slave, sia per applicazioni Stand-Alone (interfacciamento tramite I/O e/o programmazione con linguaggio Python).

Evaluation Kits

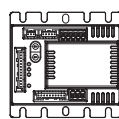
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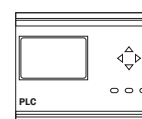
MPLF-KIT-11: Basato su drive miControl mcDSA-E50. Può essere configurato tramite applicativo Windows ed è adatto sia per applicazioni basate su un Fielbus slave, sia per applicazioni Stand-Alone (interfacciamento tramite I/O e/o programmazione con linguaggio Python).



MPLF con connettore M12 – 12 poli
MPLF with M12 12 poles connector



Servo Drive 24 Vdc
Servo Drive 24 Vdc

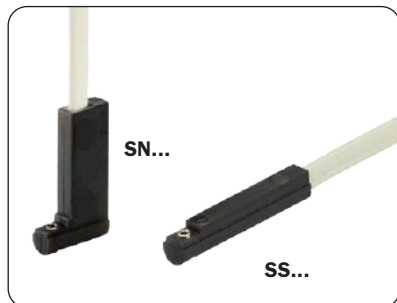


Connessione Fielbus
Servo Drive 24 Vdc

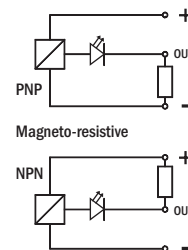
Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe. Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

I sensori utilizzabili sono:

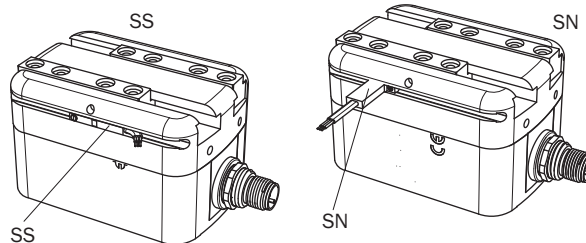
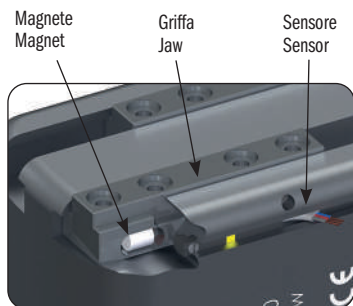


SN4N225-G	PNP	Cavo 2.5m
SS4N225-G	PNP	2.5m cable
SN4M225-G	NPN	Cavo 2.5m
SS4M225-G	NPN	2.5m cable
SN3N203-G	PNP	Connettore M8
SS3N203-G	PNP	Snap M8 plug connector
SN3M203-G	NPN	Connettore M8
SS3M203-G	NPN	Snap M8 plug connector



Sono tutti dotati di un cavo piatto a tre fili e di un led.

They are all provided with a 3-wire flat cable and a LED.



Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili. Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.

F_s , $M_x s$, $M_y s$, $M_z s$, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.

F_d , $M_x d$, $M_y d$, $M_z d$, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.

La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.

La figura sotto mostra anche il gioco massimo delle griffe.

Safety loads and backlashes

Check the table for the maximum permitted loads.

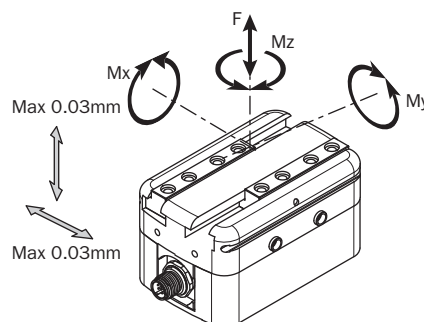
Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator. F_s , $M_x s$, $M_y s$, $M_z s$, are the maximum permitted loads under static conditions, that is with motionless jaws.

F_d , $M_x d$, $M_y d$, $M_z d$, are the maximum permitted loads under dynamic conditions, that is with running jaws.

The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.

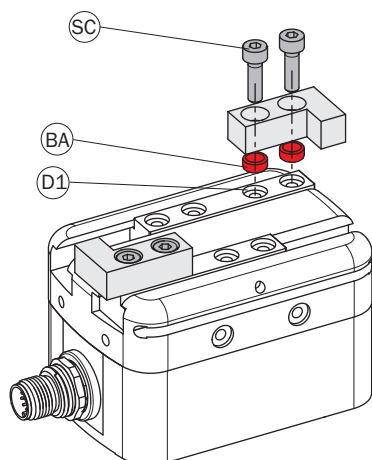
The picture below shows also the jaw maximum backlash.

	MPLF1630	MPLF2550	MPLF3270
F_s	60 N	120 N	180 N
$M_x s$	3 Nm	8 Nm	20 Nm
$M_y s$	3 Nm	8 Nm	20 Nm
$M_z s$	3 Nm	8 Nm	20 Nm
F_d	0.6 N	1.2 N	2 N
$M_x d$	3 Ncm	8 Ncm	20 Ncm
$M_y d$	3 Ncm	8 Ncm	20 Ncm
$M_z d$	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g



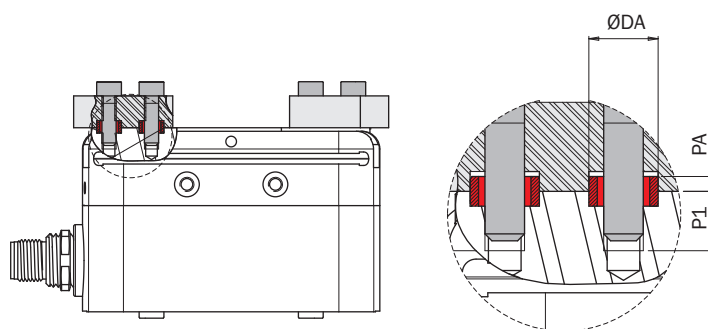
Fissaggio delle estremità di presa

Costruire le dita di presa il più possibile corte e leggere.
Fissarle con due viti (SC) e due boccole di centraggio (BA) nei fori calibrati (D1) delle griffe.



Gripping tool fastening

The gripping tools must be as short and light as possible.
They must be fastened by two screws (SC) and two centering sleeves (BA) in the calibrated holes (D1) of the jaws.



	MPLF1630	MPLF2550	MPLF3270
DA	Ø5 h7	Ø7 h7	Ø7 h7
P1	6.2	8	8.5
PA	1.2	1.5	1.5
SC	M3	M4	M5

Compatibilità serie

E' possibile equipaggiare la pinza MPLF3270 con la cover GMP a corsa lunga (codice: KIT-GMPLM3240 + MPLF-KIT-02).

Questa cover, realizzata in silicone, permette di utilizzare la pinza in ambienti estremamente puliti, come l'industria farmaceutica.

Nell'esempio di utilizzo si può notare un azionamento esterno installato sotto la cover (codice: MPLF-KIT-01).

Serie compatibility

It is possible to equip the gripper MPLF3270 with the cover GMP long stroke (code: KIT-GMPLM3240 + MPLF-KIT-02).

This cover, made of silicone, allows you to use the gripper in extremely clean environments, such as the pharmaceutical industry.

In the example of use you can see an external drive installed under the cover (code: MPLF-KIT-01).

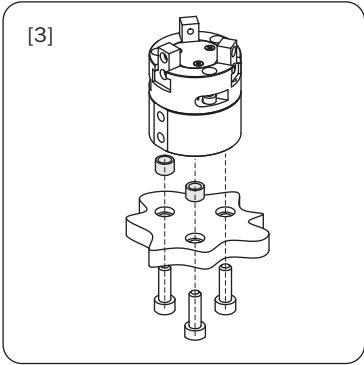
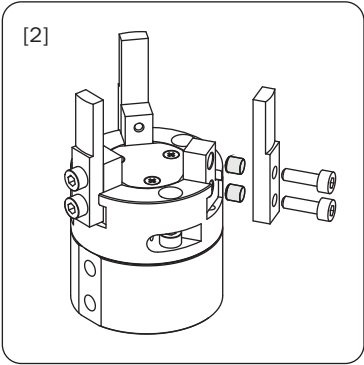
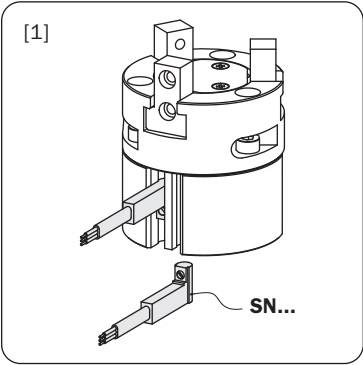


Pinza pneumatica autocentrante a 3 griffe TGP20

- Azionamento a doppio effetto.
- Disponibile anche con molla in apertura (TGP20-NO).
- Sensori magneti opzionali [1].
- Grasso alimentare FDA-H1.
- Fornita con boccole di centraggio per griffe [2] e corpo [3].

3-jaw self-centring pneumatic gripper - TGP20

- Double-acting drive.
- Also available with spring open (TGP20-NO).
- Optional magnetic sensors [1].
- FDA-H1 food-grade grease.
- Supplied with centring sleeves for jaws [2] and body [3].



I sensori utilizzabili sono:
Use sensors:

SN4N225-G	PNP	Cavo 2.5m
SN4M225-G	NPN	2.5m cable
SN3N203-G	PNP	Connettore M8
SN3M203-G	NPN	Snap M8 plug connector



TGP20



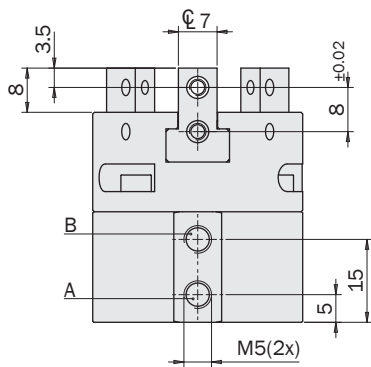
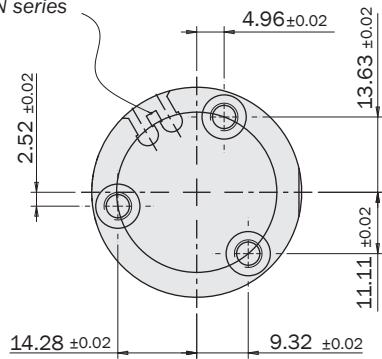
TGP20-NO

	TGP20	TGP20-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]	
Pressione di esercizio Operating pressure range	2 ÷ 8 bar	4 ÷ 8 bar
Temperatura di esercizio Operating temperature range	5° ÷ 100°C	
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	55 N	65 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	46 N	36 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	165 N	195 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	138 N	108 N
Corsa Stroke (±0.2 mm)	3x4 mm	
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	3 cm ³	
Tempo di chiusura senza carico Closing time without load	0.02 s	0.03 s
Ripetibilità Repetition accuracy	0.02 mm	
Peso Weight	132 g	133 g

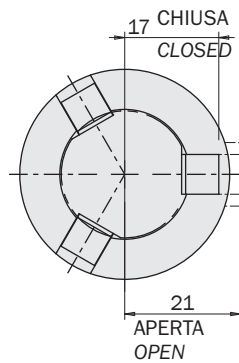
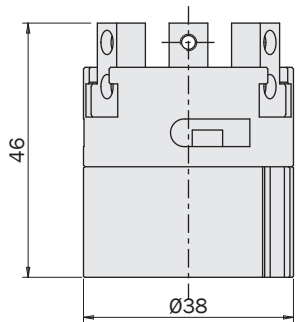
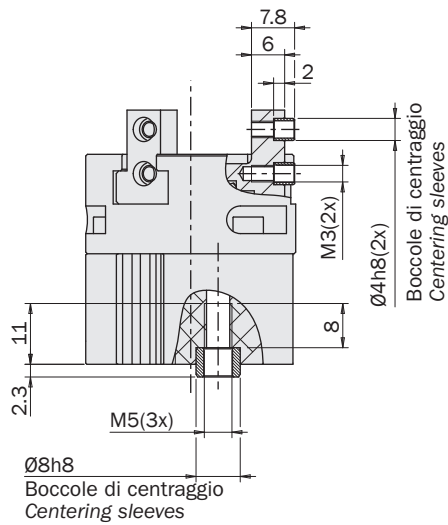
Dimensioni (mm)
Dimensions (mm)



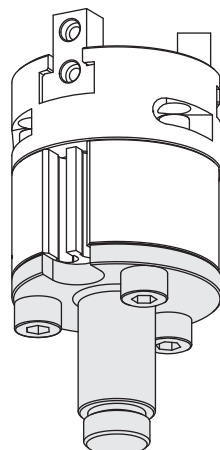
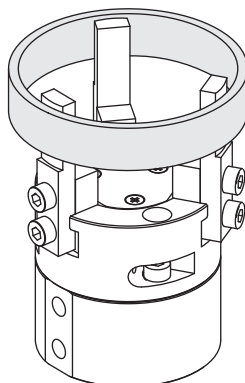
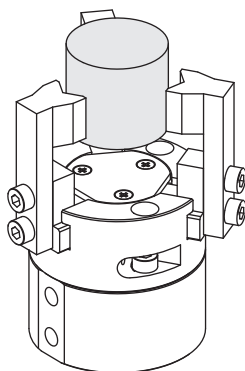
Cava per sensore serie SN
Sensor slot SN series



Aria compressa in A: apertura della pinza.
Aria compressa in B: chiusura della pinza.
Compressed air in A: gripper opening.
Compressed air in B: gripper closing.



Esempio di utilizzo
Application example



TGP20

MFI-A504

Pinza pneumatica autocentrante a 3 griffe (serie T)

- Integrabile con gli altri elementi del Gimapick.
- Azionamento a doppio effetto.
- Alimentazione dell'aria compressa possibile direttamente dalla piastra di fissaggio.
- Possibilità di fissaggio dalla parte anteriore con viti passanti.
- Elevata forza di serraggio e basso peso.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

3-jaw self-centring pneumatic gripper (series T)

- Modular with Gimapick system.
- Double acting.
- Air feeding possible directly from the fixing plate.
- Possibility to mount it on front with through screws.
- High gripping force with low weight.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.



T63



T40

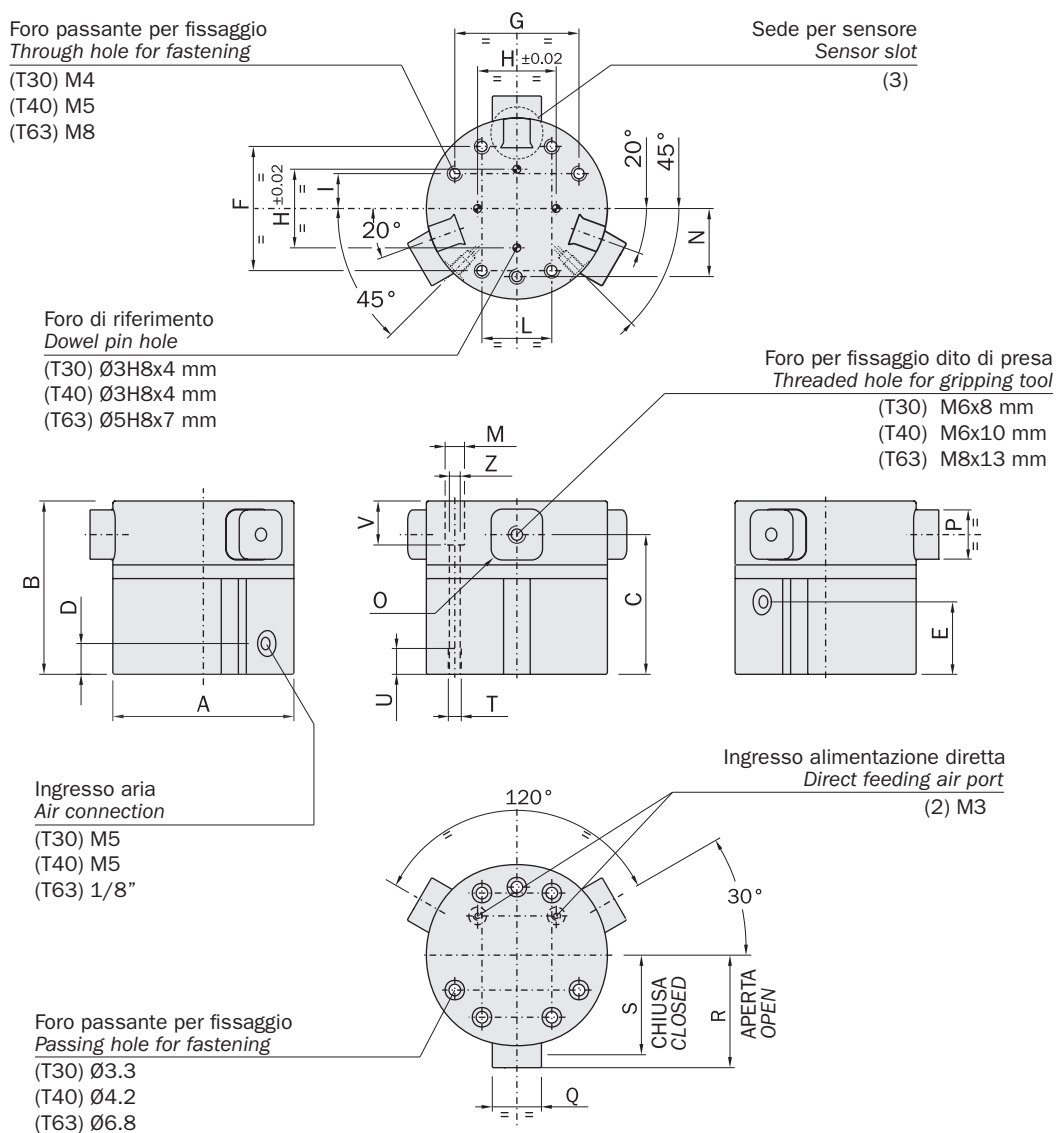


T30

	T30	T40	T63
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Operating pressure range	2.5 ÷ 8 bar		
Temperatura di esercizio Operating temperature range	5° ÷ 60°C.		
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	115 N	200 N	480 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	105 N	180 N	440 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	345 N	600 N	1440 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	315 N	540 N	1320 N
Corsa Stroke (±0.2 mm)	3x3 mm	3x5 mm	3x9 mm
Frequenza max funzionamento continuativo Maximum working frequency	4 Hz	3 Hz	2 Hz
Consumo d'aria per ciclo Cycle air consumption	12 cm ³	19 cm ³	94 cm ³
Tempo di chiusura senza carico Closing time without load	0.01 s	0.01 s	0.05 s
Ripetibilità Repetition accuracy	0.02 mm	0.02 mm	0.02 mm
Peso Weight	325 g	745 g	1680 g

Dimensioni (mm)
Dimensions (mm)

	A	B	C	D	E	F	G	H ± 0.02	I	L	M	N	O	P -0.05	Q -0.05	R	S	T	U	V	Z
T30	Ø50	59	49.5	8	27	37	-	30.4	-	21	Ø6	-	3	14	14	30.5	27.5	M4	8	14	Ø3.3
T40	Ø70	67	54	11.9	28	48	48	30.4	13.5	27	Ø7.5	26.3	4	19	19	43.6	38.5	M5	10	17	Ø4.2
T63	Ø90	90.5	72.8	12	38	66	-	59	-	38	Ø10.5	-	5	26	26	60.6	51.5	M8	16	28.5	Ø6.8



Pinza pneumatica autocentrante a 3 griffe (serie TH)

- Azionamento a doppio effetto, con molle opzionali (in chiusura o apertura) (3).
- Corsa lunga o corsa corta (1).
- Possibilità di fissaggio frontale con viti passanti (2).
- Meccanismo di trasmissione ad alta efficienza (1).
- Sensori magnetici o induttivi opzionali.
- Grasso alimentare FDA-H1.

3-jaw self-centring pneumatic gripper (series TH)

- Double acting with optional springs (normally closed or normally open) (3).
- Long stroke or short stroke (1).
- Possibility of front fastening with through screws (2).
- High efficiency force transmission (1).
- Optional magnetic or inductive sensors.
- FDA-H1 food-grade grease.

TH33...



TH45...



TH54...



TH76...



TH27...



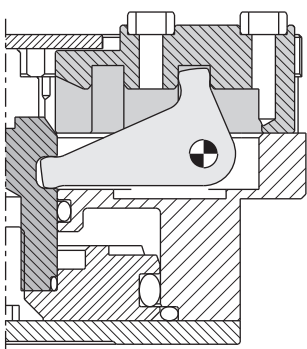
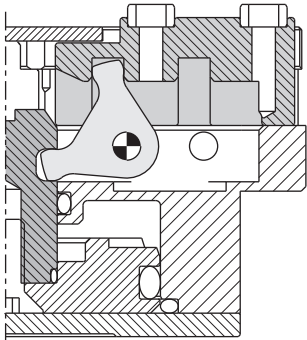
TH125...



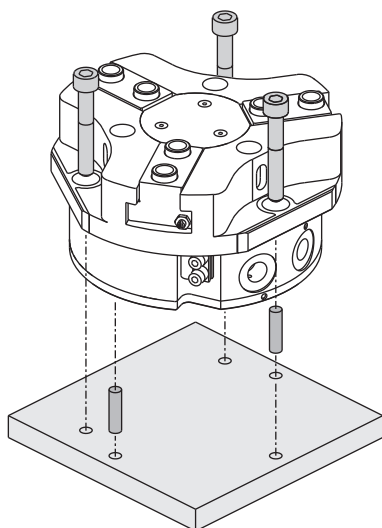
TH96...



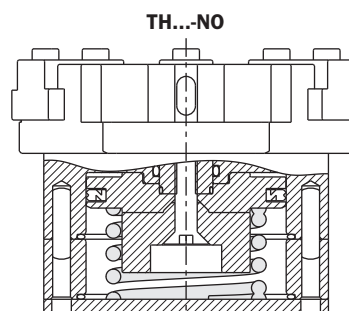
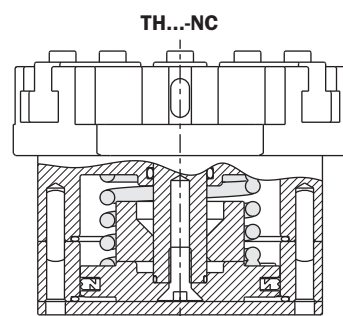
(1)



(2)



(3)



Spintore opzionale

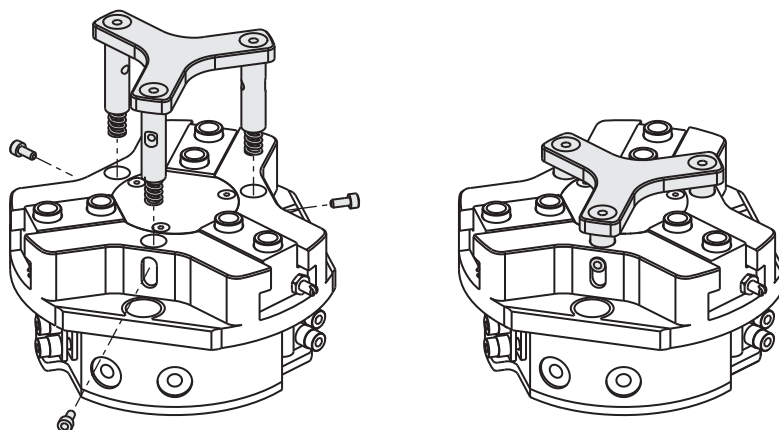
Questo accessorio si può installare sulle pinze TH, per tenere premuto il pezzo durante il rilascio, con una Forza F. Ad esempio quando si carica il mandrino di una macchina utensile.

Viene fornito smontato, con i codici indicati in tabella.

Optional pusher

This accessory can be installed in the TH grippers, to hold the payload during the gripper release, by a pushing force F. As an example, when the chuck of a machining equipment is loaded.

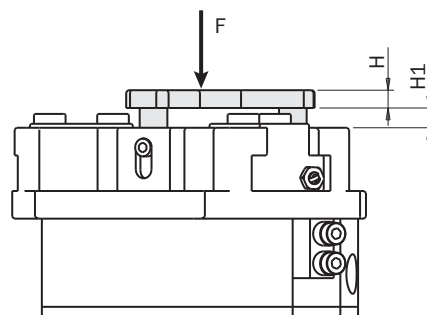
It is supplied disassembled, with the codes in the table below.



Forza

Force

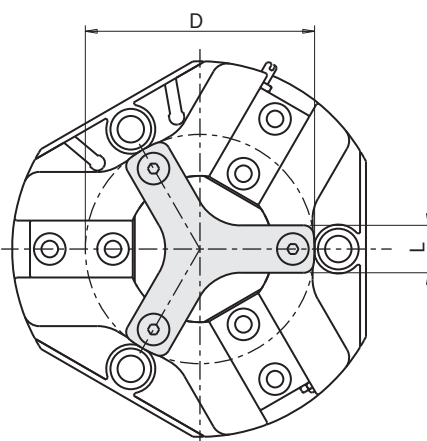
	TH27K	TH33K	TH45K	TH54K	TH76K	TH96K	TH125K
F	10N	15N	20N	30N	50N	100N	200N



Dimensioni (mm)

Dimensions (mm)

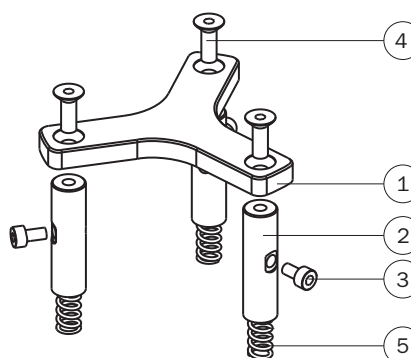
	TH27K	TH33K	TH45K	TH54K	TH76K	TH96K	TH125K
D	Ø28	Ø37	Ø44	Ø58	Ø74	Ø86	Ø118
H	3.5	4	4	4.5	5.5	5.5	6
H1	0÷2.5	0÷3	0÷4	0÷5	0÷5	0÷6	0÷6
L	6.5	8	10	12	14	16	19
m	10g	20g	30g	50g	100g	170g	285g



Elenco delle parti

Part list

	TH27K	TH33K	TH45K	TH54K	TH76K	TH96K	TH125K
1	TH2725-14	TH3304-15	TH4506-09	TH5408-22	TH7610-10	TH9613-10	TH12516-17
2	TH2725-15	TH3304-14	TH4506-10	TH5408-23	TH7610-11	TH9613-11	TH12516-18
3	VITE-434 M1.6x3 DIN7985	VITE-435 M2x4 DIN7985	VITE-436 M2x5 DIN912	VITE-217 M2.5x6 DIN912	VITE-017 M3x6 DIN912	VITE-009 M4x8 DIN912	VITE-275 M4x8 DIN912
4	VITE-068 M2x6 DIN965	VITE-170 M2.5x6 DIN965	VITE-306 M3x8 DIN7991	VITE-305 M4x8 DIN7991	VITE-437 M4x12 DIN7991	VITE-438 M5x12 DIN7991	VITE-438 M5x12 DIN7991
5	TH2725-16	TH3304-16	TH4506-11	TH5408-24	TH7610-12	TH9613-12	TH12516-19



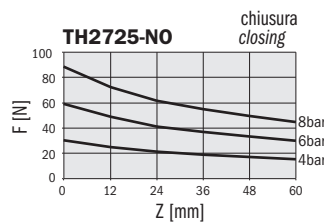
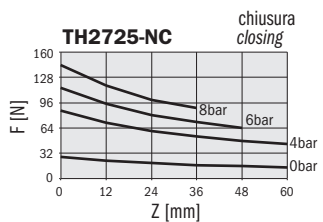
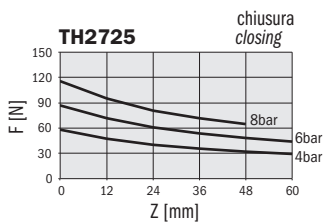
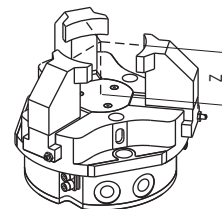
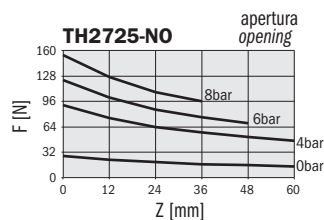
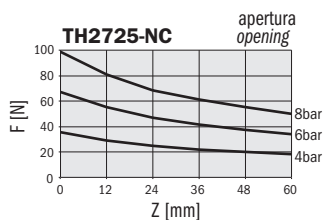
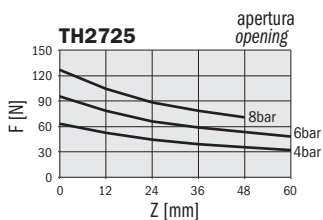
	TH2725	TH2725-NC	TH2725-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Pressione di esercizio Operating pressure range	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio Operating temperature range	5 ÷ 100°C.		
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force on each jaw at 6 bar	95N	65 ÷ 70N	121 ÷ 125N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	285N	195 ÷ 210N	363 ÷ 375N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force on each jaw at 6 bar	87N	112 ÷ 117N	57 ÷ 61N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	261N	336 ÷ 351N	171 ÷ 183N
Corsa Stroke (±0.2 mm)	3x2.5mm	3x2.5mm	3x2.5mm
Frequenza max funzionamento Maximum working frequency	3Hz	3Hz	3Hz
Consumo d'aria per ciclo Cycle air consumption	3cm ³	6cm ³	6cm ³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.02s / 0.02s	0.01s / 0.02s	0.03s / 0.01s
Ripetibilità Repetition accuracy	0.02mm	0.02mm	0.02mm
Peso Weight	117g	140g	139g

Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

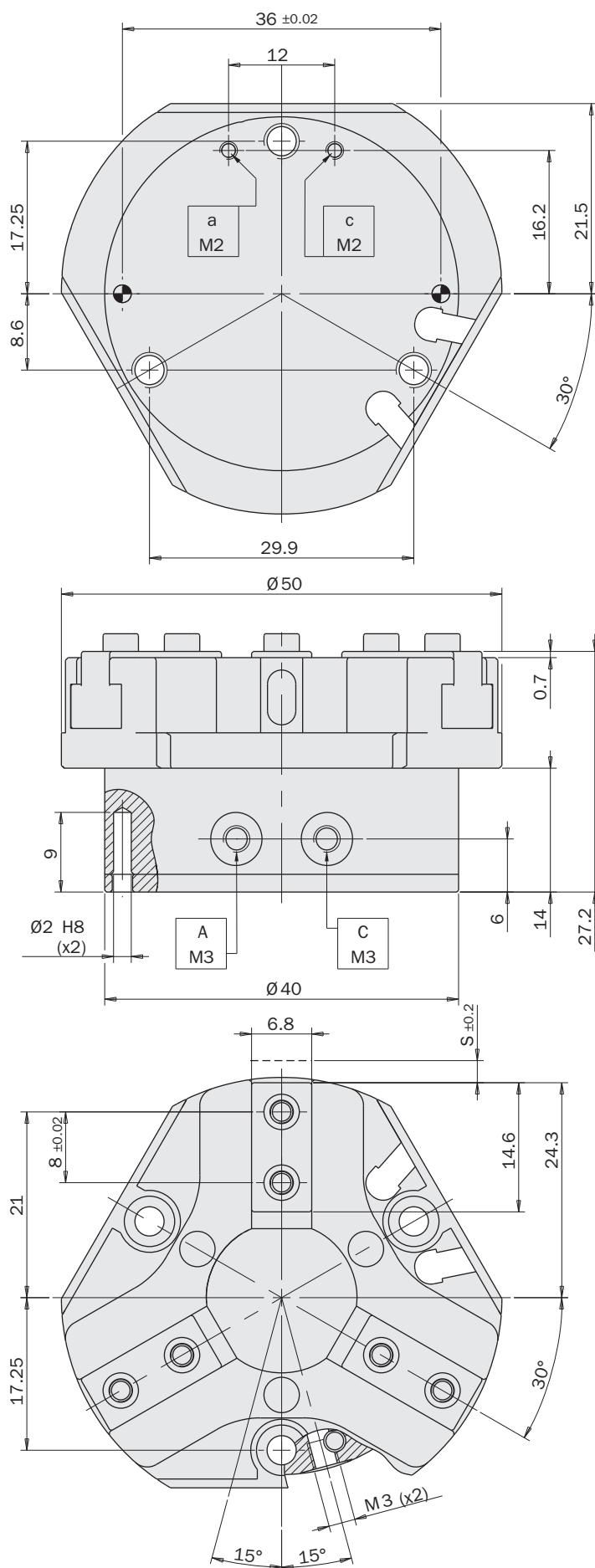
The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.



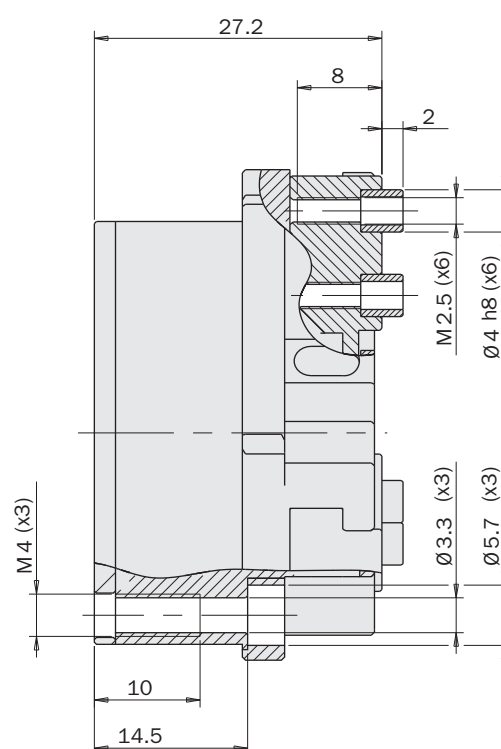
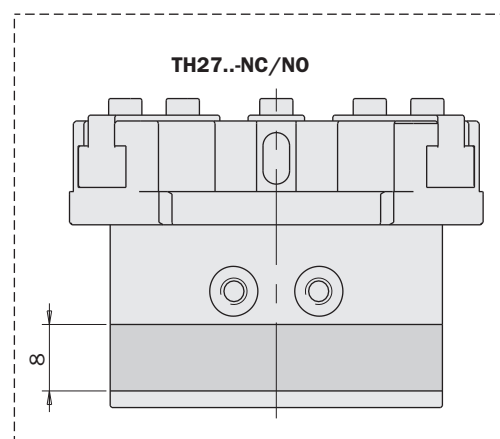
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

The force shown in these graphs refers to one jaw. The total force is triple.

Dimensioni (mm)
Dimensions (mm)



	TH2725	TH2725-NC	TH2725-NO
S	3x2.5mm	3x2.5mm	3x2.5mm



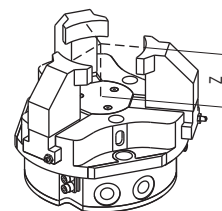
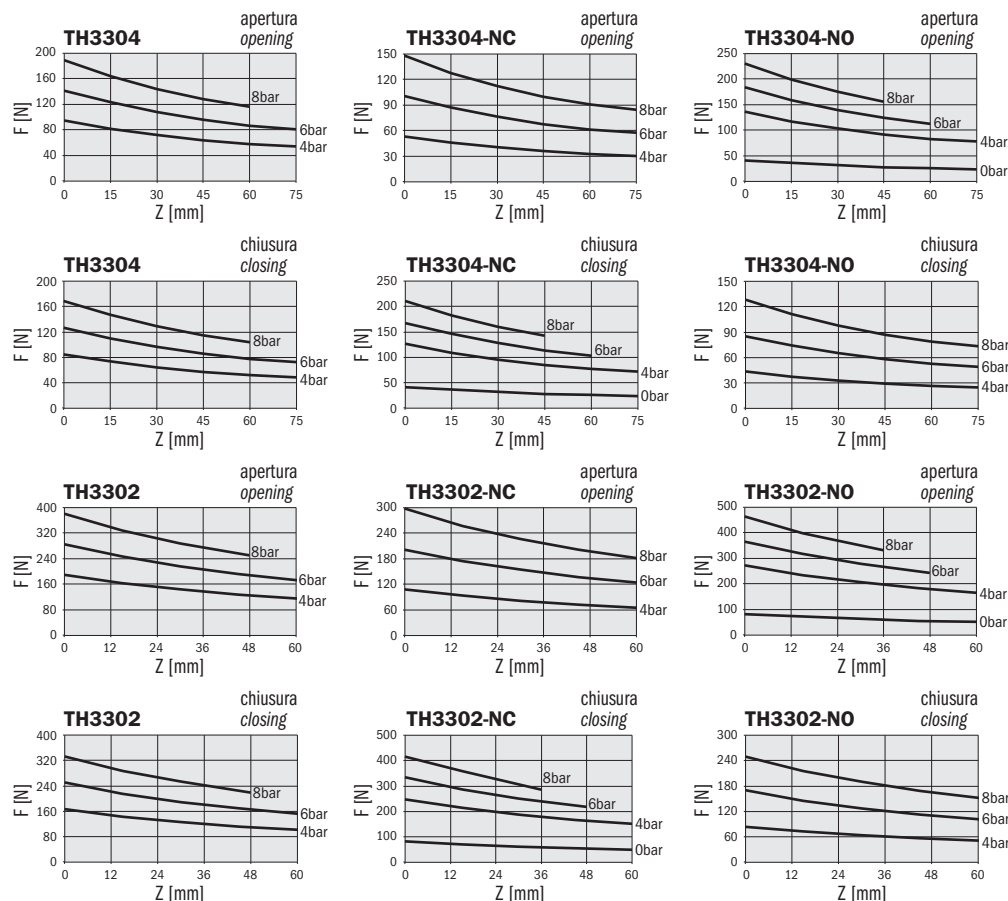
	TH3304	TH3304-NC	TH3304-NO	TH3302	TH3302-NC	TH3302-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Operating pressure range	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio Operating temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force on each jaw at 6 bar	142N	97 ÷ 106N	179 ÷ 188N	285N	192 ÷ 210N	358 ÷ 375N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	426N	291 ÷ 318N	537 ÷ 564N	855N	576 ÷ 630N	1074 ÷ 1125N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force on each jaw at 6 bar	127N	164 ÷ 172N	81 ÷ 90N	250N	326 ÷ 344N	161 ÷ 179N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	381N	492 ÷ 516N	243 ÷ 270N	750N	978 ÷ 1032N	483 ÷ 537N
Corsa Stroke (±0.2 mm)	3x4mm	3x4mm	3x4mm	3x2mm	3x2mm	3x2mm
Frequenza max funzionamento Maximum working frequency	3Hz	3Hz	3Hz	3Hz	3Hz	3Hz
Consumo d'aria per ciclo Cycle air consumption	8cm ³	13cm ³	13cm ³	8cm ³	13cm ³	13cm ³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.02s / 0.02s	0.02s / 0.02s	0.02s / 0.02s	0.02s / 0.02s	0.02s / 0.02s	0.02s / 0.02s
Ripetibilità Repetition accuracy	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso Weight	237g	293g	285g	240g	296g	288g

Forza di serraggio

I grafici mostrano la forza (F) per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

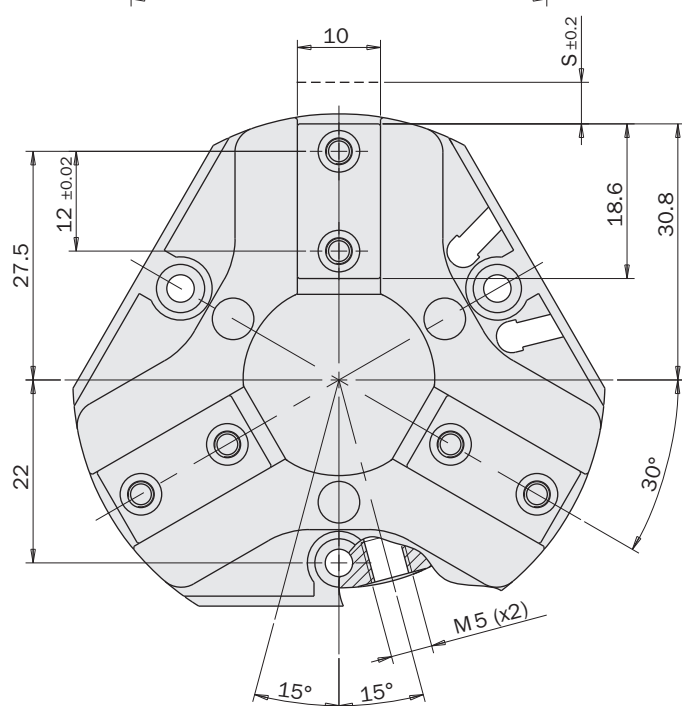
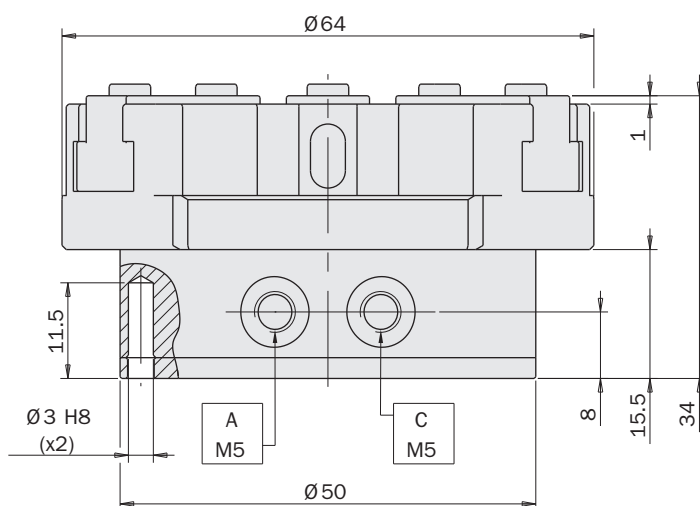
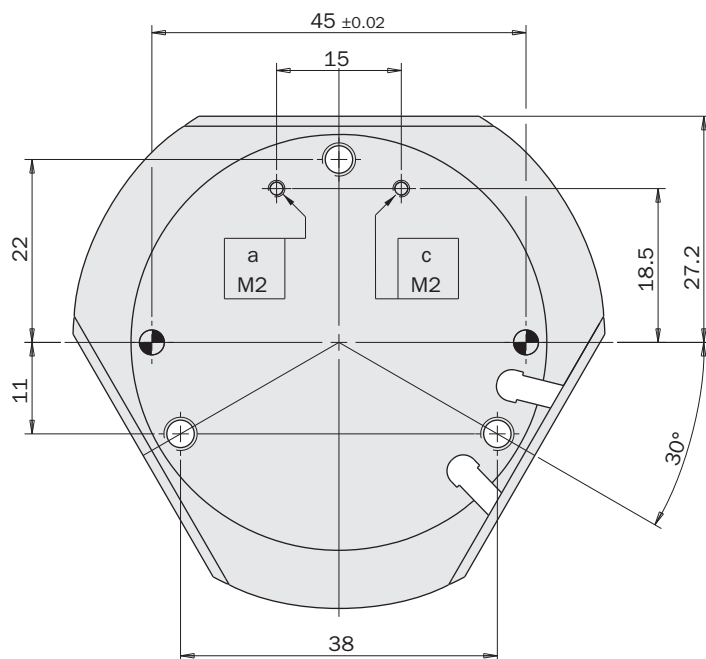
The graphs show the gripping force (F) on each jaw, as a function of the operating pressure and the gripping tool length Z.



La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

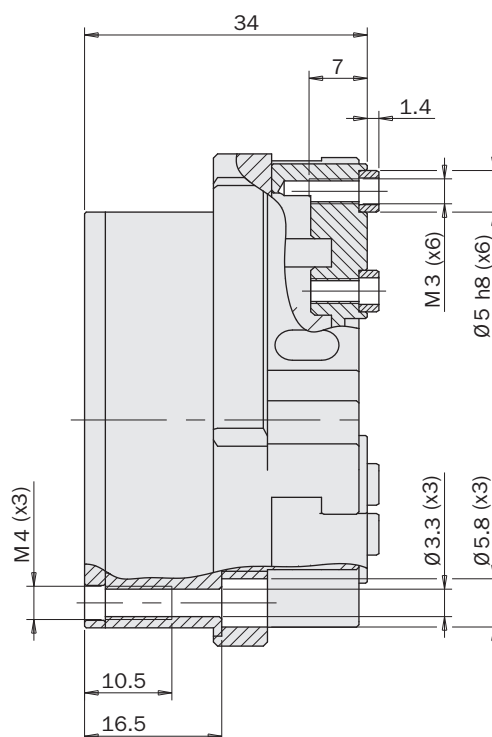
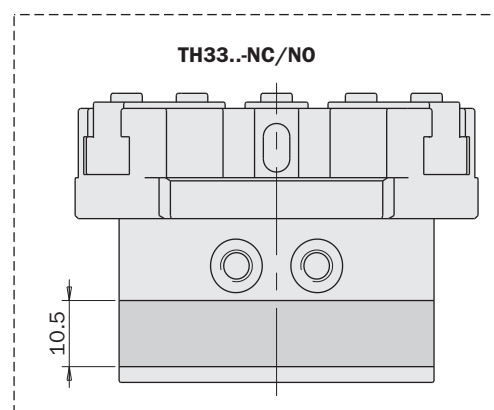
The force shown in these graphs refers to one jaw. The total force is triple.

Dimensioni (mm)
Dimensions (mm)



	TH3304	TH3304-NC	TH3304-N0
S	3x4mm	3x4mm	3x4mm

	TH3302	TH3302-NC	TH3302-N0
S	3x2mm	3x2mm	3x2mm



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Linear Actuators

Sospensioni
Suspensions

Taglierini
Nippers

Kit-Robot
Robot Kit

Accessori Opzionali
Options

Sensori
Sensors

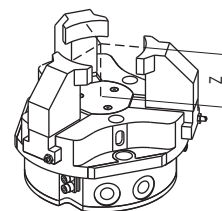
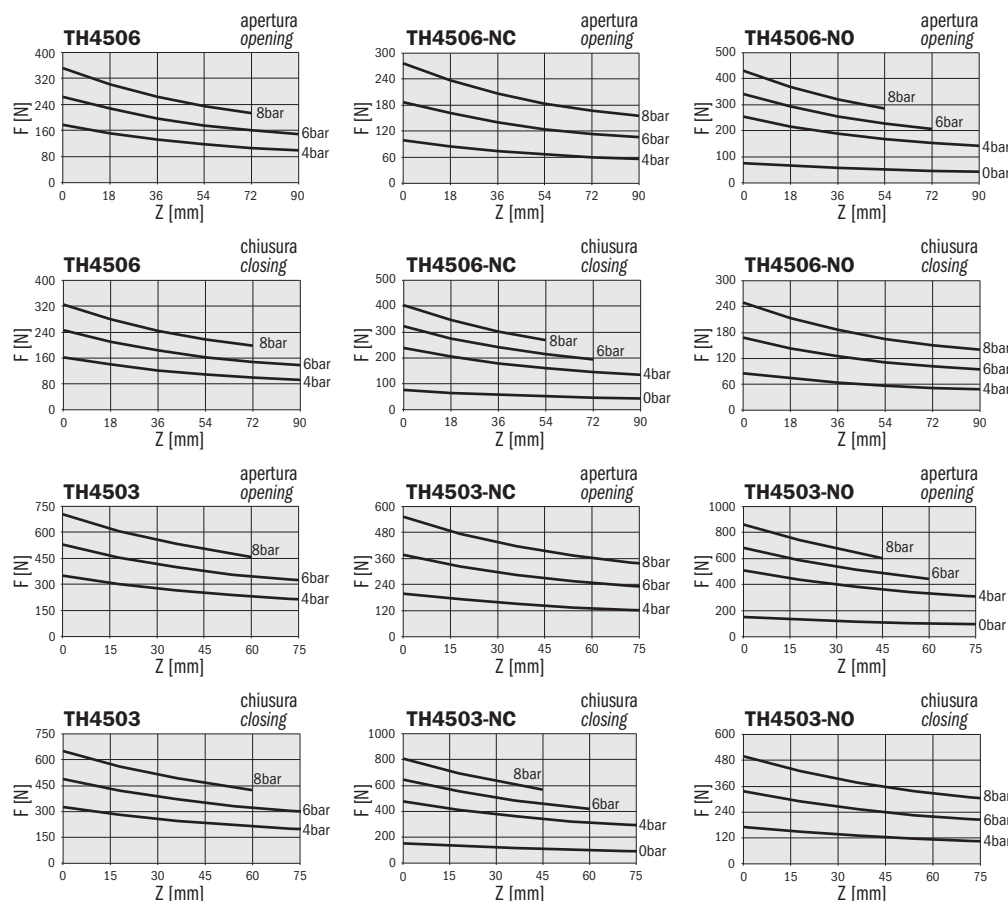
	TH4506	TH4506-NC	TH4506-NO	TH4503	TH4503-NC	TH4503-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Operating pressure range	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio Operating temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force on each jaw at 6 bar	265N	173 ÷ 202N	328 ÷ 356N	530N	346 ÷ 403N	653 ÷ 710N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	795N	519 ÷ 606N	984 ÷ 1068N	1590N	1038 ÷ 1209N	1959 ÷ 2130N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force on each jaw at 6 bar	245N	309 ÷ 337N	155 ÷ 184N	490N	615 ÷ 673N	308 ÷ 366N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	735N	927 ÷ 1011N	465 ÷ 552N	1470N	1845 ÷ 2019N	924 ÷ 1098N
Corsa Stroke (±0.2 mm)	3x6mm	3x6mm	3x6mm	3x3mm	3x3mm	3x3mm
Frequenza max funzionamento Maximum working frequency	2Hz	2Hz	2Hz	2Hz	2Hz	2Hz
Consumo d'aria per ciclo Cycle air consumption	22cm ³	37cm ³	37cm ³	22cm ³	37cm ³	37cm ³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.05s / 0.05s	0.05s / 0.07s	0.07s / 0.05s	0.05s / 0.05s	0.05s / 0.07s	0.07s / 0.05s
Ripetibilità Repetition accuracy	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso Weight	430g	540g	530g	440g	550g	530g

Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

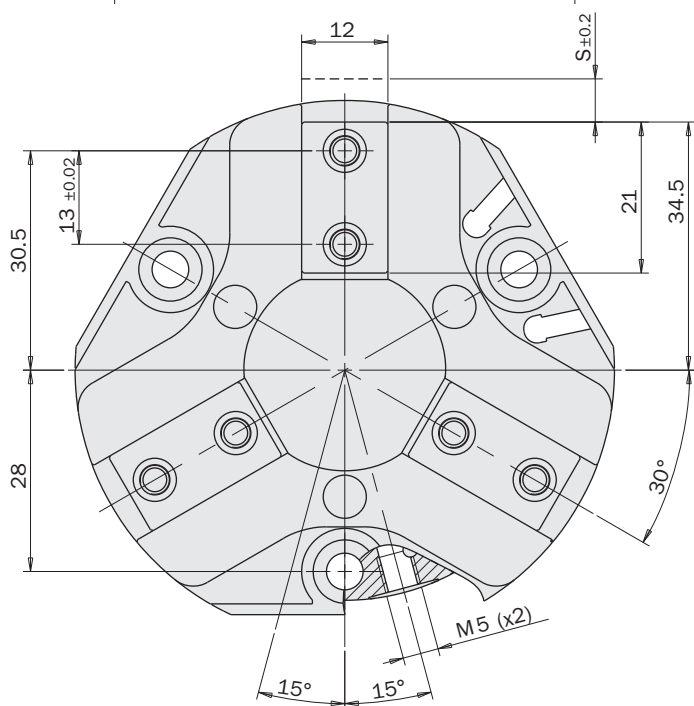
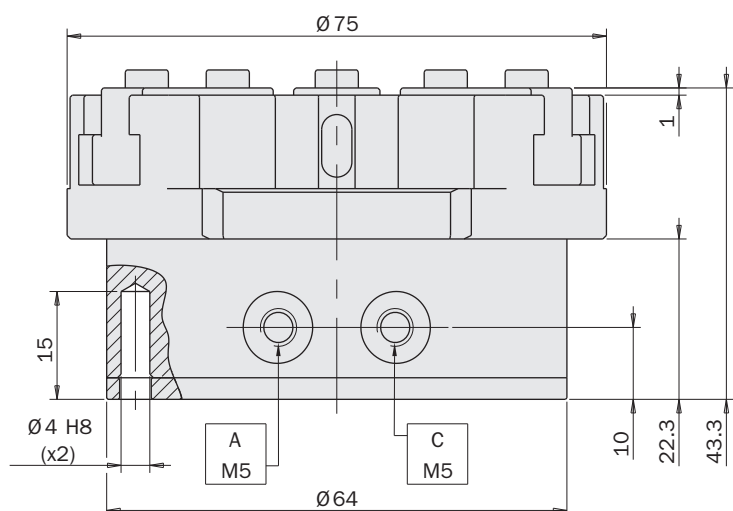
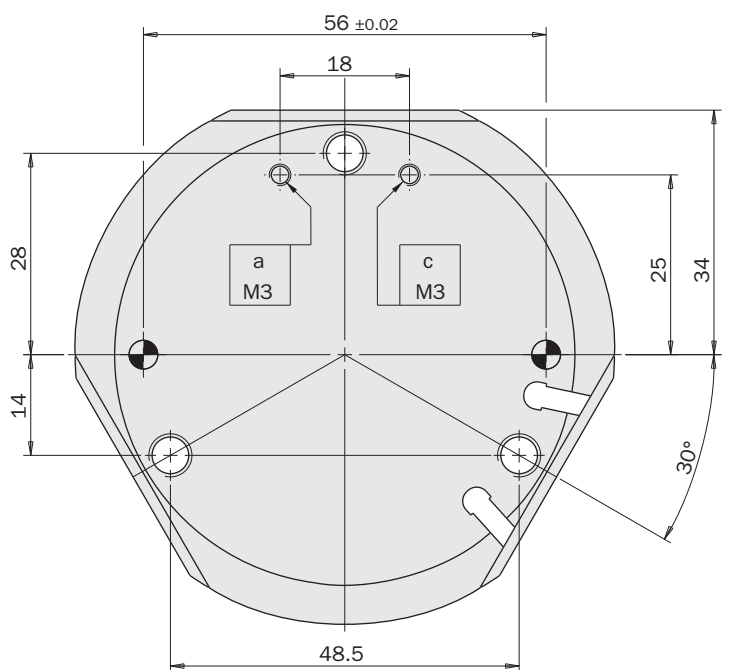
The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.



La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

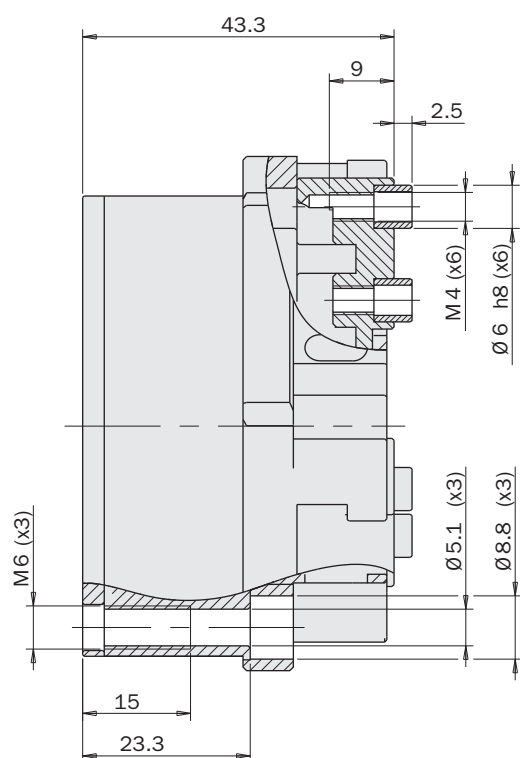
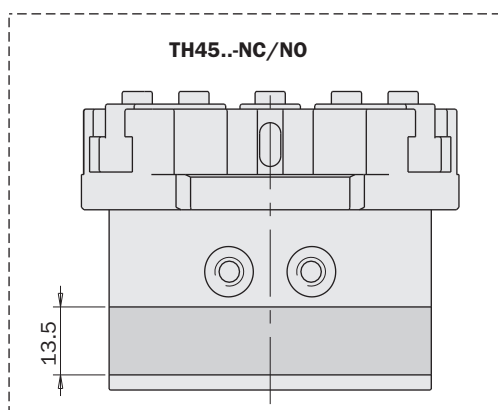
The force shown in these graphs refers to one jaw. The total force is triple.

Dimensioni (mm)
Dimensions (mm)



	TH4506	TH4506-NC	TH4506-N0
S	3x6mm	3x6mm	3x6mm

	TH4503	TH4503-NC	TH4503-N0
S	3x3mm	3x3mm	3x3mm



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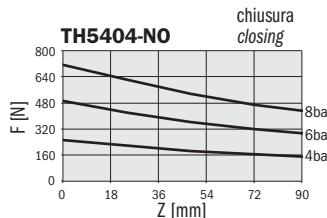
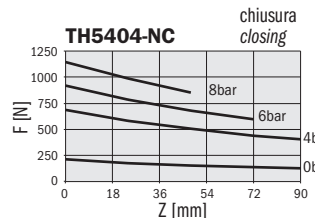
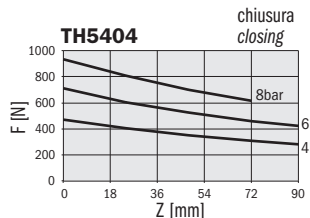
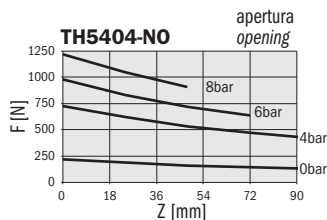
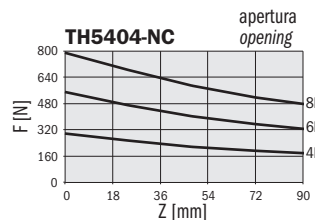
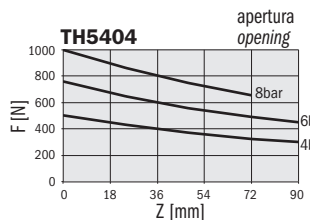
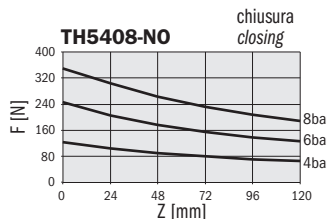
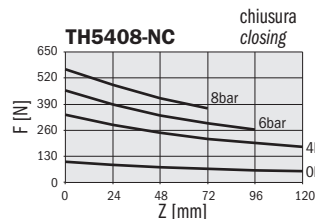
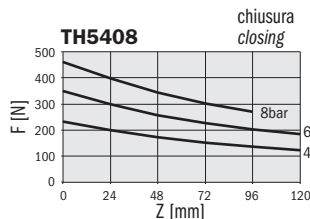
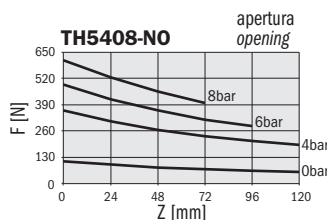
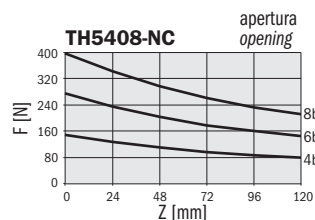
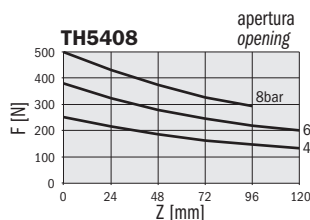
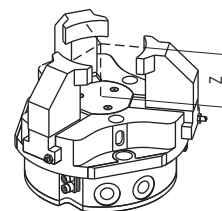
	TH5408	TH5408-NC	TH5408-NO	TH5404	TH5404-NC	TH5404-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Operating pressure range	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio Operating temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force on each jaw at 6 bar	380N	252 ÷ 299N	466 ÷ 514N	760N	504 ÷ 597N	931 ÷ 1029N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	1140N	756 ÷ 897N	1398 ÷ 1542N	2280N	1512 ÷ 1791N	2793 ÷ 3087N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force on each jaw at 6 bar	350N	436 ÷ 483N	220 ÷ 269N	710N	872 ÷ 966N	441 ÷ 538N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	1050N	1308 ÷ 1449N	660 ÷ 807N	2130N	2616 ÷ 2898N	1323 ÷ 1614N
Corsa Stroke (±0.2 mm)	3x8mm	3x8mm	3x8mm	3x4mm	3x4mm	3x4mm
Frequenza max funzionamento Maximum working frequency	2Hz	2Hz	2Hz	2Hz	2Hz	2Hz
Consumo d'aria per ciclo Cycle air consumption	42cm³	67cm³	67cm³	42cm³	67cm³	67cm³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.05s / 0.05s	0.05s / 0.07s	0.07s / 0.05s	0.05s / 0.05s	0.05s / 0.07s	0.07s / 0.05s
Ripetibilità Repetition accuracy	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso Weight	760g	930g	920g	770g	940g	930g

Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

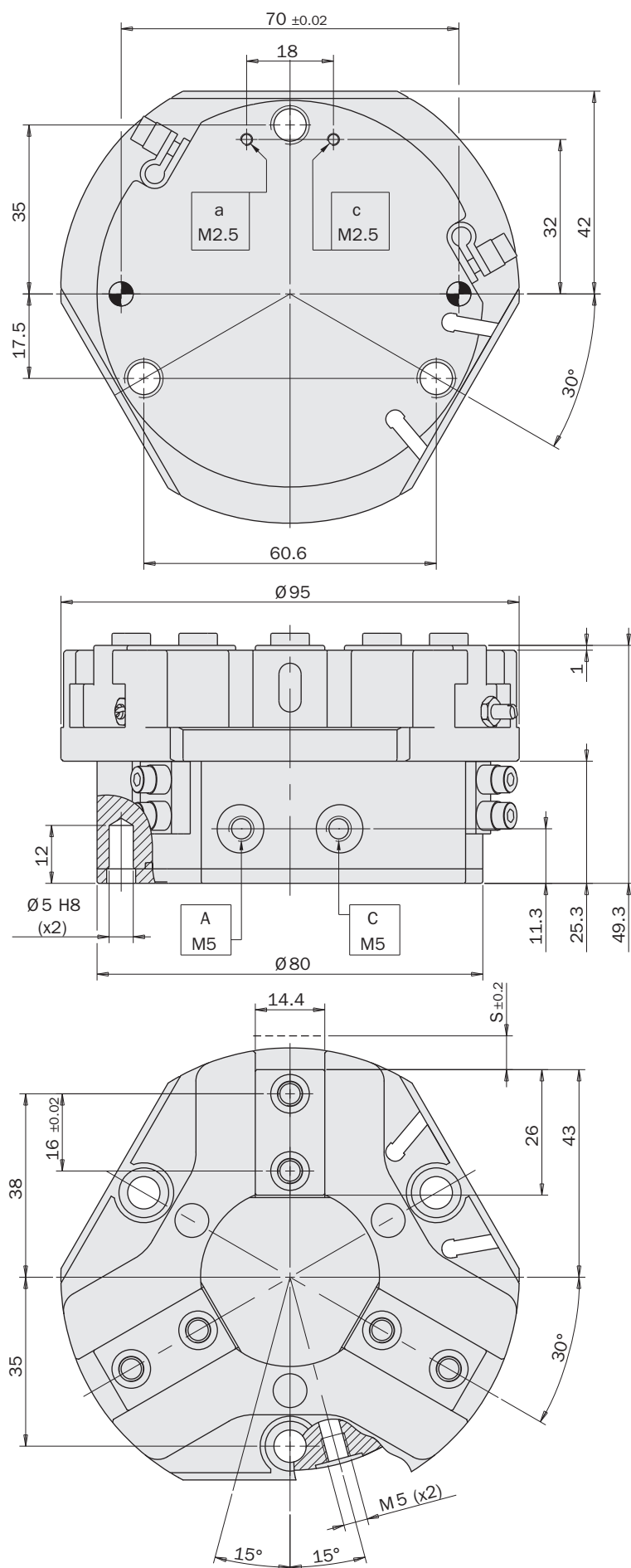
The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.



La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

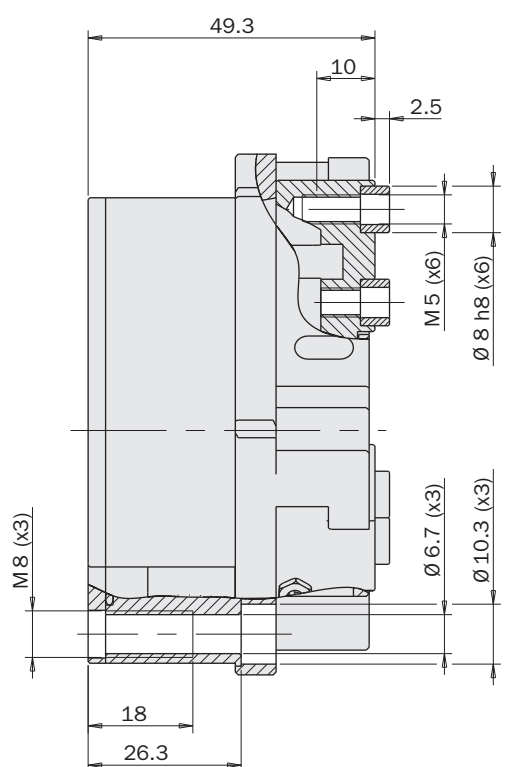
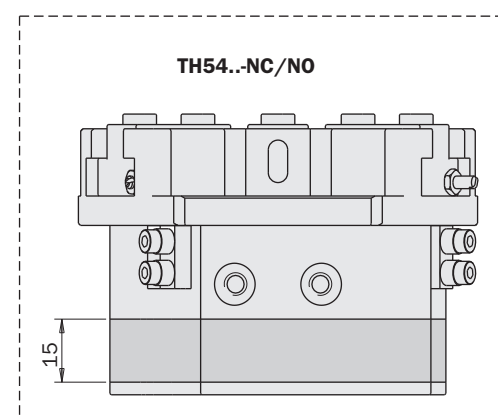
The force shown in these graphs refers to one jaw. The total force is triple.

Dimensioni (mm)
Dimensions (mm)



	TH5408	TH5408-NC	TH5408-N0
S	3x8mm	3x8mm	3x8mm

	TH5404	TH5404-NC	TH5404-N0
S	3x4mm	3x4mm	3x4mm



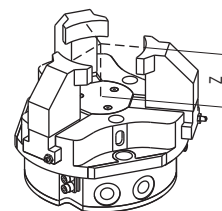
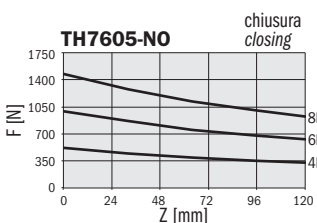
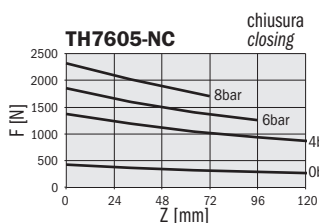
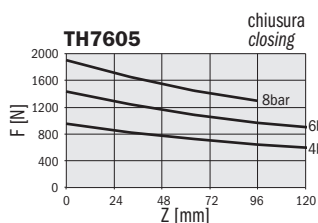
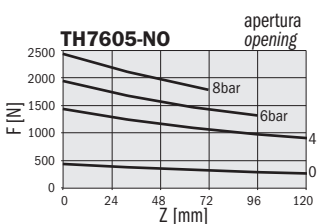
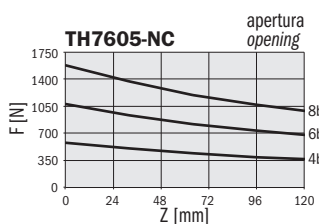
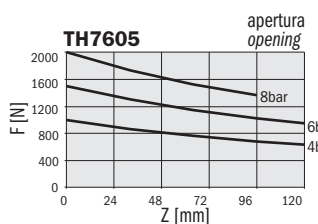
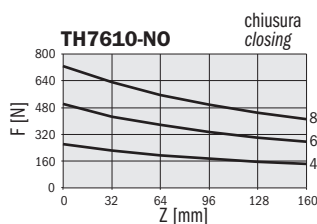
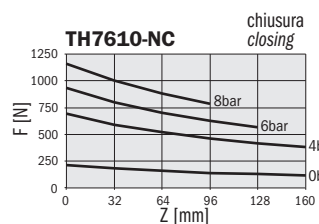
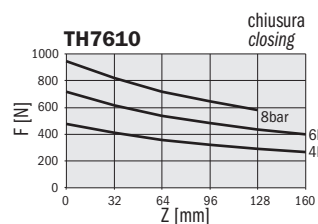
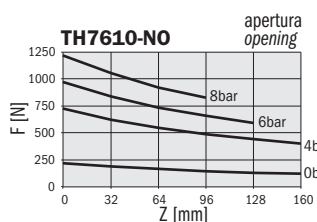
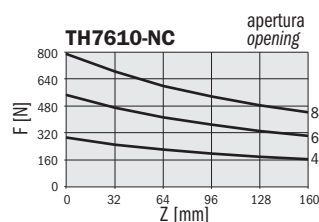
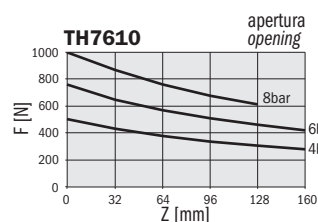
	TH7610	TH7610-NC	TH7610-NO	TH7605	TH7605-NC	TH7605-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Operating pressure range	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio Operating temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force on each jaw at 6 bar	760N	515 ÷ 577N	954 ÷ 1000N	1500N	1024 ÷ 1148N	1896 ÷ 1989N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	2280N	1545 ÷ 1731N	2862 ÷ 3000N	4500N	3072 ÷ 3444N	5688 ÷ 5967N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force on each jaw at 6 bar	720N	890 ÷ 962N	477 ÷ 524N	1430N	1789 ÷ 1913N	948 ÷ 1041N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	2160N	2670 ÷ 2886N	1431 ÷ 1572N	4290N	5367 ÷ 5739N	2844 ÷ 3123N
Corsa Stroke (±0.2 mm)	3x10mm	3x10mm	3x10mm	3x5mm	3x5mm	3x5mm
Frequenza max funzionamento Maximum working frequency	1Hz	1Hz	1Hz	1Hz	1Hz	1Hz
Consumo d'aria per ciclo Cycle air consumption	106cm ³	174cm ³	174cm ³	106cm ³	174cm ³	174cm ³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.2s / 0.2s	0.2s / 0.3s	0.3s / 0.2s	0.2s / 0.2s	0.2s / 0.3s	0.3s / 0.2s
Ripetibilità Repetition accuracy	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso Weight	1420g	1870g	1840g	1430g	1880g	1850g

Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

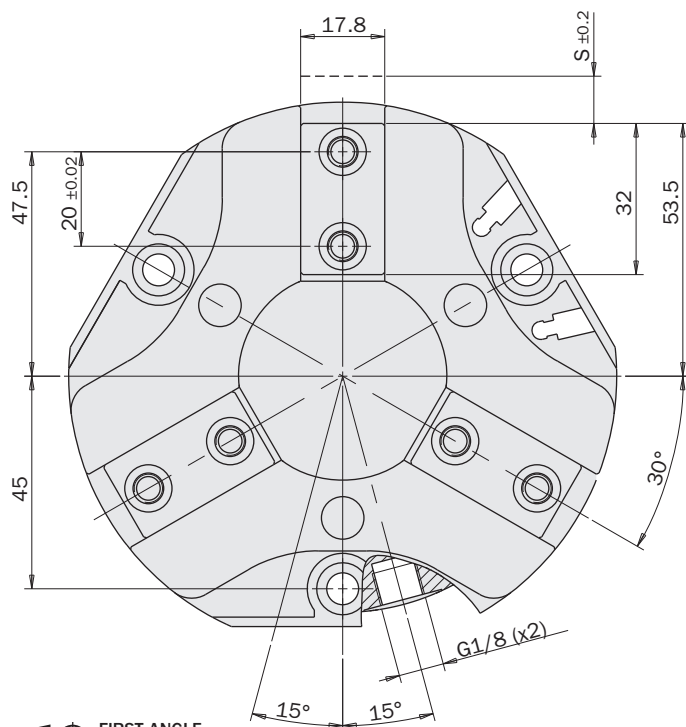
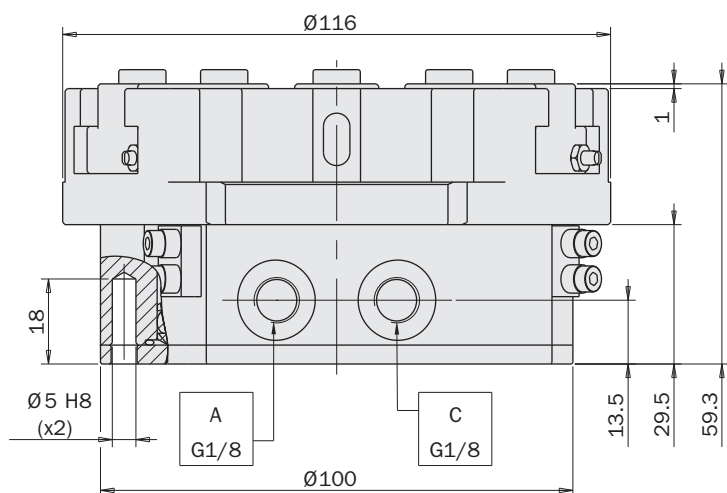
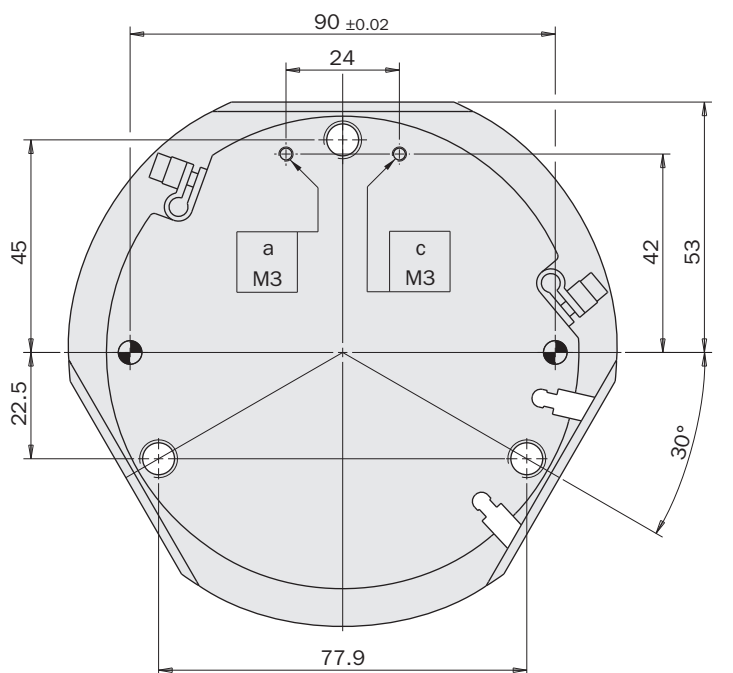
The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.



La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

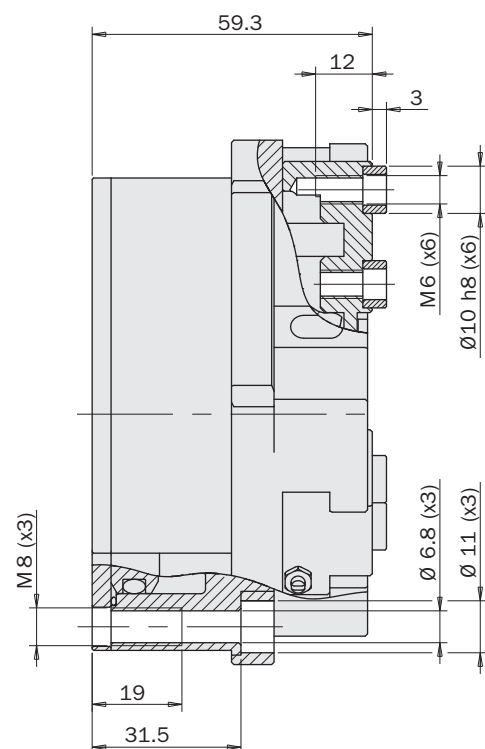
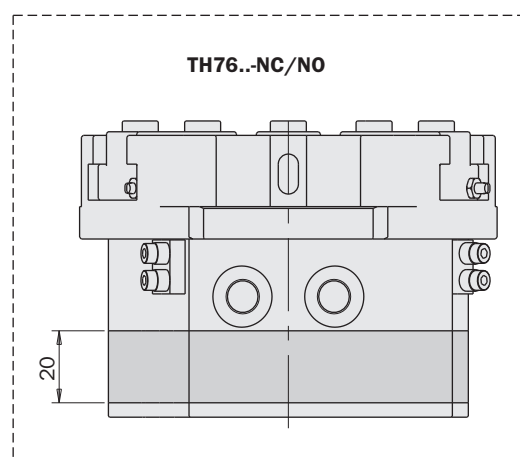
The force shown in these graphs refers to one jaw. The total force is triple.

Dimensioni (mm)
Dimensions (mm)



	TH7610	TH7610-NC	TH7610-N0
S	3x10mm	3x10mm	3x10mm

	TH7605	TH7605-NC	TH7605-N0
S	3x5mm	3x5mm	3x5mm



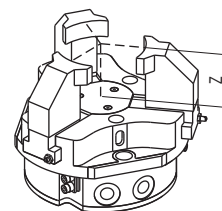
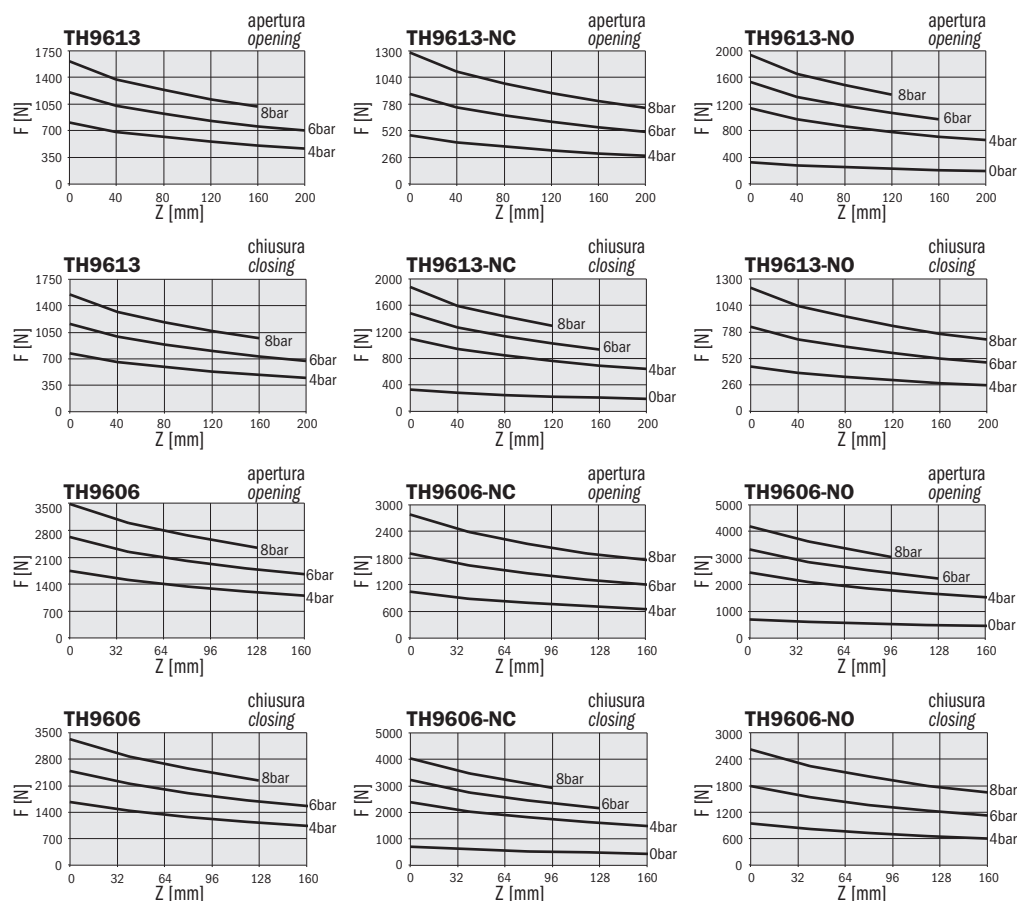
	TH9613	TH9613-NC	TH9613-NO	TH9606	TH9606-NC	TH9606-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Operating pressure range	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar	1.5 ÷ 8bar	3.5 ÷ 8bar	3.5 ÷ 8bar
Temperatura di esercizio Operating temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force on each jaw at 6 bar	1210N	821 ÷ 946N	1485 ÷ 1594N	2620N	1779 ÷ 2048N	3216 ÷ 3451N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	3630N	2463 ÷ 2838N	4455 ÷ 4782N	7860N	5337 ÷ 6144N	9648 ÷ 10353N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force on each jaw at 6 bar	1160N	1422 ÷ 1564N	774 ÷ 883N	2500N	3079 ÷ 3348N	1675 ÷ 1911N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	3480N	4266 ÷ 4638N	2322 ÷ 2649N	7500N	9327 ÷ 10044N	5025 ÷ 5733N
Corsa Stroke (±0.2 mm)	3x13mm	3x13mm	3x13mm	3x6mm	3x6mm	3x6mm
Frequenza max funzionamento Maximum working frequency	1Hz	1Hz	1Hz	1Hz	1Hz	1Hz
Consumo d'aria per ciclo Cycle air consumption	221cm ³	335cm ³	335cm ³	221cm ³	335cm ³	335cm ³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.2s / 0.2s	0.2s / 0.3s	0.3s / 0.2s	0.2s / 0.2s	0.2s / 0.3s	0.3s / 0.2s
Ripetibilità Repetition accuracy	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso Weight	2450g	3230g	3140g	2490g	3270g	3180g

Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

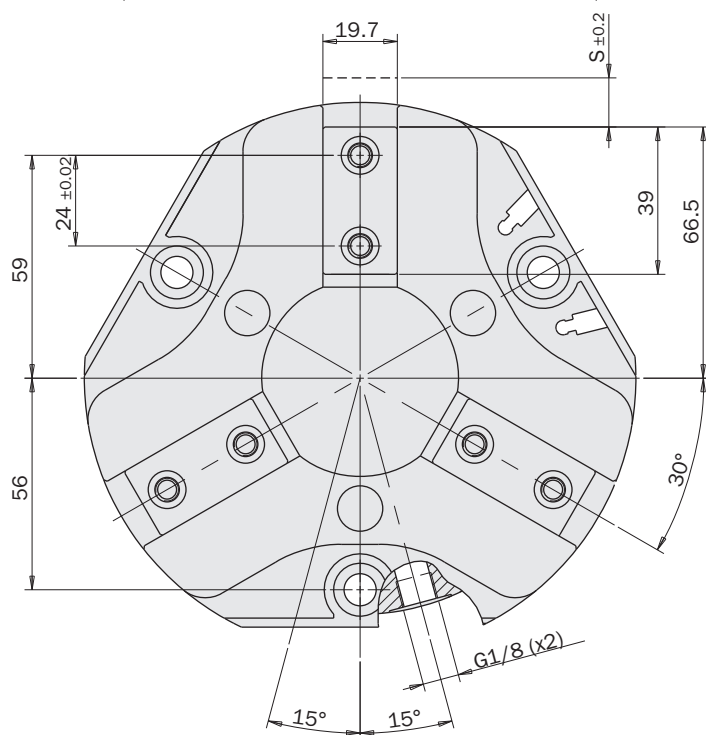
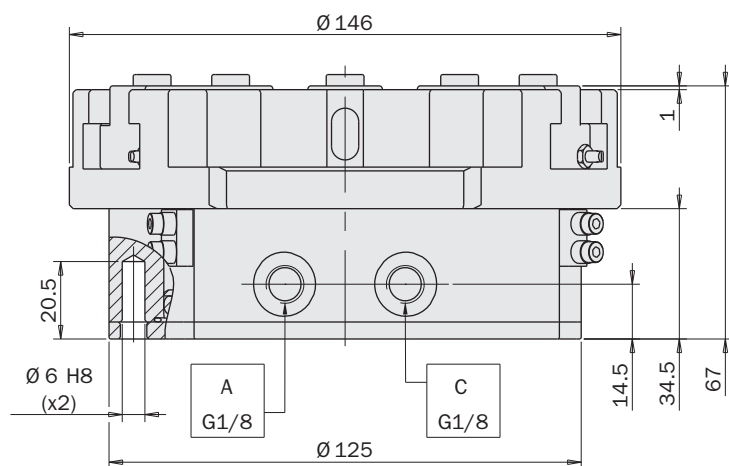
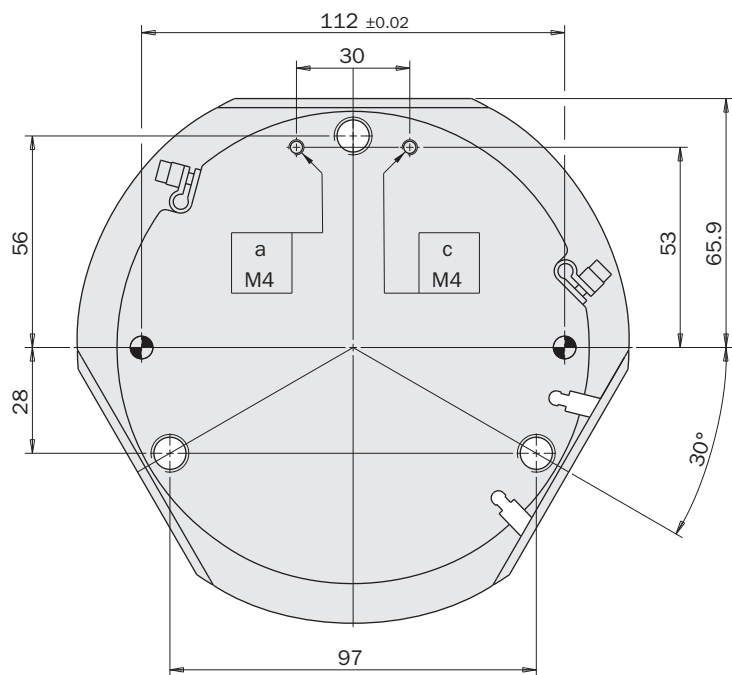
The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.



La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

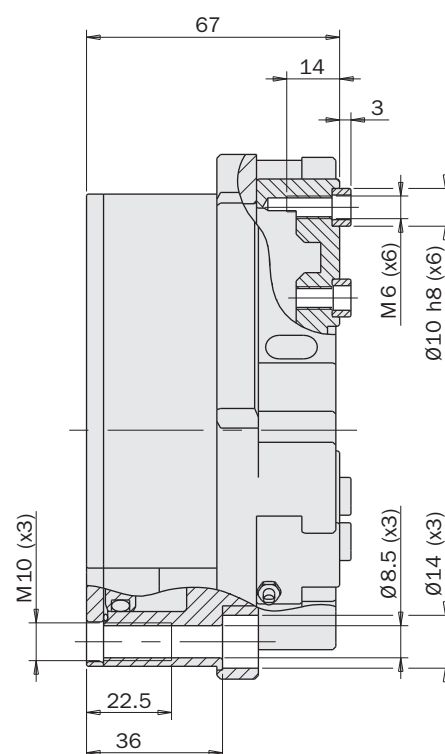
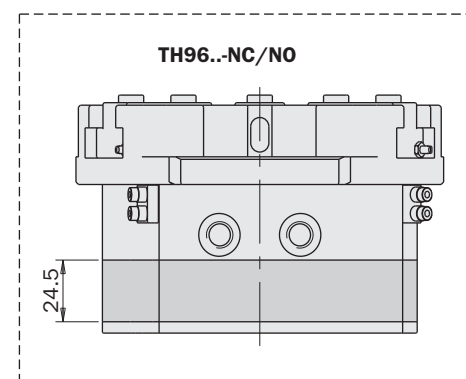
The force shown in these graphs refers to one jaw. The total force is triple.

Dimensioni (mm)
Dimensions (mm)



	TH9613	TH9613-NC	TH9613-N0
S	3x13mm	3x13mm	3x13mm

	TH9606	TH9606-NC	TH9606-N0
S	3x6mm	3x6mm	3x6mm



Unità Rotanti
Rotary Units

Cambia Utensile
Quick Change

Profili e Staffe
Profiles and Brackets

Pinze
Grippers

Attuatori Lineari
Linear Actuators

Sospensioni
Suspensions

Taglierini
Nippers

Kit-Robot
Robot Kit

Accessori Opzionali
Options

Sensori
Sensors

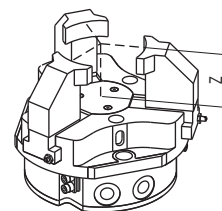
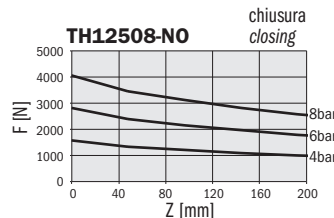
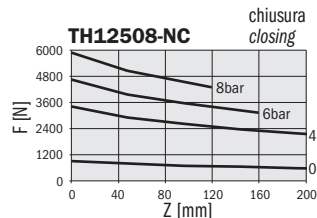
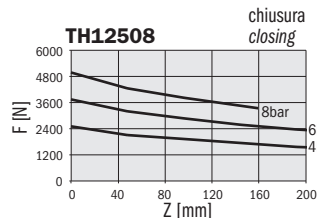
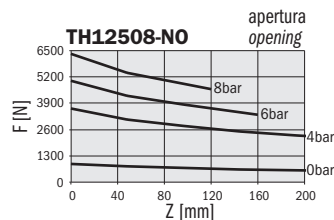
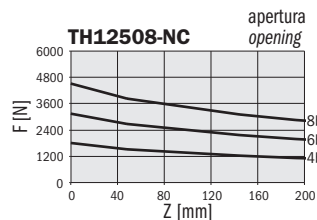
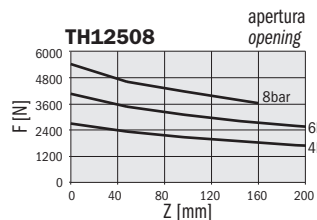
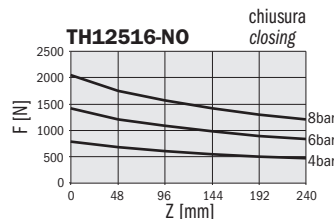
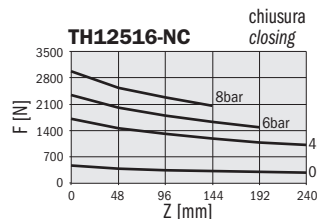
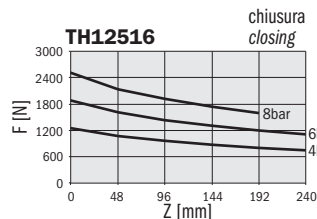
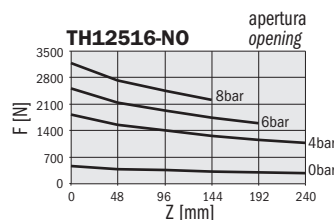
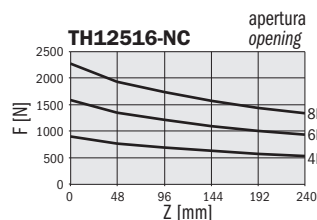
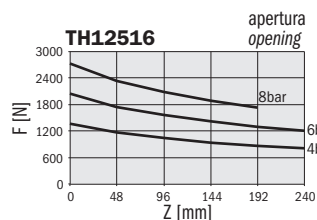
	TH12516	TH12516-NC	TH12516-NO	TH12508	TH12508-NC	TH12508-NO
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]					
Pressione di esercizio Operating pressure range	1.5 ÷ 8bar	3 ÷ 8bar	3 ÷ 8bar	1.5 ÷ 8bar	3 ÷ 8bar	3z ÷ 8bar
Temperatura di esercizio Operating temperature range	5 ÷ 100°C.					
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force on each jaw at 6 bar	2050N	1538 ÷ 1644N	2465 ÷ 2571N	4070N	3050 ÷ 3260N	4888 ÷ 5099N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	6150N	4614 ÷ 4932N	7395 ÷ 7713N	12210N	9150 ÷ 9780N	14664 ÷ 15297N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force on each jaw at 6 bar	1880N	2294 ÷ 2400N	1367 ÷ 1473N	3740N	4550 ÷ 4761N	2712 ÷ 2922N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	5640N	6882 ÷ 7200N	4101 ÷ 4419N	11220N	13650 ÷ 14283N	8136 ÷ 8766N
Corsa Stroke (±0.2 mm)	3x16mm	3x16mm	3x16mm	3x8mm	3x8mm	3x8mm
Frequenza max funzionamento Maximum working frequency	1Hz	1Hz	1Hz	1Hz	1Hz	1Hz
Consumo d'aria per ciclo Cycle air consumption	452cm ³	700cm ³	700cm ³	452cm ³	700cm ³	700cm ³
Tempo minimo di chiusura / apertura Closing / opening minimum time	0.3s / 0.3s	0.3s / 0.4s	0.4s / 0.3s	0.3s / 0.3s	0.3s / 0.4s	0.4s / 0.3s
Ripetibilità Repetition accuracy	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm	0.02mm
Peso Weight	4920g	6640g	6460g	4990g	6710g	6530g

Forza di serraggio

I grafici mostrano la forza per griffa espressa dalla pinza in funzione della pressione e del braccio di leva Z.

Gripping force

The graphs show the gripping force on each jaw, as a function of the operating pressure and the gripping tool length Z.



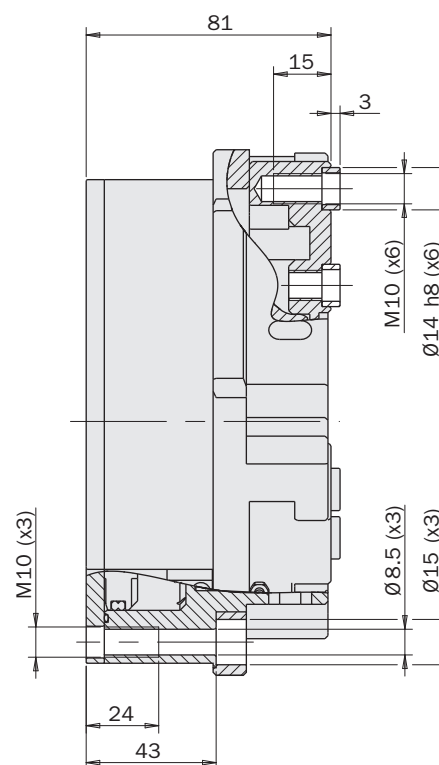
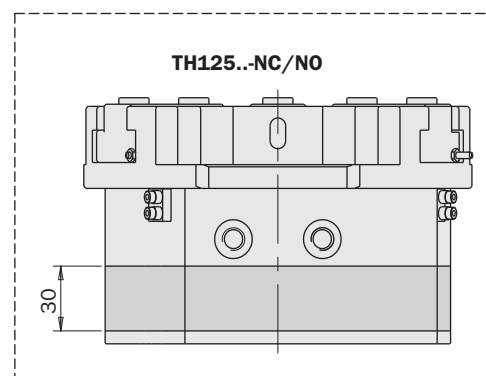
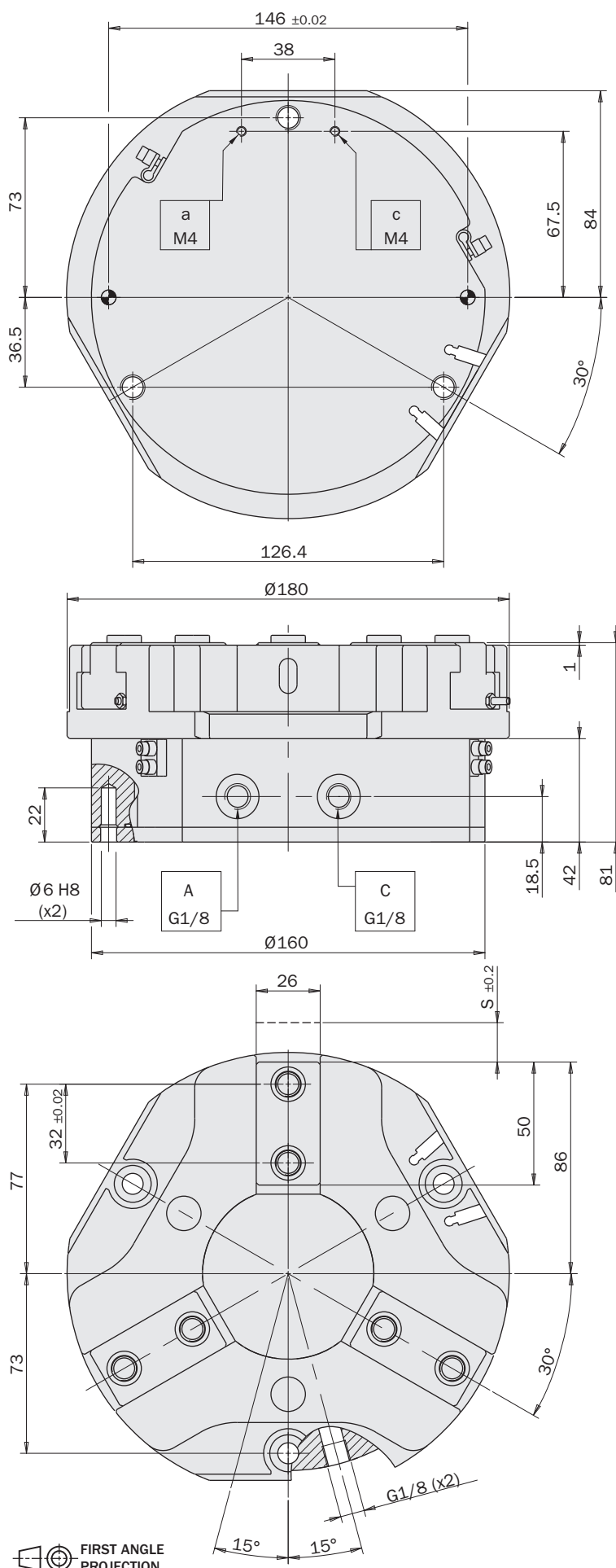
La forza indicata in questi grafici è riferita alla singola griffa. La forza totale è il triplo.

The force shown in these graphs refers to one jaw. The total force is triple.

Dimensioni (mm)
Dimensions (mm)

	TH12516	TH12516-NC	TH12516-NO
S	3x16mm	3x16mm	3x16mm

	TH12508	TH12508-NC	TH12508-NO
S	3x8mm	3x8mm	3x8mm



Sensori magnetici (opzionali)

Il rilevamento della posizione di lavoro è affidato a uno o due sensori magnetici di prossimità, che rilevano la posizione attraverso il magnete sul pistone. Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

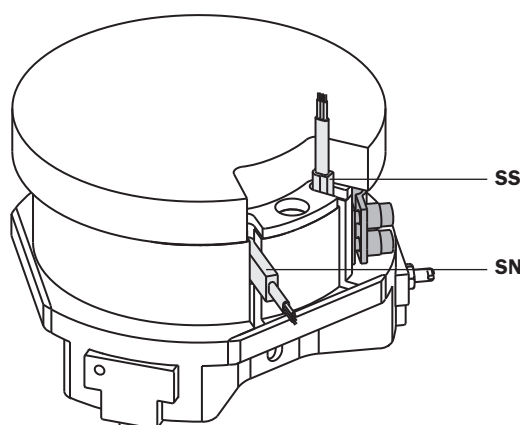
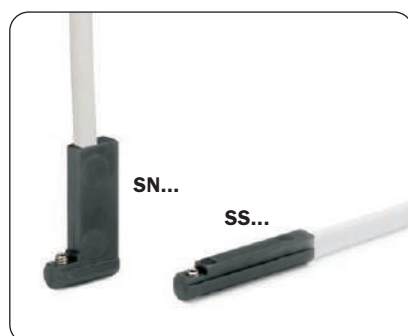
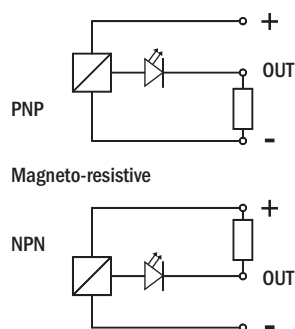
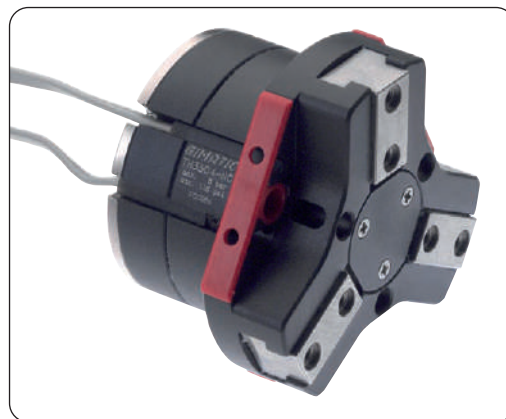
I sensori utilizzabili sono:

SN4N225-G	PNP	Cavo 2.5m
SN4M225-G	NPN	2.5m cable
SN3N203-G	PNP	Connettore M8
SN3M203-G	NPN	M8 snap plug connector
SS4N225-G	PNP	Cavo 2.5m
SS4M225-G	NPN	2.5m cable
SS3N203-G	PNP	Connettore M8
SS3M203-G	NPN	M8 snap plug connector

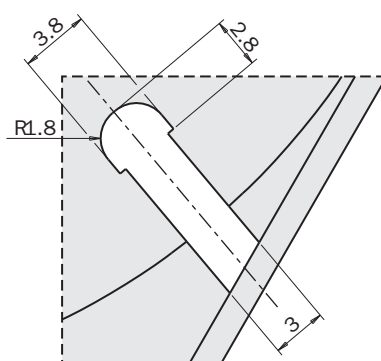
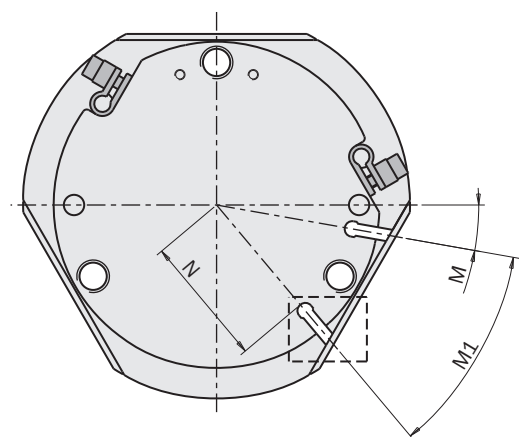
Magnetic sensors (optional)

The operating position can be checked by one or two magnetic sensors, that detect the magnet on the piston inside. Therefore a near big mass of ferromagnetic material or intense magnetic fields may cause sensing troubles.

Use sensors:



	TH27...	TH33...	TH46...	TH54...	TH76...	TH96...	TH125...
N	15.4	19.6	25.5	32	41.2	53.5	67
M	11.5°	14°	12°	10°	13°	14°	18°
M1	37°	32°	36°	40°	34°	32°	24°



Sensori induttivi (opzionali)

Sulle taglie più grandi é anche possibile usare sensori induttivi di diametro 4mm, che si fissano con i supporti SJJ-A01 (forniti nella confezione).

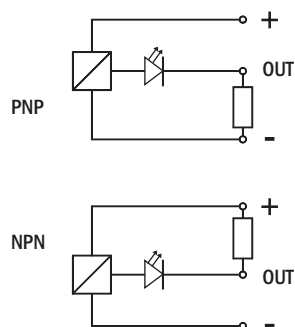
Dopo aver fissato il sensore va regolata la posizione della parte metallica (M) per stabilire il punto di accensione.

			TH54... TH76... TH96... TH125...
SI4M225-G	NPN	Cavo 2.5m	☒
SI4N225-G	PNP	2.5m cable	☒

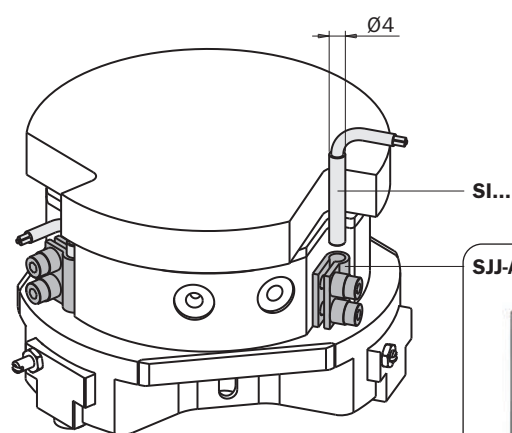
Inductive sensors (optional)

With the larger sizes it is also possible to use inductive sensors diameter 4mm, which can be fastened by the holders SJJ-A01 (supplied).

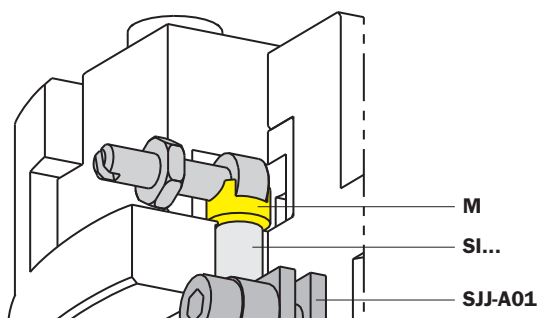
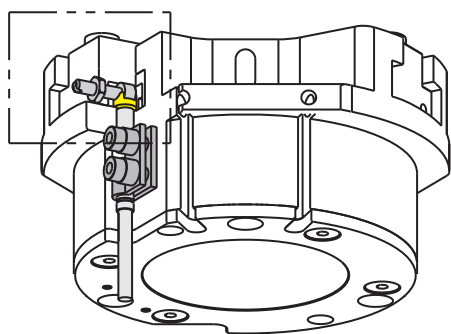
After the sensor fastening, the position of the metal part (M) must be adjusted to select the on point.



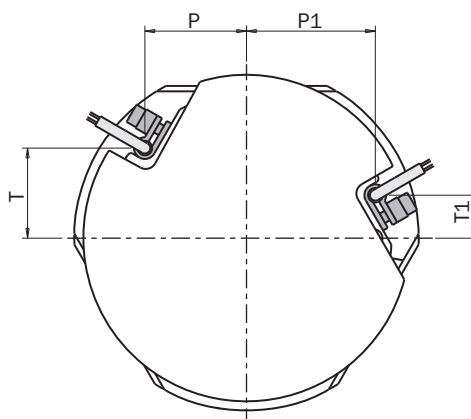
SI...



SJJ-A01



	TH54...	TH76...	TH96...	TH125...
P	28	34.8	45.6	56.8
P1	35.5	44.1	56.2	71.3
T	10.9	14.7	20.2	24.4
T1	24.9	30.8	38.6	49.6



Pinza pneumatica autocentrante a 3 griffe (serie SXT)

- Azionamento a doppio effetto (normale chiusa su richiesta).
- Forza di serraggio elevata.
- Grado di protezione IP67.
- Colonne sigillate con doppio O-Ring.
- Adatta per ambienti difficili.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

3-jaw self-centring pneumatic gripper (series SXT)

- Double acting (normally closed on request).
- Strong gripping force.
- Protection class: IP67.
- Double O-Ring sealing on the columns.
- Suitable for harsh environments.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.



SXT2505



SXT4008



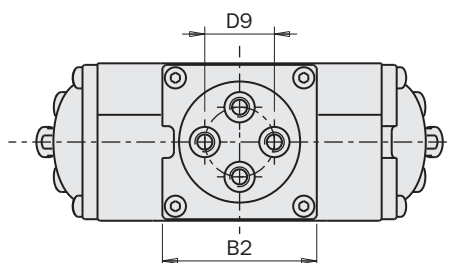
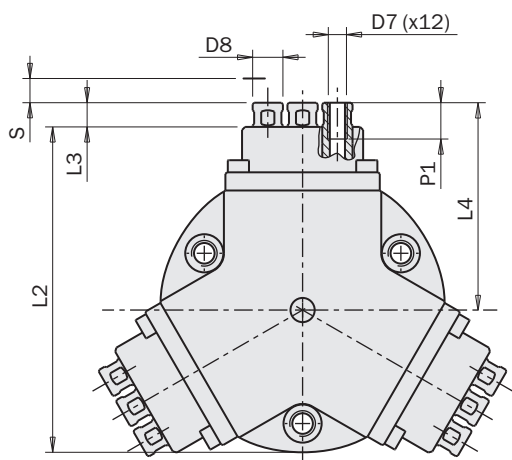
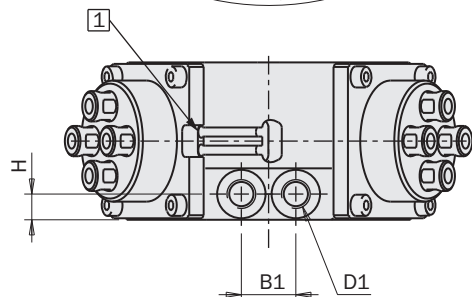
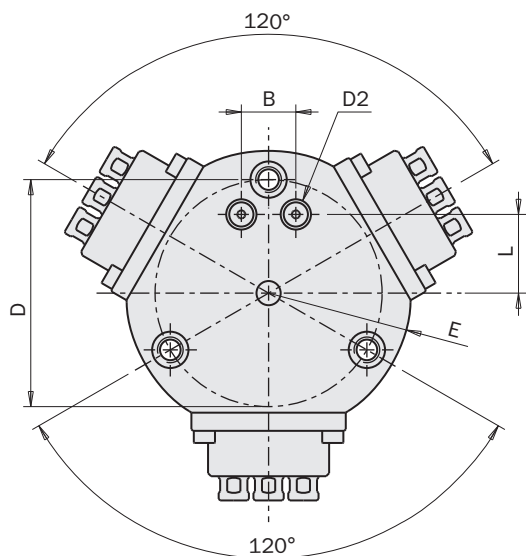
SXT5012



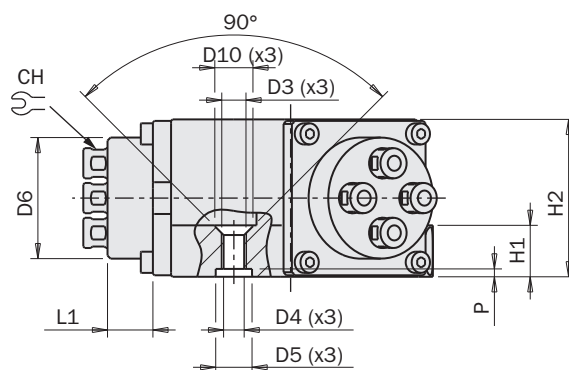
SXT6315

	SXT2505	SXT4008	SXT5012	SXT6315
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]			
Pressione di esercizio Operating pressure range	2 ÷ 8 bar			
Temperatura di esercizio Operating temperature range	5 ÷ 100 °C			
Forza di serraggio per griffa in apertura a 6 bar Opening gripping force at 6 bar on each jaw	250 N	650 N	1050 N	1650 N
Forza di serraggio totale in apertura a 6 bar Opening total gripping force at 6 bar	750 N	1950 N	3150 N	4950 N
Forza di serraggio per griffa in chiusura a 6 bar Closing gripping force at 6 bar on each jaw	195 N	500 N	800 N	1200 N
Forza di serraggio totale in chiusura a 6 bar Closing total gripping force at 6 bar	585 N	1500 N	2400 N	3600 N
Corsa Stroke (±0.5)	3x5 mm	3x8 mm	3x12 mm	3x15 mm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz	2 Hz	2 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	16 cm ³	60 cm ³	140 cm ³	270 cm ³
Tempo di apertura / chiusura senza carico Opening / Closing time without load	0.02 s	0.02 s	0.05 s	0.15 s
Ripetibilità Repetition accuracy	0.05 mm	0.05 mm	0.05 mm	0.05 mm
Peso Weight	420 g	1100 g	2000 g	3800 g

Dimensioni (mm)
Dimensions (mm)



1 Sede per sensori
Sensor groove



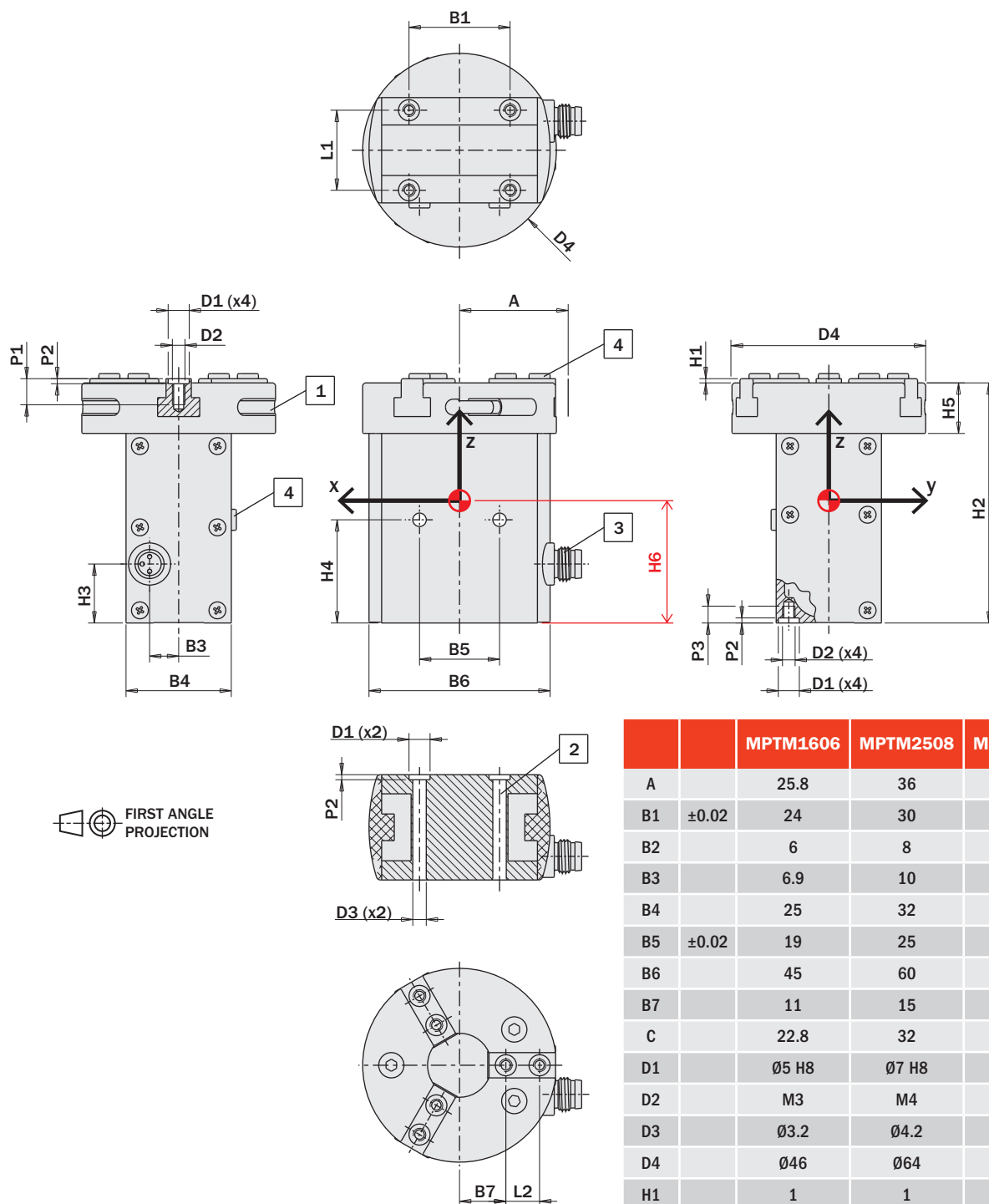
		SXT2505	SXT4008	SXT5012	SXT6315
B		16	18	24	24
B1		16	18	24	24
B2		38	51	63	78
D	±0.02	Ø59	Ø75	Ø98	Ø114
D1		M5	G1/8	G1/8	G1/8
D2		M3	M5	M5	M5
D3		Ø5.2	Ø6.8	Ø6.8	Ø8.5
D4		M6	M8	M8	M10
D5	H8	Ø9	Ø12	Ø12	Ø14
D6		Ø27	Ø40	Ø50	Ø63
D7		M3	M6	M8	M10
D8	f7	Ø6	Ø10	Ø12	Ø16
D9	±0.02	15	Ø23	Ø33	Ø38
D10		Ø11.2	Ø12.6	Ø12.6	Ø17.3
E		R36	R47	R58	R69
H		6	8.5	10	11
H1		12	17	20	22
H2		38	52	64	80
L		24	26	38	45
L1		7.5	15	18	26
L2		78	107.5	133	162
L3		7.5	8	8.5	9.5
L4		49.5	68.5	83.5	102.5
P	+0.1	2.1	2.6	2.6	2.6
P1		6	12	20	20
S (x2)		5	8	12	15
CH		5	9	11	14



	MPTM1606	MPTM2508	MPTM3210
Forza di serraggio totale <i>Total gripping force</i>	57 N	124 N	220 N
Corsa <i>Stroke</i>	3x3 mm (±0.2 mm)	3x4 mm (±0.2 mm)	3x5 mm (±0.2 mm)
Frequenza alla temperatura ambiente di 30°C <i>Frequency at an ambient temperature of 30°C</i>	0.95 Hz	0.83 Hz	0.85 Hz
Tempo chiusura griffe <i>Jaw closing time</i>	0.08 s	0.12 s	0.16 s
Tempo di lavoro pinza <i>Working gripper time</i>	0.19 s	0.31 s	0.26 s
Ciclo di lavoro alla temperatura ambiente di 30°C <i>Duty cycle at an ambient temperature of 30°C</i>	36%	52%	44%
Tensione d'alimentazione <i>Power supply</i>	24 Vdc ±10%	24 Vdc ±10%	24 Vdc ±10%
Corrente di picco <i>Peak current</i>	0.9 Apk	1.2 Apk	3.8 Apk
Corrente nominale <i>Nominal current</i>	0.3 Arms	0.4 Arms	0.8 Arms
Potenza motore brushless <i>Brushless motor power</i>	6 W	11 W	23 W
Connessione <i>Connection</i>	M8 - 3 poli M8 - 3 poles		
Segnale d'ingresso apertura/chiusura <i>Open/closed input signal</i>	PNP open collector PNP open collector		
Ripetibilità <i>Repetition accuracy</i>	0.02 mm	0.02 mm	0.02 mm
Temperatura di esercizio <i>Operating temperature</i>	5° ÷ 60°C	5° ÷ 60°C	5° ÷ 60°C
Grado di protezione <i>Environmental Degree</i>	IP54	IP54	IP54
Rumorosità <i>Noise level</i>	< 70 dB	< 70 dB	< 70 dB
Massa (motore incluso) <i>Mass (motor included)</i>	183 g	430 g	693 g
Certificazione Camera Bianca ISO14644-1 <i>ISO14644-1 Clean Room Certification</i>	CLASS 7	-	-
Normative di riferimento <i>Reference standards</i>	EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1		
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jxx	0.66 kgcm ²	2.75 kgcm ²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jyy	0.75 kgcm ²	3.13 kgcm ²
Momento d'inerzia baricentrale <i>Barycentric moment of inertia</i>	Jzz	0.36 kgcm ²	1.6 kgcm ²
Tecnologia e opzioni <i>Technology and options</i>	Pagina 570 - 571 Page 570 - 571		

Unità Rotanti
Rotary UnitsCambia Utensile
Quick ChangerProfili e Staffe
Profiles and BracketsPinze
GrippersAttuatori Lineari
Linear ActuatorsSospensioni
SuspensionsTaglierini
NippersKit-Robot
Robot KitAccessori Opzionali
OptionsSensori
Sensors

Dimensioni (mm)
Dimensions (mm)

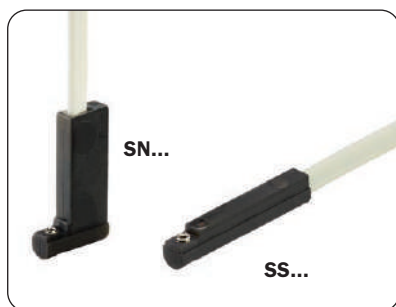


- 1** Cava per sensore magnetico
 Magnetic sensor slot
- 2** Foro passante per fissaggio pinza
 Through hole for gripper fastening
- 3** Connessione elettrica
 Electrical connection
- 4** Boccole di centraggio
 Centering sleeves

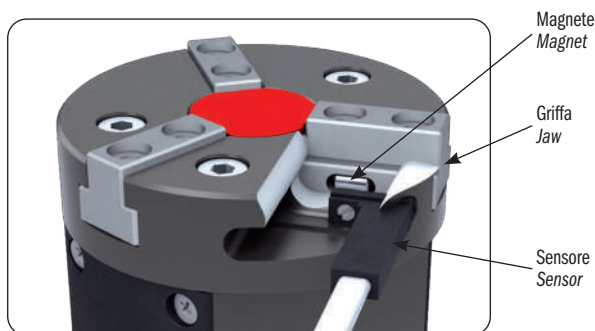
		MPTM1606	MPTM2508	MPTM3210
A		25.8	36	44
B1	±0.02	24	30	36
B2		6	8	9
B3		6.9	10	11
B4		25	32	35
B5	±0.02	19	25	30
B6		45	60	73
B7		11	15	18.5
C		22.8	32	39
D1		Ø5 H8	Ø7 H8	Ø7 H8
D2		M3	M4	M5
D3		Ø3.2	Ø4.2	Ø5.2
D4		Ø46	Ø64	Ø78
H1		1	1	1
H2		57	74.5	85.5
H3		14	17	19
H4	±0.02	24.5	32	38
H5		12	15	17
H6		37	49.3	56.5
L1	±0.02	19	24	26
L2	±0.02	8	12	14
P1		6.2	8	8.5
P2	+0.1	1.2	1.5	1.5
P3		4	6	8

Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso i magneti sulle griffe. Per i dettagli si veda la sezione "Accessori".



Sono tutti dotati di un cavo piatto a tre fili e di un led.

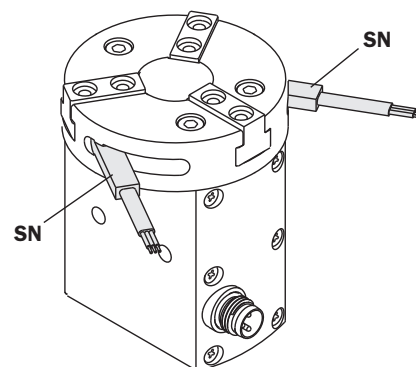


Sensors

The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside.

For details, see the "Accessories" section.

They are all provided with a 3-wire flat cable and a LED.



Carichi di sicurezza e giochi

Consultare la tabella per i carichi massimi ammissibili.

Forze e coppie eccessive possono danneggiare la pinza e causare difficoltà di funzionamento compromettendo la sicurezza dell'operatore.

F_s , $M_x s$, $M_y s$, $M_z s$, sono i carichi massimi ammissibili in condizioni statiche, cioè con le griffe ferme.

F_d , $M_x d$, $M_y d$, $M_z d$, sono i carichi massimi ammissibili in condizioni dinamiche, cioè con le griffe in movimento.

La tabella mostra inoltre la massa ammissibile (m) per ogni dito di presa quando la pinza è usata al massimo delle prestazioni.

La figura sotto mostra anche il gioco massimo delle griffe.

	MPTM1606	MPTM2508	MPTM3210
F_s	60 N	120 N	200 N
$M_x s$	3 Nm	8 Nm	20 Nm
$M_y s$	3 Nm	8 Nm	20 Nm
$M_z s$	3 Nm	8 Nm	20 Nm
F_d	0.6 N	1.2 N	2 N
$M_x d$	3 Ncm	8 Ncm	20 Ncm
$M_y d$	3 Ncm	8 Ncm	20 Ncm
$M_z d$	3 Ncm	8 Ncm	20 Ncm
m	60 g	120 g	200 g

Safety loads and backlashes

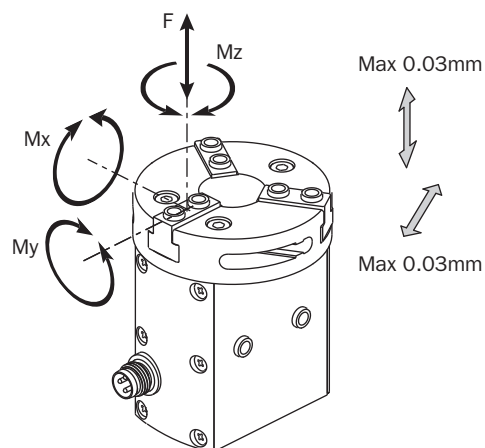
Check the table for the maximum permitted loads.

Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator. F_s , $M_x s$, $M_y s$, $M_z s$, are the maximum permitted loads under static conditions, that is with motionless jaws.

F_d , $M_x d$, $M_y d$, $M_z d$, are the maximum permitted loads under dynamic conditions, that is with running jaws.

The following table also shows the maximum permitted load (m) on each gripping tool when the gripper operates at peak performance.

The picture below shows also the jaw maximum backlash.



Pinze ad espansione per interni serie MFD/MFU

- Nuovo concetto di pinza innovativa.
- Movimento verso il basso (MFD), o verso l'alto (MFU).
- La parte elastica può essere in Silicone o EPDM.
- Diametro di presa da 8 a 85 mm.
- Coni di centraggio opzionali.
- Sensori magnetici opzionali.
- Vari accessori disponibili per il fissaggio.

ID expansion grippers series MFD/MFU

- New concept for innovative air hands.
- Downward movement (MFD), or upward movement (MFU).
- The elastic part can be in Silicone or EPDM.
- Grip diameters from 8 to 85 mm.
- Optional nose cones for centering.
- Optional proximity magnetic sensors.
- Several mounting accessories.



M F D 1 6 E 0 2 C L

Direzione del movimento

Actuation direction

D - Verso il basso
D - Downward
U - Verso l'alto
U - Upward

Alimentazione

Air feeding

C - Con raccordo coassiale
C - With coaxial air fitting
H - Con raccordo laterale e foro passante
H - With side air fitting and through hole

Diametro nominale

Base diameter

08 - 10 - 12 - 14 - 16 - 18 - 20 - 22
27 - 33 - 41 - 47 - 51 - 63

Parte elastica

Elastic part

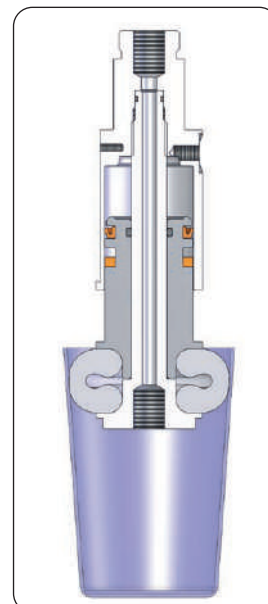
S01 - in Silicone bianco
S01 in white Silicone
E02 - in EPDM nero
E02 in black EPDM

Foro passante

I modelli ...HL sono dotati di un foro passante, che si può usare per immettere aria compressa o in depressione, allo scopo di raffreddare delle parti o di controllarne la tenuta.

Through hole

The ...HL models have a central through hole. It can be used to blow compressed air, or to provide vacuum, with the purpose to cool a part, or to check the sealing.



Silicone o EPDM?

La parte elastica può essere in Silicone bianco o EPDM nero. Il Silicone può essere usato su un campo di temperature più ampio e garantisce una maggiore durata, ma non è adatto in alcuni settori merceologici, perchè rende difficoltosa la verniciatura o il rivestimento delle parti che tocca. Invece l'EPDM non lascia impronte e assicura anche un maggior coefficiente di attrito.

La parte elastica in Silicone o EPDM è fornita come ricambio e può essere sostituita, quando usurata.

La vita media della parte elastica in EPDM è di circa 0.5 milioni di cicli.

La vita media della parte elastica in Silicone è di circa 1 milione di cicli.

Silicone or EPDM?

The elastic part can be in white silicone or black EPDM.

Silicone can be used over a wider temperature range and assures a longer life time, but it is not suitable in some industries, because it makes it difficult to paint or to coat the parts that are touched.

EPDM is mark-free and provides a higher coefficient of friction. The elastic part in Silicone or EPDM is available as a spare part and can be replaced, when worn out.

The expected medium life time of the elastic part in EPDM is about 0.5 million cycles.

The expected medium life time of the elastic part in Silicone is about 1 million cycles.

Ricambio per la parte elastica
Spare elastic part



Silicone
Silicone



EPDM

T	MFD / MFU													
	Ø8	Ø10	Ø12	Ø14	Ø16	Ø18	Ø20	Ø22	Ø27	Ø33	Ø41	Ø47	Ø51	Ø63
-70°C +200°C	IF08S01	IF10S01	IF12S01U	IF14S01U	IF16S01U	IF18S01	IF20S01	IF22S01	IF27S01	IF33S01	IF41S01	IF47S01	IF51S01	IF63S01
-50°C +140°C	IF08E02	IF10E02	IF12E02U	IF14E02U	IF16E02U	IF18E02	IF20E02	IF22E02	IF27E02	IF33E02	IF41E02	IF47E02	IF51E02	IF63E02

T - Temperatura d'esercizio della parte elastica (5÷60°C per il corpo pinza)

T - Operating temperature of the elastic part (5÷60°C for the gripper body)

Coni di centraggio

Sono disponibili come accessori dei coni di centraggio in nylon, con la vite inox.

Per le taglie maggiori di 33, sono anche dotati del foro passante.

Centering cones

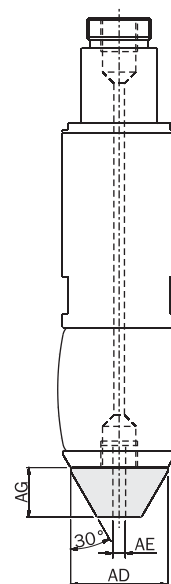
Centering cones in nylon with the stainless screw, are available as an option.

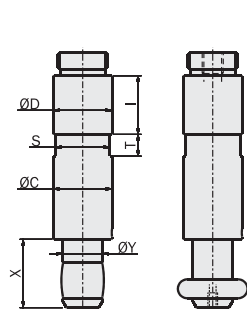
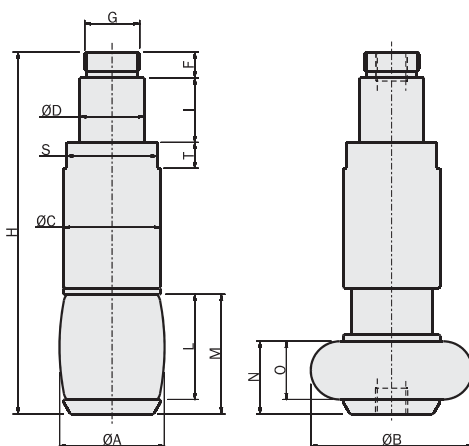
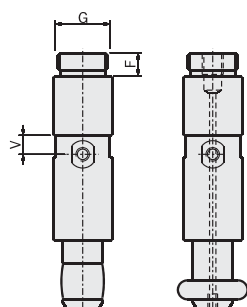
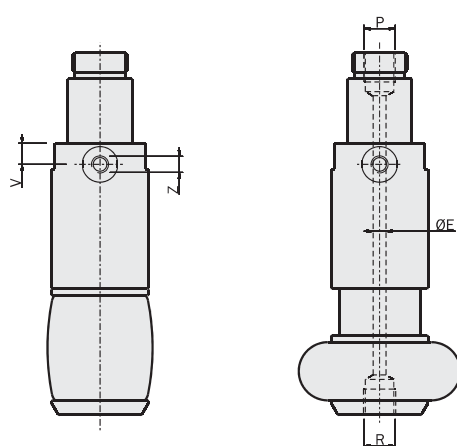
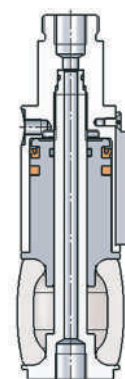
For the sizes larger than 33, they are also provided with a through hole.



	MFC10	MFC12	MFC14	MFC18	MFC22	MFC27	MFC33	MFC41	MFC51	MFC63
Peso Weight	0.5 g	1 g	1 g	1.5 g	2 g	5 g	7 g	12 g	21 g	30 g
ØAD [mm]	7.8	10	11.8	15.5	18.8	21.3	28	37	47	56
ØAE [mm]	-	-	-	-	-	-	4	4	4	4
ØAG [mm]	2.9	3.5	4.5	6.5	8	9.5	12	19	26	30
MFD MFU	Ø10	Ø12	Ø14 Ø16	Ø18 Ø20	Ø22	Ø27	Ø33	Ø41 Ø47	Ø51	Ø63

MFD / MFU

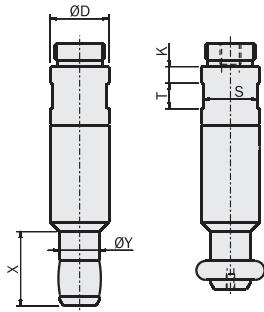


Dimensioni (mm)
Dimensions (mm)
**MFD 08/10/12****MFD...E02CL**
MFD...S01CL**MFD 08/10/12****MFD...E02HL**
MFD...S01HL

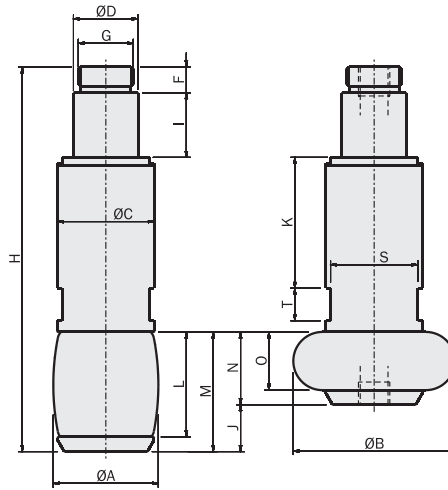
	m	ØA	ØB	ØC	ØD	ØE	F	G	H	I	L	M	N	O	P	R	S	T	V	Z	X	ØY
MFD08...CL MFD08...HL	15g	8	11	14	14	-1.5	5.5	M12x1	59.2	14	7	9.2	5.7	3.5	M5	M2	13	6	-4.5	-M3	14.7	7.6
MFD10...CL MFD10...HL	16g	10.5	13.5	14	14	-1.5	5.5	M12x1	60.7	14	8.5	10.7	6.7	4.5	M5	M2	13	6	-4.5	-M3	16.2	9.5
MFD12...CL MFD12...HL	17g	13	17	14	14	-2	5.5	M12x1	62	14	10.5	13	7.5	5	M5	M3	13	6	-4.5	-M3	16.8	11.8
MFD14...CL MFD14...HL	17g	15	19.5	14	14	-2	5.5	M12x1	62.3	14	13	15.8	8.8	6	M5	M3	13	6	-4.5	-M3	-	-
MFD16...CL MFD16...HL	17g	18	21.5	14	14	-2	5.5	M12x1	62.3	14	13	15.8	8.8	6	M5	M3	13	6	-4.5	-M3	-	-
MFD18...CL MFD18...HL	28g	19.5	24.5	18	14	-2.5	5.5	M12x1	70.5	14	16.5	19.5	12	9	M5	M3	16	6	-5.3	-M5	-	-
MFD20...CL MFD20...HL	28g	22.5	26.5	18	14	-2.5	5.5	M12x1	70.5	14	16.5	19.5	12	9	M5	M3	16	6	-5.3	-M5	-	-
MFD22...CL MFD22...HL	43g	24	31.5	21.5	14	-2.5	5.5	M12x1	80	14	21	24.2	12.2	11	M5	M3	19	7	-5.5	-M5	-	-
MFD27...CL MFD27...HL	79g	28	36	25	20	-3	8	M17x1	98	20	26	30	18	14	G1/8	M5	22	8	-7	-M5	-	-
MFD33...CL MFD33...HL	118g	34	44	30	20	-4	8	M17x1	112	20	32.5	37	22.5	18	G1/8	G1/8	28	8	-6.5	-M5	-	-
MFD41...CL MFD41...HL	280g	42	54	40	30	-4.3	11	M27x1	142.5	30	39.5	45	29.5	24	G1/8	G1/8	36	11	-7.5	-M5	-	-
MFD47...CL MFD47...HL	280g	50	58	40	30	-4.3	11	M27x1	142.5	30	39.5	45	29.5	24	G1/8	G1/8	36	11	-7.5	-M5	-	-
MFD51...CL MFD51...HL	490g	54	68	50	30	-5.5	11	M27x1	168	30	48	55	37	30	G1/8	G1/8	45	13	-10.5	-G1/8	-	-
MFD63...CL MFD63...HL	800g	66	84	60	30	-6	11	M27x1	198	30	61	70	45	36	G1/8	G1/8	54	16	-14	-G1/8	-	-

m [Peso]
[Weight]

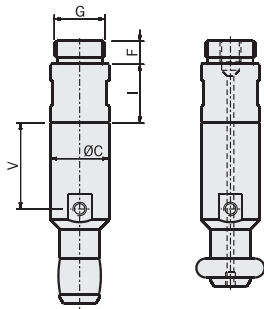
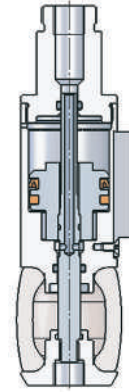
Dimensioni (mm)
Dimensions (mm)



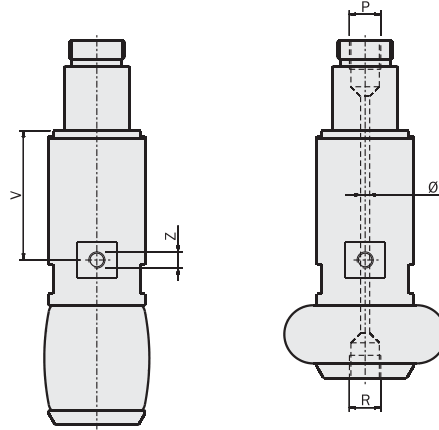
MFU 08/10/12



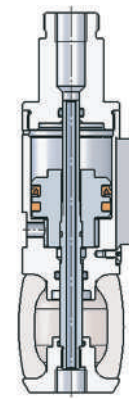
MFU...E02CL
MFU...S01CL



MFU 08/10/12



MFU...E02HL
MFU...S01HL



	m	ØA	ØB	ØC	ØD	ØE	F	G	H	I	J	K	L	M	N	O	P	R	S	T	V	Z	X	ØY
MFU08...CL MFU08...HL	16g	8	11	14	14	- 1.1	5.5	M12x1	61.5	14	3.5	4	7	9.2	5.7	3.5	M5	M2	13	6	- 20	- M3	16.3	7.6
MFU10...CL MFU10...HL	17g	10.5	13.5	14	14	- 1.1	5.5	M12x1	62.5	14	4	4	8.5	10.7	6.7	4.5	M5	M2	13	6	- 20.5	- M3	17.7	9.5
MFU12...CL MFU12...HL	18g	13	17	14	14	- 1.3	5.5	M12x1	65	14	5.5	4	10.5	13	7.5	5	M5	M3	13	6	- 21.5	- M3	20	11.8
MFU14...CL MFU14...HL	20g	15	19.5	14	14	- 1.3	5.5	M12x1	68.5	14	7	24.2	13	15.8	8.8	6	M5	M3	13	6	- 23.2	- M3	-	-
MFU16...CL MFU16...HL	20g	18	21.5	14	14	- 1.3	5.5	M12x1	68.5	14	7	24.2	13	15.8	8.8	6	M5	M3	13	6	- 23.2	- M3	-	-
MFU18...CL MFU18...HL	35g	19.5	24.5	18	14	- 1.3	5.5	M12x1	78	14	7.5	29	16.5	19.5	12	9	M5	M3	16	7	- 28	- M5	-	-
MFU20...CL MFU20...HL	35g	22.5	26.5	18	14	- 1.3	5.5	M12x1	78	14	7.5	29	16.5	19.5	12	9	M5	M3	16	7	- 28	- M5	-	-
MFU22...CL MFU22...HL	50g	24	31.5	21.5	14	- 1.8	5.5	M12x1	86.5	14	10	31.8	21	24.2	14.2	11	M5	M3	20	8	- 31.5	- M5	-	-
MFU27...CL MFU27...HL	100g	28	36	25	20	- 2.5	8	M17x1	108	20	12	37.5	26	30	18	14	G1/8	M5	22	9	- 37	- M5	-	-
MFU33...CL MFU33...HL	130g	34	44	30	20	- 2.8	8	M17x1	119	20	14.5	40.5	32.5	37	22.5	18	G1/8	G1/8	28	10	- 40	- M5	-	-
MFU41...CL MFU41...HL	300g	42	54	40	30	- 4.5	11	M27x1	147	30	15.5	45	39.5	45	29.5	24	G1/8	G1/8	36	12	- 45	- M5	-	-
MFU47...CL MFU47...HL	300g	50	58	40	30	- 4.5	11	M27x1	147	30	15.5	45	39.5	45	29.5	24	G1/8	G1/8	36	12	- 45	- M5	-	-
MFU51...CL MFU51...HL	500g	54	68	50	30	- 5	11	M27x1	169	30	18	54	48	55	37	30	G1/8	G1/8	45	14	- 56.5	- G1/8	-	-
MFU63...CL MFU63...HL	785g	66	84	60	30	- 5	11	M27x1	194	30	25	62	61	70	45	36	G1/8	G1/8	54	16	- 64.5	- G1/8	-	-

m [Peso]
[Weight]

Diametri di presa

La taglia è indicata nel codice con un diametro nominale della parte elastica.
Ma ogni modello può lavorare fra un diametro minimo ed un diametro massimo.

Grip diameters

The gripper size is indicated in the gripper code with a nominal diameter of the elastic part.
Each model can work in a diameter range between a minimum and a maximum value.

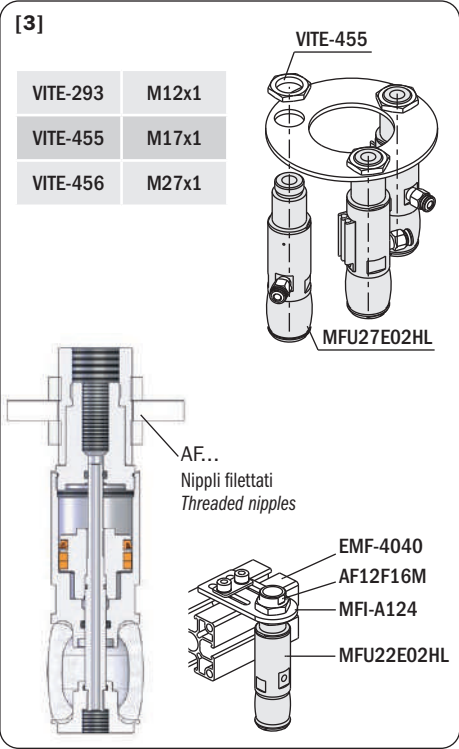
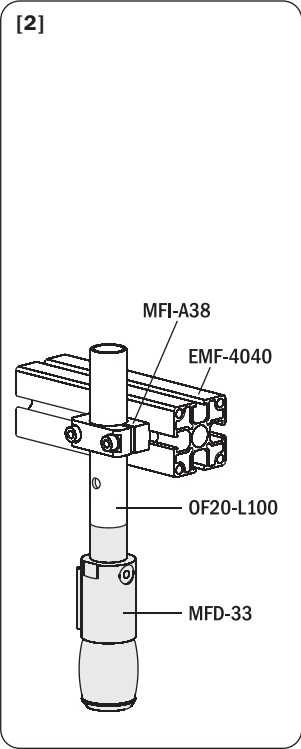
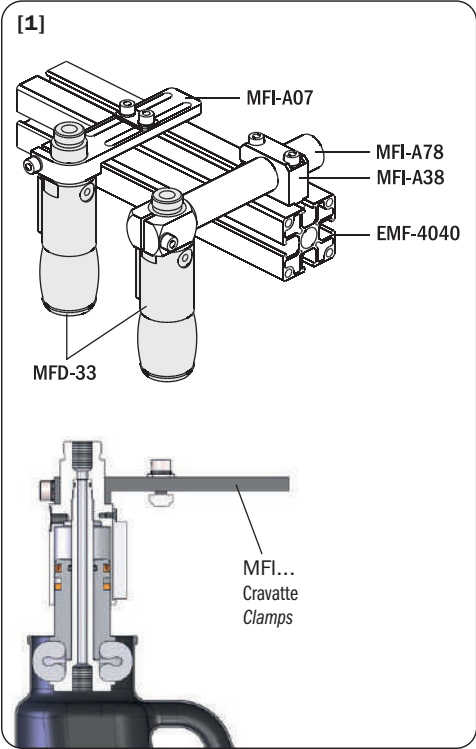
		Diametro (mm) / Diameter (mm)															
		10	20	30	40	50	60	70	80								
Taglia MFD-MFU / MFD-MFU Size	08	8	11														
	10	10.5	13.5														
	12		13	17													
	14		15	19.5													
	16			18	21.5												
	18			19.5	24.5												
	20			22.5	26.5												
	22			24	31.5												
	27				28	36											
	33				34	44											
	41					42	54										
	47					50	58										
	51						54	68									
	63							66	84								

Fissaggio

La pinza può essere montata, con una staffa a cravatta, direttamente sul suo codolo [1].
Con una staffa a cravatta, sulla prolunga opzionale [2].
Oppure attraverso i nippli filettati opzionali [3].

Fastening

The gripper can be fitted with a clamp, either directly on its tail [1], or on the optional extension tube [2].
Alternatively, it can be fitted through the optional threaded nipples [3].



Forza di serraggio

La forza esercitata da una pinza MFD/MFU dipende da molteplici fattori.

Principalmente il diametro dell'oggetto, ma anche la sua finitura superficiale, il coefficiente di attrito e la pressione di alimentazione.

I grafici mostrano la forza di sfilamento (F) di un carico preso con la pinza a espansione, in funzione del diametro (d).

Per le misurazioni sono stati usati anelli di alluminio, con rugosità $Ra=0.8$ e le pinze alimentate a 6 bar.

Le linee nere si riferiscono alle pinze in EPDM e quelle rosse alle pinze in Silicone.

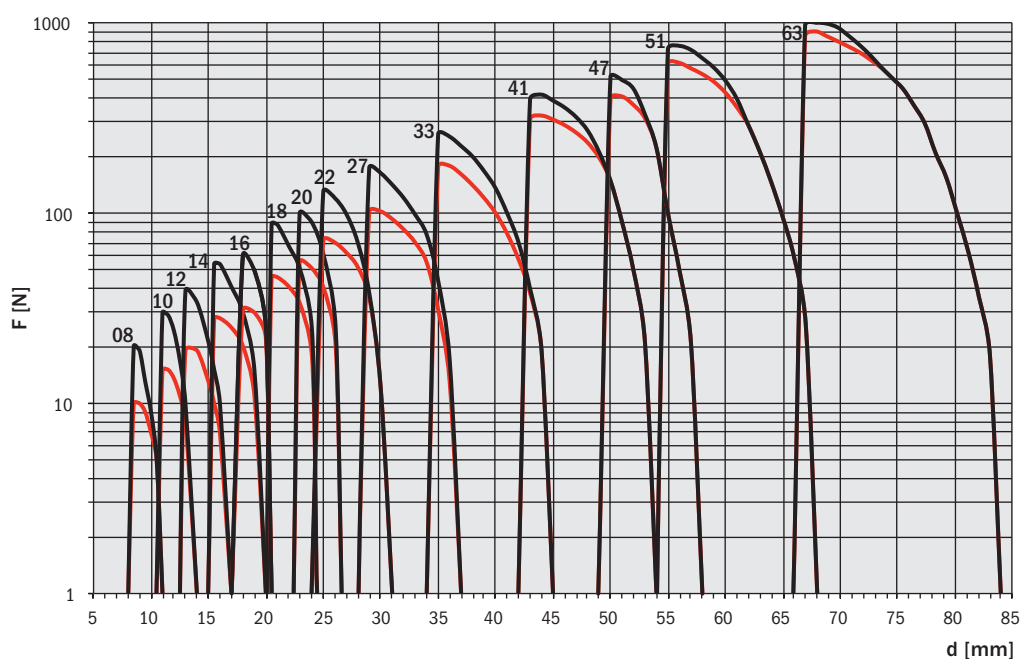
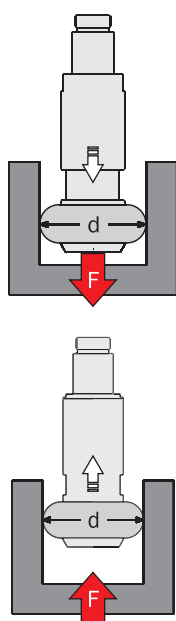
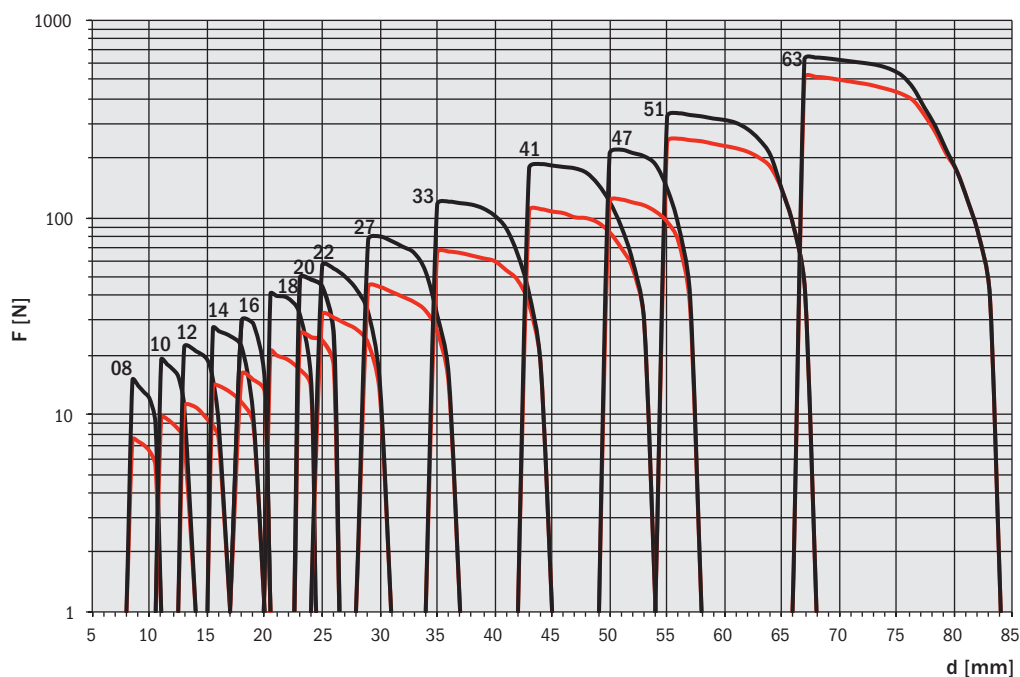
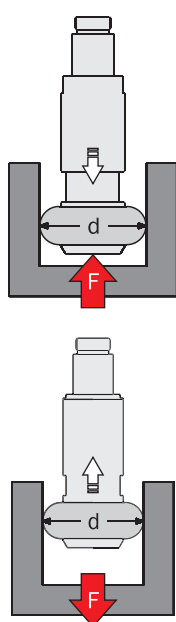
Gripping force

The force output of an MFD/MFU gripper depends on several variables.

Mainly on the diameter of the picked object, but also on the surface finishing, the coefficient of friction and the air pressure. The graphs show the extraction force (F) on the gripped object as a function of its diameter (d).

Measurements were performed with aluminum rings, with roughness $Ra=0.8$ while the grippers were fed with 6 bar compressed air.

The black lines refer to the grippers in EPDM, while the red ones to the grippers in Silicone.



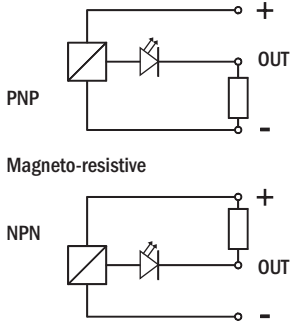
Sensori

Nelle taglie più grandi un magnete è integrato nel pistone.
E' disponibile un accessorio per montare i sensori della serie SN. Possono essere fissati uno o due sensori per pinza.

Sensors

In the larger sizes a magnet is integrated in the piston.
An optional housing for the sensors of the SN series is available.
One or two sensors can be fitted on a gripper.

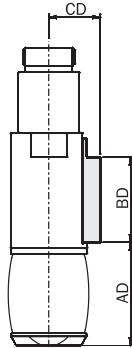
SN		
SN4N225-G	PNP	Cavo 2.5m 2.5m Cable
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 Snap M8 plug connector
SN3M203-G	NPN	



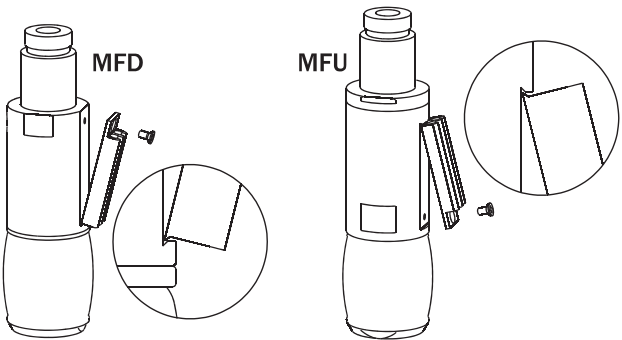
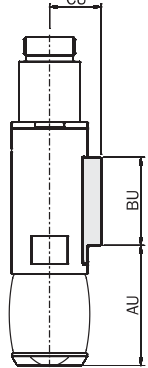
	MFD27-K	MFD33-K	MFD41-K	MFD51-K	MFD63-K
Peso Weight	4 g	5 g	5 g	6 g	7 g
AD [mm]	34	41.5	52	65	85.5
BD [mm]	28	34.5	40.5	49	54.5
CD [mm]	17	19.7	23.8	28.5	33.5
MFD	Ø27	Ø33	Ø41 Ø47	Ø51	Ø63

	MFU27-K	MFU33-K	MFU41-K	MFU51-K	MFU63-K
Peso Weight	4 g	5 g	5 g	6 g	7 g
AU [mm]	39.5	46.5	55.5	71.5	87.5
BU [mm]	29	33	36.5	39	45
CU [mm]	17	19.8	23.8	28.5	33.5
MFU	Ø27	Ø33	Ø41 Ø47	Ø51	Ø63

MFD



MFU



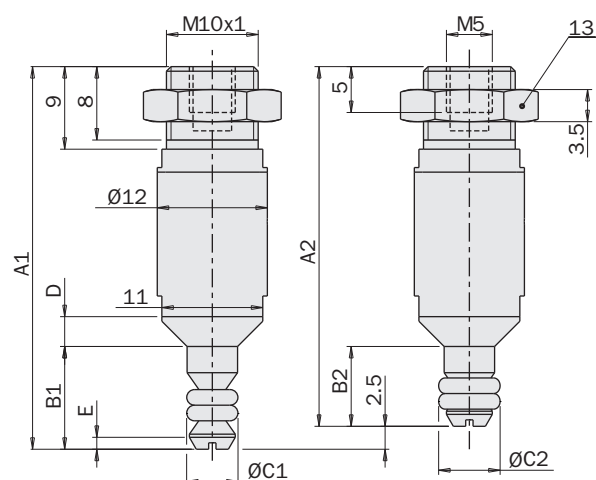
Micro pinze ad espansione per interni serie IFU

- Nuovo concetto di pinza innovativa.
- Movimento verso l'alto.
- La parte elastica può essere in Silicone o NBR.
- Diametro di presa da 4.5 a 8.7 mm.



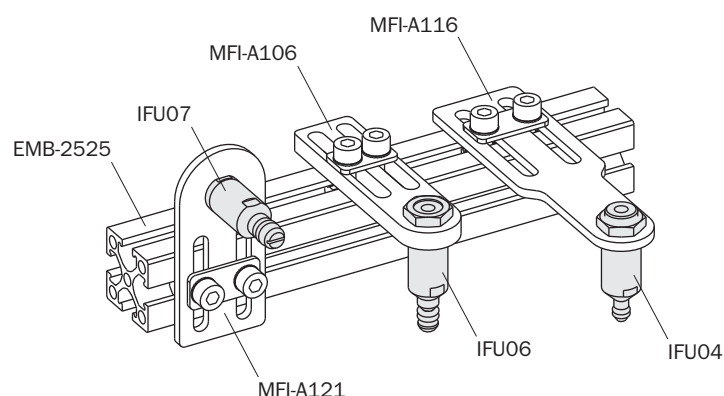
ID expansion micro grippers series IFU

- New concept for innovative air hands.
- Upward movement.
- The elastic part can be in Silicone or NBR.
- Grip diameters from 4.5 to 8.7 mm.



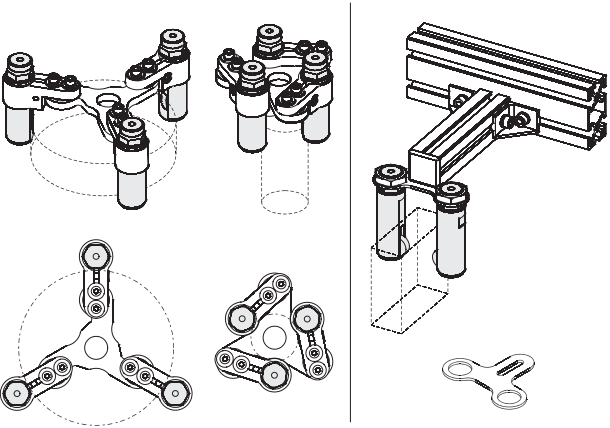
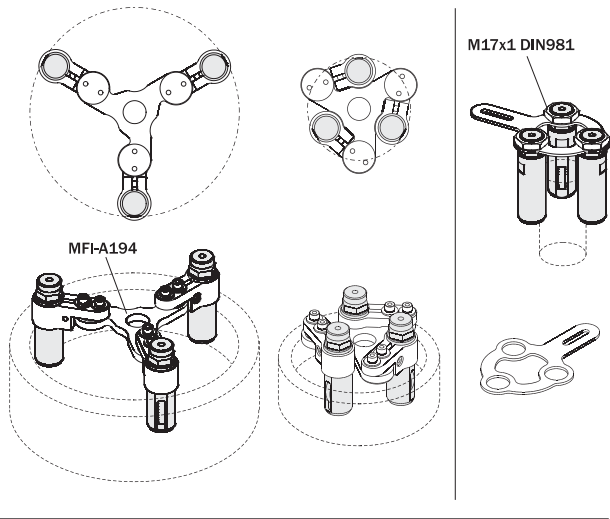
	IFU04S01RT IFU04N03RT	IFU05S01RT IFU05N03RT	IFU06S01RT IFU06N03RT	IFU07S01RT IFU07N03RT
A1	40.9	41.7	42	42
A2	38.4	39.2	39.5	39.5
B1	9.9	11.2	11.5	11.5
B2	7.4	8.7	9	9
C1	Ø4.5	Ø5.6	Ø6.6	Ø7.6
C2	Ø5.4	Ø6.7	Ø7.6	Ø8.7
X1	3	3.4	3.4	3.4
X2	2.7	3.4	3.4	3.4
W1	4	4.8	5.1	5.1
W2	2.7	3.6	3.8	3.9
D	3.75x45°	3.25x45°	2.75x45°	2.4x45°
E	1x60°	1.3x60°	1.4x60°	1.5x60°
Peso Weight	7g	7g	8g	9g

Esempi di utilizzo Application examples



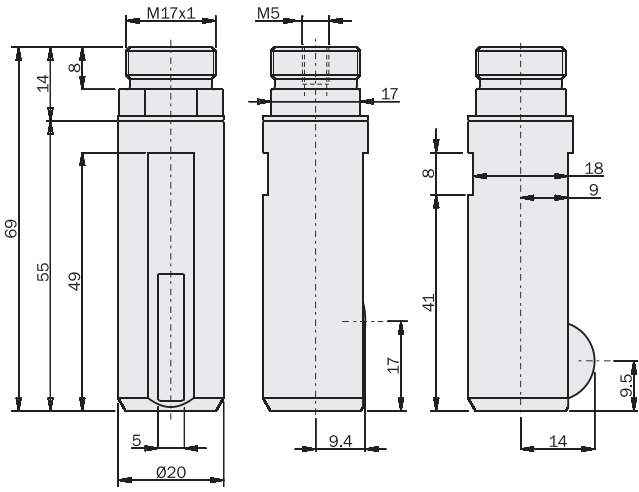
Pinza elastica mono-dito

- Azionamento a semplice effetto con ritorno elastico.
- Corpo da Ø20mm cravattabile.
- Vari accessori per il fissaggio.
- Modularità.



One finger elastic module

- Single acting with spring reset.
- Clampable Ø20mm body.
- Several mounting accessories.
- Modularity.



	OFD20
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]
Pressione di esercizio Pressure range	3 ÷ 8 bar
Temperatura di esercizio Temperature range	5° ÷ 60 °C.
Forza Force	0 ÷ 145 N
Corsa a 6 bar 6 bar stroke	4.5 mm
Frequenza max funzionamento continuativo Maximum working frequency	2 Hz
Consumo d'aria per ciclo Cycle air consumption	3 cm³
Peso Weight	40 g

Attuatori pneumatici mono-dito angolari per staffaggio, serie OFG

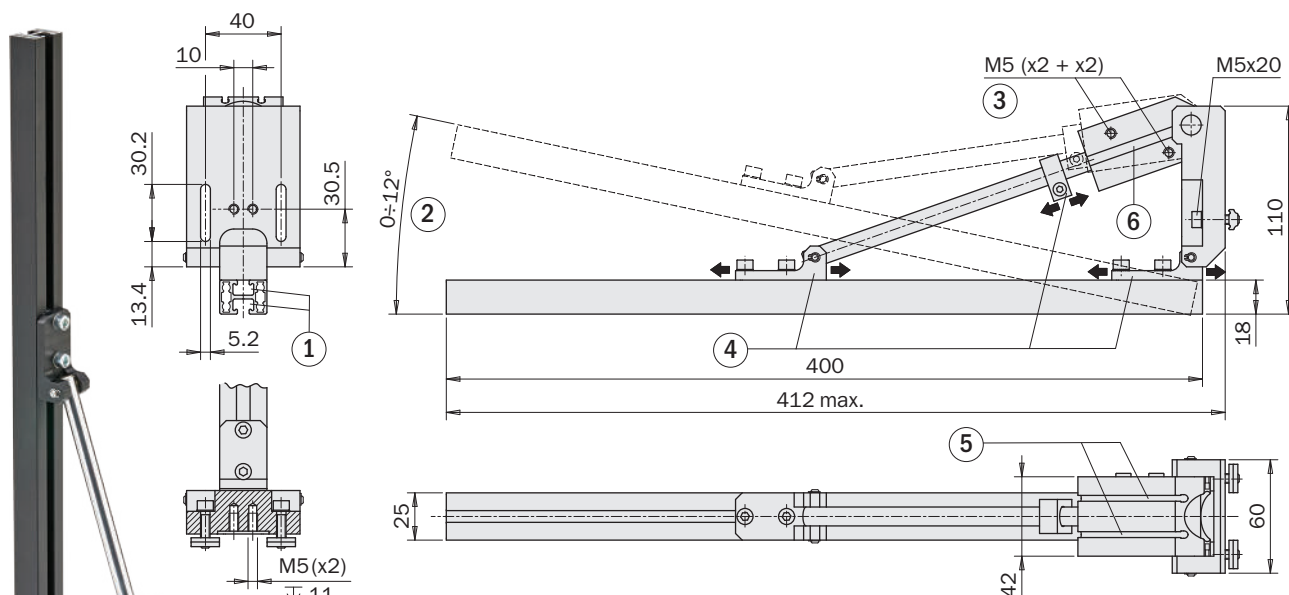
- Azionamento a doppio effetto su entrambi i lati.
- Alesaggio: 25mm.
- Corsa angolare regolabile fino a 12°.
- Compatibile con tutti gli accessori della serie MFI.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

One-finger angular pneumatic actuators for clamping (series OFG)

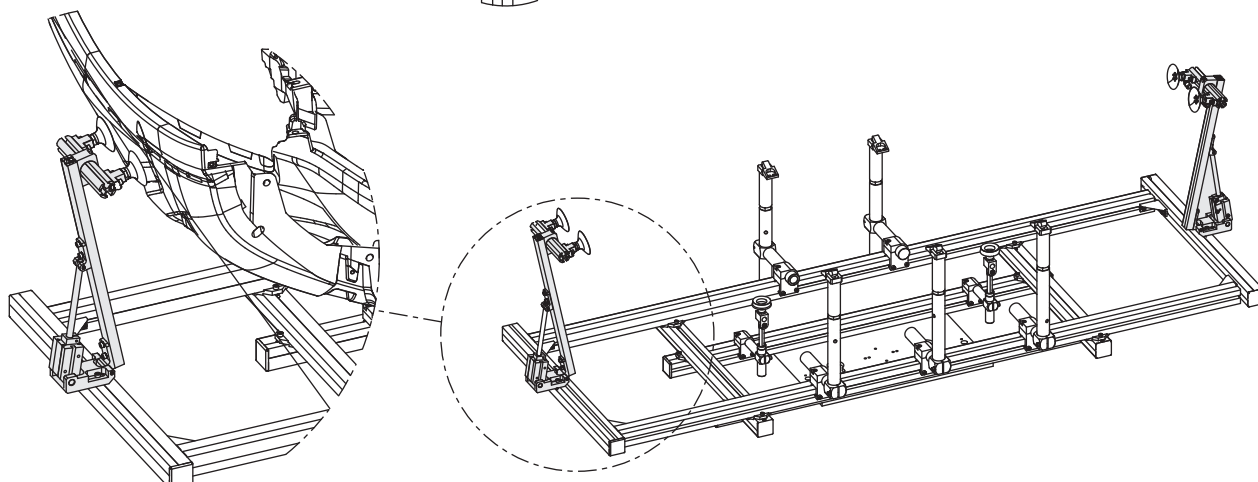
- Double-acting drive on both sides.
- Bore: 25mm.
- Angular stroke adjustable up to 12°.
- Compatible with all the accessories of the MFI series.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.

	OFG3012
Pressione di esercizio Operating pressure	2÷8 bar
Temperatura di esercizio Operating temperature	5°÷60° C
Coppia di chiusura a 6 bar Closing torque at 6 bar	18 Nm
Peso Weight	0.75 kg

- 1 Cave per serie MFI...
Slots for the MFI series...
- 2 Corsa
Stroke
- 3 Ingresso aria
Air connection
- 4 Regolazione della corsa
Stroke adjustment
- 5 Cave per sensori magnetici serie SS o SN
Slots for magnetic sensors of the SS or SN series



- 6 Cave per sensori magnetici serie SL
Slots for magnetic sensors of the SL series
- 7 Si può usare il Servizio Stampa 3D di Gimatic per ordinare dita di presa personalizzate
Custom fingers can be ordered from Gimatic's 3D Printing Service



Pinze pneumatiche mono-dito angolari per staffaggio, serie OF

- Azionamento a semplice effetto.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

One finger angular pneumatic grippers for clamping, series OF

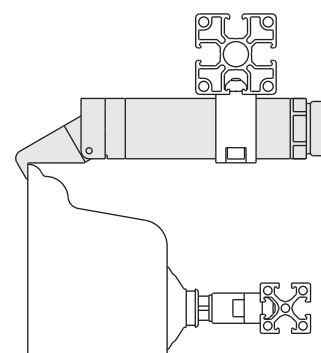
- Single acting.
- Optional magnetic sensors.
- Food grade grease FDA-H1.

	OFA14-35	OFA20-35 OFA20-35S	OFA30-35 OFA30-35S	OFA50-35 OFA50-35S
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]			
Corpo pinza Gripper body	Alluminio Aluminium			
Pressione di esercizio Pressure range	2.5 ÷ 8 bar			
Temperatura di esercizio Temperature range	5 ÷ 60 °C.			
Corsa Stroke	35°			
Alesaggio Piston bore	Ø10 mm	Ø16 mm	Ø25 mm	Ø40 mm
Coppia di chiusura a 6 bar Closing torque at 6 bar	26 Ncm	100 Ncm	430 Ncm	1900 Ncm
Consumo d'aria per ciclo Cycle air consumption	0.4 cm ³	1.24 cm ³	4.56 cm ³	43 cm ³
Peso Weight	25 g	65 g 86 g	206 g 272 g	860 g 1060 g

OFA...-35



OFA...-35S

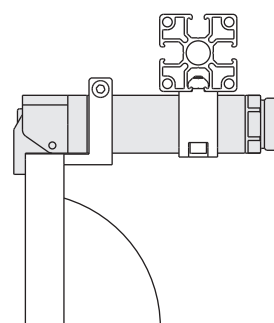


	OFS14-90	OFS20-90 OFS20-90S	OFS30-90 OFS30-90S
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Corpo pinza Gripper body	Alluminio Aluminium		
Pressione di esercizio Pressure range	2.5 ÷ 8 bar		
Temperatura di esercizio Temperature range	5 ÷ 60 °C.		
Corsa Stroke	95°		
Alesaggio Piston bore	Ø10 mm	Ø16 mm	Ø25 mm
Coppia di chiusura a 6 bar Closing torque at 6 bar	19 Ncm	70 Ncm	300 Ncm
Consumo d'aria per ciclo Cycle air consumption	1 cm ³	3.52 cm ³	12.9 cm ³
Peso Weight	23 g	60 g 80 g	185 g 245 g

OFS...-90



OFS...-90S

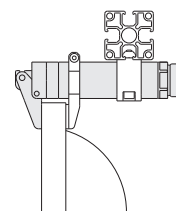


Pinze pneumatiche mono-dito angolari per staffaggio, serie OF

- Azionamento a semplice effetto.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.

One finger angular pneumatic grippers for clamping, series OF

- Single acting.
- Optional magnetic sensors.
- Food grade grease FDA-H1.



	OFR14-95	OFR20-95 OFR20-95S	OFR30-95 OFR30-95S	OFR50-95 OFR50-95S
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]			
Corpo pinza Gripper body	Alluminio Aluminium			
Pressione di esercizio Pressure range	2.5 ÷ 8 bar			
Temperatura di esercizio Temperature range	5 ÷ 60 °C.			
Corsa Stroke	95°			
Alesaggio Piston bore	Ø10 mm	Ø16 mm	Ø25 mm	Ø40 mm
Coppia di chiusura a 6 bar Closing torque at 6 bar	19 Ncm	70 Ncm	300 Ncm	1250 Ncm
Consumo d'aria per ciclo Cycle air consumption	1 cm³	3.52 cm³	12.9 cm³	80 cm³
Peso Weight	25 g	60 g 81 g	193 g 257 g	790 g 990 g

	OFR14-95M	OFR20-95M OFR20-95SM	OFR30-95M OFR30-95SM
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Corpo pinza Gripper body	Alluminio Aluminium		
Pressione di esercizio Pressure range	2.5 ÷ 8 bar		
Temperatura di esercizio Temperature range	5 ÷ 60 °C.		
Corsa Stroke	95°		
Alesaggio Piston bore	Ø10 mm	Ø16 mm	Ø25 mm
Coppia di chiusura a 6 bar Closing torque at 6 bar	19 Ncm	70 Ncm	300 Ncm
Consumo d'aria per ciclo Cycle air consumption	1 cm³	3.52 cm³	12.9 cm³
Peso Weight	25 g	60 g 81 g	790 g 990 g

	OFR14-95G	OFR20-95G OFR20-95SG	OFR30-95G OFR30-95SG
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]		
Corpo pinza Gripper body	Alluminio Aluminium		
Pressione di esercizio Pressure range	2.5 ÷ 8 bar		
Temperatura di esercizio Temperature range	5 ÷ 60 °C.		
Corsa Stroke	95°		
Alesaggio Piston bore	Ø10 mm	Ø16 mm	Ø25 mm
Coppia di chiusura a 6 bar Closing torque at 6 bar	19 Ncm	70 Ncm	300 Ncm
Consumo d'aria per ciclo Cycle air consumption	1 cm³	3.52 cm³	12.9 cm³
Peso Weight	30 g	80 g 100 g	230 g 300 g

OFR...-95S



OFR...-95SM

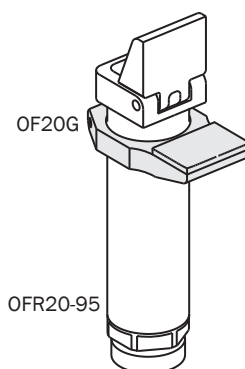
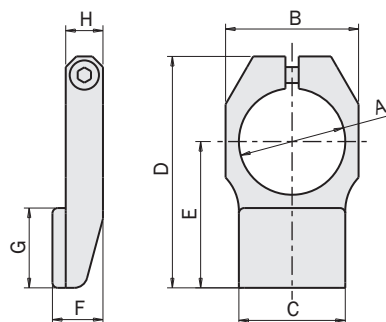


OFR...-95SG



Riscontro per pinze OFR

(kit completo di viti)

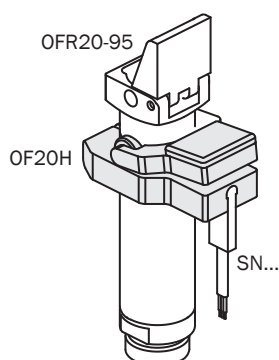
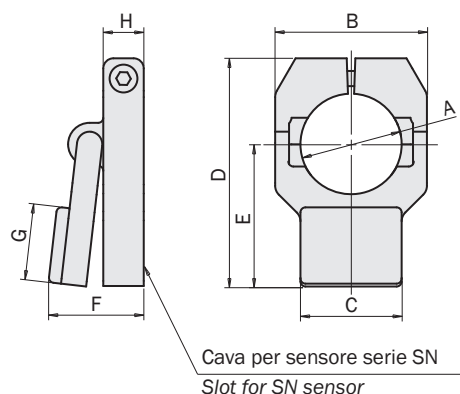
**Fixed stopper for OFR grippers**

(kit with screws)

	OF14G	OF20G	OF30G
A [mm]	Ø14	Ø20	Ø30
B [mm]	19	25	37
C [mm]	14	20	30
D [mm]	32	43.5	63
E [mm]	19	27.5	40
F [mm]	10	9.5	12
G [mm]	11	15	20
H [mm]	6	7	9
Peso Weight	6g	12g	30g

Riscontro per sensore magnetico

(kit completo di viti)

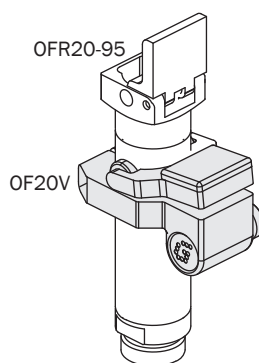
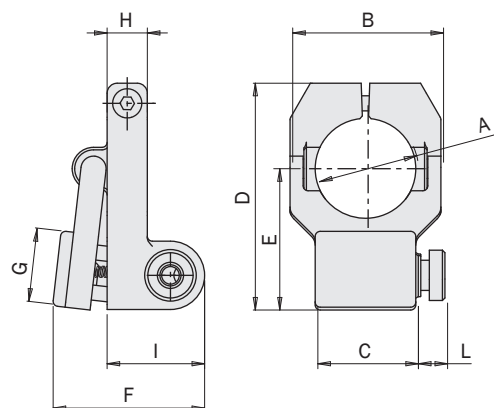
**Stopper for magnetic sensor**

(kit with screws)

	OF14H	OF20H	OF30H
A [mm]	Ø14	Ø20	Ø30
B [mm]	22	30	42
C [mm]	14	20	30
D [mm]	34.5	45	64
E [mm]	21	28	40
F [mm]	17.6	18.7	25.5
G [mm]	11	15	20
H [mm]	8	8	12
I [mm]	Cava per sensori SN Slot for SN sensors		
Peso Weight	15g	20g	28g

Riscontro per sensore di vuoto

(kit completo di viti)

**Stopper for vacuum sensor**

(kit with screws)

	NEW OF14V	NEW OF20V	NEW OF30V
A [mm]	Ø14	Ø20	Ø30
B [mm]	22	30	42
C [mm]	14	20	30
D [mm]	34.5	45.1	64
E [mm]	21	28.1	40
F [mm]	28.9	30.1	38
G [mm]	11	15	20
H [mm]	8	8	12
I [mm]	19.3	19.5	24.4
L [mm]	11.3	5.8	5.8
Peso Weight	?	?	?

Sensori magnetici opzionali

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso il magnete sul pistone. Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

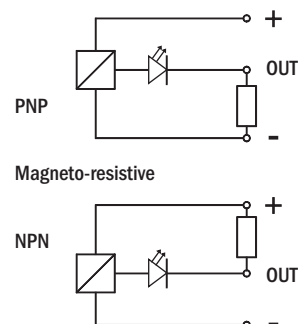
I sensori utilizzabili sono:

SN4N225-G	PNP	Cavo 2.5m 2.5m cable
SN4M225-G	NPN	
SN3N203-G	PNP	Connettore M8 Snap M8 plug connector
SN3M203-G	NPN	
SS4N225-G	PNP	Cavo 2.5m 2.5m cable
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 Snap M8 plug connector
SS3M203-G	NPN	

Optional magnetic sensors

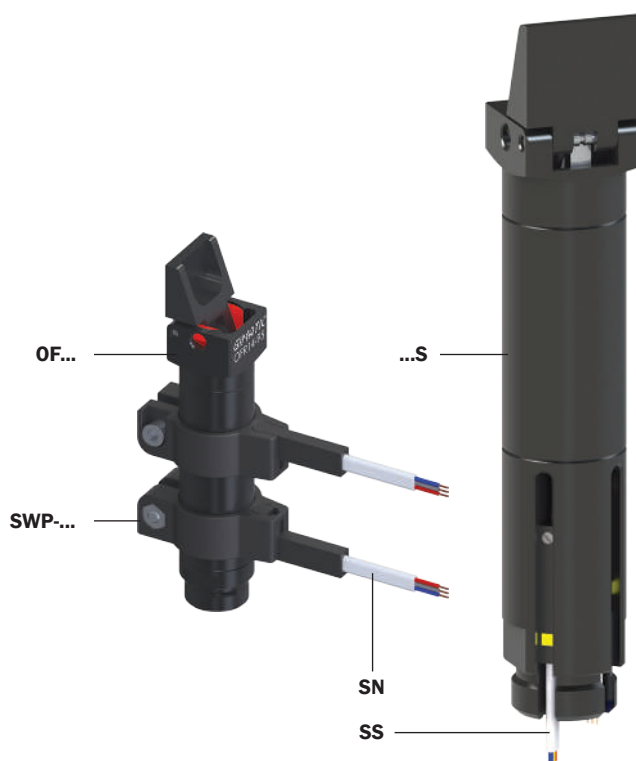
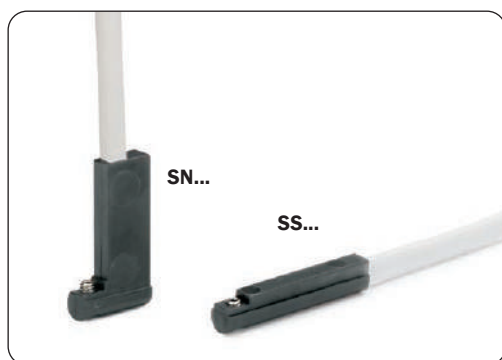
The operating position is detected by magnetic proximity sensors (optional) through a magnet placed on the piston. The use of magnetic proximity sensors is to be avoided in the vicinity of large masses of ferromagnetic material or intense magnetic fields as this may cause detection problems.

The sensors that can be used are:



Sono tutti dotati di un cavo piatto a tre fili e di un led.

They are all provided with a 3-wire flat cable and a LED.



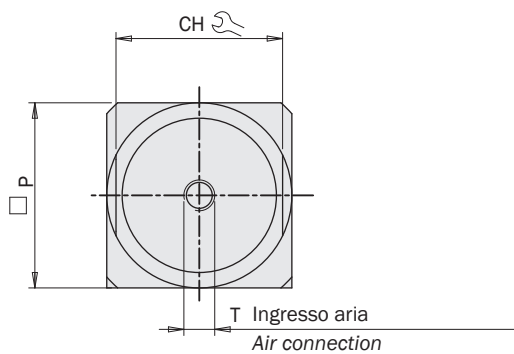
OF...	SWP-...
OF14...	SWP-014
OF20...	SWP-020
OF30...	SWP-030

Nelle versioni ...S i sensori sono annegati nelle apposite cave. Nelle altre versioni è necessaria una fascetta esterna (SWP-...).

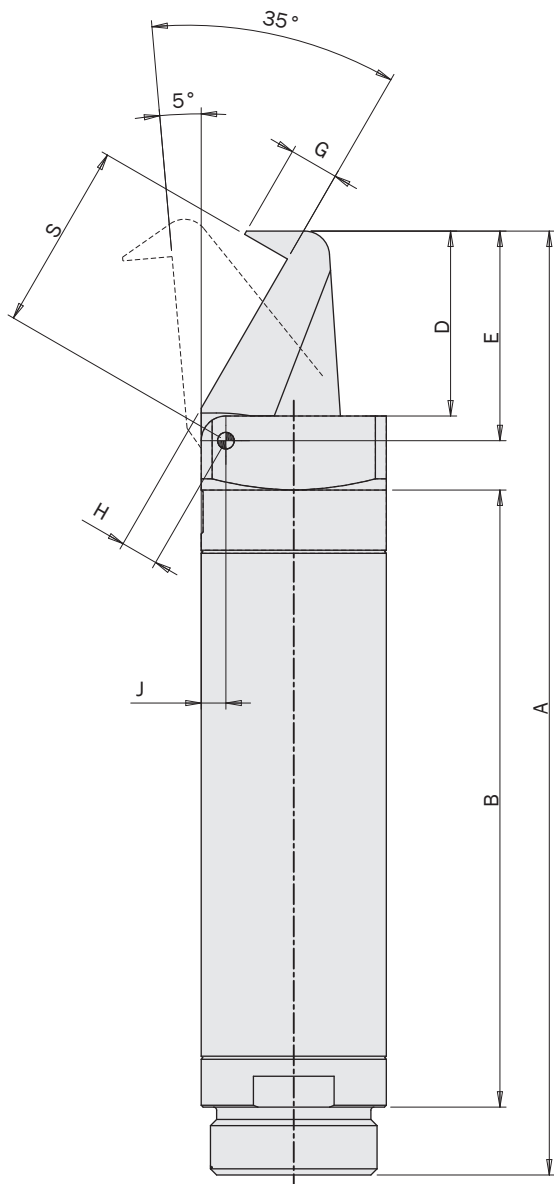
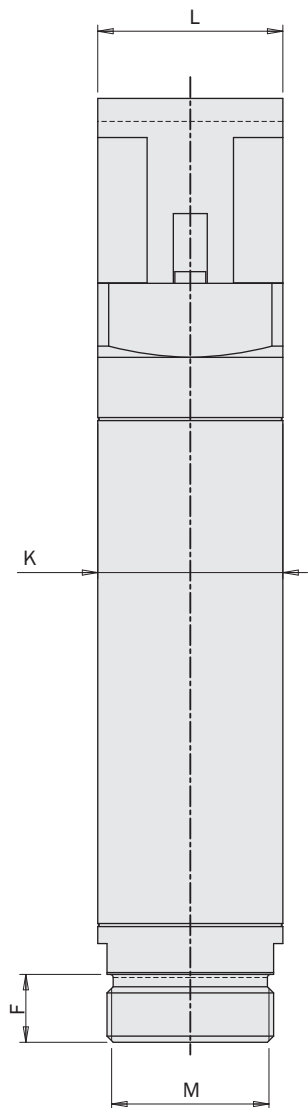
In the ...S versions, the sensors are embedded in their slots. In the other versions, an external bracket (SWP-...) is required.

Dimensioni (mm)
Dimensions (mm)

OFA...



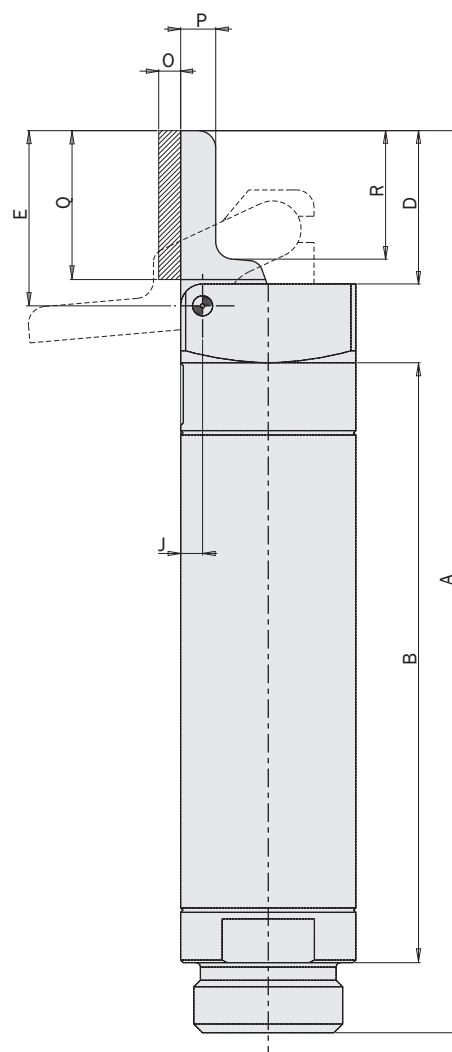
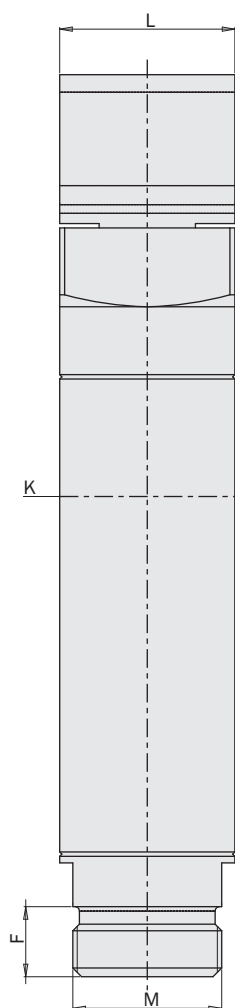
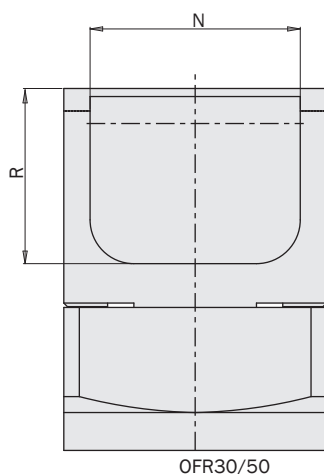
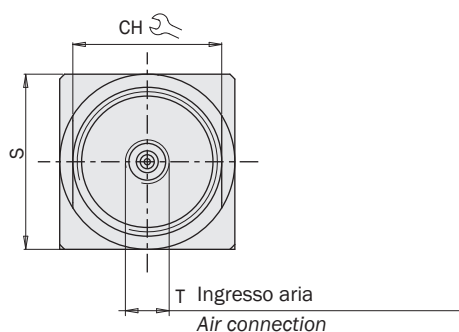
	OFA14-35	OFA20-35	OFA30-35	OFA50-35
A	74	106	153	235.5
B	45.5	68.5	100	139
D	14	20.5	30	49.5
E	16	23	34	56
F	5.5	8	11	25
G	4.5	6	8	14
H	3.4	3.9	6	10
J	2	2.5	4	6.5
K	Ø14	Ø20	Ø30	Ø50
L	14	20	30	50
M	M12x1	M17x1	M27x1	M45x1
P	14	20	30	50
S	13.5	20.2	30.5	50
T	M5	M5	M5	G1/8"
CH	12	17	27	46



FIRST ANGLE
PROJECTION

Dimensioni (mm)
Dimensions (mm)**OFR...**

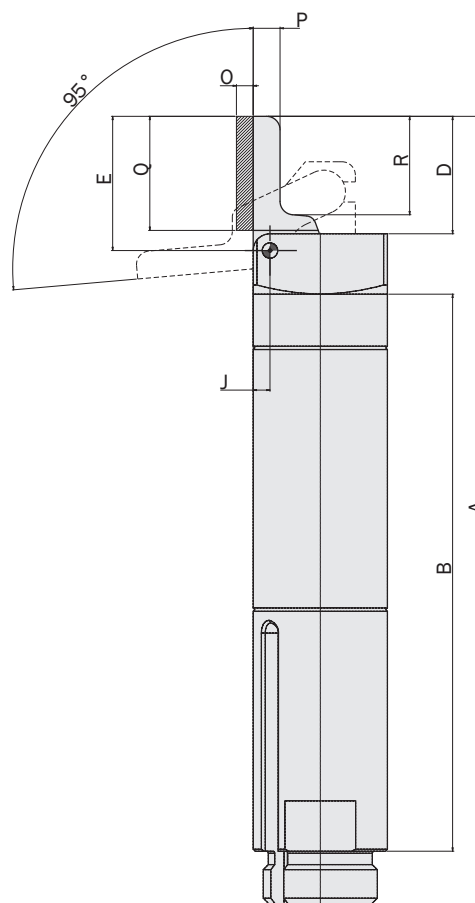
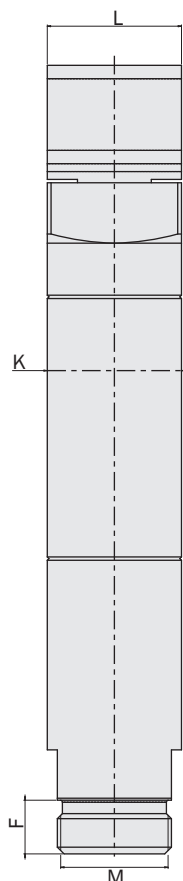
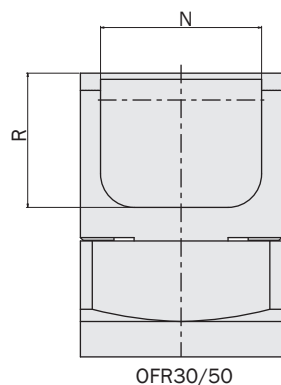
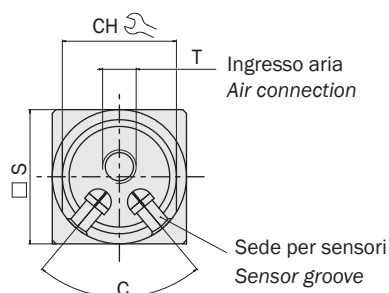
	A	B	D	E	F	J	K	L	M	N	O	P	Q	R	S	T	CH
OFR14-95	72	45.5	12	14	5.5	2	Ø14	14	M12x1	-	-	3	-	9.5	14	M5	12
OFR20-95	103	68.5	17.5	20	8	2.5	Ø20	20	M17x1	-	-	4	-	14.5	20	M5	17
OFR30-95	148	100	25	29	11	4	Ø30	30	M27x1	24	-	5	-	20	30	M5	27
OFR50-95	227.5	139	41.5	48	25	6.5	Ø50	50	M45x1.5	38	-	7	-	34	50	G1/8"	46
OFR14-95M	72	45.5	12	14	5.5	2	Ø14	14	M12x1	-	2.5	3	11	9.5	14	M5	12
OFR20-95M	103	68.5	17.5	20	8	2.5	Ø20	20	M17x1	-	2.5	4	15	14.5	20	M5	17
OFR30-95M	148	100	25	29	11	4	Ø30	30	M27x1	24	3	5	20	20	30	M5	27



Dimensioni (mm)
Dimensions (mm)

OFR...S

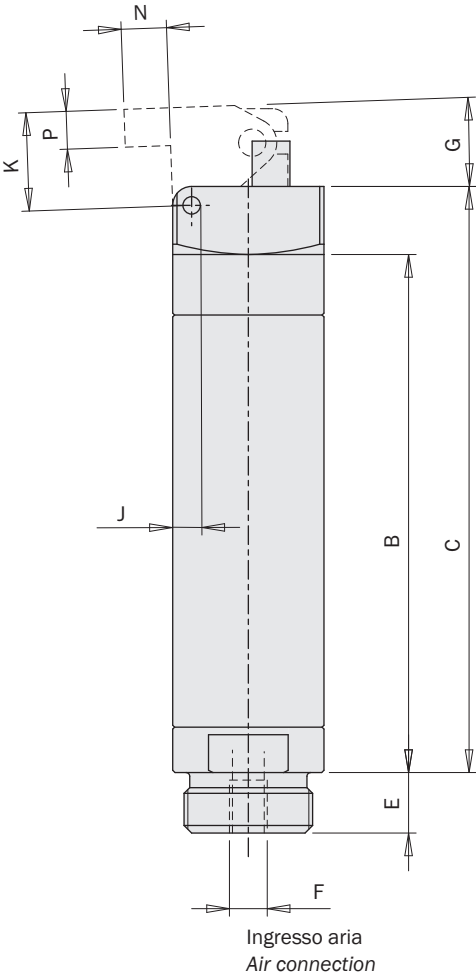
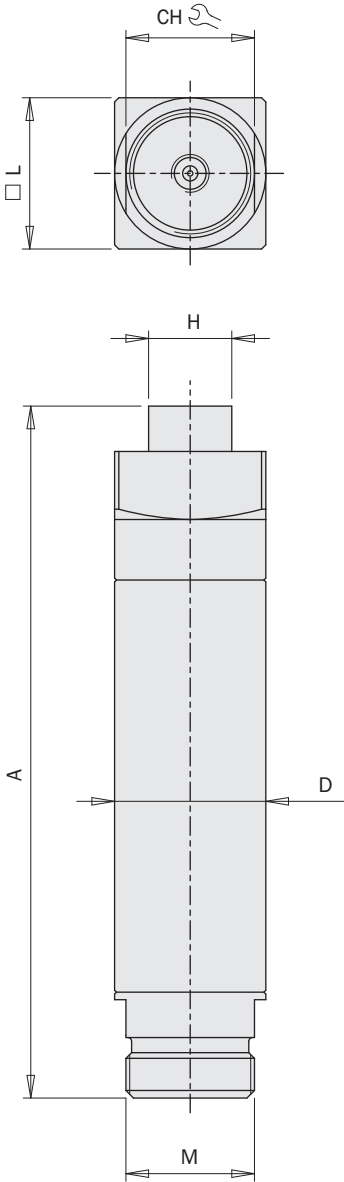
	A	B	C	D	E	F	J	K	L	M	N	O	P	Q	R	S	T	U	CH
OFR20-95S	117.5	83	80°	17.5	20	8	2.5	Ø20	20	M17x1	-	-	4	-	14.5	20	M5	1.5	17
OFR30-95S	173	125	60°	25	29	11	4	Ø30	30	M27x1	24	-	5	-	20	30	M5	-	27
OFR50-95S	272.5	209	60°	41.5	48	25	6.5	Ø50	50	M45x1.5	36	-	7	-	34	50	G1/8"	-	46
OFR20-95SM	117.5	83	80°	17.5	20	8	2.5	Ø20	20	M17x1	-	2.5	4	15	14.5	20	M5	1.5	17
OFR30-95SM	173	125	60°	25	29	11	4	Ø30	30	M27x1	24	3	5	20	20	30	M5	-	27



Dimensioni (mm)
Dimensions (mm)

OFS...

	A	B	C	D	E	F	G	H	J	K	L	M	N	P	CH
OFS14-90	64	45.5	54.5	Ø14	5.5	M5	2°	8	2	9	14	M12x1	4	4	12
OFS20-90	91.5	68.5	77.5	Ø20	8	M5	2°	11	2.5	13	20	M17x1	6	5	17
OFS30-90	134	100	112	Ø30	11	M5	2°	14	4	20	30	M27x1	11	6	27



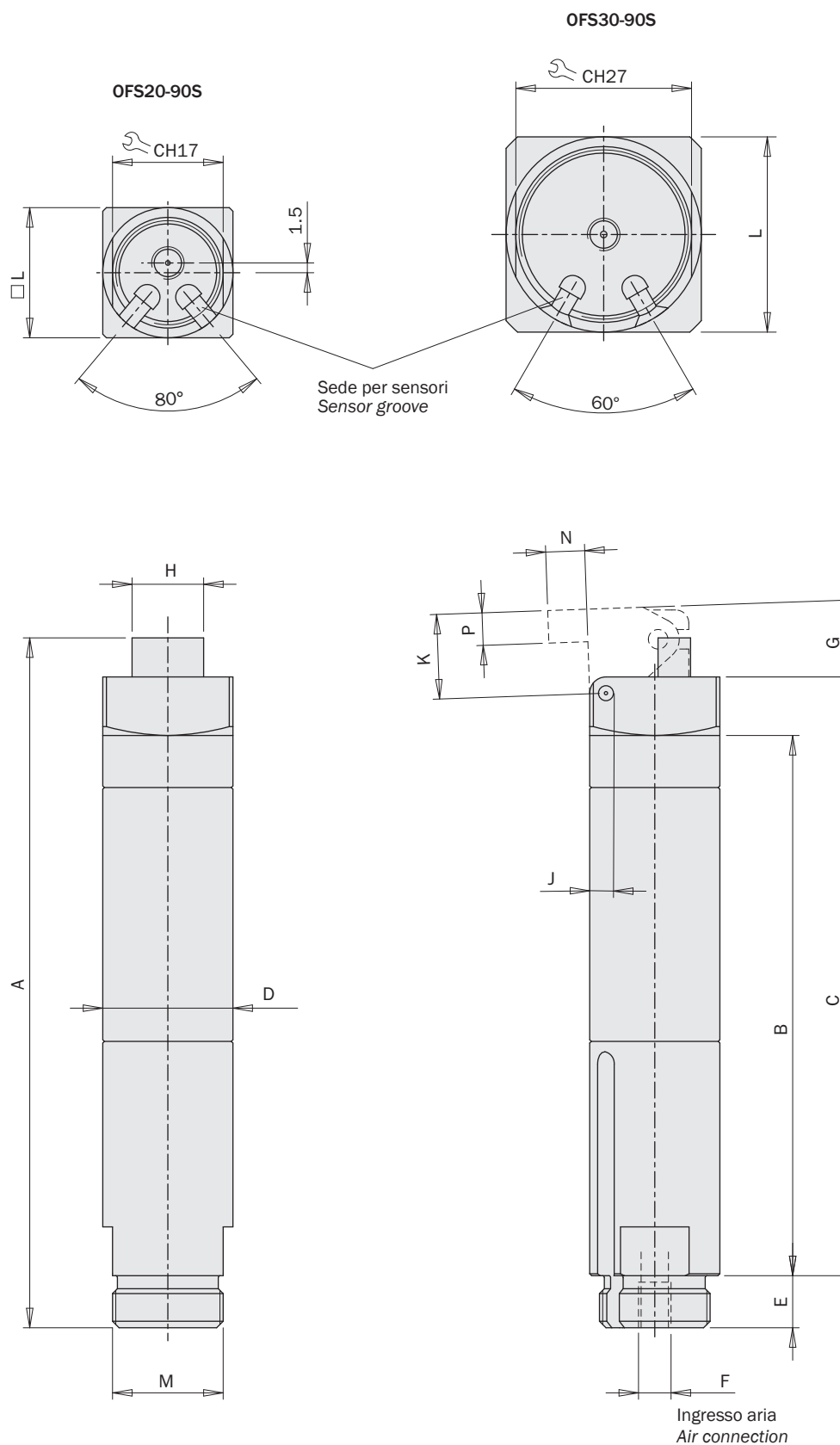
Ingresso aria
Air connection

FIRST ANGLE
PROJECTION

Dimensioni (mm)
Dimensions (mm)

OFS...S

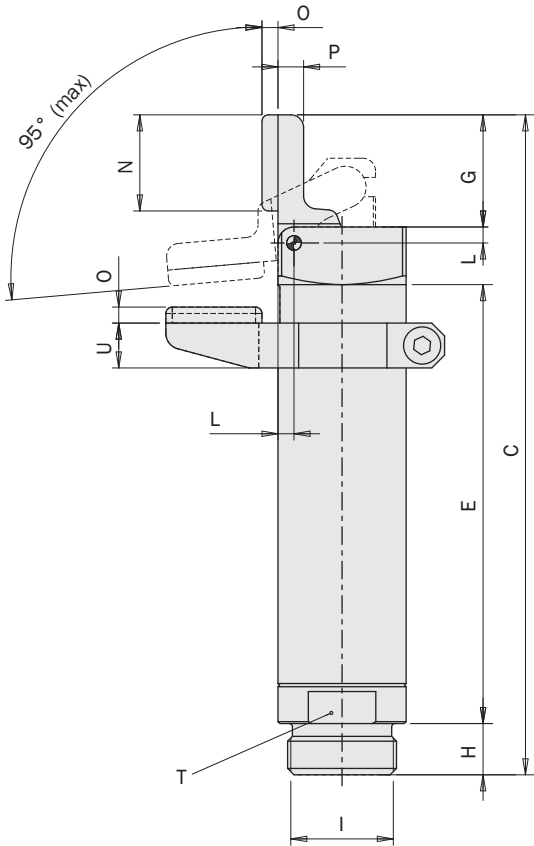
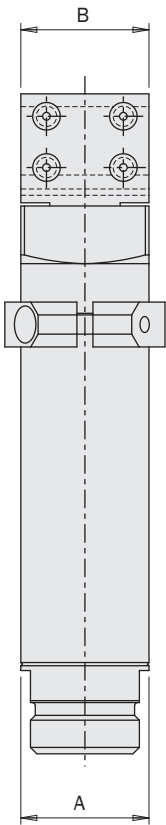
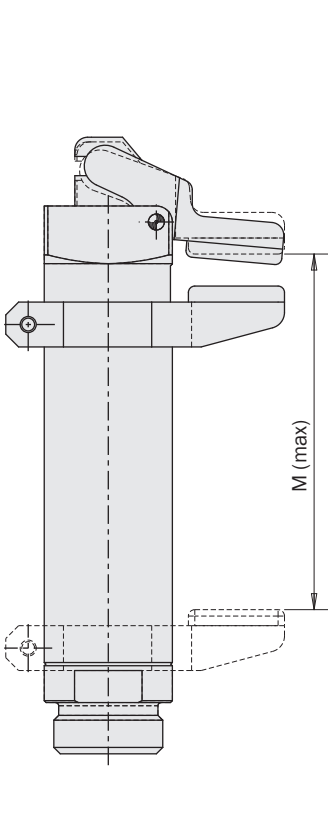
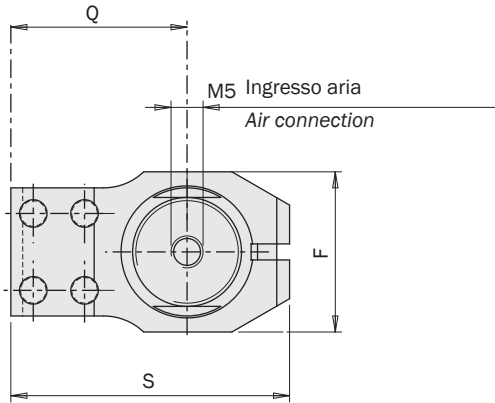
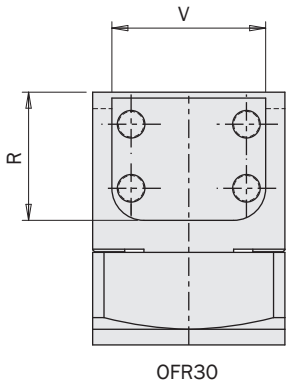
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
OFS20-90S	106	83	92	Ø20	8	M5	2°	11	2.5	13	20	M17x1	6	5
OFS30-90S	159	125	137	Ø30	11	M5	2°	14	4	20	30	M27x1	11	6



Dimensioni (mm)
Dimensions (mm)

OFR...-95G

	A	B	C	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	U	V
OFR14-95G	Ø14	14	72	45.5	19	12	5.5	M12x1	2	32.5	11	2.5	3	19	-	32	12	7.5	-
OFR20-95G	Ø20	20	103	68.5	25	17.5	8	M17x1	2.5	55.5	15	2.5	4	27.5	-	43.5	17	7	-
OFR30-95G	Ø30	30	148	100	37	25.5	11	M27x1	4	84	20	3	5	40	20	63	27	9	24

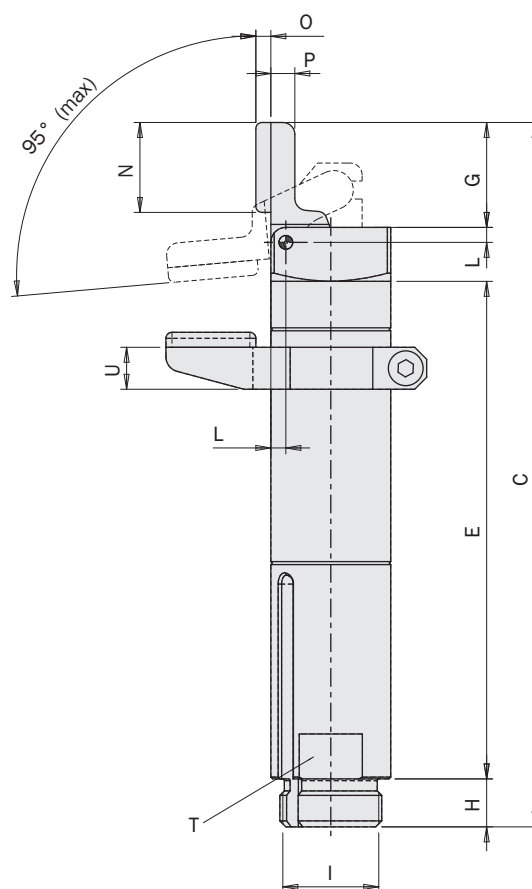
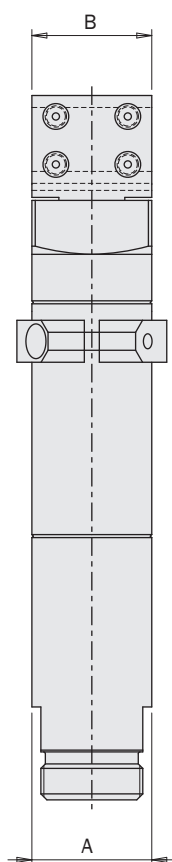
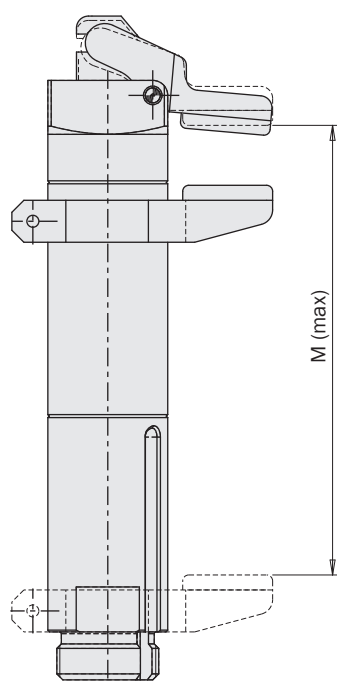
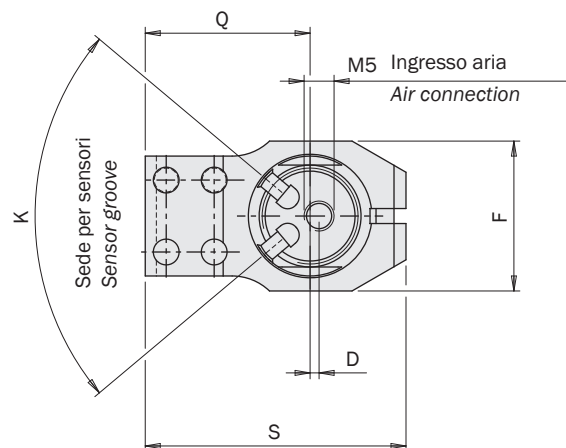
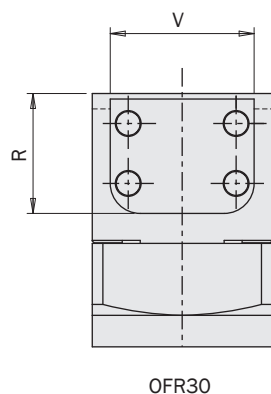


FIRST ANGLE
PROJECTION

Dimensioni (mm)
Dimensions (mm)

OFR...-95SG

	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U	V
OFR20-95SG	Ø20	20	117.5	1.5	83	25	17.5	8	M17x1	80°	2.5	75	15	2.5	4	27.5	-	43.5	17	7	-
OFR30-95SG	Ø30	30	173	-	124.7	37	25	11	M27x1	60°	4	113	20	3	5	40	20	63	27	9	24



Pinze pneumatiche mono-dito angolari per staffaggio, serie OFP

- Azionamento a semplice effetto.
- Contatto morbido con pastiglie in HNBR, con dita personalizzate, oppure con O-Ring in NBR, Silicone, Viton.
- Vari accessori per il fissaggio.
- Sensori magnetici e relative staffe in opzione.
- Grasso alimentare FDA-H1.

One finger angular pneumatic grippers for clamping, series OFP

- Single acting.
- Soft contact by means of HNBR pads, custom fingers, or NBR, Silicone or Viton O-rings.
- Several mounting accessories.
- Magnetic sensors and relevant mounting brackets as option.
- Food grade grease FDA-H1.

OFP20



OFP14

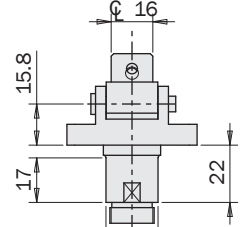
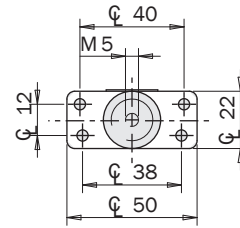
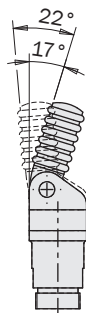
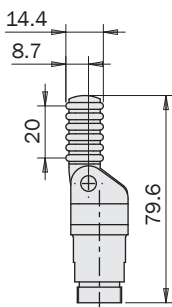
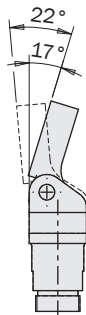
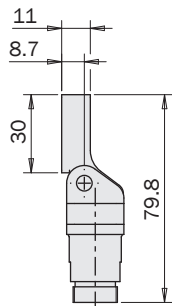
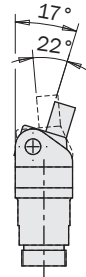
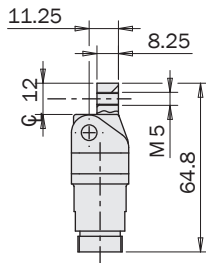
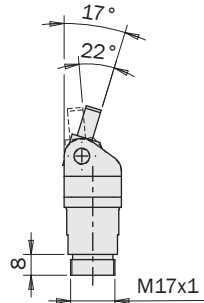
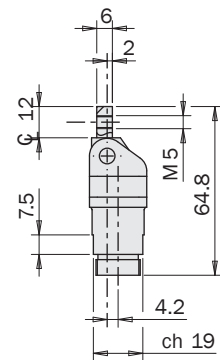


OFP21

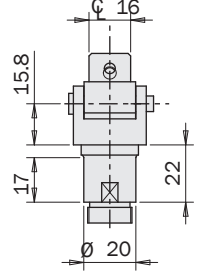
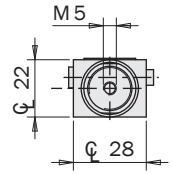


	OFP20A-20	OFP21A-20	OFP14A-25
HNBR	OFP20P-20	OFP21P-20	OFP14P-25
NBR	OFP20N-20	OFP21N-20	
Silicone <i>Silicone</i>	OFP20S-20	OFP21S-20	
Viton	OFP20V-20	OFP21V-20	
Materiale del corpo <i>Body construction</i>	plastica (nylon) / alluminio <i>plastic (nylon) / aluminium</i>		alluminio <i>aluminium</i>
Fluido <i>Medium</i>	Aria compressa a norma ISO 8573-1:2010 [7:4:4] <i>Compressed air in compliance with ISO 8573-1:2010 [7:4:4]</i>		
Pressione di esercizio <i>Pressure range</i>	2 ÷ 8 bar		
Temperatura di esercizio <i>Temperature range</i>	5° ÷ 60 °C.		
Corsa <i>Stroke</i>	21°	21°	25°
Alesaggio <i>Piston bore</i>	16 mm	16 mm	12 mm
Coppia di chiusura a 6 bar <i>Closing torque at 6 bar</i>	100 Ncm	100 Ncm	40 Ncm
Consumo d'aria per ciclo <i>Cycle air consumption</i>	1 cm ³	1 cm ³	0.4 cm ³
Peso <i>Weight</i>	40 g	33 g	13 g
Frequenza max funzionamento continuativo <i>Maximum working frequency</i>	2 Hz		
Tempo di chiusura senza carico <i>Closing time without load</i>	0.02 sec		

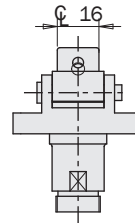
Dimensioni (mm)
Dimensions (mm)



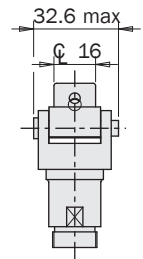
OFP20A-20



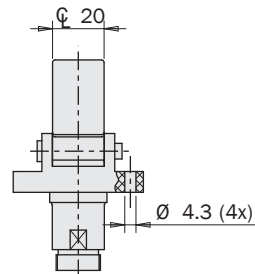
OFP21A-20



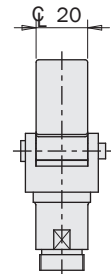
OFP20B-20



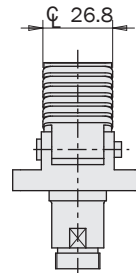
OFP21B-20



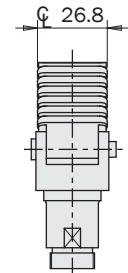
OFP20P-20



OFP21P-20



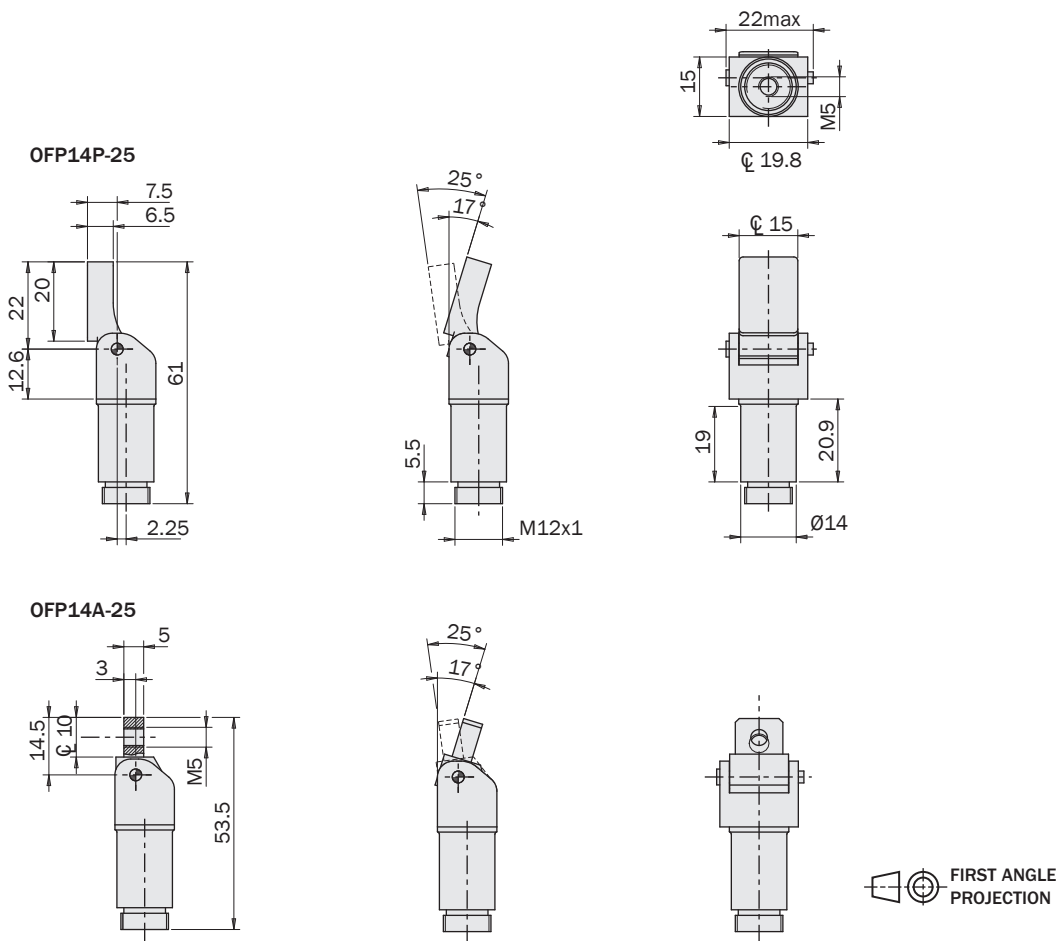
OFP20N-20
OFP20S-20



OFP21N-20
OFP21S-20



Dimensioni (mm)
Dimensions (mm)



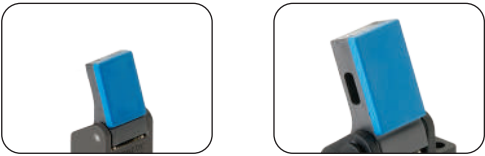
O-Ring di ricambio
Spare O-Ring



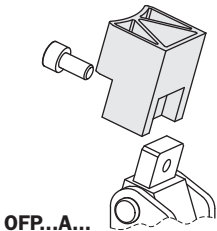
	KIT3-OFP20N	KIT3-OFP20S	KIT3-OFP20V
Materiale Material	NBR	Silicone Silicone	Viton
Pinza Gripper	OFP20N-20 OFP21N-20	OFP20S-20 OFP21S-20	OFP20V-20 OFP21V-20
Temperatura di esercizio Temperature range	5° ÷ 100 °C.	5° ÷ 200 °C.	5° ÷ 200 °C.

Custom service HP

Pastiglia di ricambio
Spare pad



	OFR20-95-43	OFR30-95-42
Materiale Material	HNBR	HNBR
Pinza Gripper	OFP14P-25	OFP20P-20 OFP21P-20
Temperatura di esercizio Temperature range	5° ÷ 150 °C.	5° ÷ 150 °C.



OFP...A...

Si può usare il Servizio Stampa 3D di Gimatic per ordinare dita di presa personalizzate.

Custom fingers can be ordered from Gimatic's 3D Printing Service.

Fissaggio

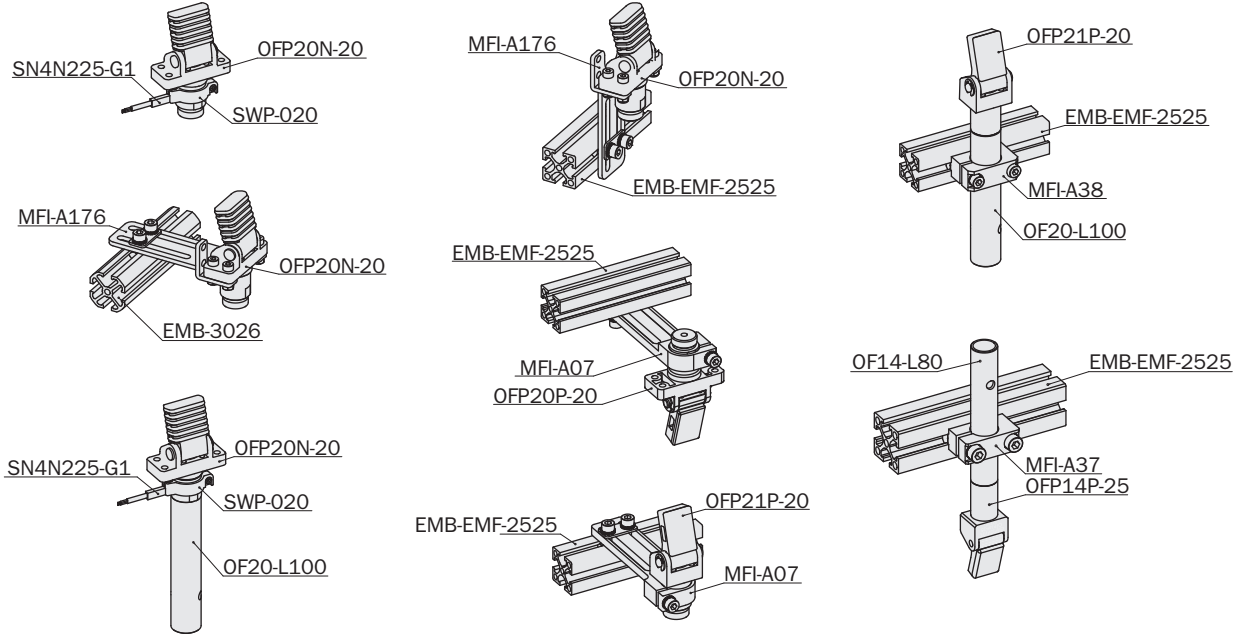
Le pinze OFF hanno il corpo in alluminio e possono essere incravattate con tutti gli accessori MFI con diametro di 14mm e 20mm.

MFI-A176 può essere usato con OFF20.

Fastening

The OFF grippers have an aluminum body and can be clamped with all MFI accessories with 14mm and 20mm diameter.

MFI-A176 can be used with OFF20.

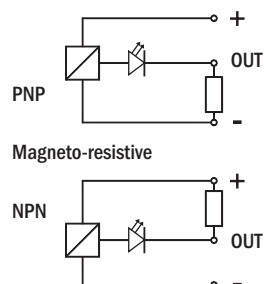


Sensori

Il rilevamento della posizione di lavoro è affidato a uno o più sensori magnetici di prossimità (opzionali), che rilevano la posizione attraverso il magnete sul pistone. Quindi, per un corretto funzionamento, è da evitare l'impiego in presenza di forti campi magnetici od in prossimità di grosse masse di materiale ferromagnetico.

I sensori utilizzabili sono:

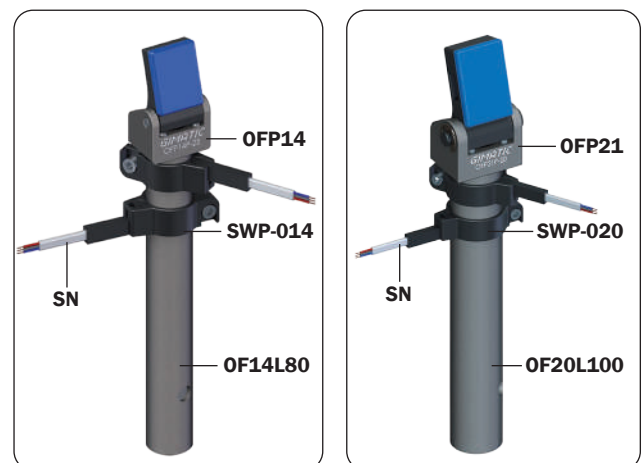
SN4N225-G	PNP	Cavo 2.5m
SN4M225-G	NPN	2.5m cable
SN3N203-G	PNP	Connettore M8
SN3M203-G	NPN	Snap M8 plug connector



Sensors

The operating position is detected by magnetic proximity sensors (optional) through a magnet placed on the piston. The use of magnetic proximity sensors is to be avoided in the vicinity of large masses of ferromagnetic material or intense magnetic fields as this may cause detection problems.

The sensors that can be used are:

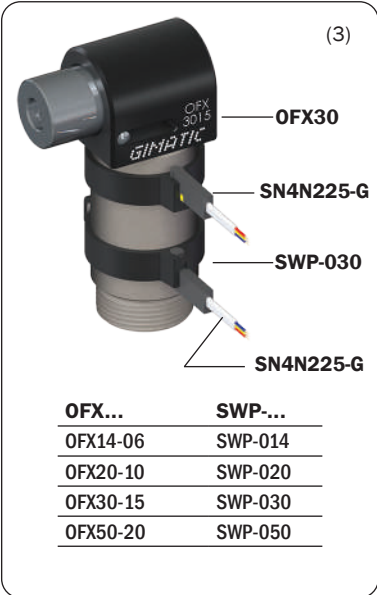


Pinze pneumatiche perpendicolari per staffaggio mono-dito, serie OFX

- Azionamento con pistone pneumatico a semplice effetto.
- Movimento lineare del dito perpendicolare al pistone.
- Dito con foro passante, per alimentare una ventosa (1).
- Pastiglia rimovibile (2) in gomma (HNBR) sul dito, per contatto morbido.
- Sensori e fascette opzionali (3).
- Grasso alimentare FDA-H1.

One finger, perpendicular acting, pneumatic grippers for clamping, series OFX

- Single-acting pneumatic piston drive.
- Finger linear motion, perpendicular to the piston.
- Finger with through hole, to provide vacuum to a cup (1).
- Removable HNBR rubber pad (2) on the finger, for a soft touch.
- Optional sensors and clamps (3).
- FDA-H1 food-grade grease.

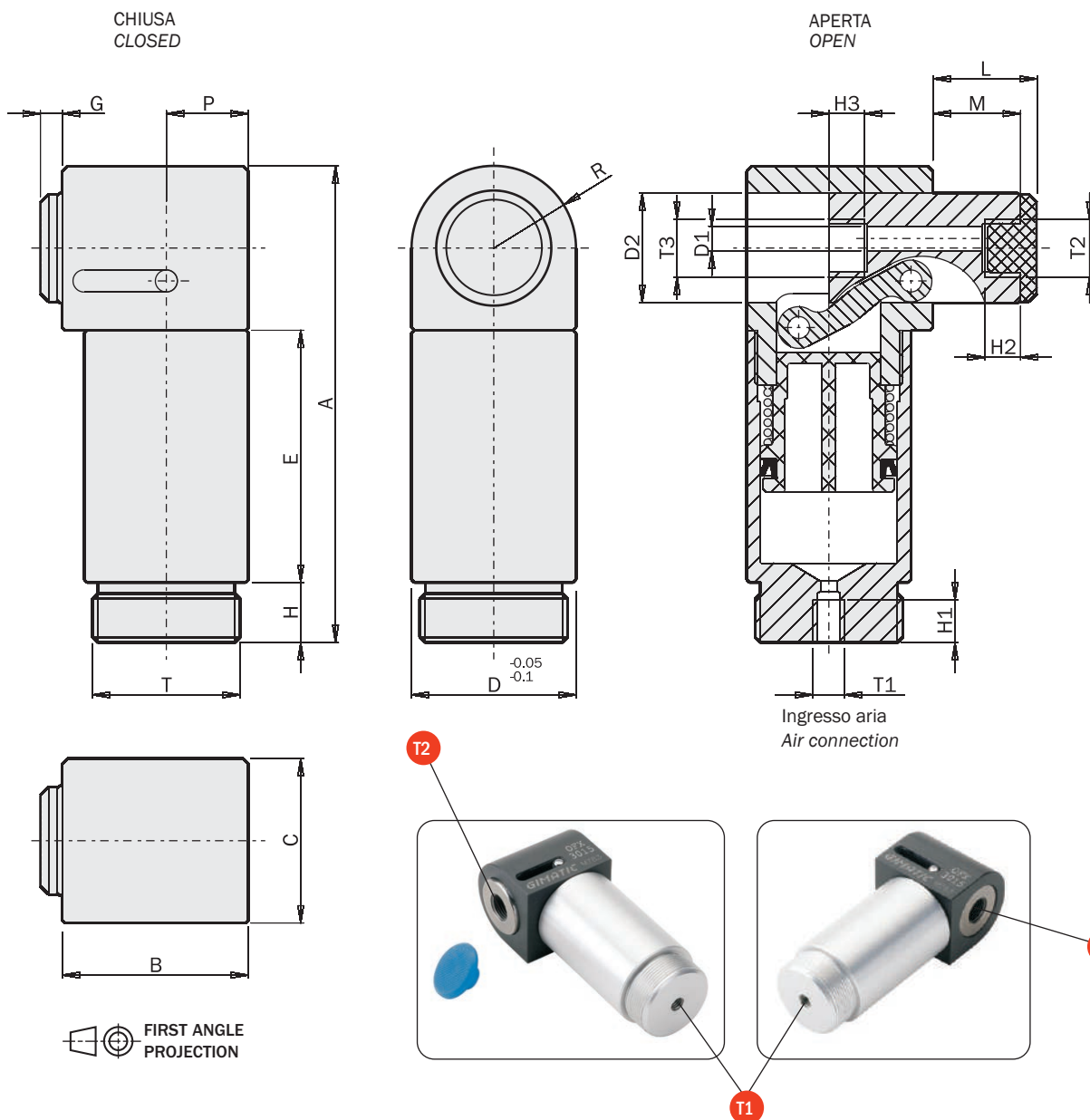


OFX...	SWP...
OFX14-06	SWP-014
OFX20-10	SWP-020
OFX30-15	SWP-030
OFX50-20	SWP-050



	OFX14-06	OFX20-10	OFX30-15	OFX50-20
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]			
Pressione di esercizio Pressure range	2.5 ÷ 8 bar			
Temperatura di esercizio Temperature range	5° ÷ 60 °C.			
Forza di serraggio in apertura a 6 bar Opening gripping force at 6 bar	13 ÷ 63 N	20 ÷ 115 N	44 ÷ 230 N	100 ÷ 900 N
Corsa totale Total stroke (±0.2 mm)	6 mm	10 mm	15 mm	20 mm
Frequenza max funzionamento continuativo Maximum working frequency	1 Hz	1 Hz	1 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	0.5 cm³	3.5 cm³	15 cm³	50 cm³
Peso Weight	30 g	65 g	190 g	740 g

Dimensioni (mm)
Dimensions (mm)



	OFX14-06	OFX20-10	OFX30-15	OFX50-20
A	52	62.5	87	143
B	23	25	34	60
C	14	20	30	50
D	Ø14	Ø20	Ø30	Ø50
D1	Ø1.5	Ø2.4	Ø4.5	Ø9
D2	Ø10	Ø14	Ø20	Ø35
E	30	34.5	46	68
G	3.5	3.5	4	4
H	8	8	11	25
H1	7	7	7	10
H2	5	5	6	9
H3	5	5	6	9
L	9.5	13.5	19	24
M	7	11	16	21
P	9	10	15	25
R	R7	R10	R15	R25
T	M12x1	M17x1	M27x1	M45x1.5
T1	M5	M5	M5	G1/8"
T2	M5	M5	G1/8"	G1/4"
T3	M5	M5	G1/8"	G1/4"

Pinza pneumatica a magnete

- Pistone pneumatico a doppio effetto.
- Mantenimento pezzo anche in assenza di alimentazione.
- Campo magnetico concentrato nel punto di presa.
- Sensori magnetici opzionali.
- Grasso alimentare FDA-H1.
- MAG20; adatta per la movimentazione di piccole parti in materiale ferromagnetico e movimentazione di magneti (polarità nel punto di presa: sud).
- MAG20: predisposta per il fissaggio a cravatta sul diametro esterno.
- MAG35: regolazione della forza magnetica per evitare la deformazione dei pezzi e l'attrazione accidentale di un secondo pezzo.
- MAG35: predisposta al fissaggio su piastra laterale o superiore.

Pneumatic magnetic gripper

- Double-acting pneumatic piston.
- Workpiece held even without pneumatic power supply.
- Magnetic field concentrated at the holding point.
- Optional magnetic sensors.
- FDA-H1 food-grade grease.
- MAG20: suitable for handling small ferromagnetic parts and for handling magnets (polarity at the grip point: south).
- MAG20: designed to allow mounting with clamp bracket on the outer diameter.
- MAG35: adjustment of the magnetic force to prevent the deformation of workpieces and the accidental attraction of a second workpiece.
- MAG35: designed to allow mounting on side or upper plate.

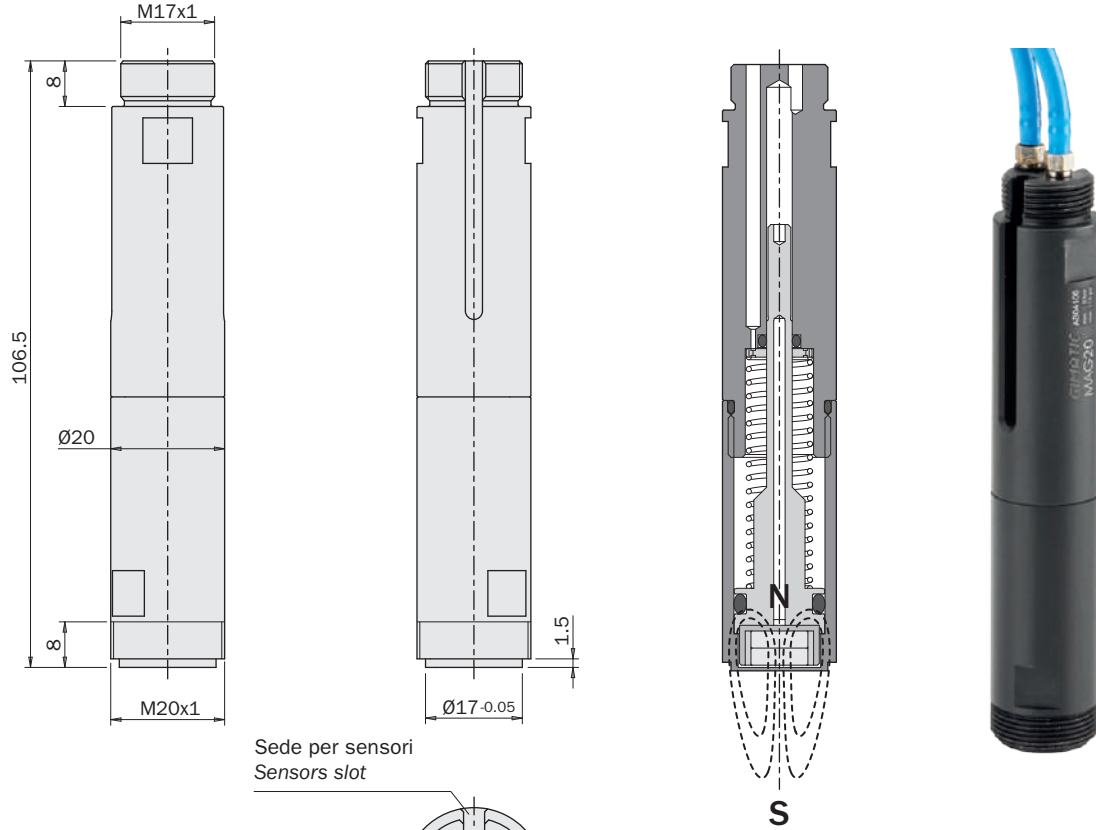


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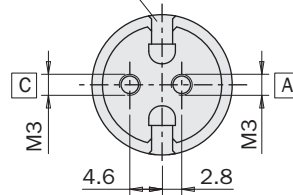
	MAG20	MAG35
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]	
Pressione di esercizio Pressure range	2 ÷ 8 bar	2 ÷ 6 bar
Temperatura di esercizio Temperature range	5 ÷ 60 °C.	
Corsa pistone Piston stroke	23 mm	15 mm
Alesaggio pistone Piston diameter	Ø16 mm	Ø35 mm
Forza magnetica Magnetic strength	7 N	120 N
Frequenza max funzionamento continuativo Maximum working frequency	1.5 Hz	1 Hz
Consumo d'aria per ciclo Cycle air consumption	11 cm ³	40 cm ³
Peso Weight	72 g	400 g
Tempo di azionamento minimo Minimum activating time	0.05 s	0.04 s

Dimensioni (mm)
Dimensions (mm)

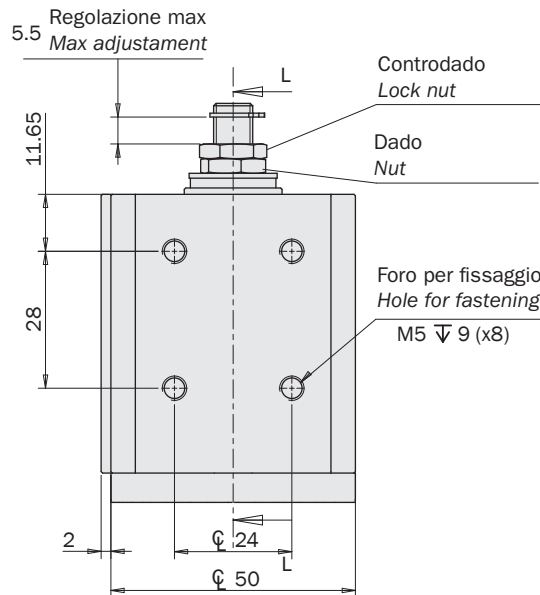
MAG20



Sede per sensori
Sensors slot

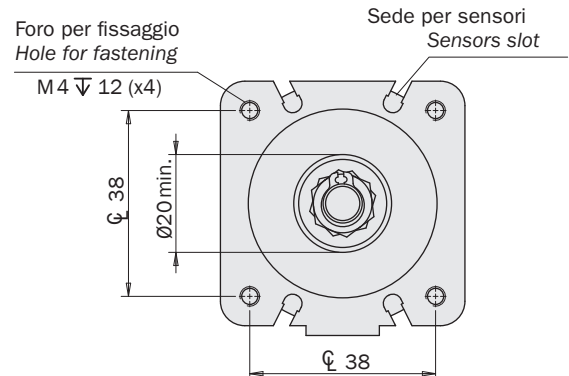
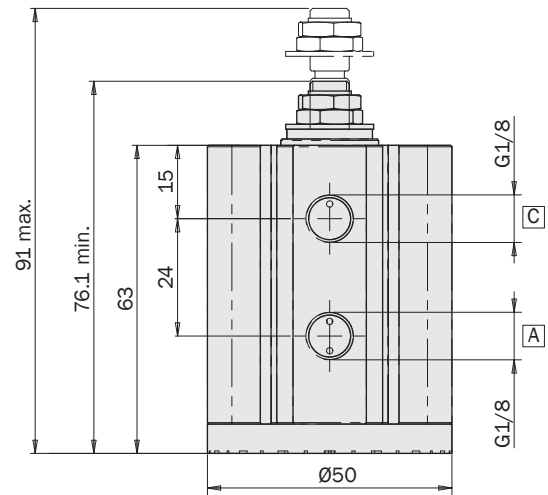


MAG35



Aria compressa in A: rilascio pezzo
Compressed air in A: workpiece release

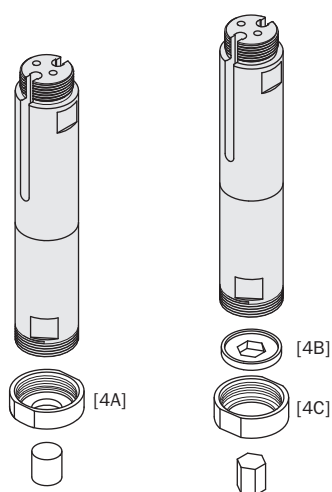
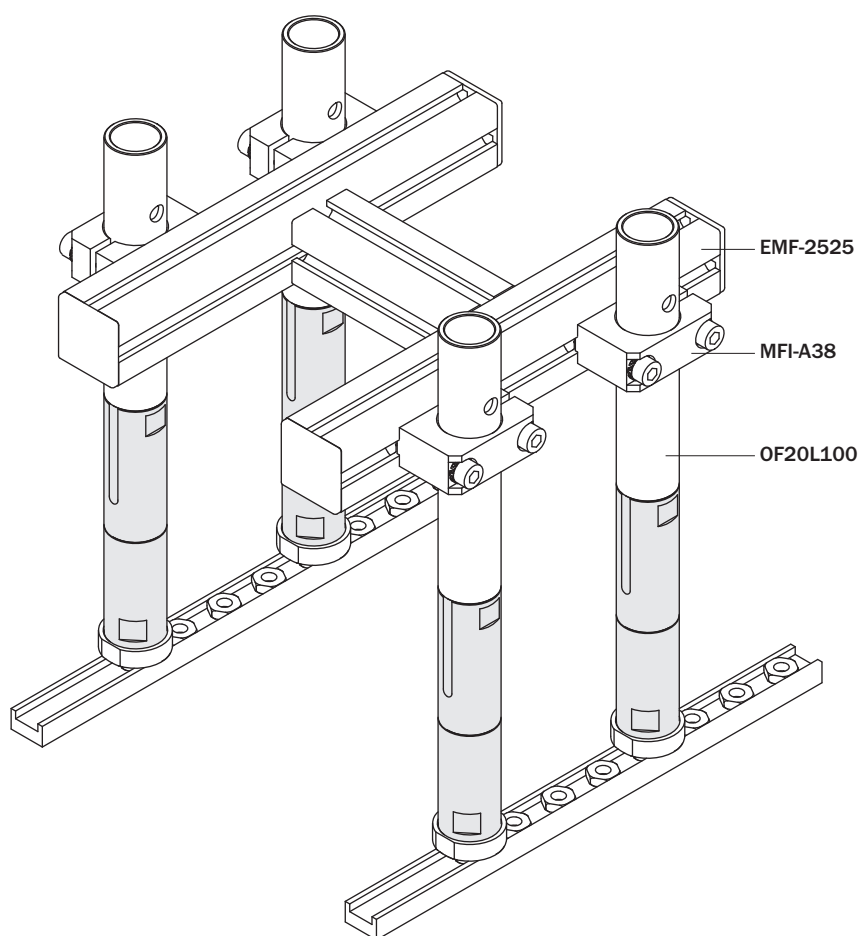
Aria compressa in C: presa pezzo
Compressed air in C: workpiece clamping



Esempi di utilizzo

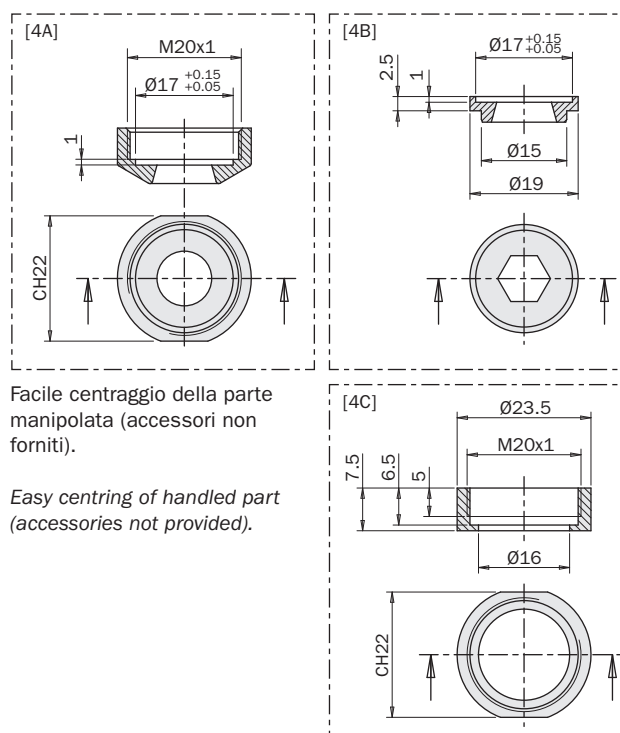
Application examples

MAG20



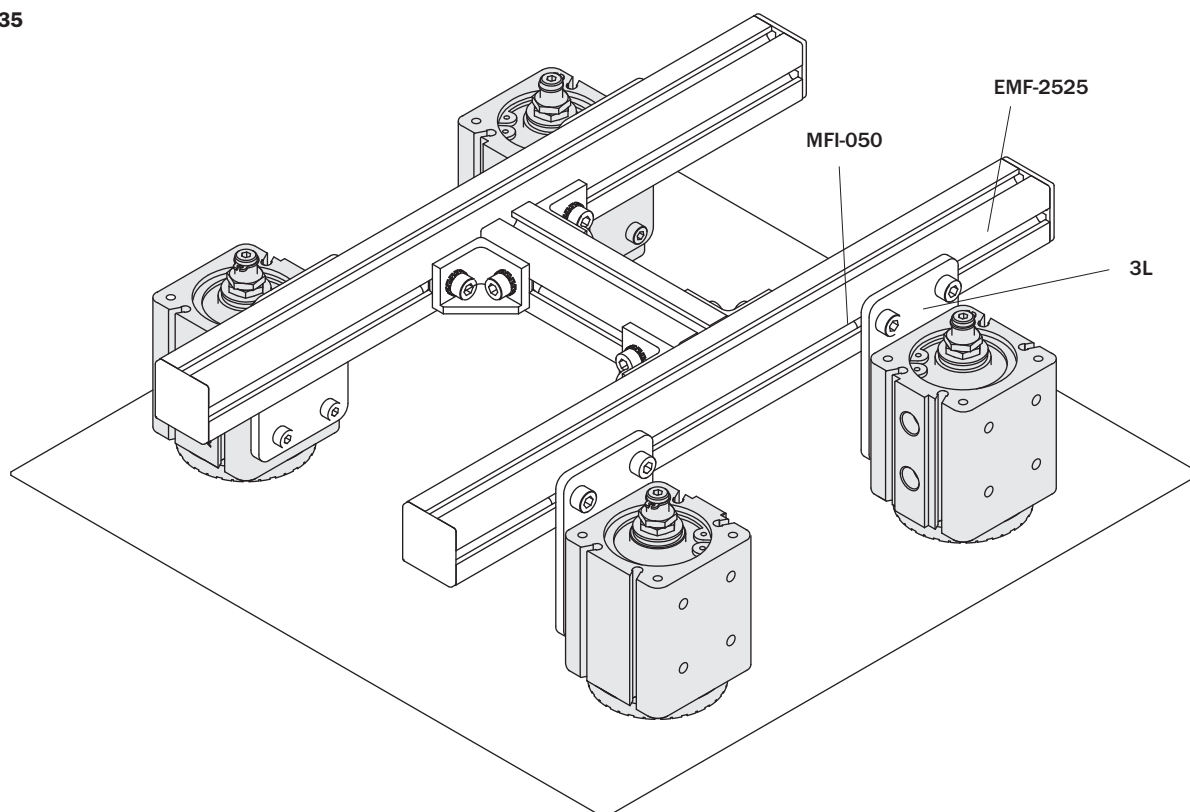
(*)

Accessori non forniti
Accessories not supplied



Esempi di utilizzo Application examples

MAG35



Regolazione forza di tenuta

La forza di tenuta può essere regolata modificando la distanza tra magneti e pezzo.

- 1- Tenere fermo il dado "A" e svitare il dado "B" per allentarlo.
- 2- Tenere ferma la vite di regolazione, ruotare il dado "A" fino alla regolazione desiderata.
- 3- Tenere fermo il dado "A" e serrare il dado "B" a 5.2 Nm.

Holding force adjustment

The holding force can be adjusted by modifying the distance between the magnet and the workpiece.

- 1- Hold nut „A" in place and unscrew nut „B" to loosen it.
- 2- Hold the adjusting screw in place, turn nut „A" until the desired adjustment is achieved.
- 3- Hold nut "A" in place and tighten nut "B" to 5.2 Nm.

