

Cambia utensile

- Cambio rapido dell'attrezzatura sul robot.
- Adatto anche per canalizzazioni in depressione.
- Evita errori nelle connessioni pneumatiche ed elettriche.
- 4, 8, 10 o 12 connessioni pneumatiche.
- 15 connessioni elettriche.
- Le due parti (lato robot e lato pinza) sono fornite separatamente.
- Il lato robot QCX può anche tagliare l'aria compressa con una valvola di sicurezza.
- Il lato robot QCY taglia l'aria compressa automaticamente durante lo sganciamento.
- Dispositivo di bloccaggio LOQC opzionale.

Quick changer

- Easy replacement of the EOAT on the robot.
- Suitable also with vacuum ports.
- Avoids mistakes in pneumatic and electrical connections.
- 4, 8, 10 or 12 pneumatic connections.
- 15 electrical connections.
- The two parts (robot side and gripper side) are supplied separately.
- The robot side QCX unit can also cut off the compressed air with a safety air valve.
- The robot side QCY unit cuts off the compressed air automatically during disengagement.
- Optional LOQC lock unit.



QCX150-A



QC150-B



QC50-A

QC50-B

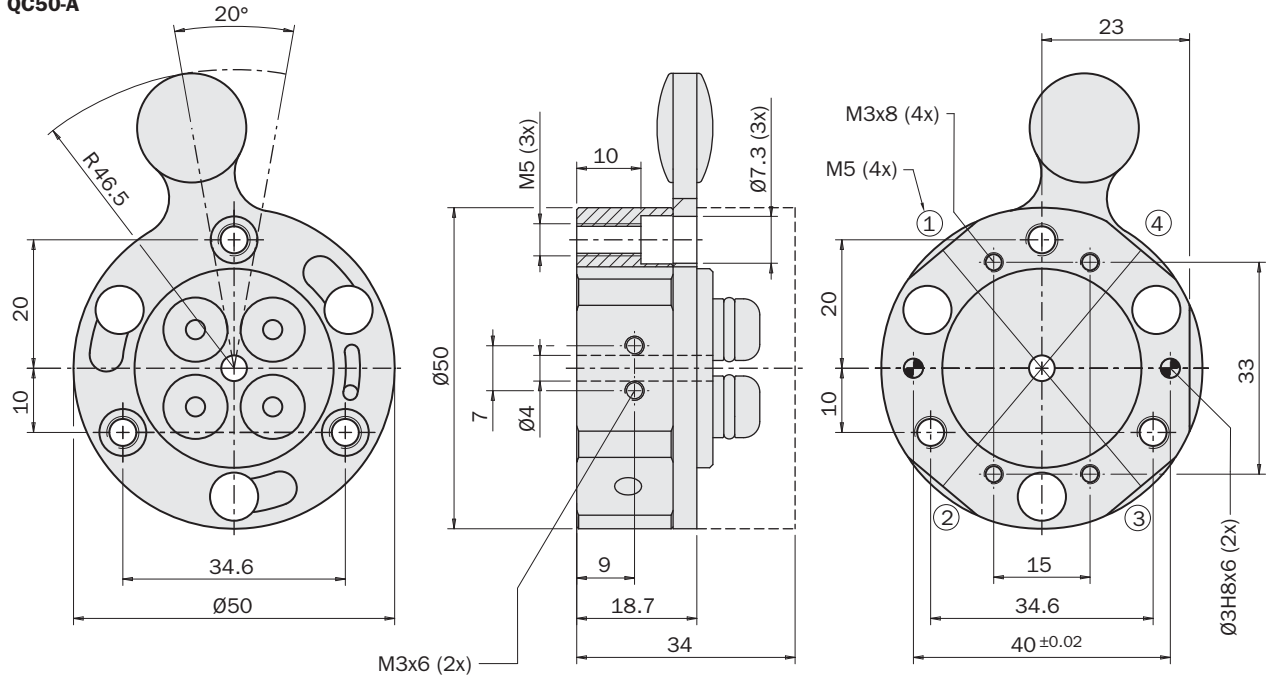


QCY90-A

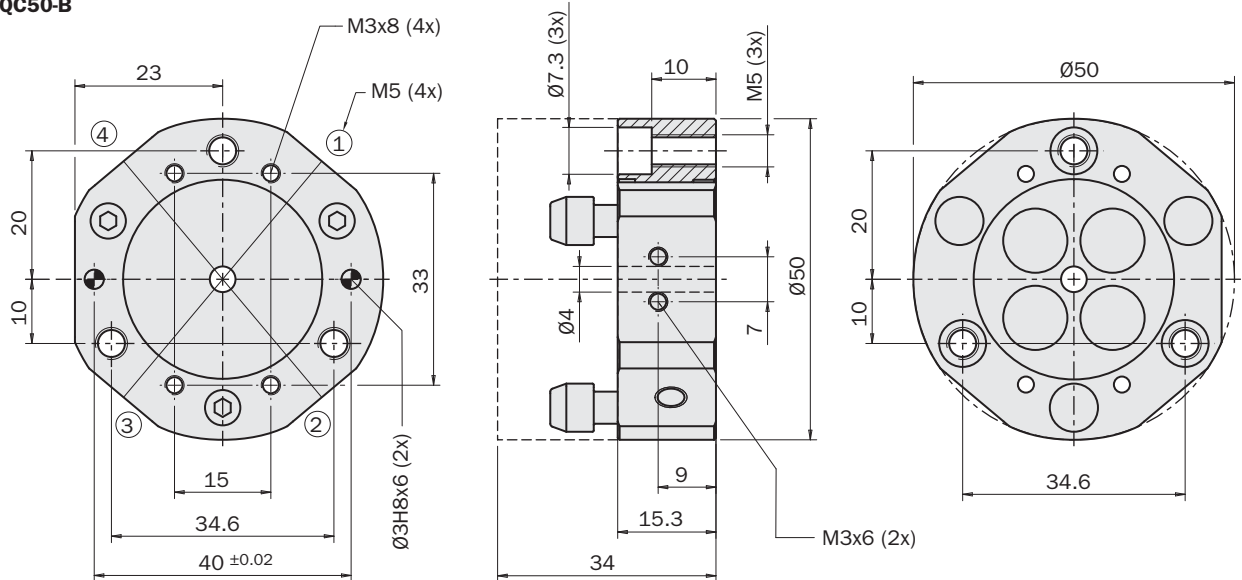
QC90-B

	QC50	QC90	QC150	QC160	QC200
Fluido Medium	Aria compressa filtrata, lubrificata / non lubrificata Filtered, lubricated / non lubricated compressed air				
Pressione di esercizio Pressure range	-1 ÷ 6 bar				
Temperatura di esercizio Temperature range	5 ÷ 60 °C				
Cambia utensile lato robot Robot side quick changer	103 g QC50-A	318 g QC90-A	1123 g QC150-A	1200 g QC160-A	2640 g QC200-A
Cambia utensile lato robot con valvola di sicurezza Robot side quick changer with safety valve	-	595 g QCY90-A	2200 g QCX150-A	2200 g QCX160-A	4900 g QCX200-A
Cambia utensile lato robot con valvola automatica Robot side quick changer with automatic valve	-	350 g QCY90-A	-	-	-
Cambia utensile lato pinza Gripper side quick changer	65 g QC50-B	227 g QC90-B	827 g QC150-B	900 g QC160-B	1890 g QC200-B

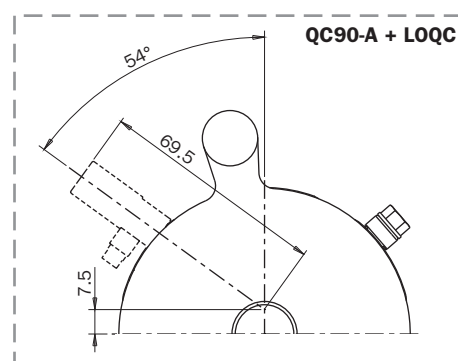
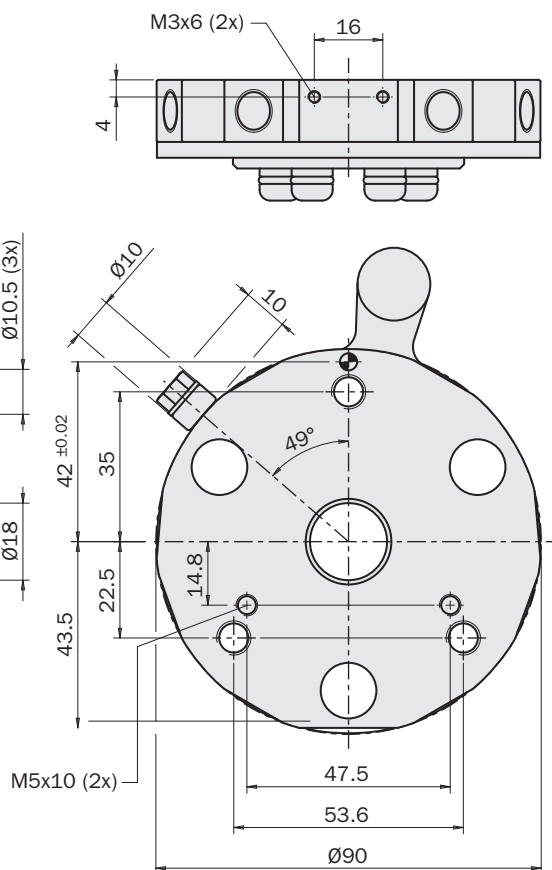
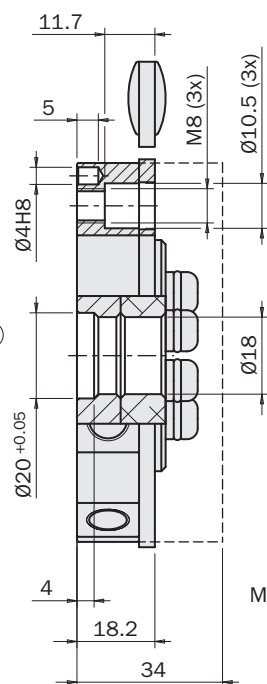
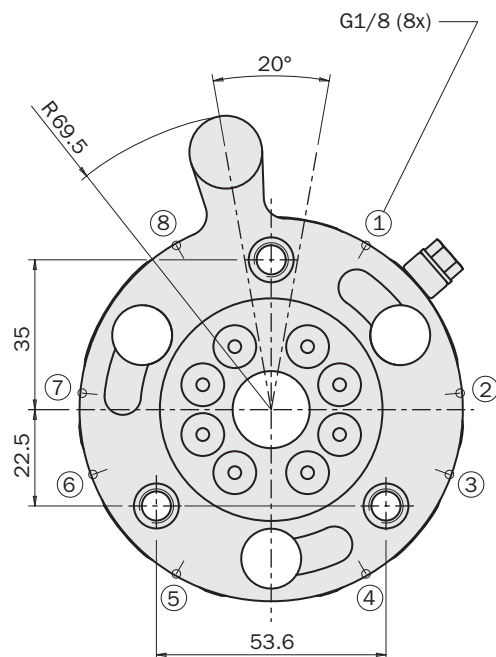
QC50-A



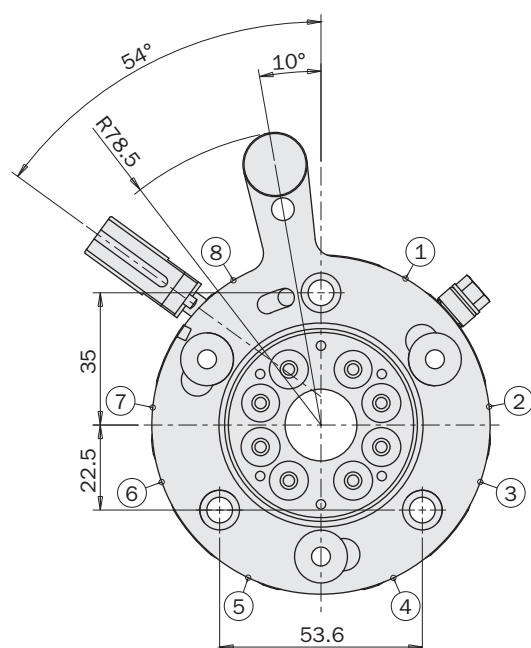
QC50-B



QC90-A

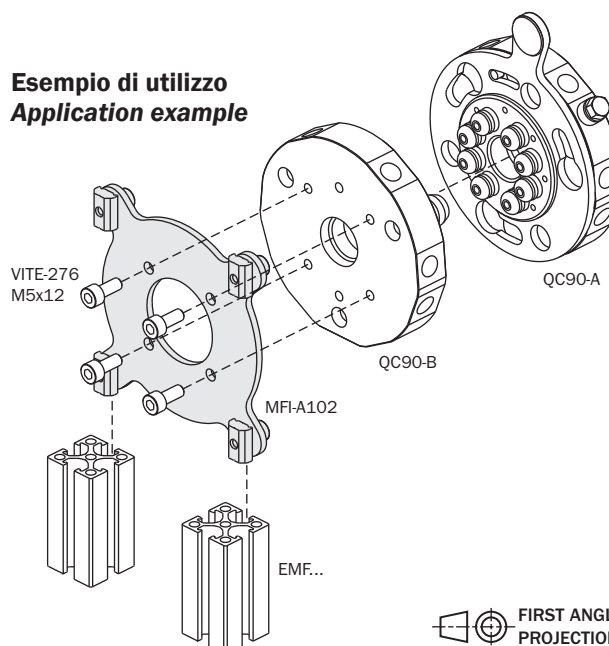


NEW
QCY90-A

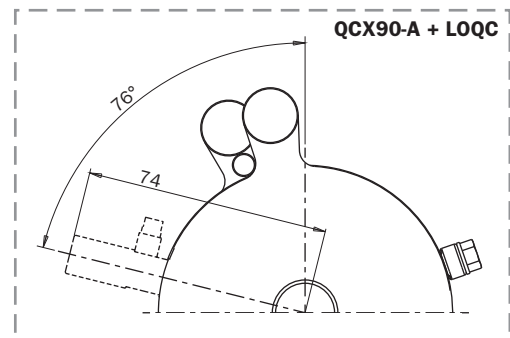
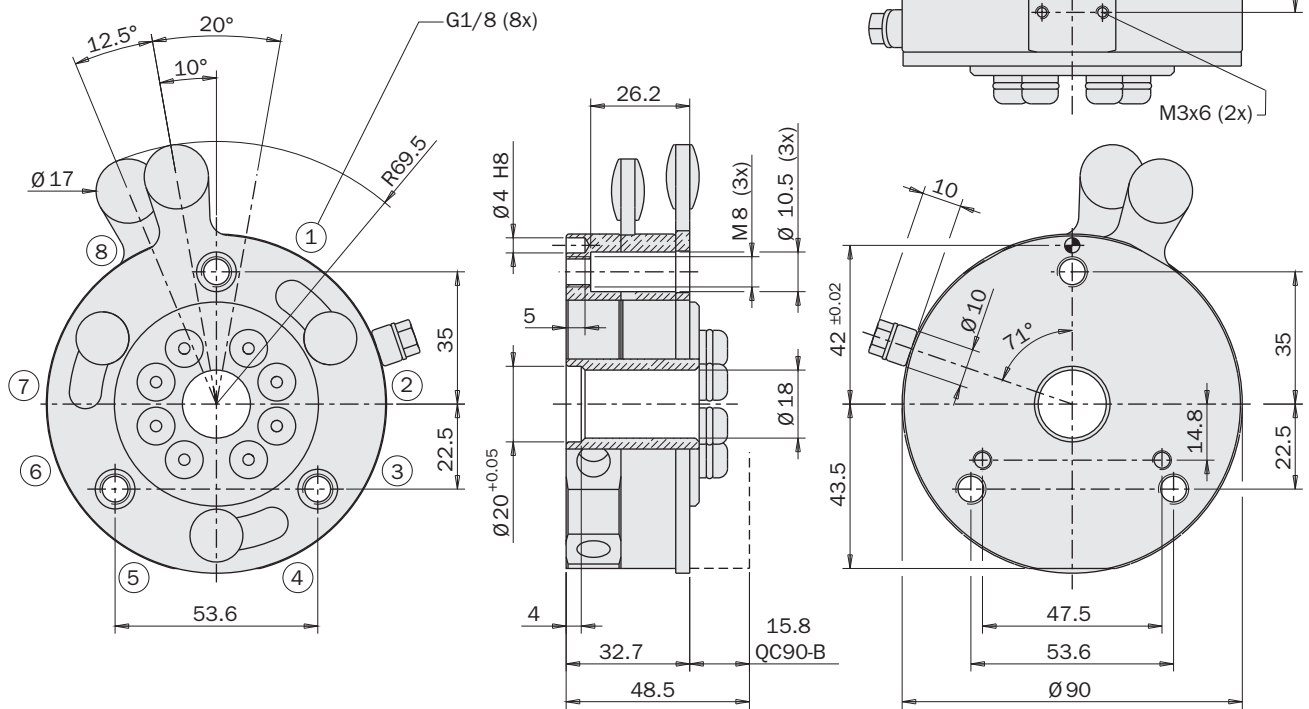


Esempio di utilizzo

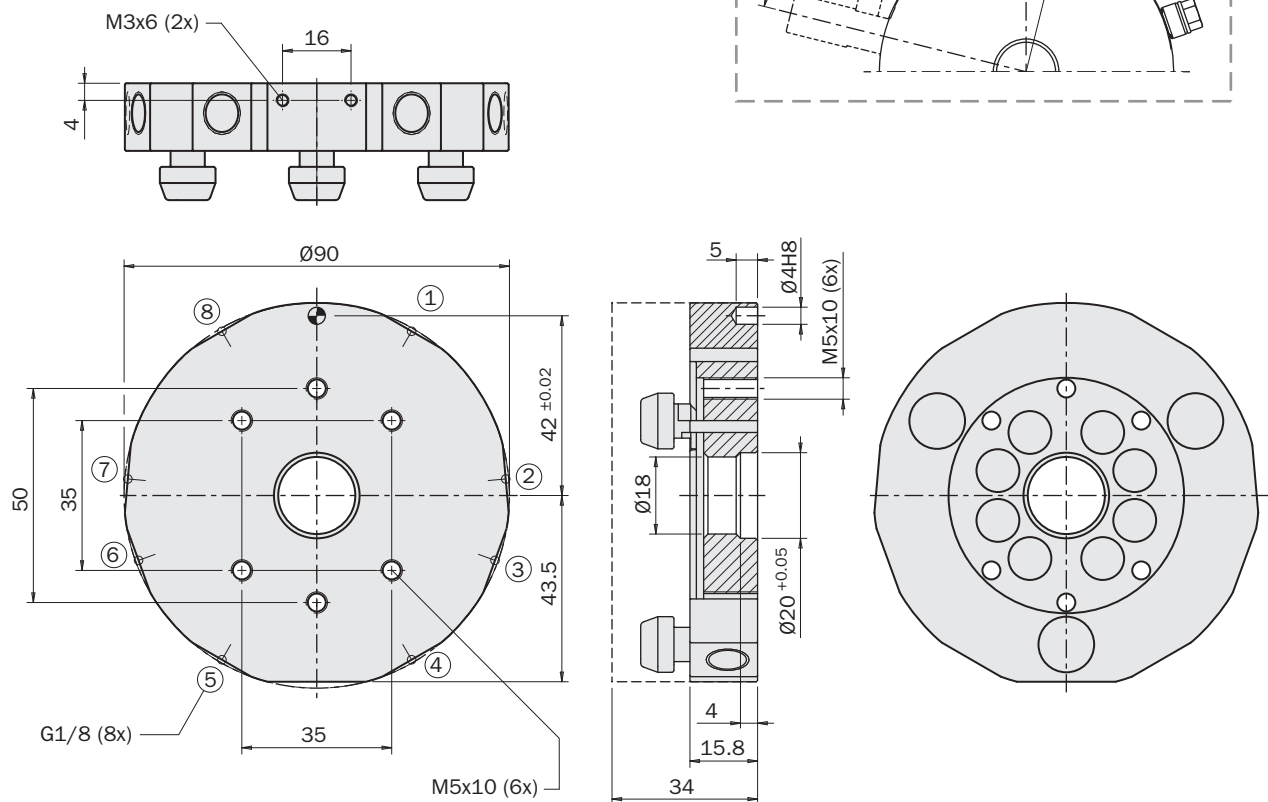
Application example



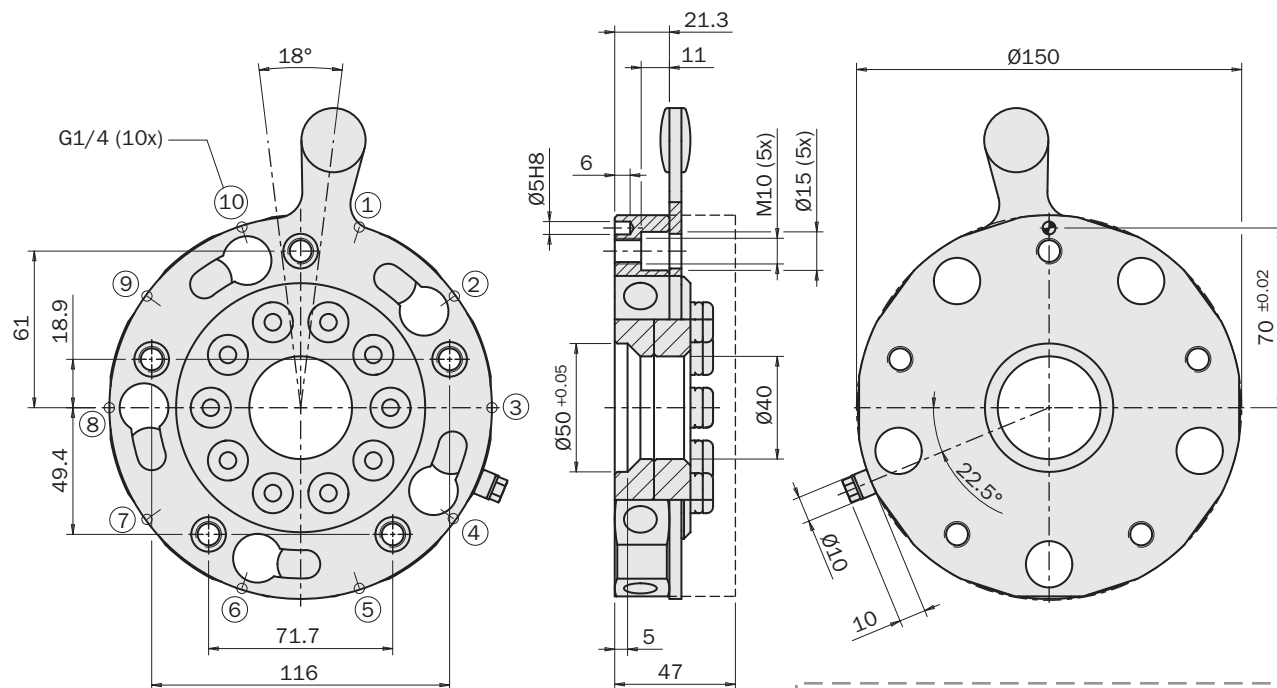
QCX90-A



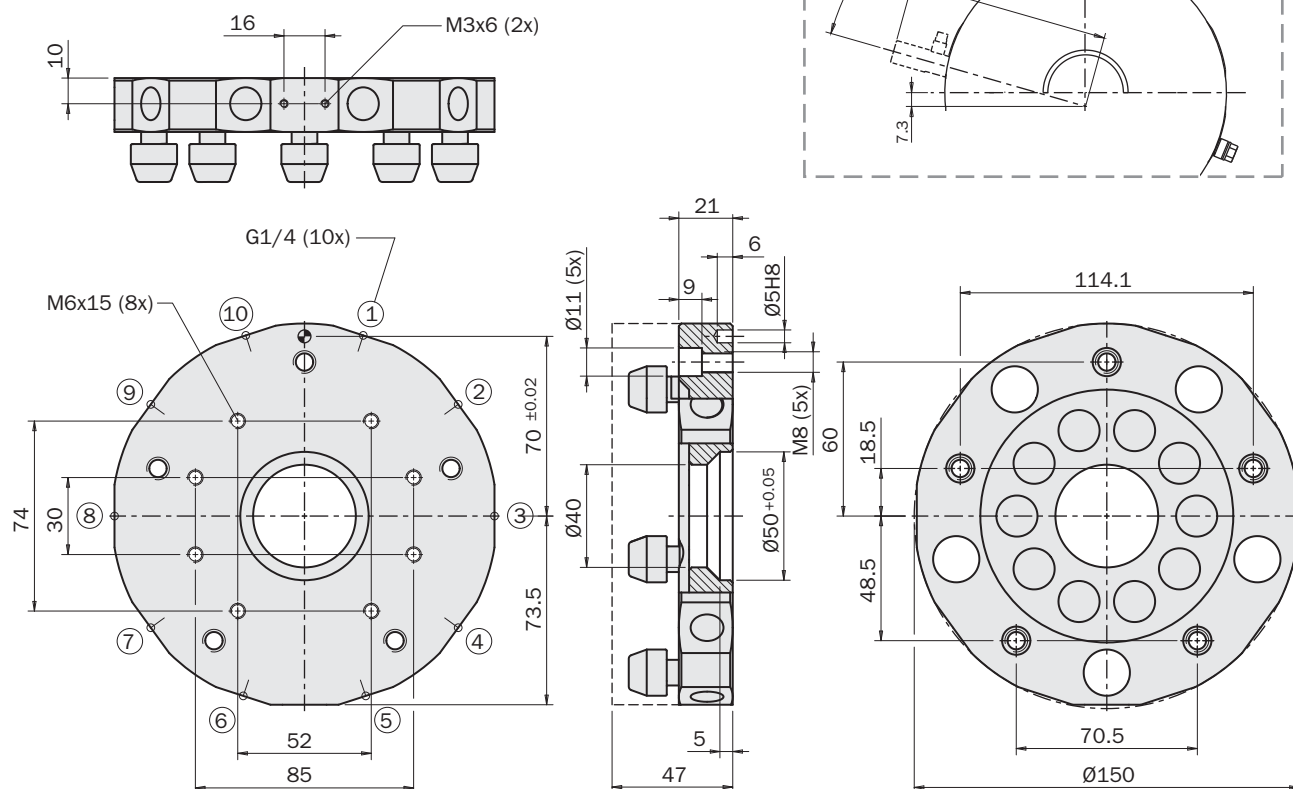
QC90-B



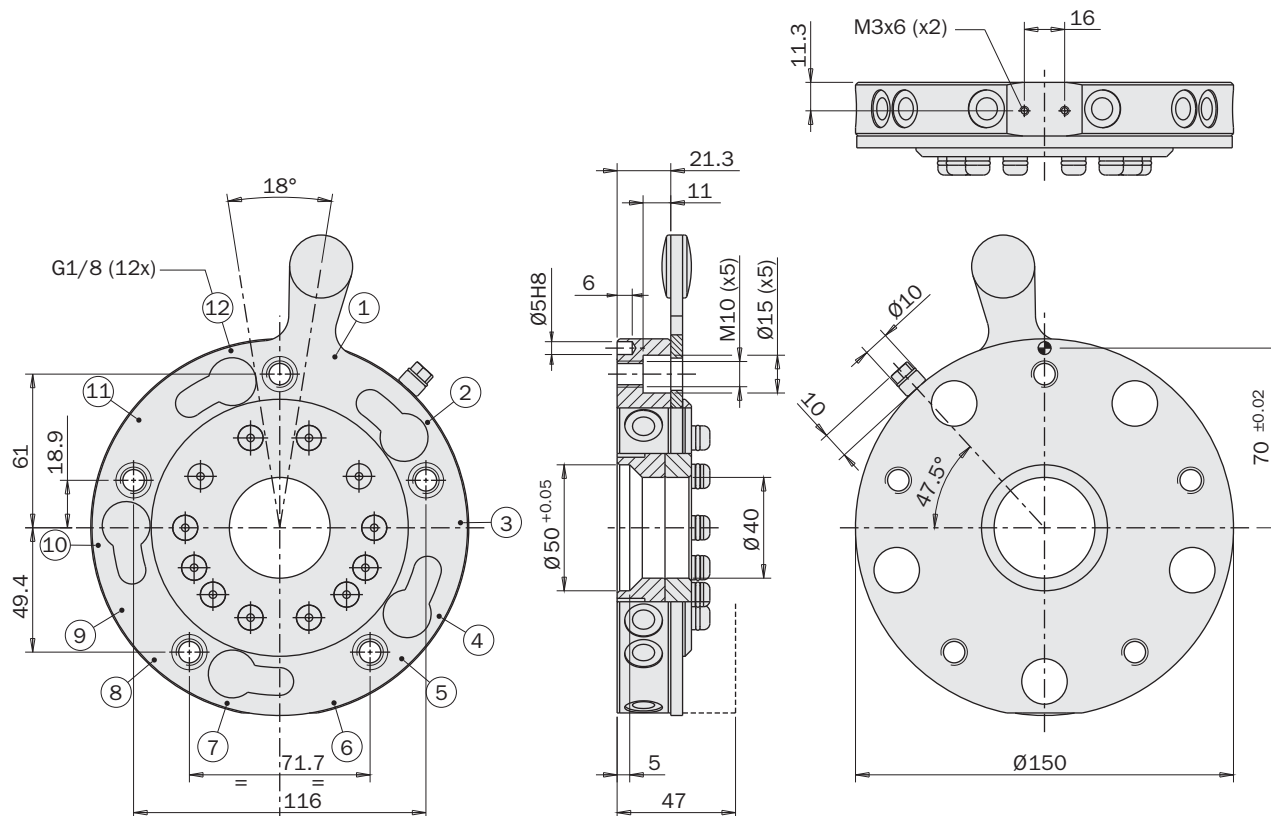
QC150-A



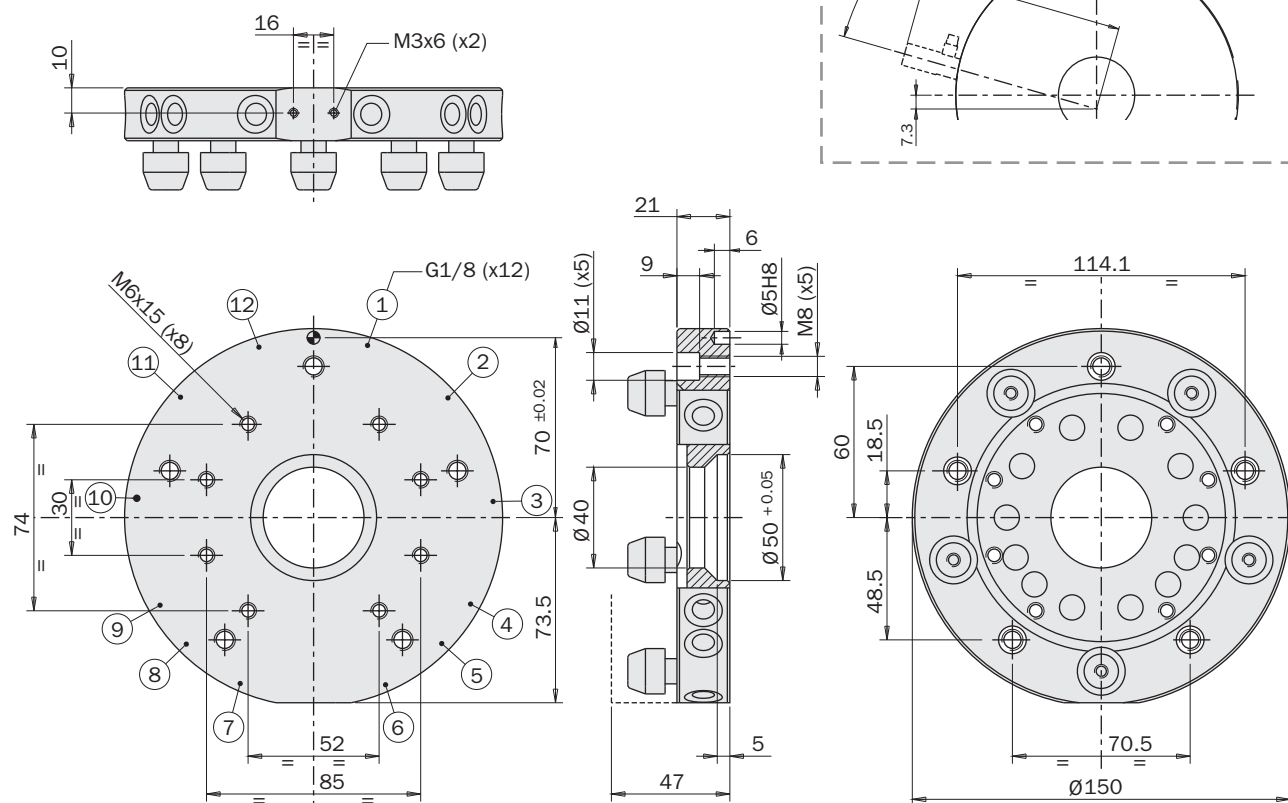
QC150-B



QC160-A

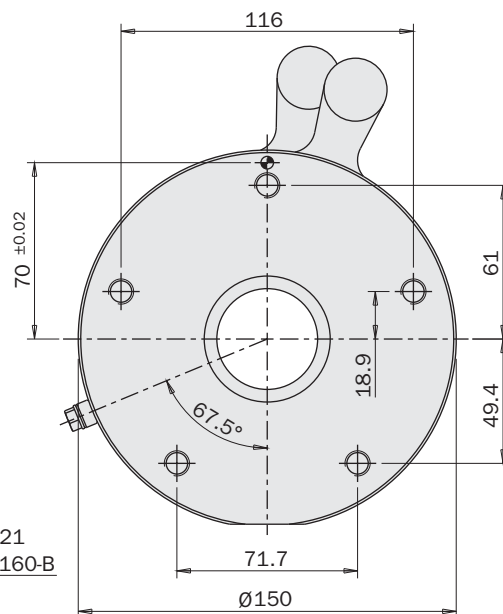
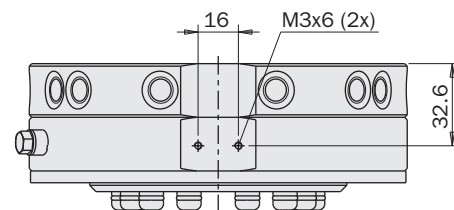
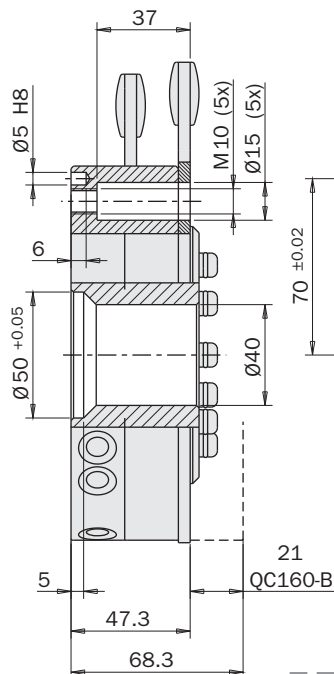
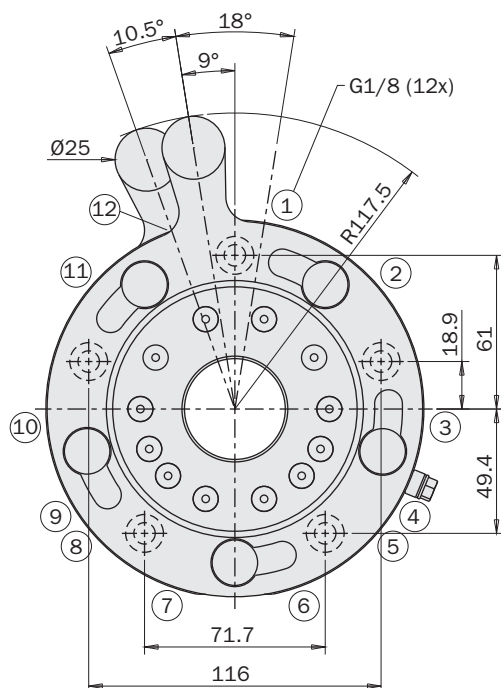


QC160-B

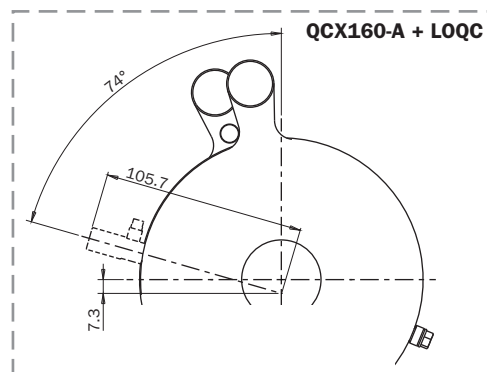
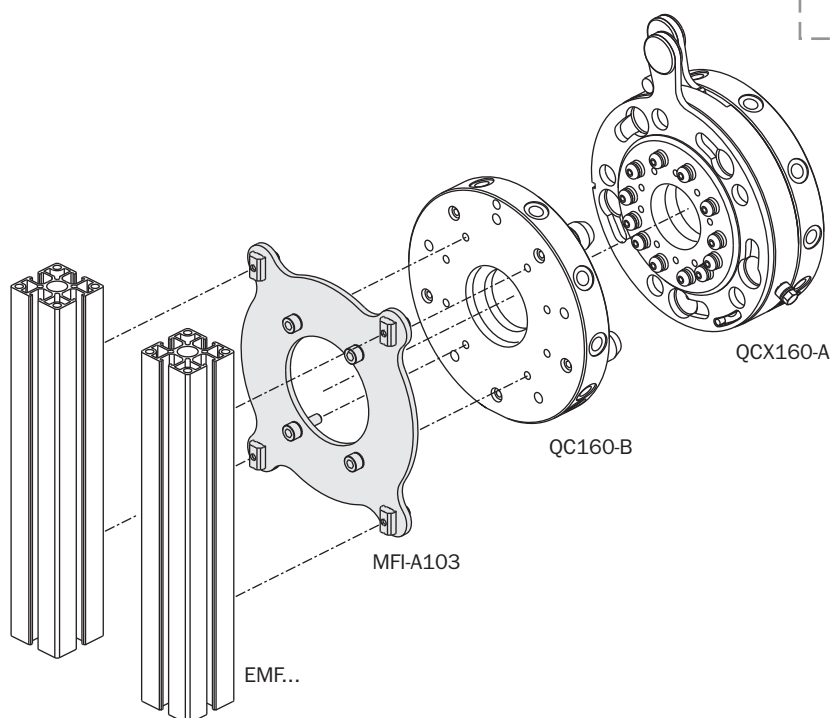


 FIRST ANGLE PROJECTION

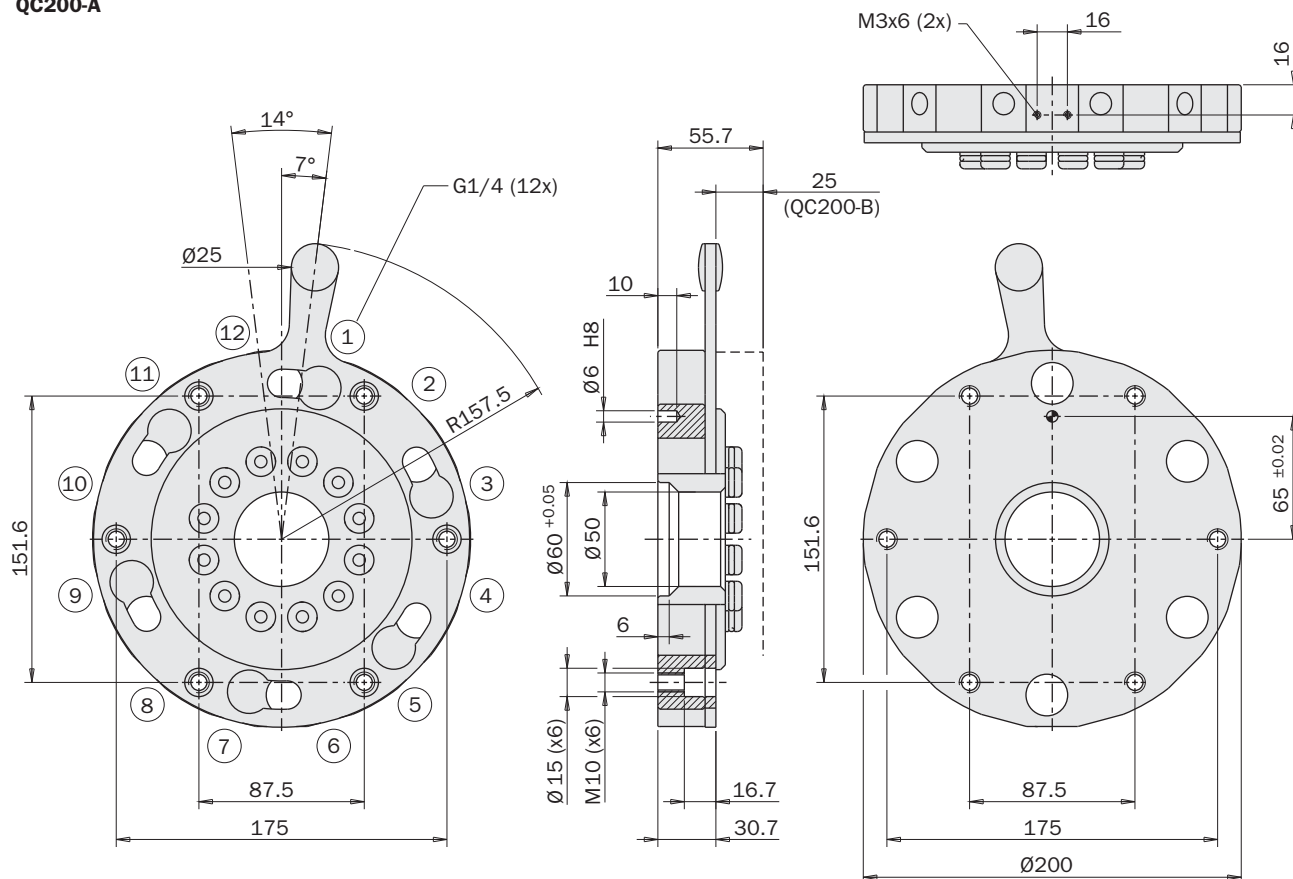
QCX160-A



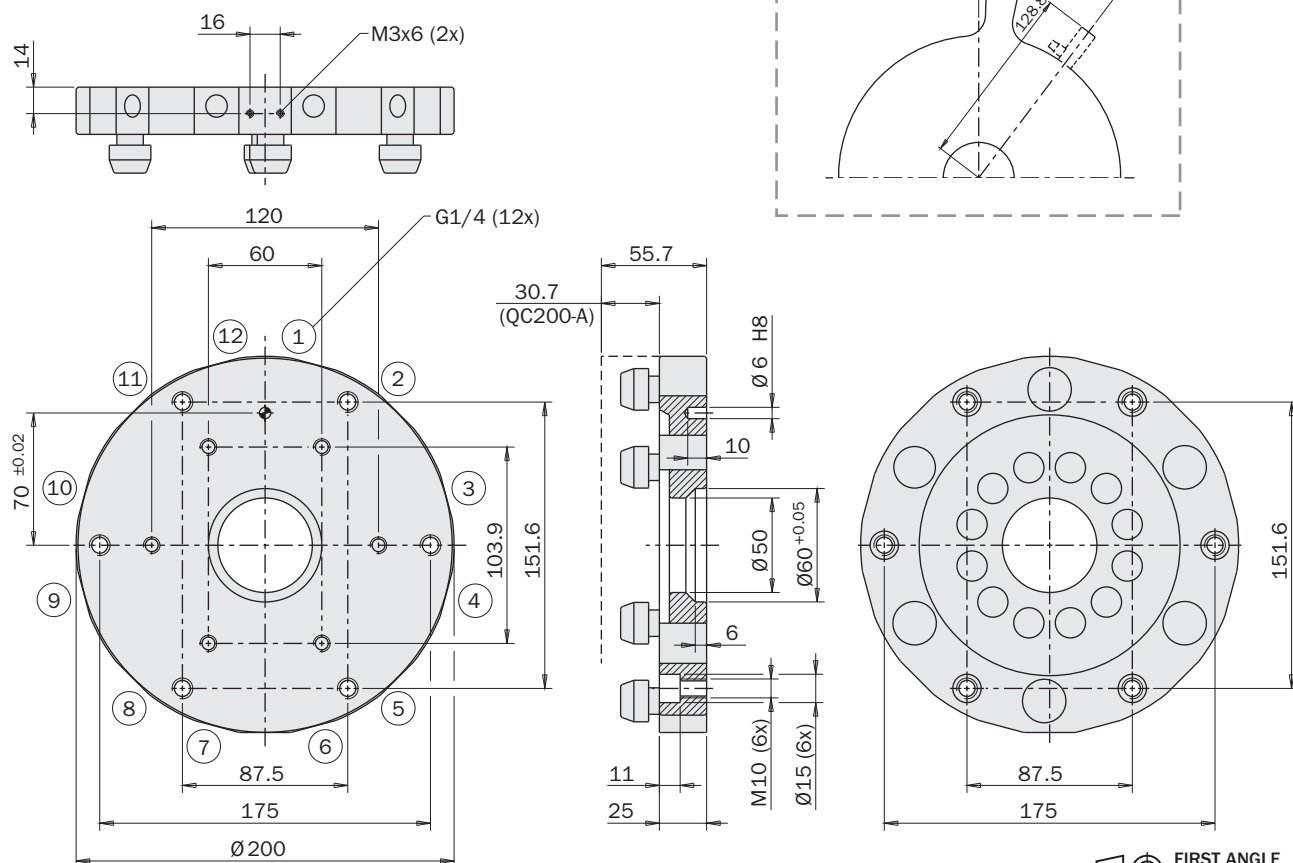
Esempio di utilizzo / Application example



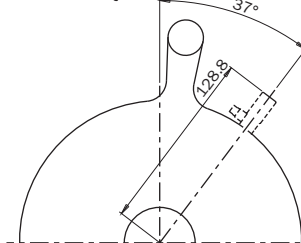
QC200-A



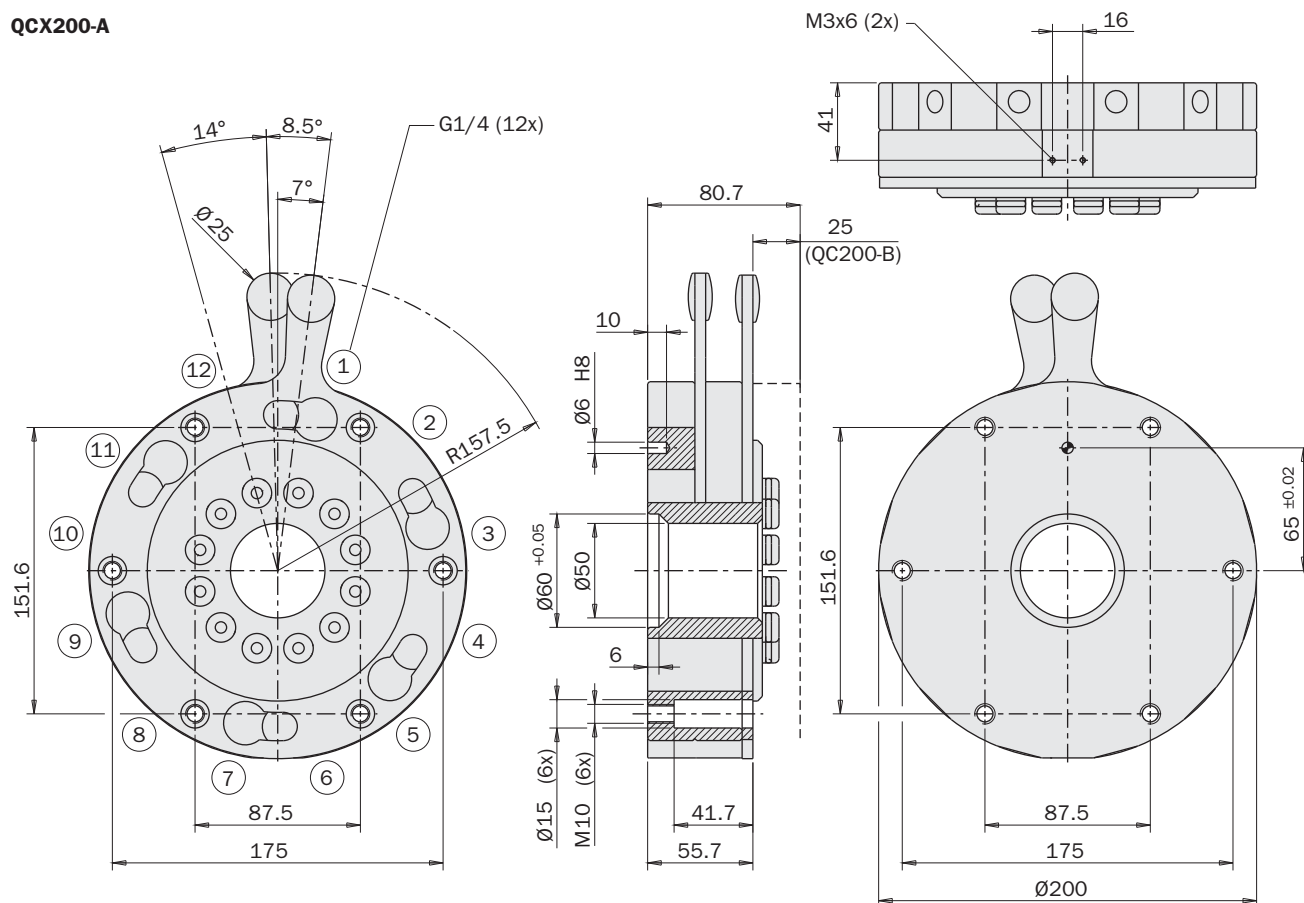
QC200-B



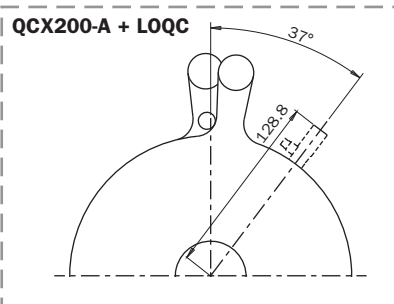
QC200-A + LOQC



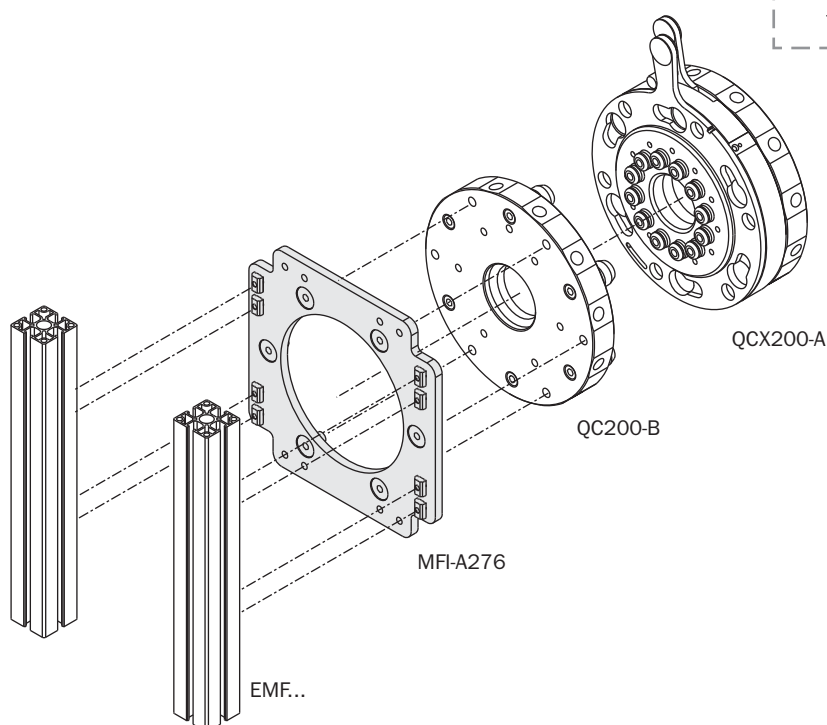
QCX200-A



FIRST ANGLE
PROJECTION

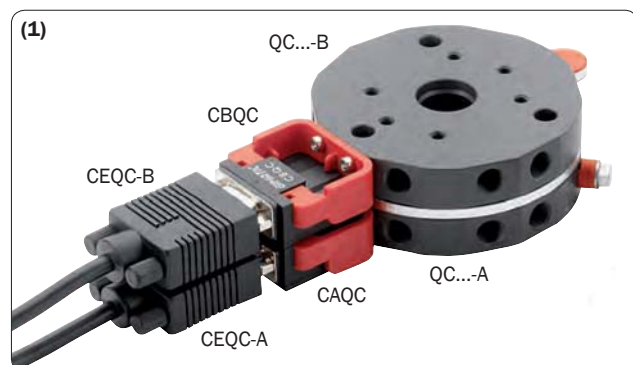


Esempio di utilizzo / Application example



Accessori

Per la connessione elettrica sono disponibili gli accessori opzionali CAQC e CBQC (1).
L'apertura e la chiusura manuale sono rapide e intuitive (2).



Accessories

The optional accessories CAQC and CBQC are available for the electrical connection (1).
Detachment and joining of the two parts are quick and easy (2).



Dopo la chiusura si può agire sulla vite di bloccaggio conica (SET SCREW), per azzerare completamente il gioco fra le due parti (solo per QC90, QCX90, QCY90, QC160, QCX160, QC150 e QCX150).



After joining it is possible to engage a conical set screw, to eliminate any play between the two sides, for "zero tolerance" applications (only for QC90, QCX90, QCY90, QC160, QCX160, QC150 and QCX150).

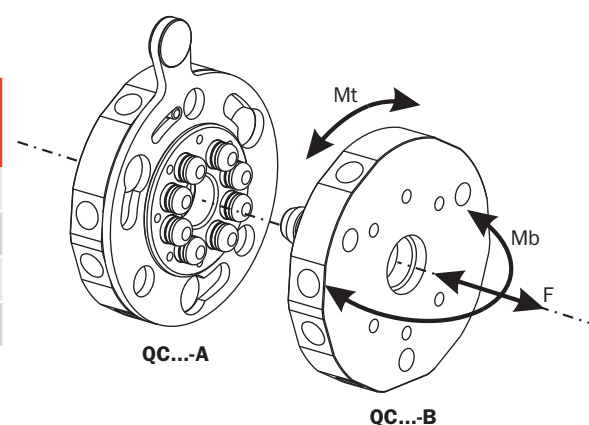


Carichi di sicurezza

	QC50	QC90 QCX90 QCY90	QC150 QCX150	QC160 QCX160	QC200 QCX200
F	150 N	400 N	1000 N	1000 N	2000 N
Mt	20 Nm	100 Nm	250 Nm	250 Nm	600 Nm
Mb	10 Nm	60 Nm	150 Nm	150 Nm	450 Nm
m (*)	3 kg	10 kg	30 kg	30 kg	75 kg

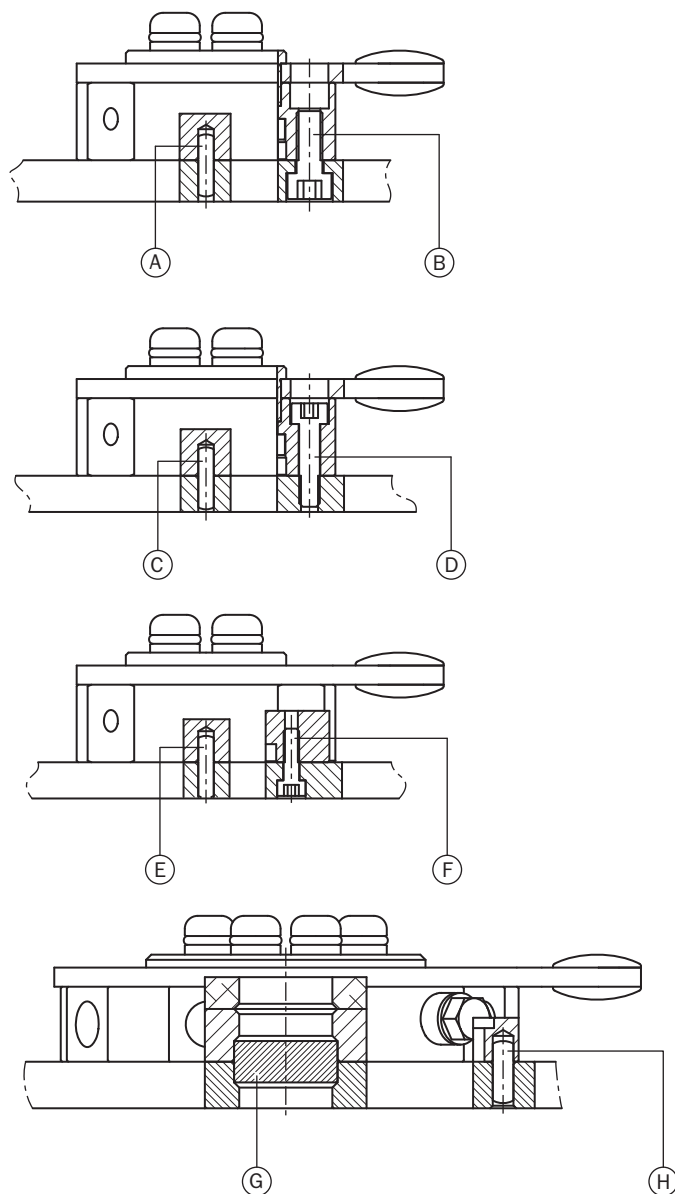
(*)
Carico raccomandato
Recommended payload

Safety loads

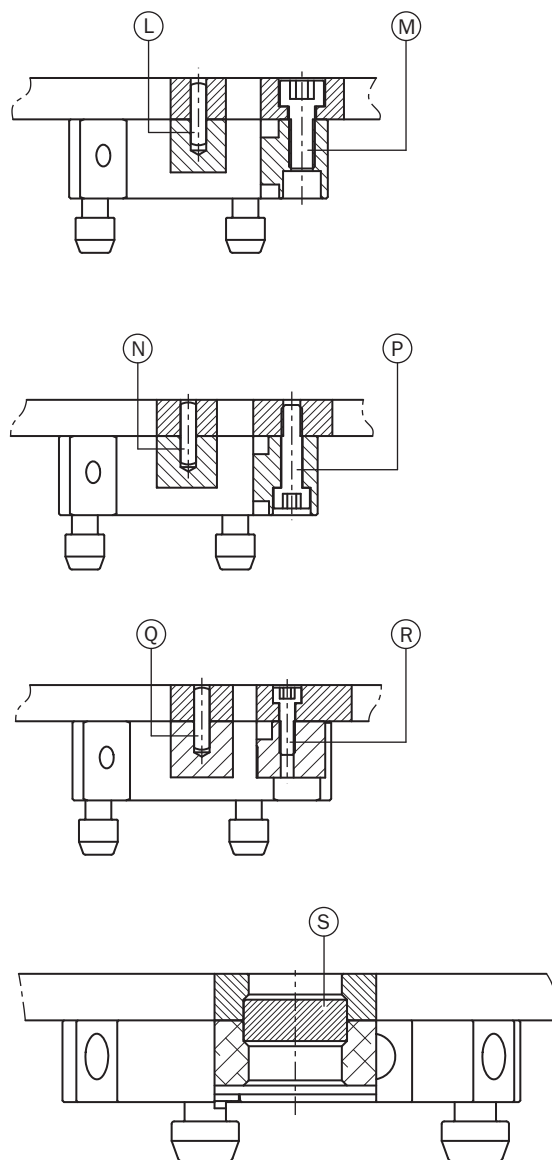


Fissaggio

Lato robot
Robot side

**Fastening**

Lato pinza
Gripper side



	QC50-A	QC90-A QCX90-A QCY90-A	QC150-A QCX150-A	QC160-A QCX160-A	QC200-A QCX200-A
A	Ø3 (2x)	-	-	-	-
B	M5 (3x)	M8 (3x)	M10 (5x)	M10 (5x)	M10 (6x)
C	Ø3 (2x)	-	-	-	-
D	M4 (3x)	M6 (3x)	M8 (5x)	M8 (5x)	M8 (6x)
E	Ø3 (2x)	-	-	-	-
F	M3 (4x)	M5 (2x)	-	-	-
G	-	Ø20	Ø50	Ø50	Ø60
H	-	Ø4 (1x)	Ø5 (1x)	-	Ø6 (1x)

	QC50-B	QC90-B	QC150-B	QC160-B	QC200-B
L	Ø3 (2x)	-	-	-	Ø6 (1x)
M	M5 (3x)	-	M10 (5x)	M10 (5x)	M10 (6x)
N	Ø3 (2x)	-	-	-	-
P	M4 (3x)	-	M8 (5x)	M8 (5x)	M8 (6x)
Q	Ø3 (2x)	-	-	-	-
R	M3 (4x)	M5 (6x)	M6 (8x)	M6 (8x)	-
S	-	Ø20	Ø50	Ø50	Ø60

QCX

QCX è equipaggiato con una valvola dell'aria integrata, che chiude automaticamente il flusso di aria compressa (o il vuoto) prima che il sistema sia completamente sganciato (4).

Non è possibile aprire il flusso d'aria, se la flangia non è agganciata (1).

La maniglia rossa sconnette la flangia, ma inoltre muove la maniglia blu tramite la spina nera, che chiude l'aria (2).

Quando il sistema è agganciato il flusso d'aria può essere controllato (on/off) con la maniglia blu (3).

Questa valvola a rubinetto rotante risolve tutti i problemi delle valvole di non ritorno a sfera: l'elevata forza di spinta necessaria per l'aggancio ed i movimenti incontrollati degli attuatori durante lo sganciamento.

QCX è perfettamente compatibile con QC...-B ed ha gli stessi fissaggi di QC...-A, ma con uno spessore maggiore.

QCX

QCX is equipped with an integrated air valve, which automatically closes the compressed air (or vacuum) flow before the system is completely disengaged (4).

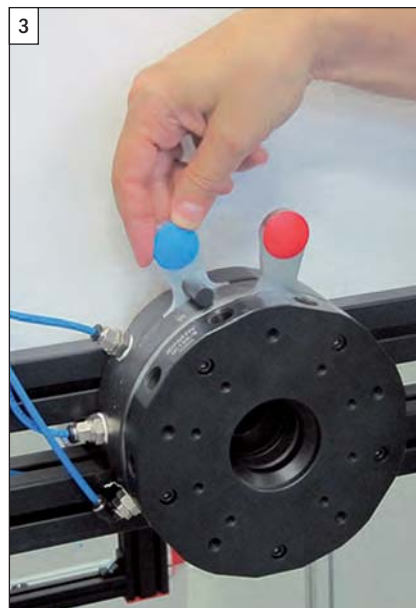
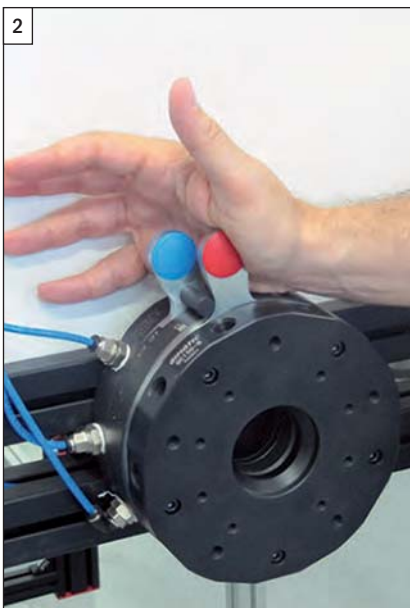
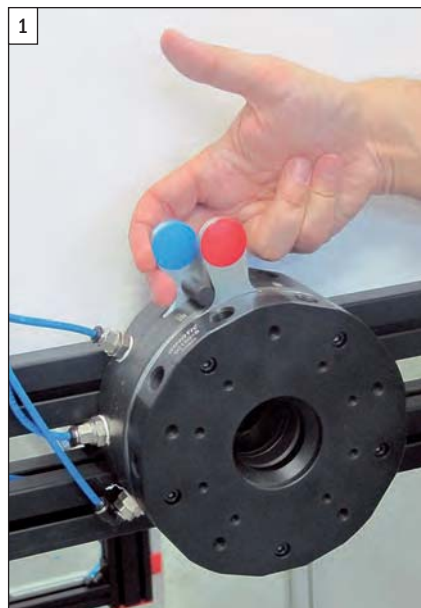
It is not possible to open the air flow, if the flange is not engaged (1).

The red handle disengages the flange, but also move the blue handle by the black pin which closes the air (2).

When engaged the air flow can be controlled (on/off) by the blue handle (3).

This rotating tap valve solves all the problems of ball valve systems: the high pushing force necessary for engaging and the uncontrolled movements of the actuators when disengaging.

QCX perfectly fit with QC...-B and it has the same mounting pattern of a QC...-A, but with a larger thickness.



QCY

QCY è equipaggiato con una valvola dell'aria integrata che chiude automaticamente il flusso dell'aria compressa (o il vuoto) prima che il sistema sia completamente sganciato.

Anche l'apertura del flusso di aria compressa (o del vuoto) è automatica e successiva al completo aggancio.

Quindi a differenza del QCX una sola maniglia è sufficiente. Questo riduce le dimensioni del QCY che è intercambiabile con il QC...-A e compatibile con il QC...-B.

Anche questa valvola è a rubinetto rotante e quindi non richiede una forza di spinta elevata per l'aggancio e non causa movimenti incontrollati durante lo sganciamento. Un circuito di sfiato mette in comunicazione con l'atmosfera gli utensili pneumatici a bordo del QC...-B prima che lo sganciamento sia completato.

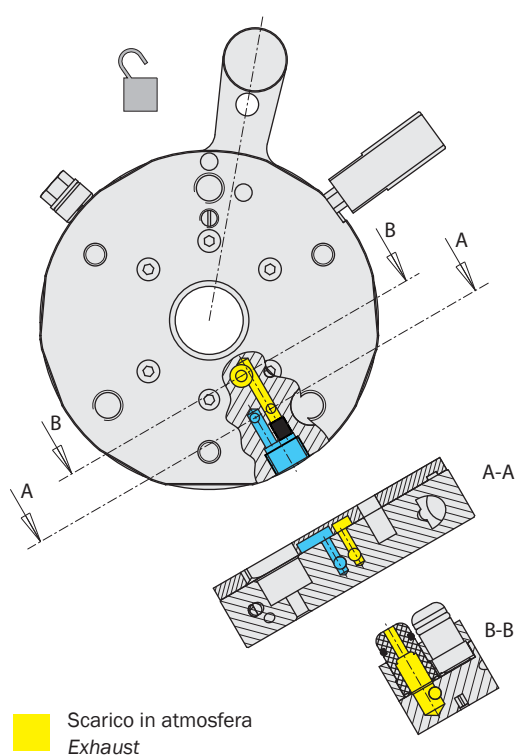
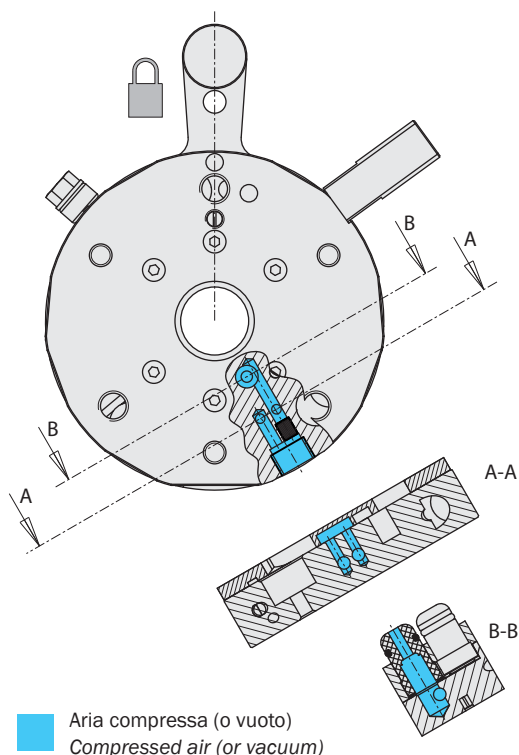
QCY

The QCY features a built-in air valve, which automatically cuts off the compressed air flow (or vacuum) before the system is completely disengaged.

The opening of the compressed air flow (or vacuum) is also automatic and follows the complete engagement.

Therefore, unlike the QCX, a single handle is sufficient. This reduces the dimensions of the QCY which is interchangeable with the QC...-A and compatible with the QC...-B.

Also this valve is with rotating tap and therefore does not require a high pushing force for the engagement and does not cause uncontrolled movements during the disengagement. An exhaust circuit connects the pneumatic tools on the QC...-B with the external atmosphere before the disengagement is completed.



Modulo di connessione elettrica

- 15 connessioni elettriche Ø1 mm.
- Attacco rapido I/O attraverso connettore VGA.
- Connessione a sfregamento autopulente.
- Le due parti sono fornite separatamente:
CAQC - lato robot
CBQC - lato pinza.

Electrical connection module

- 15 pins Ø1 mm.
- I/O quick change by VGA connector.
- Self-cleaning sliding contacts.
- The two parts are supplied separately:
CAQC - robot side
CBQC - gripper side.



CAQC



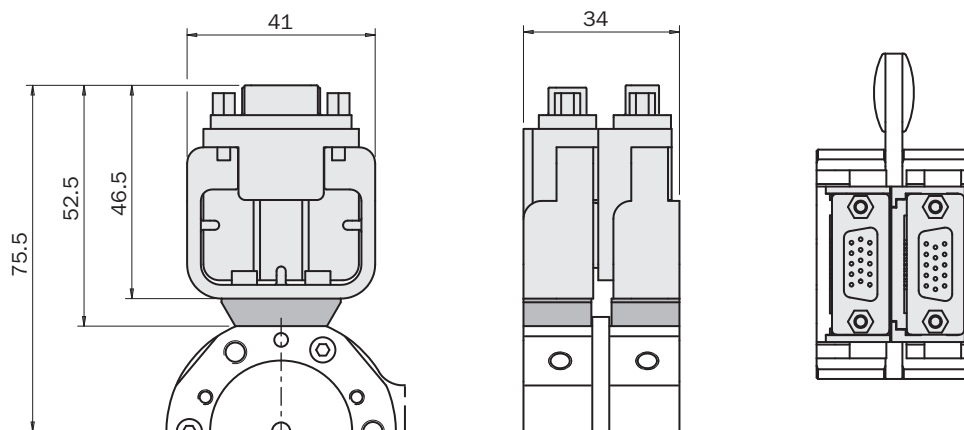
CBQC

	CAQC	CBQC
Tipo di connessione I/O I/O connection type	15 pin D-SUB - Connettore alta densità ad angolo retto - Tipo VGA 15 pins D-SUB - High density elbow type - VGA type	
Corrente d'esercizio Working Current	3 A	
Tensione di scarica Break down voltage	1000 V AC (1 minuto) 1000 V AC (1 minute)	
Temperatura di esercizio Temperature range	-55°C ÷ +105°C	
Contatti Contact	Dorati Gold plated	

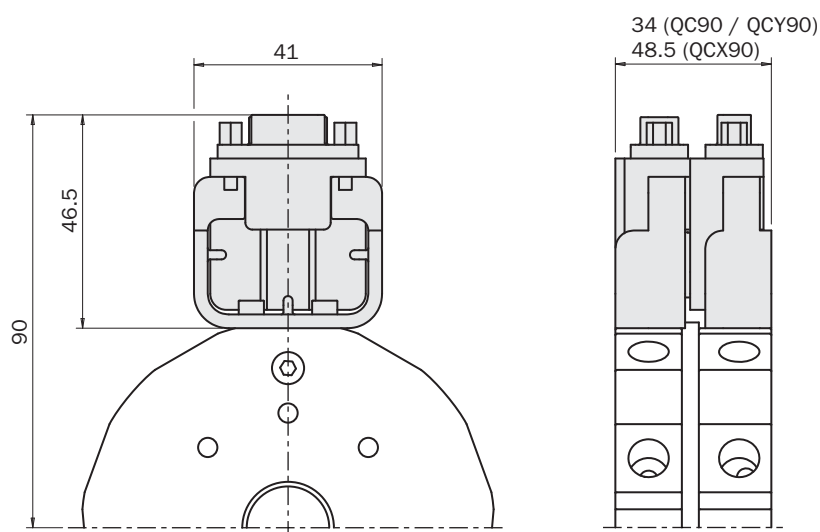
Dimensioni (mm) / Dimensions (mm)

FIRST ANGLE
PROJECTION

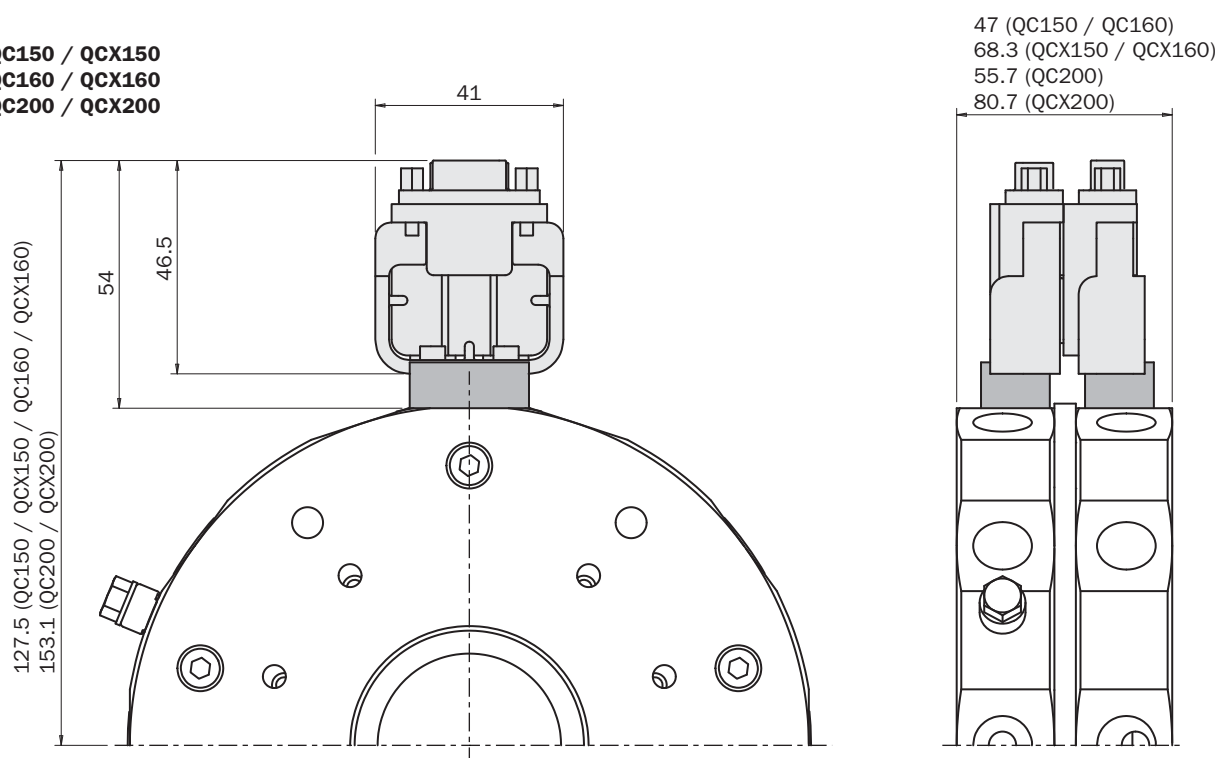
QC50

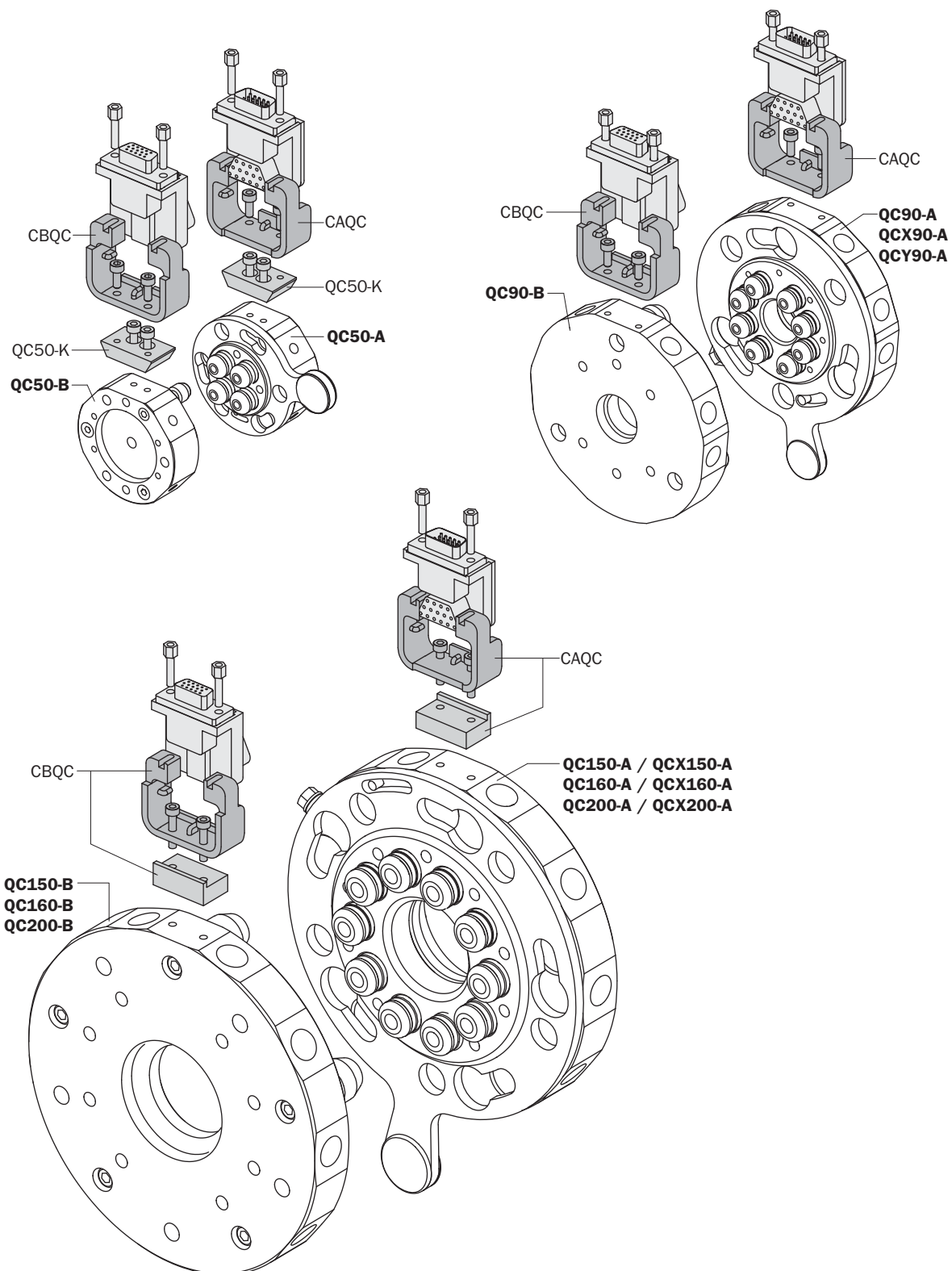


**QC90
QCX90
QCY90**



**QC150 / QCX150
QC160 / QCX160
QC200 / QCX200**





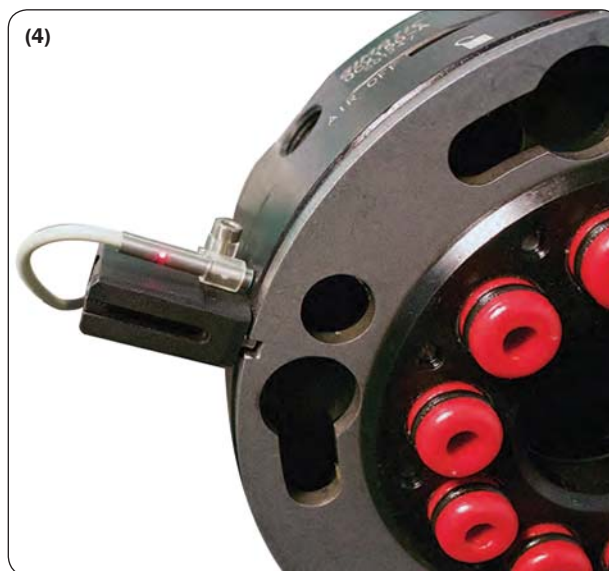
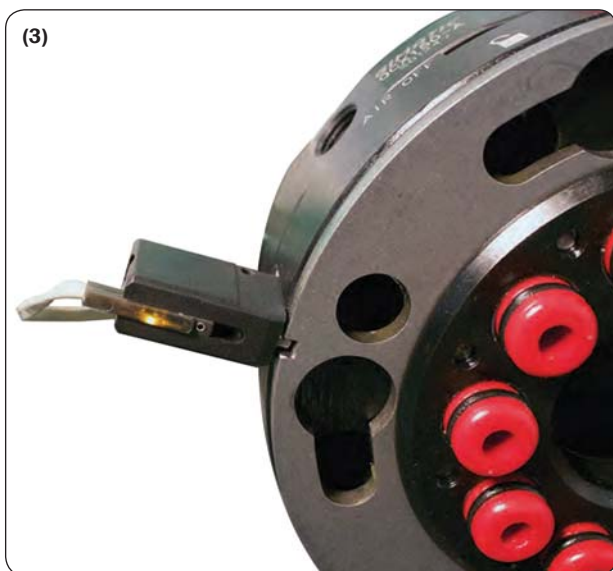
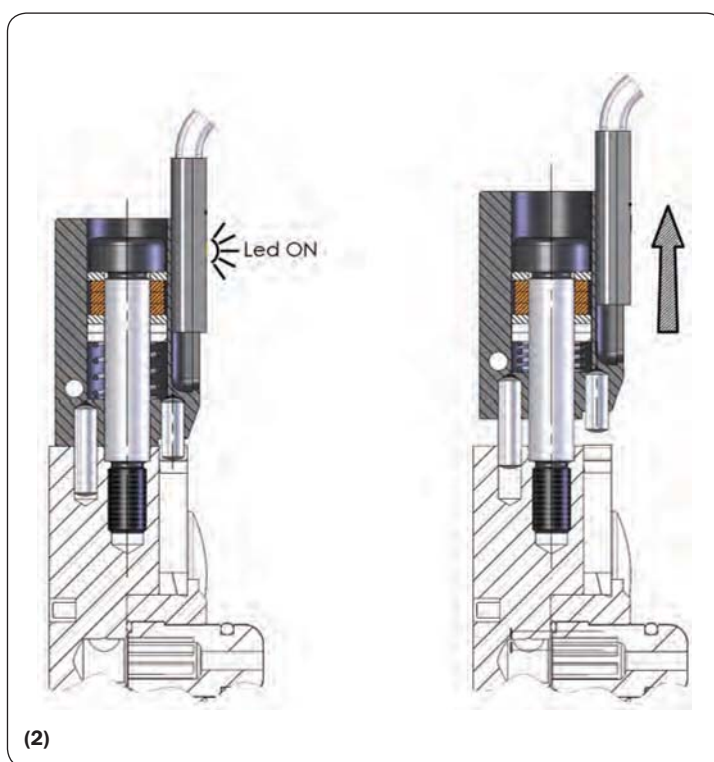
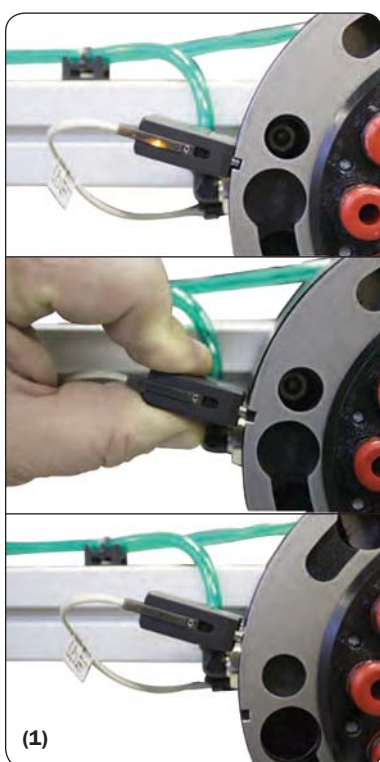
Unità di blocco per cambia utensili QC

- Accessorio opzionale adatto per QC90-A, QC150-A, QC160-A, QC200-A, QCX90-A, QCX150-A, QCX160-A, QCX200-A.
- Di serie su QCY90-A.
- Evita la caduta accidentale dell'EOAT.
- Sicurezza meccanica: blocca la maniglia del cambia utensile, solo se correttamente agganciata (1).
- Sicurezza elettrica: emette un segnale elettrico, solo quando è bloccata (2). Questo segnale darà il consenso per il movimento del robot. In caso di aggancio non corretto, o di un urto distruttivo sul LOQC, o di un guasto elettrico del sensore, il segnale cessa ed il robot si ferma.
- Sensore magnetico (tipo SS) (3) o induttivo (tipo SI) (4) fornito a parte.

Lock unit for QC quick changers

- Option suitable for QC90-A, QC150-A, QC160-A, QC200-A, QCX90-A, QCX150-A, QCX160-A, QCX200-A.
- Standard on QCY90-A.
- It prevents accidental falling of the EOAT.
- Mechanical safety: it locks the handle of the quick changer, only when correctly engaged (1).
- Electrical safety: it emits an electric signal, only when locked (2). This signal will give the consent to the movement of the robot. In the case of incorrect engagement, or destructive impact on the LOQC, or electrical fault of the sensor, the signal drops out and the robot stops.
- Magnetic (SS type) (3) or inductive (SI type) (4) sensor supplied a part.

LOQC	
Peso / Weight	20 g



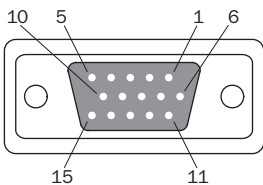
Cavo

A parte sono forniti i cavi maschio e femmina.

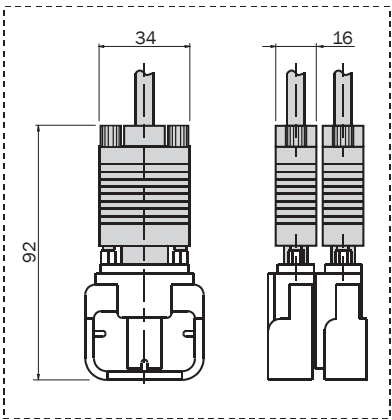
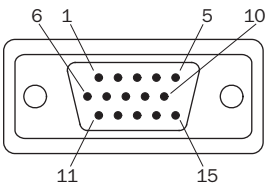
Cable

The male and female cables are supplied separately.

CEQC-A



CEQC-B



	CEQC-A	CEQC-B
Tipo di connessione I/O I/O connection type	15 pin D-SUB - Tipo VGA 15 pins D-SUB - VGA type	
Lunghezza cavo Cable length	1500 mm	
Conduttori Conductor	500 MW @ 500 V DC	
Isolamento Insulation	PVC codifica colori standard PVC premium grade color coded	
Schermatura Shield	100% alluminio - Pellicola di mylar - 28÷26 AWG 100% aluminum - Mylar foil - 28÷26 AWG	
Guaina Jacket	PVC nero Black PVC	
Temperatura di esercizio Temperature range	-55°C ÷ +105°C	
Gamma di tensione Voltage range	0 + 300 V	

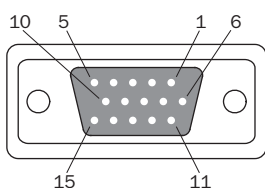
Connettori a cablare

A parte sono forniti i connettori a cablare maschio e femmina.
(Pin a saldare).

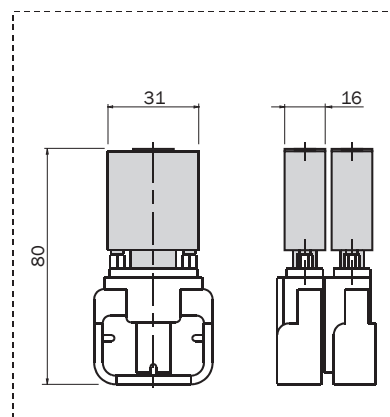
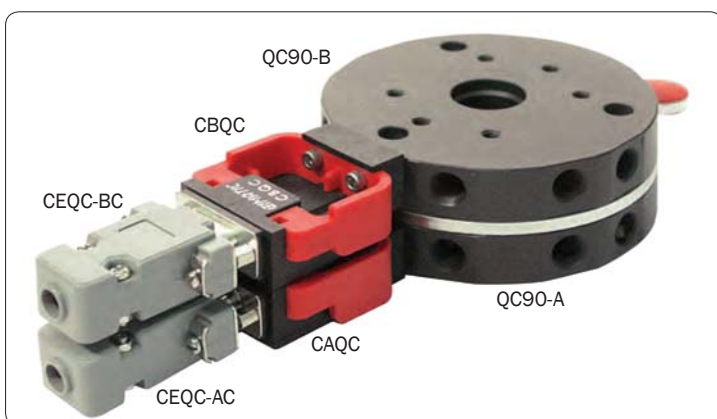
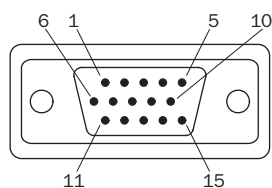
Cabling connectors

Male and female cabling connectors are supplied separately.
(Solder pin).

CEQC-AC



CEQC-BC



	CEQC-AC	CEQC-BC
Tipo di connessione I/O I/O connection type	15 pin D-SUB - Tipo VGA 15 pins D-SUB - VGA type	
Contatti Contacts	Rame Copper	
Isolamento Insulation	Poliestere Polyester	
Temperatura di esercizio Temperature range	-20°C ÷ +80°C	
Gamma di tensione Voltage range	0 ÷ 300 V	
Corrente massima Max current	3A	

Attuatore pneumatico per cambia utensile QC

- Sensori opzionali per la posizione del pistone (1) e per la prossimità del lato pinza QC...-B (2).
- Perfettamente compatibile con QC90-A e QC150-A esistenti (3), non con QCX90-A, QCY90-A e QCX150-A.

Pneumatic actuator for quick changer QC

- Optional sensors to detect piston position (1) and proximity of the QC...-B gripper side (2).
- Perfectly compatible with the existing QC90-A and QC150-A units (3). Not compatible with the QCX90-A, QCY90-A and QCX150-A units.

	AQC90	AQC150
Peso / Weight	560 g	1480 g



AQC90

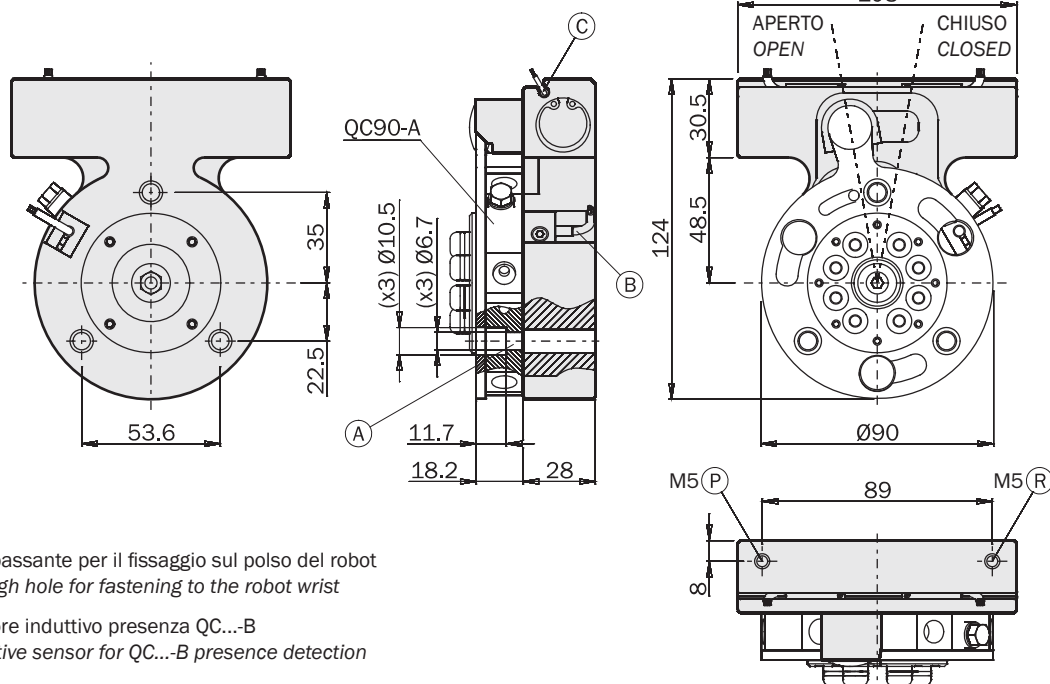


AQC150



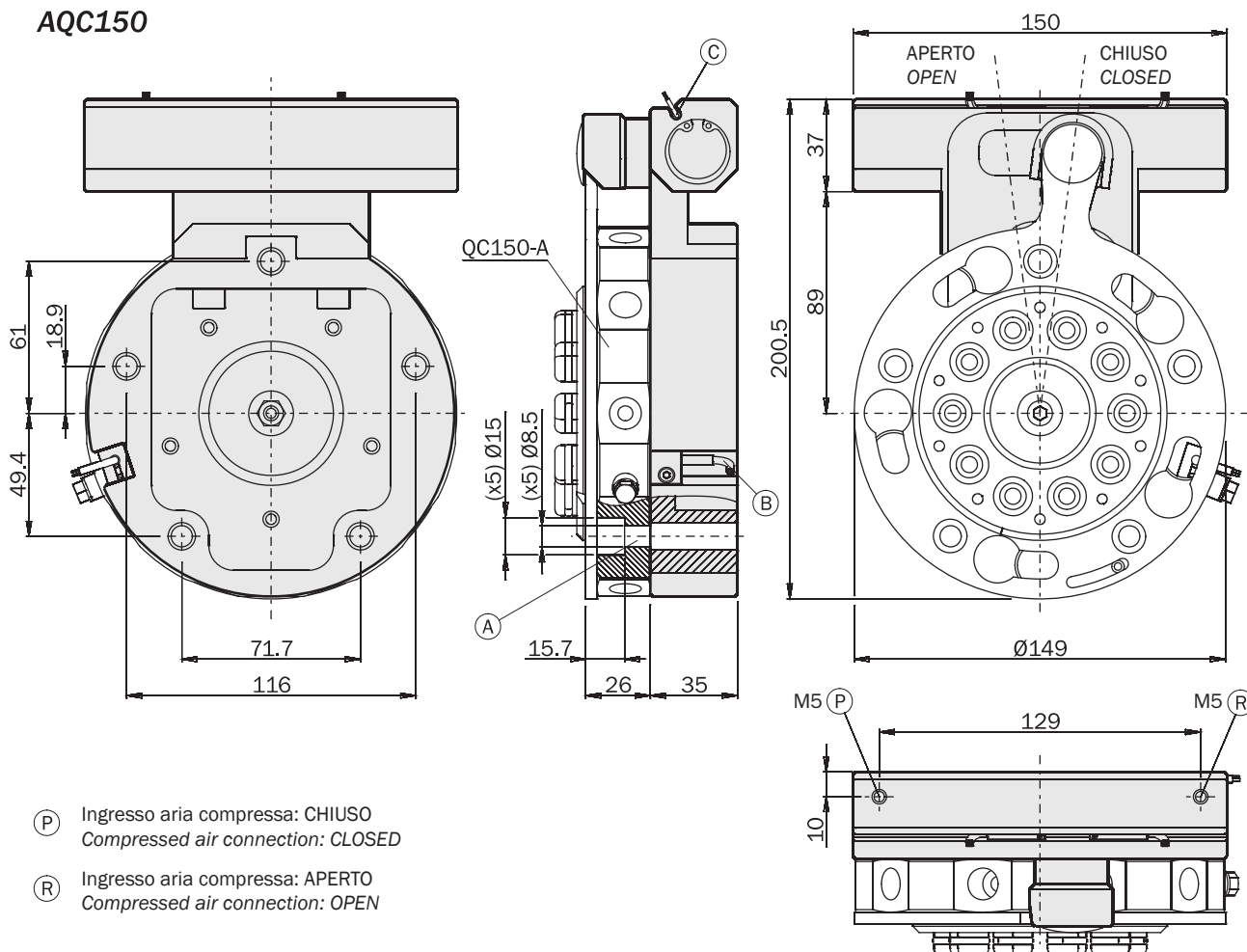
Dimensioni (mm) / Dimensions (mm)

AQC90



- (A) Foro passante per il fissaggio sul polso del robot
Through hole for fastening to the robot wrist
- (B) Sensore induttivo presenza QC...-B
Inductive sensor for QC...-B presence detection
- (C) Sede per sensori serie SS
Slot for SS series sensors

AQC150



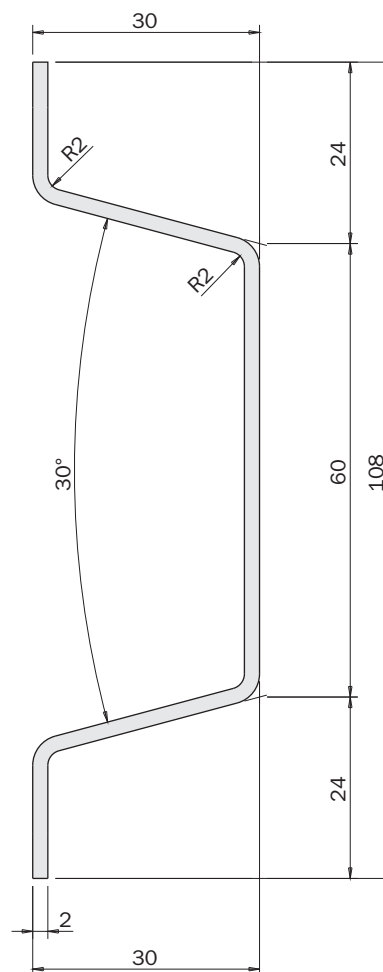
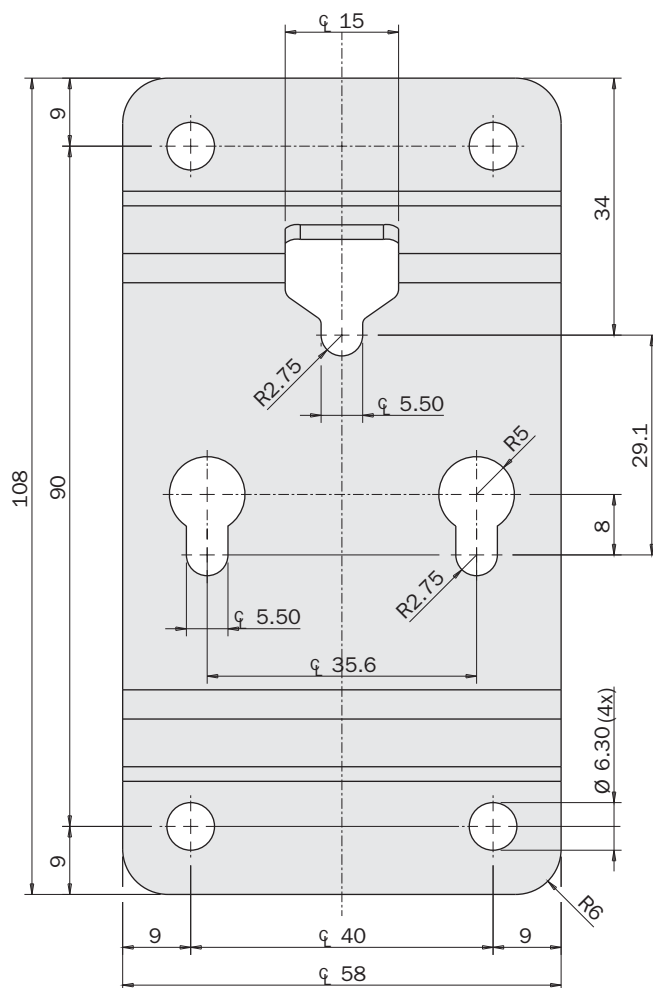
- (P) Ingresso aria compressa: CHIUSO
Compressed air connection: CLOSED
- (R) Ingresso aria compressa: APERTO
Compressed air connection: OPEN



**Magazzino per EOAT QC50-H
(da usare con QC50-B)**



EOAT Storage QC50-H
(to be used with QC50-B)

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

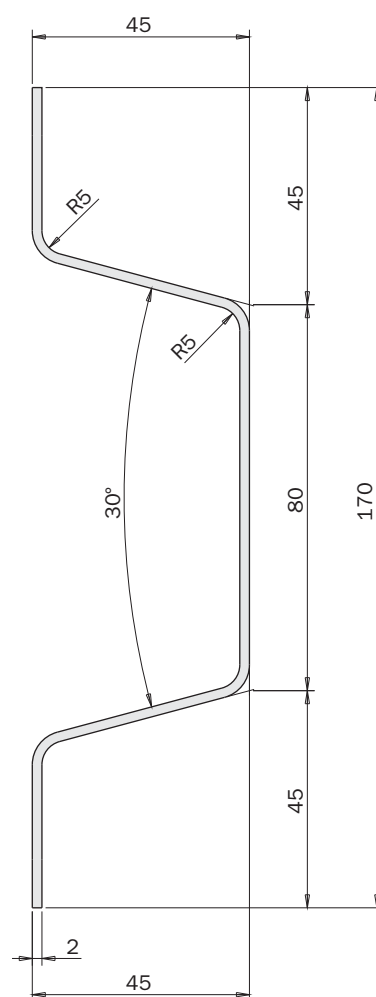
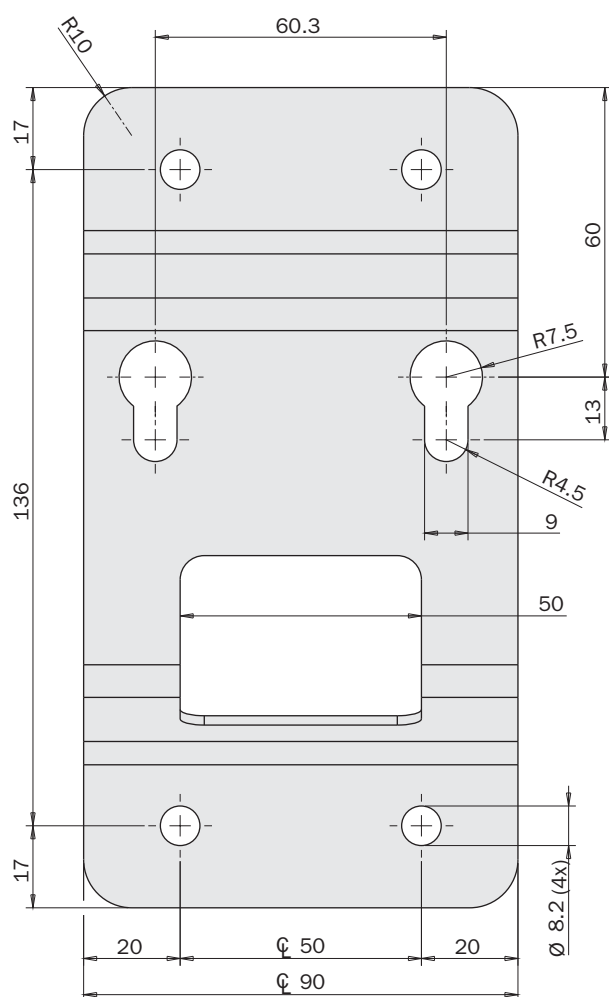
Magazzino per EOAT QC90-H
(da usare con QC90-B)



EOAT Storage QC90-H
(to be used with QC90-B)

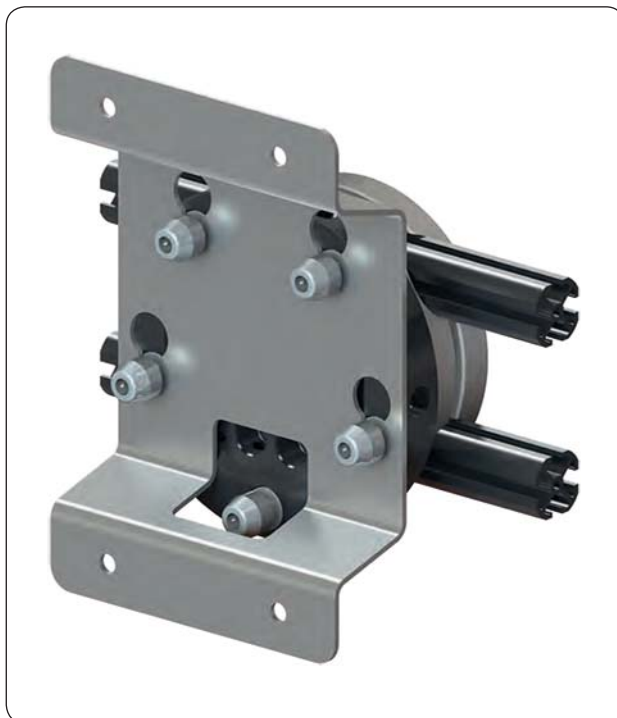


Dimensioni (mm) / Dimensions (mm)



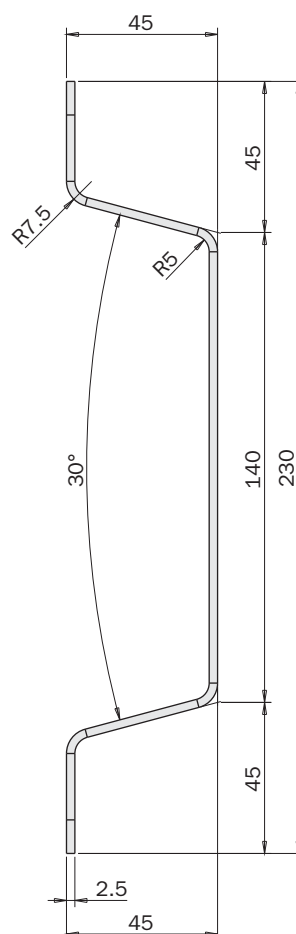
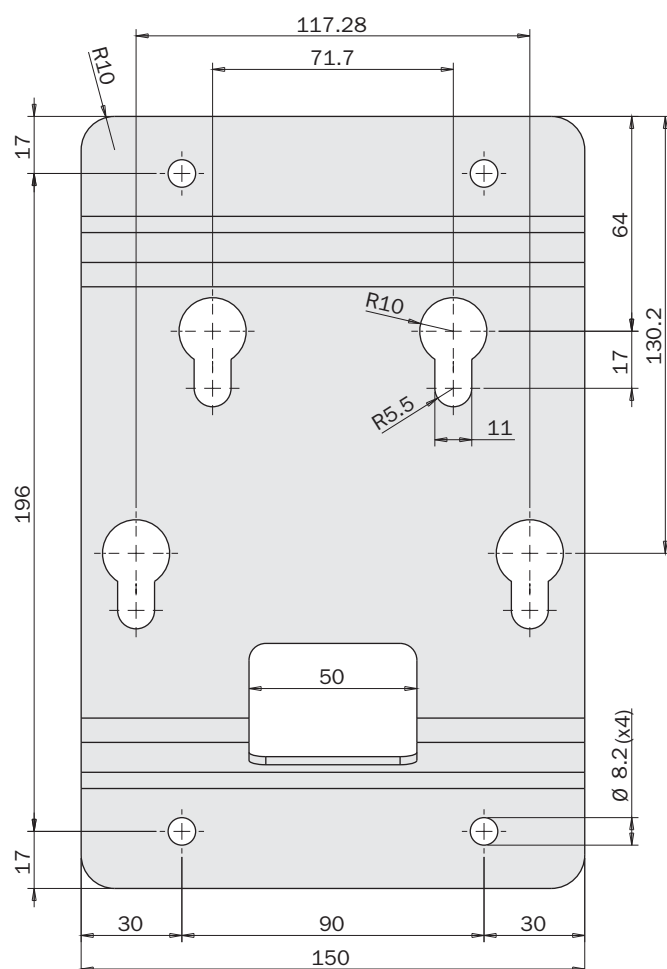
Magazzino per EOAT QC150-H
(da usare con QC150-B / QC160-B)

EOAT Storage QC150-H
(to be used with QC150-B / QC160-B)



Dimensioni (mm) / Dimensions (mm)

FIRST ANGLE
PROJECTION



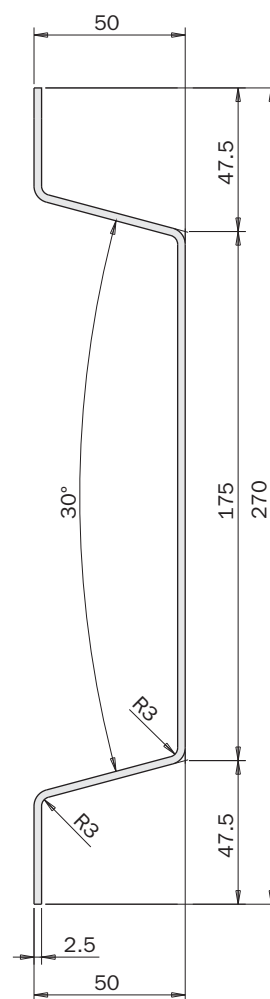
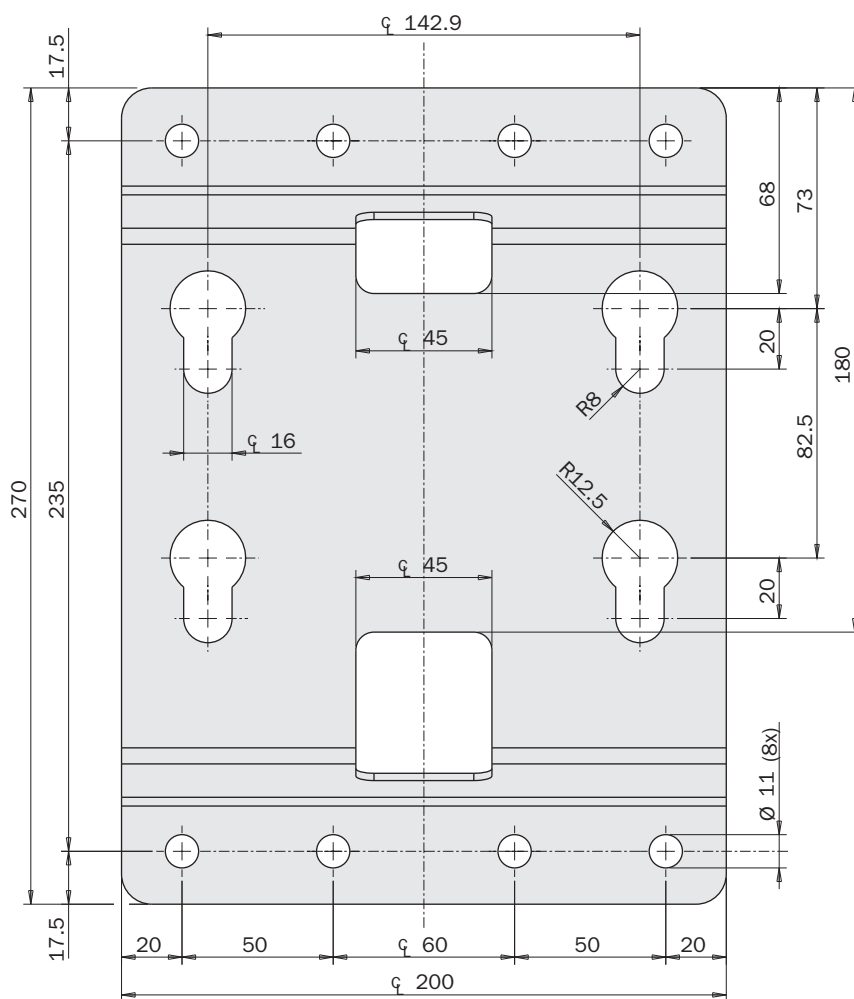
Magazzino per EOAT QC200-H
(da usare con QC200-B)



EOAT Storage QC200-H
(to be used with QC200-B)



Dimensioni (mm) / Dimensions (mm)

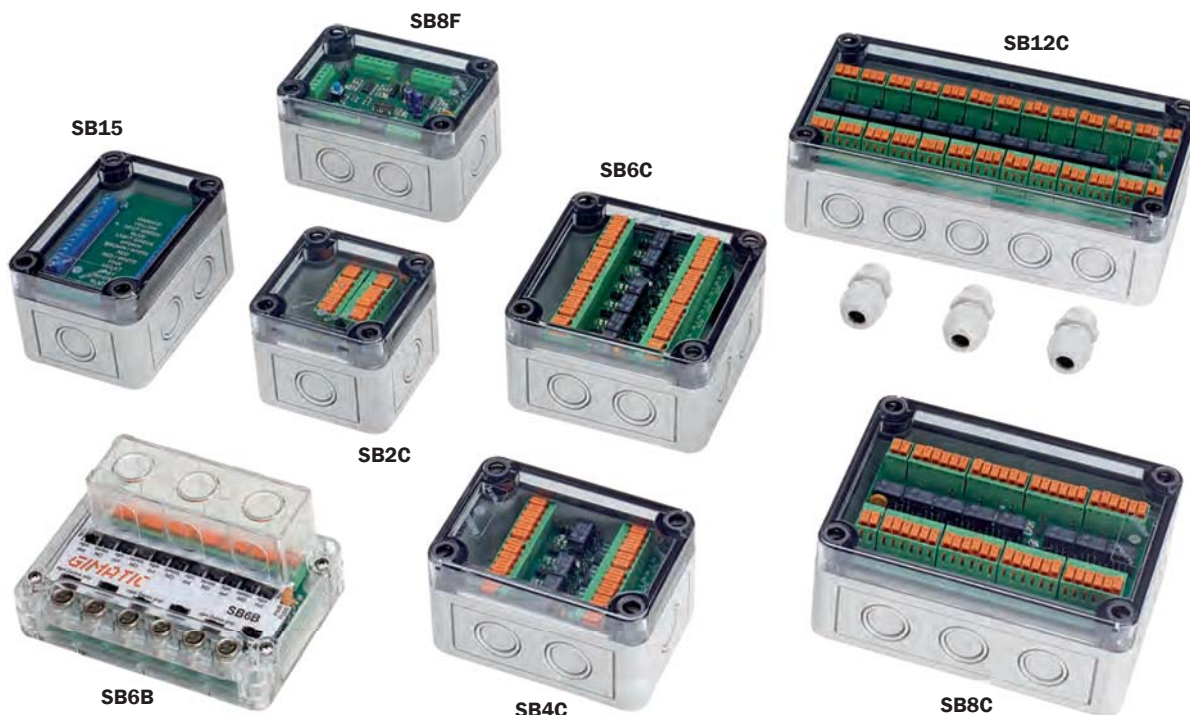


Scatole di derivazione per sensori serie SB

- Usate per il cablaggio dei sensori degli EOAT.
- Segnali PNP ed NPN possono essere convertiti.
- Ingressi ed uscite possono essere di tipo source (PNP), sink (NPN) o contatto pulito.
- Parecchie scatole possono essere connesse in serie per ampliare il numero di sensori gestibili.
- LED di ripetizione del segnale in ingresso per semplificare la ricerca dei guasti (non per SB15).
- Fornite con serracavo e kit per il fissaggio al profilo.

Sensor boxes series SB

- Used for sensor wiring on the EOATs.
- PNP and NPN signals can be converted.
- I/O can be current sourcing (PNP), sinking (NPN) or dry contact.
- Several boxes can be connected in a series to manage more sensors.
- Input LED indications for easy trouble-shooting (not for SB15).
- Provided with strain reliefs and kit for fastening to the profile.



La scatola di connessione sensori è un'interfaccia realizzata per condizionare i segnali dei sensori al fine di renderli idonei all'elettronica di comando tipo PLC (Programmable Logic Controller). Incorpora diverse funzionalità tra cui la possibilità di mettere in SERIE sensori anche diversi tra loro, convertirne i segnali, eseguire ricerche guasti, preservare i circuiti di comando, rigenerare i segnali in caso di lunghi cablaggi e preservare i contatti.

Ogni ingresso della scatola di connessione è infatti dotato di selettore a scorrimento o jumper per definire il tipo di sensore (PNP, NPN, 2 fili NO/NC).

Tali segnali sono poi condizionati a mezzo relè o micro-processore per fornire una o più uscite a seconda delle necessità.

A loro volta le uscite sono selezionabili a mezzo di selettore a scorrimento o jumper dandoci la possibilità di avere segnali PNP, NPN o tipo relè, tutti in modalità Normalmente Aperto (NA) oppure Normalmente Chiuso (NC).

Ogni cablaggio è reso veloce e agevole dall'adozione di particolari morsettiere.

Il tutto è protetto da un sistema a fusibile Auto-Ripristinante utile a preservare l'integrità dell'elettronica di comando da eventuali situazioni di corto circuito.

La scheda è dotata di LED di segnalazione visibili dal coperchio trasparente utili per la ricerca di guasti (trouble shooting): talvolta non è agevole vedere se un finecorsa montato in macchina lavora in maniera corretta.

Il tutto è fornito in una scatola industriale dotata di pressa cavi PG9 che garantisce un grado di protezione della scheda fino all'IP65.

The sensor junction box is an interface designed to condition the sensor signals, in order to make them suitable for the PLC (Programmable Logic Controller) control electronics.

This box integrates several functions, including the possibility to connect sensors – even of different type – in **SERIES**, convert their signals, perform troubleshooting, protect control circuits, regenerate signals in the case of long wiring and protect contacts. In fact, each input of the junction box is equipped with a jumper or sliding selector to set the sensor type (PNP, NPN, 2 wire NO/NC). The signals are then conditioned by relay or microprocessor in order to supply one or more outputs according to needs.

Outputs can also be selected by a jumper or sliding selector to have PNP, NPN or relay signals, all of them in Normally Open (NO) or Normally Closed (NC) mode.

Each wiring is made quicker and easier by using special terminal blocks.

Everything is protected by a self-restoring fuse system which protects the control electronics from possible short-circuits. The card is equipped with signalling LEDs, visible from the transparent lid, which are very useful for troubleshooting, as it is not generally easy to see if a limit switch fitted to the machine works properly.

Everything is supplied in a box with PG9 cable glands with a protection degree of up to IP65.

Scatola di derivazione a connessione diretta

- Usate per la connessione dei sensori presenti sulle strutture di presa EOAT.
- Possibilità di collegare sensori Magnetici, Induttivi, meccanici, Fotoelettrici, Capacitivi, Ultrasuoni, ecc...
- Connessione diretta con connettori M8x1 ①.
- Ingressi PNP/NPN/2 fili selezionabili tramite interruttore a scorrimento ②.
- Corpo PA trasparente per la visione dei LED ingressi.
- Protezione corto circuito ripristinabile visibile a mezzo LED rosso ③.
- Uscite PNP/NPN/relè selezionabili tramite interruttore a scorrimento ④.
- Semplici terminali a pressione per le uscite che evitano l'utilizzo di utensili ⑤.
- Possibilità di convertire segnali ingresso da PNP/NPN/2fili ad uscita PNP/NPN/relè.
- Possibilità di avere uscite singole o serie Normalmente aperte o Normalmente chiuse.
- Profilo basso per integrarsi perfettamente nelle strutture di presa EOAT.
- Peso ridotto per alleggerire la struttura.
- Kit di fissaggio per profili Gimatic incluso.
- Semplice ed intuitivo sistema di settaggio con serigrafia Gimatic.
- O-Ring di tenuta viti coperchio.
- Serracavi PG9 di cablaggio uscite inclusi.
- Connettori M8 maschi a cablare opzionali.

Terminal box with direct connection

- Used to connect the sensors located on the End-of-Arm Tooling (EOAT).
- Various types of sensors can be connected, magnetic, inductive, mechanical, photoelectric, capacitive, ultrasonic, etc...
- Direct connection with M8x1 connectors ①.
- PNP/NPN/2-wire inputs selectable by sliding switches ②.
- Transparent PA body to increase inputs LED visibility.
- Short circuit protection with auto-fuse and RED led indicator ③.
- PNP/NPN/relay outputs selectable by sliding switches ④.
- Easy push terminals for outputs, no tools required ⑤.
- Inputs signals from PNP/NPN/2-wire can be converted to PNP/NPN/relay output.
- Single or in series outputs can be set as Normally Open or Normally Closed.
- Low profile for perfect integration into EOAT's structures.
- Low weight to reduce the structure's weight.
- Fastening kit for Gimatic profiles included.
- Easy setting system with Gimatic silkscreen.
- O-Ring for cover screws.
- Output wiring PG9 strain relief included.
- Optional M8 male wiring connectors.



Scatola di derivazione a connessione diretta

Funzionamento

Una volta cablati gli ingressi (AREA GRIGIA) come specificato sulla scheda selezionare a mezzo interruttore a scorrimento o jumper il tipo di segnale d'ingresso (AREA MARRONE). Poi selezionare a mezzo interruttore a scorrimento o jumper il tipo di uscita (PNP, NPN, relay) necessaria (AREA ROSSA) e se le uscite devono essere messe in serie (NA oppure NC senza caduta di tensione) o in parallelo (AREA BLU). Terminata la selezione andiamo a cablare le uscite (AREA GIALLA).

Alimentazione

24 V dc ($\pm 10\%$)

Ingressi

Fino a 6 sensori PNP, NPN o contatto pulito (NA o NC) (AREA GRIGIA) selezionabili tramite jumper (AREA MARRONE).

Uscite

Da 1 a 6 uscite PNP, NPN o contatto pulito (NA) (AREA GIALLA) selezionabili tramite jumper (AREA ROSSA).

Terminal box with direct connection

Functioning

After the inputs have been cabled (Grey Area) as shown on the circuit board you must use "Jumper" to select the Inputs signal type (Brown Area). Then use "Jumper" to define if you want to convert the input signals in NO/NC series or parallel outputs (Blue area). Use "Jumper" also to select the Output signal (PNP; NPN; relay) (Red Area) through a relay circuit so as to avoid the voltage drop. When the selection is completed, the Outputs (Yellow Area) are to be cabled.

Power supply

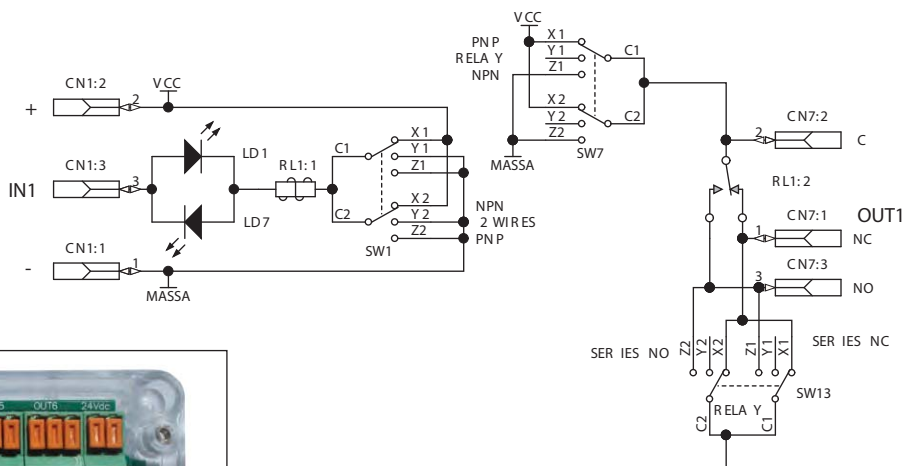
24 V dc ($\pm 10\%$)

Inputs

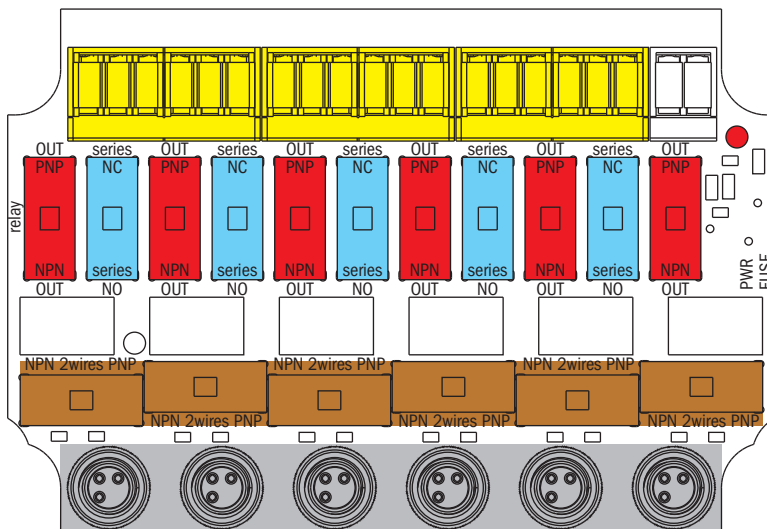
Maximum 6 PNP, NPN or dry contact (NO or NC) (GREY AREA) sensors switched by jumpers (BROWN AREA).

Outputs

1 up to 6 PNP, NPN or dry contact (NO) outputs (YELLOW AREA) switched by jumpers (RED AREA).



Schema circuito
Layout circuit



Esempio di utilizzo / Application example

Alimentazione

Power supply

24 V dc ($\pm 10\%$)

Ingressi

Inputs

2 PNP INPUTS (IN3/IN6)

2 NPN INPUTS (IN1/IN4)

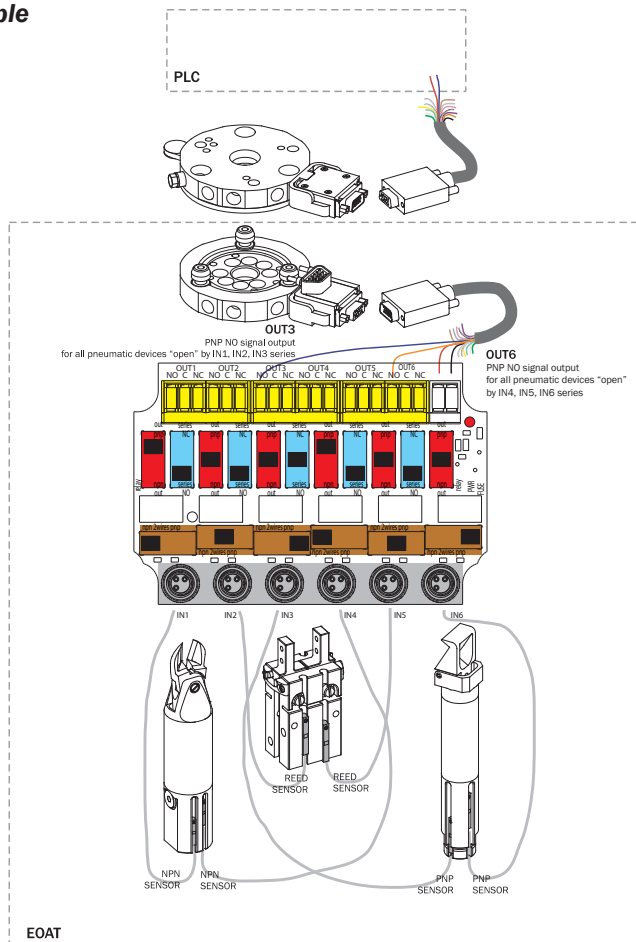
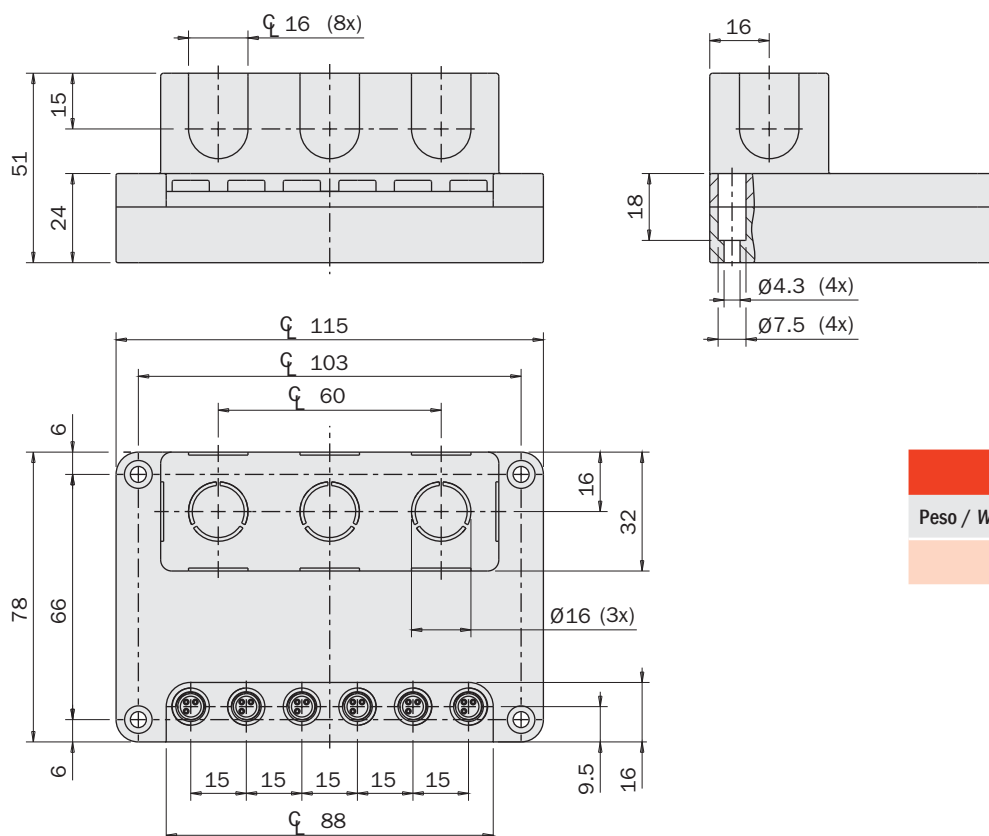
2 DRY CONTACT (IN2/IN5)

Uscite

Outputs

1 PNP OUTPUT SERIES (OUT3)

1 NPN OUTPUT SERIES (OUT6)

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

	SB6B
Peso / Weight	193 g

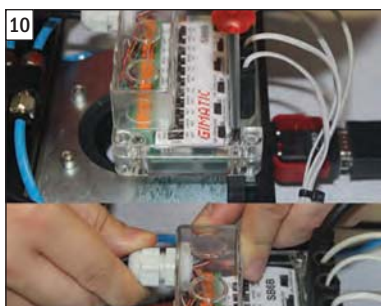
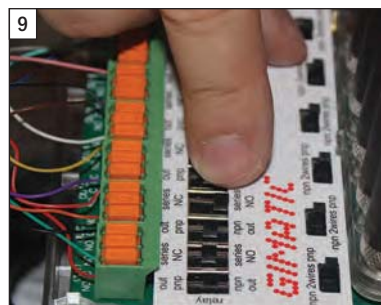
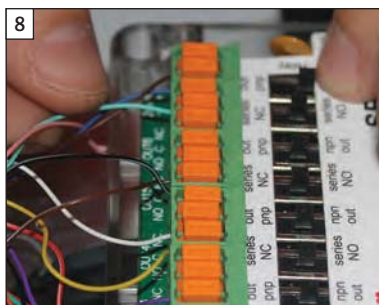
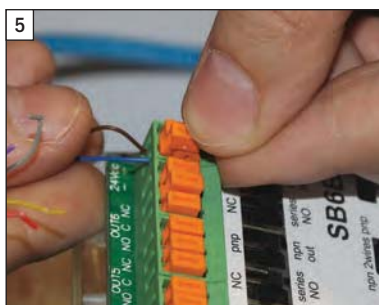
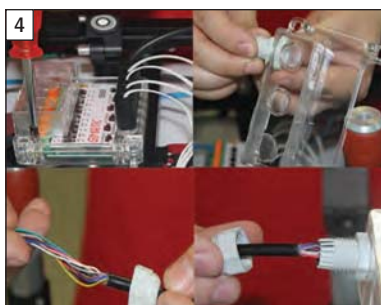
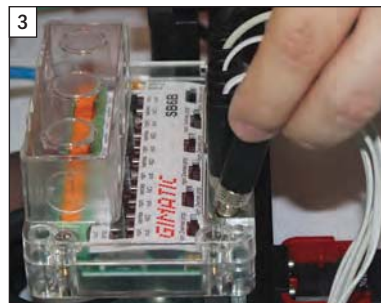
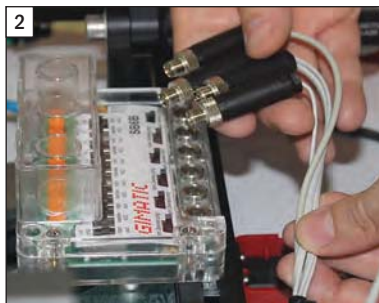
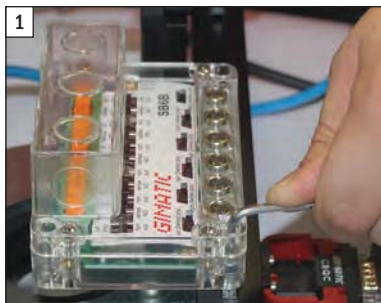


Procedura applicativa

- Posizionare e fissare la scatola al profilo Gimatic ^[1].
- Svolgere i cavi sensori fino alla zona ingressi ^[2].
- Collegare connettore M8 oppure applicare connettori a cablare opzionali (CMGM800300) ^[3].
- Aprire il coperchio, forare e applicare il PG9 ^[4].
- Cablare alimentazione +24Vdc ^[5].
- Definire tipo d'ingresso tramite gli interruttori a scorrimento, alimentare le scatole e verificare se il sensore funziona ^[6].
- Cablare uscita e selezionare il tipo PNP/NPN/relè tramite interruttore a scorrimento alla prima uscita della serie ^[7].
- In caso di uscite PNP/NPN è possibile fare riferimento al morsetto dell'alimentazione per +24Vdc e massa ^[8].
- Selezionare tramite interruttori a scorrimento la logica della serie Normalmente Aperta oppure Normalmente Chiusa ^[9].
- Chiudere il coperchio e serrare il PG9 ^[10].

Fitting procedure

- Position and fix the box to the Gimatic profile ^[1].
- Unroll the sensor cables to the input area ^[2].
- Connect the M8 connector or use the optional wiring connectors (CMGM800300) ^[3].
- Open the transparent cover, drill the holes and fit the PG9 strain relief ^[4].
- Wire the 24Vdc power supply ^[5].
- Set the input type by means of the sliding switches, power the box and check if the sensor is working ^[6].
- Wire the output and select the PNP/NPN/relay type by means of the sliding switch at the first output of the series ^[7].
- In case of PNP/NPN outputs, reference can be made to the 24Vdc power supply terminal or to the ground ^[8].
- Select the Normally Open or Normally Closed series logic by means of the sliding switches ^[9].
- Close the transparent cover and fasten the PG9 strain relief ^[10].

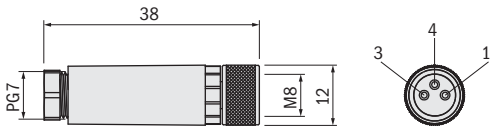
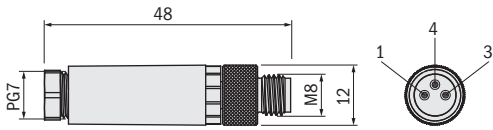


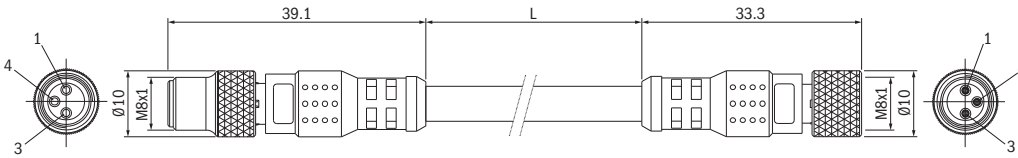
Connettori M8 a cablare opzionali

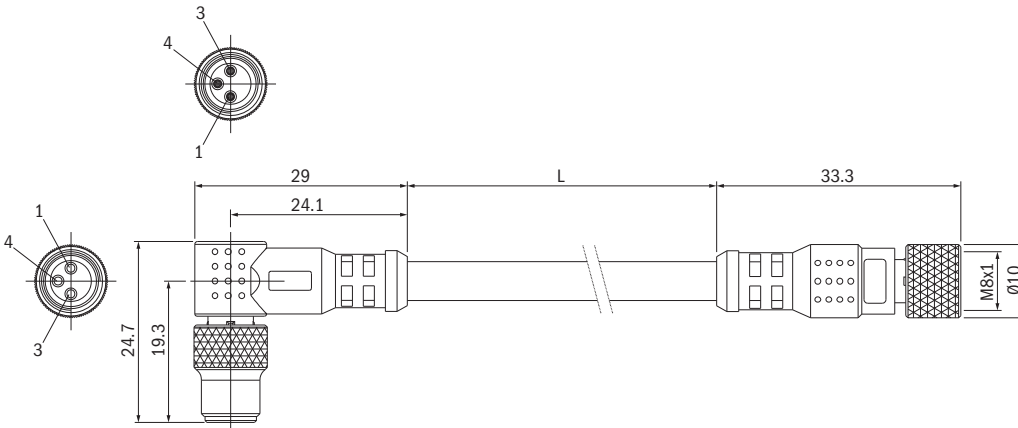
Nel caso di sensori con uscita cavo è possibile tagliare il cavo a misura e connettere un connettore M8 a cablare con terminali a vite.

Optional M8 male wiring connectors

In case of sensors with cable output, the cable can be cut to size and a M8 male wiring connector can be fitted with screw terminals.

	CFGM800300	CMGM800300
Tipo / Type	M8 3 poli 0° femmina M8 3-pole 0° female	M8 3 poli 0° maschio M8 3-pole 0° male
Peso / Weight	11 g	11 g
		
		

	CMGM800310CFGM8003	CMGM800320CFGM8003
Tipo / Type	M8 3 poli 0° maschio - M8 3 poli 0° femmina M8 3-pole 0° male - M8 3-pole 0° female	
Cavo / Cable	L = 1m	L = 2m
Peso / Weight	37 g	64 g
		

	CMGM890310CFGM8003	CMGM890320CFGM8003
Tipo / Type	M8 3 poli 90° maschio - M8 3 poli 0° femmina M8 3-pole 90° male - M8 3-pole 0° female	
Cavo / Cable	L = 1m	L = 2m
Peso / Weight	38 g	65 g
		

Scatola di comando a microprocessore

Funzionamento

Quando si preme il pulsante AUTOSSET, il microprocessore memorizza lo stato degli ingressi (AREA GRIGIA). Dopodichè l'uscita (AREA GIALLA) verrà abilitata ogni volta che si ripresenta la medesima configurazione degli ingressi.

Alimentazione

24 V dc ($\pm 10\%$)

Ingressi

Fino a 8 sensori PNP, NPN o contatto pulito (NA o NC) selezionabili tramite jumper (AREA MARRONE).

Uscite

1 uscita PNP, NPN o contatto pulito (NA o NC) (AREA GIALLA).

Microprocessor sensor box

Functioning

When the autaset button is pressed, the microprocessor memorizes the status of the inputs (GREY AREA). Afterwards the output (YELLOW AREA) will be activated every time the same input configuration happens again.

Power supply

24 V dc ($\pm 10\%$)

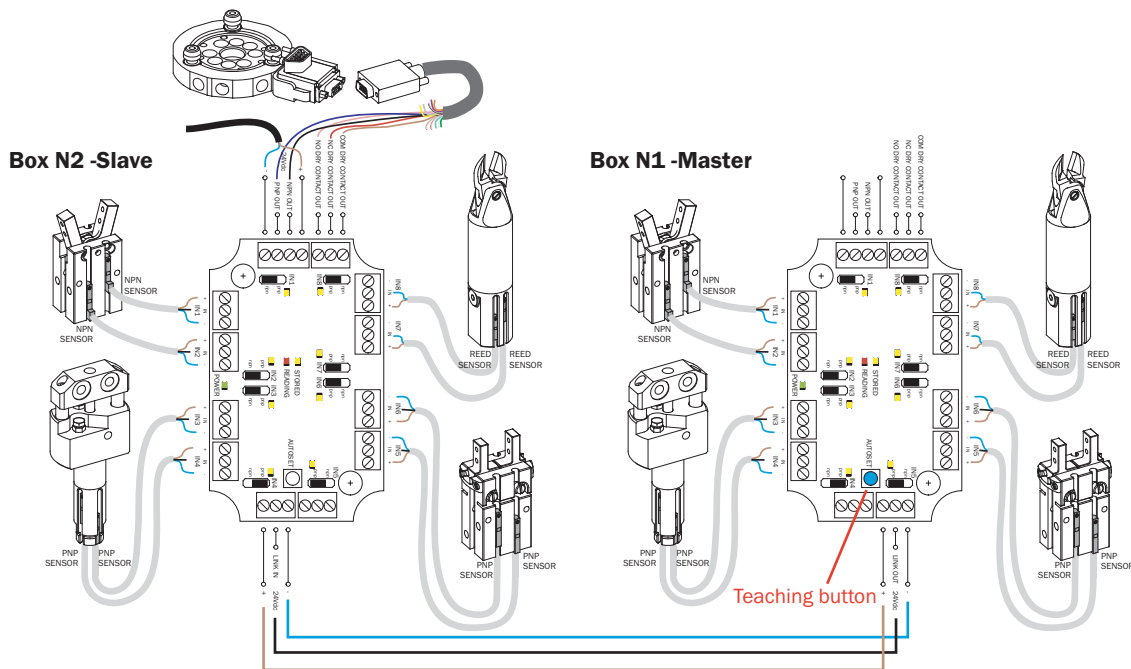
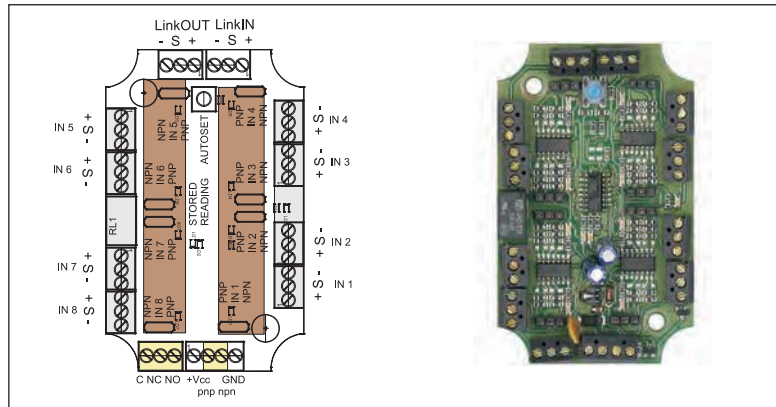
Inputs

Maximum 8 PNP, NPN or dry contact (NO or NC) sensors switched by jumpers (BROWN AREA).

Outputs

1 PNP, NPN or dry contact (NO or NC) (YELLOW AREA) output.

Schema circuito
Layout circuit



Esempio di utilizzo / Application example

Alimentazione

Power supply
24 V dc ($\pm 10\%$)

Ingressi

Inputs
2 NPN INPUTS (IN1/IN2)
4 PNP INPUTS (IN3/IN4/IN5/IN6)
2 DRY CONTACT (IN7/IN8)

Uscite

Outputs
1 PNP OUTPUT
1 NPN OUTPUT
1 DRY CONTACT NC OUTPUT
1 DRY CONTACT NO OUTPUT

Scatola di derivazione con logica a relè NA/NC

Funzionamento

Una volta cablati gli ingressi (AREA GRIGIA) come specificato sulla scheda selezionare a mezzo "Jumper" il tipo di segnale d'ingresso (AREA MARRONE). Poi selezionare a mezzo "Jumper" il tipo di uscita (PNP, NPN, relay) necessaria (AREA ROSSA) e se le uscite devono essere messe in serie (NA oppure NC senza caduta di tensione) o in parallelo (AREA BLU). Terminata la selezione andiamo a cablare le uscite (AREA GIALLA).

Alimentazione:

24 V dc ($\pm 10\%$)

Ingressi

SB2C Fino a 2 sensori PNP, NPN o contatto pulito (NA o NC) (AREA GRIGIA) selezionabili tramite jumper (AREA MARRONE).
SB4C Fino a 4 ...
SB6C Fino a 6 ...
SB8C Fino a 8 ...
SB12C Fino a 12 ...

Uscite

SB2C Da 1 a 2 uscite PNP, NPN o contatto pulito (NA) (AREA GIALLA) selezionabili tramite jumper (AREA ROSSA).
SB4C Da 1 a 4 uscite ...
SB6C Da 1 a 6 uscite ...
SB8C Da 1 a 8 uscite ...
SB12C Da 1 a 12 uscite ...

NO/NC relay logic board

Functioning

After the inputs have been cabled (Grey Area) as shown on the circuit board you must use "Jumper" to select the Inputs signal type (Brown Area). Then use "Jumper" to define if you want to convert the input signals in NO/NC series or parallel outputs (Blue area). Use "Jumper" also to select the Output signal (PNP; NPN; relay) (Red Area) through a relay circuit so as to avoid the voltage drop. When the selection is completed, the Outputs (Yellow Area) are to be cabled.

Power supply:

24 V dc ($\pm 10\%$)

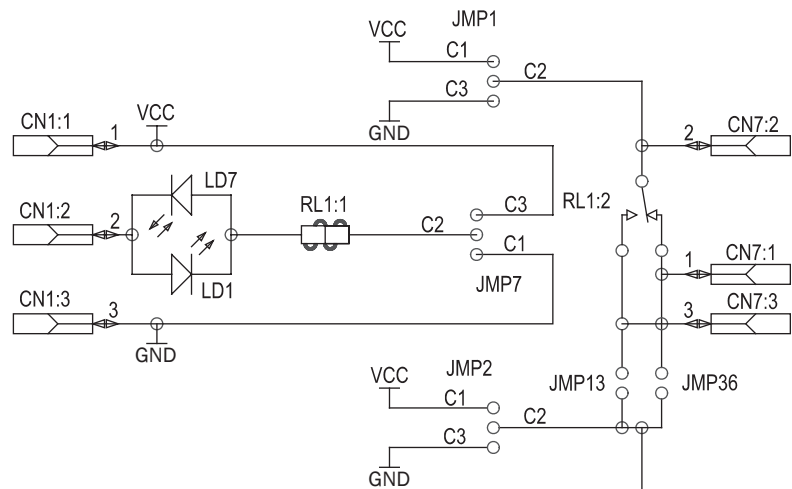
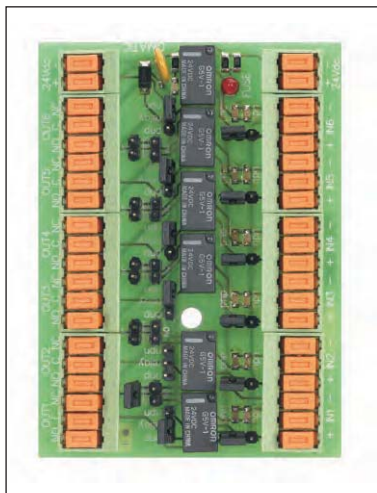
Inputs

SB2C Maximum 2 PNP, NPN or dry contact (NO or NC) (GREY AREA) sensors switched by jumpers (BROWN AREA).
SB4C Maximum 4 ...
SB6C Maximum 6 ...
SB8C Maximum 8 ...
SB12C Maximum 12 ...

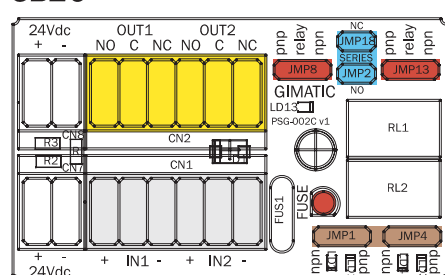
Outputs

SB2C 1 up to 2 PNP, NPN or dry contact (NO) outputs (YELLOW AREA) switched by jumpers (RED AREA).
SB4C 1 up to 4 ...
SB6C 1 up to 6 ...
SB8C 1 up to 8 ...
SB12C 1 up to 12 ...

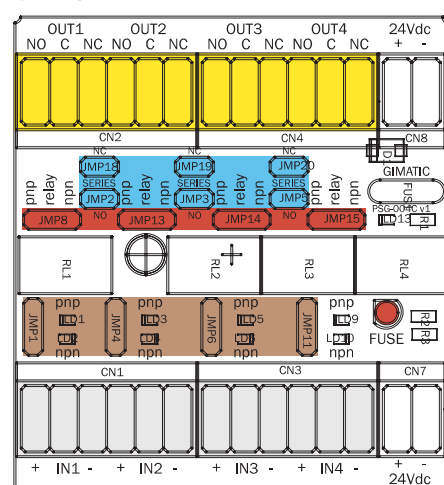
Schema circuito
Layout circuit



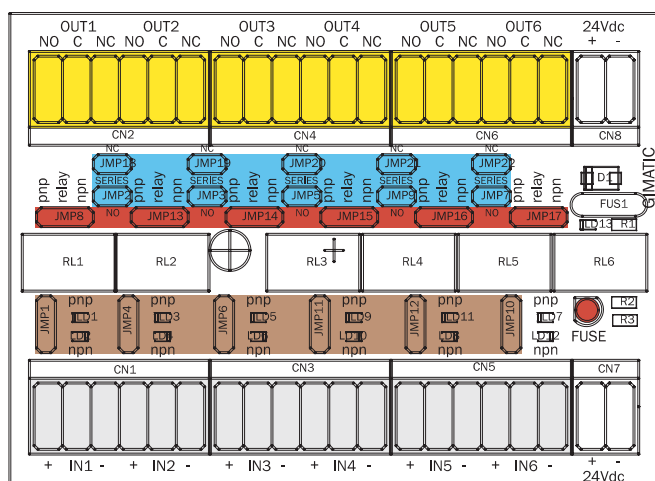
SB2C



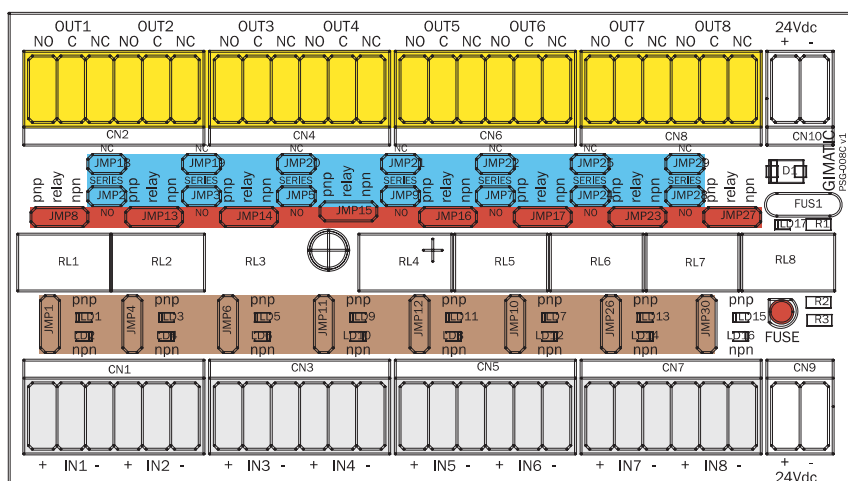
SB4C



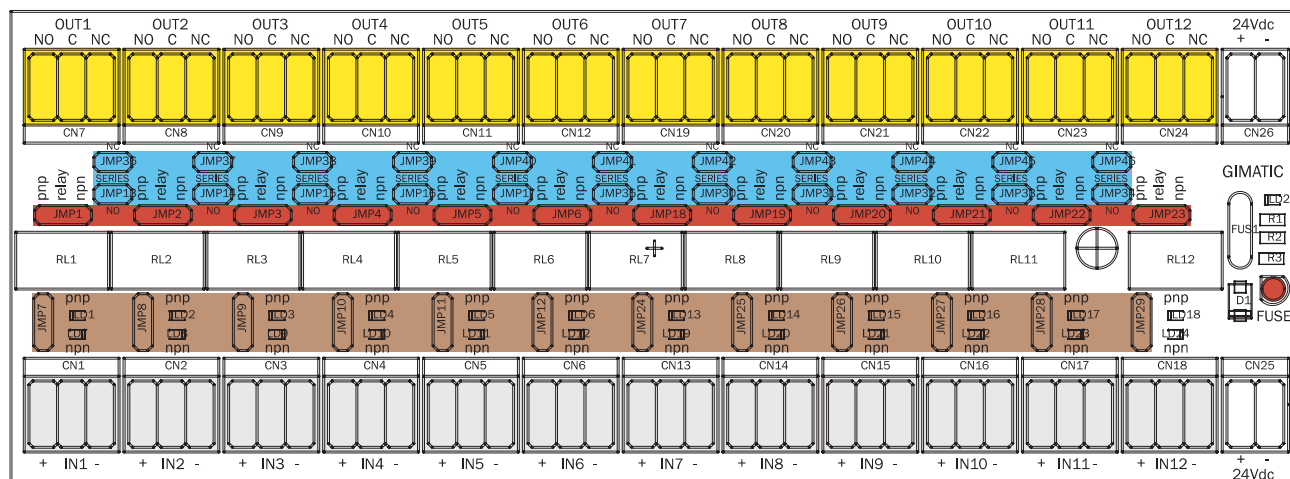
SB6C



SB8C



SB12C



Esempio di utilizzo / Application example

Alimentazione

Power supply

24 V dc ($\pm 10\%$)

Ingressi

Inputs

2 PNP INPUTS (IN3/IN6)

2 NPN INPUTS (IN1/IN4)

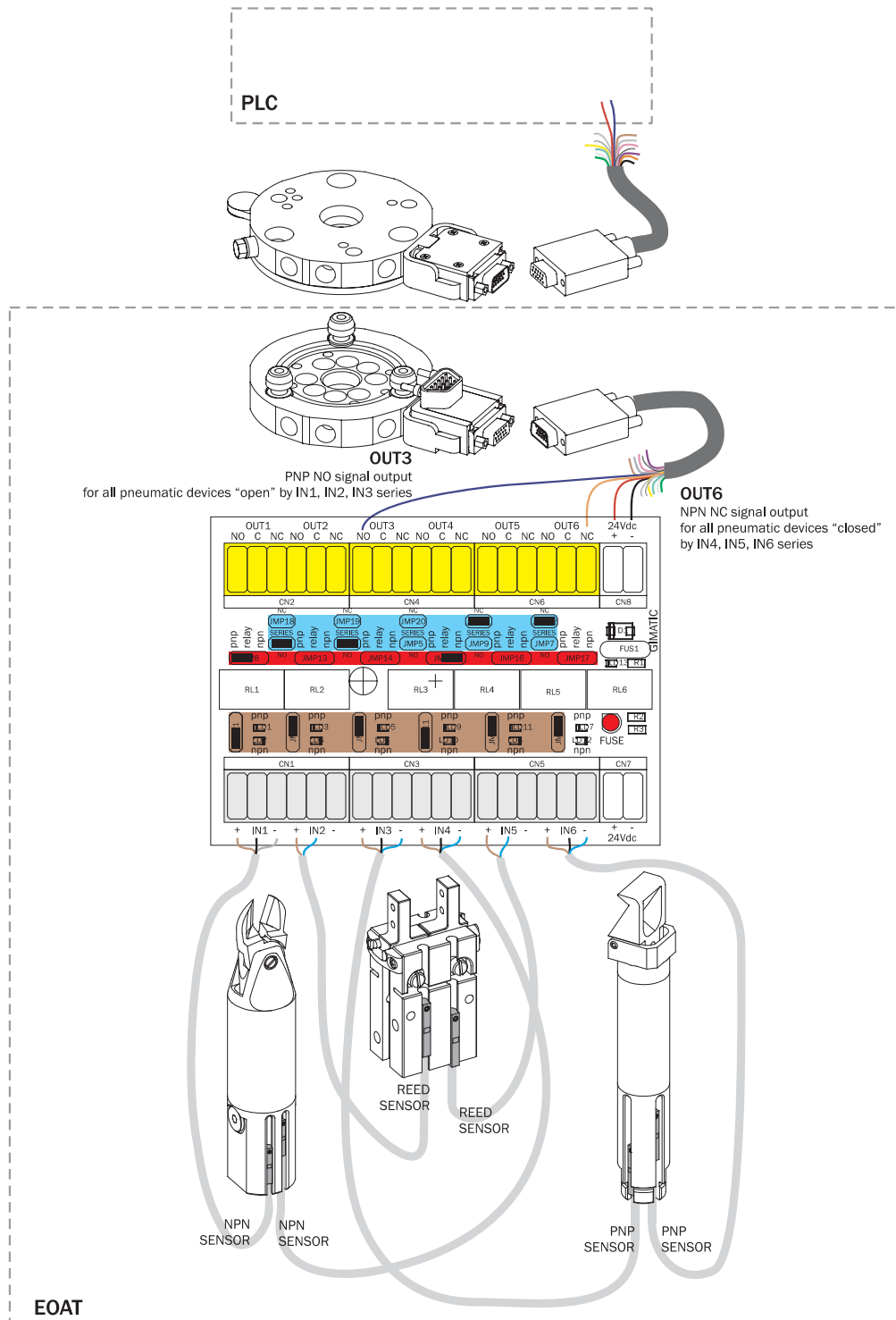
2 DRY CONTACT (IN2/IN5)

Uscite

Outputs

1 PNP OUTPUT SERIES (OUT3)

1 NPN OUTPUT SERIES (OUT6)



Scatola di cablaggio con terminali

Funzionamento

Il circuito con terminali a vite è usato per collegare i moduli CAQC e CBQC ai sensori ed alle scatole SB2C, SB4C, SB6C, SB8C, SB12C e SB8F.

Alimentazione

24 V dc ($\pm 10\%$)

Ingressi

15 ingressi (diretti all'uscita)

Uscite

15 uscite (dirette dall'ingresso)

Terminal cabling box

Functioning

The terminal circuit board is used to link CAQC and CBQC modules to sensors SB2C, SB4C, SB6C, SB8C, SB12C and SB8F sensor box.

Power supply

24 V dc ($\pm 10\%$)

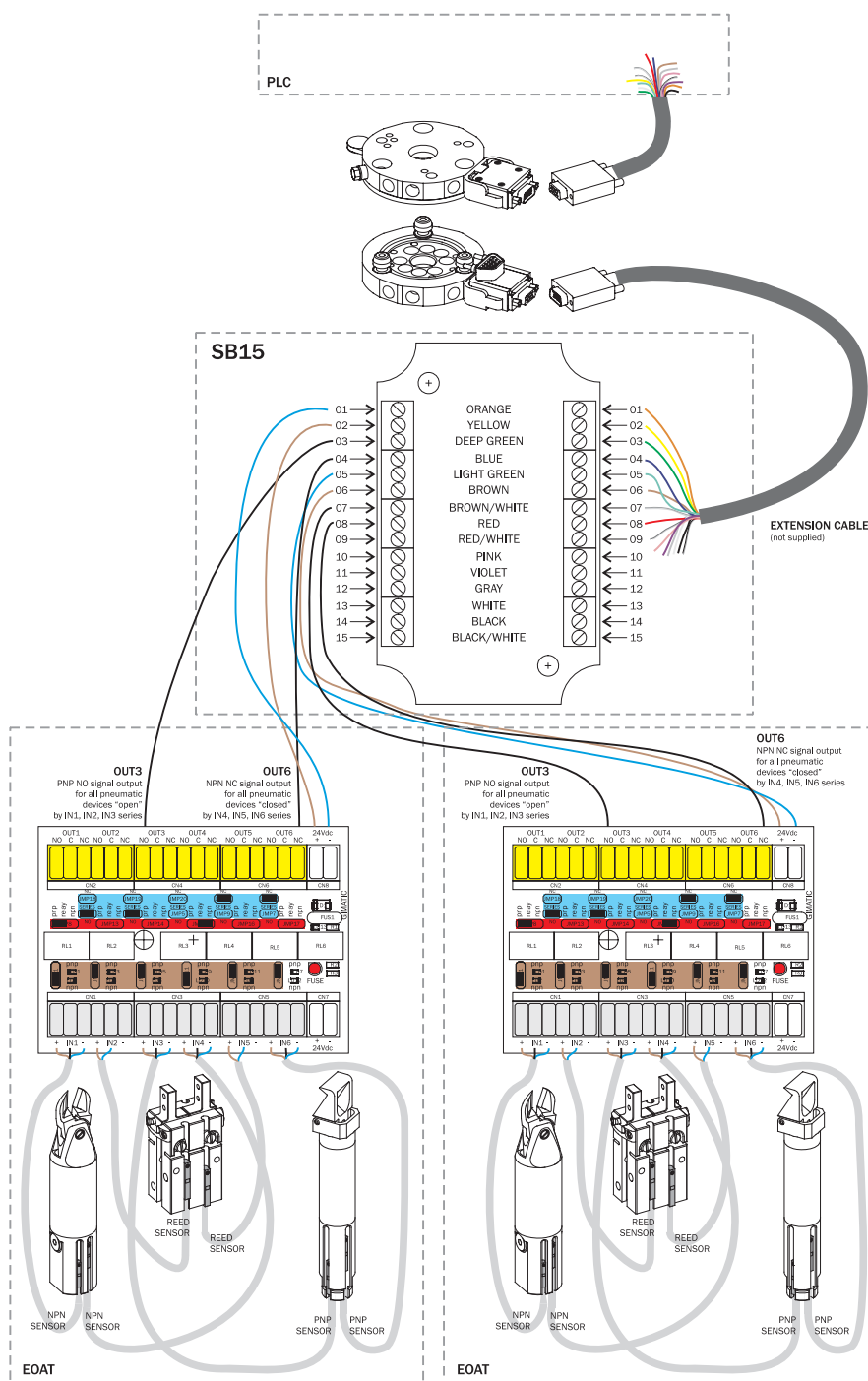
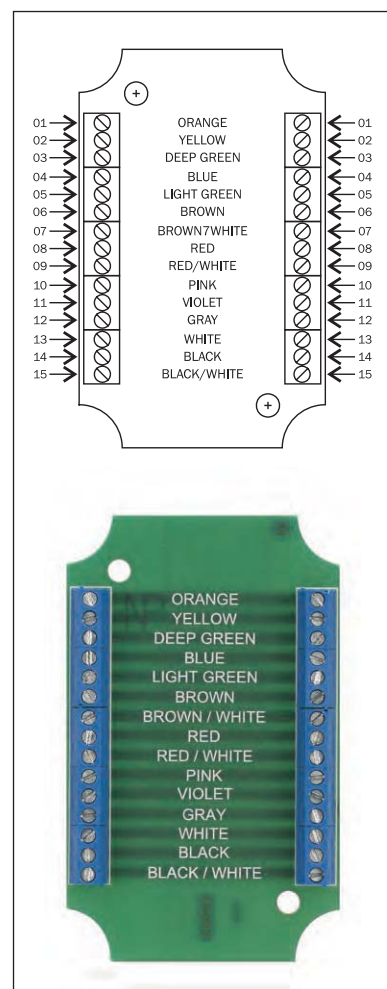
Inputs

15 inputs (to outputs)

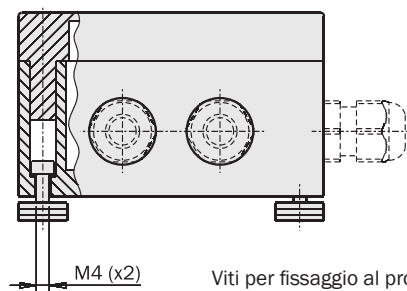
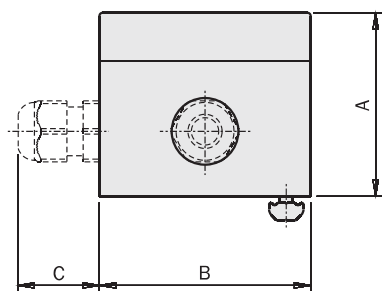
Outputs

15 outputs (from inputs)

Schema circuito
Layout circuit



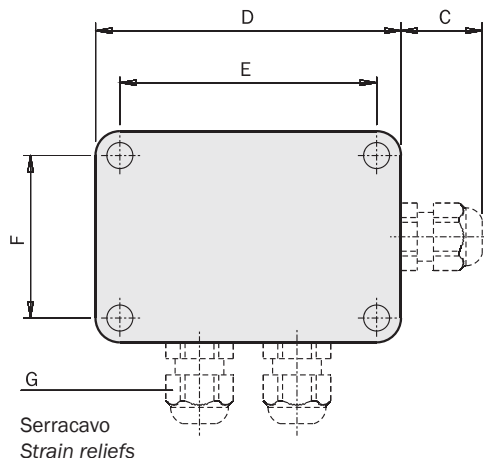
Dimensioni (mm) / Dimensions (mm)



Viti per fissaggio al profilo estruso
Screws for fastening to the extruded profile

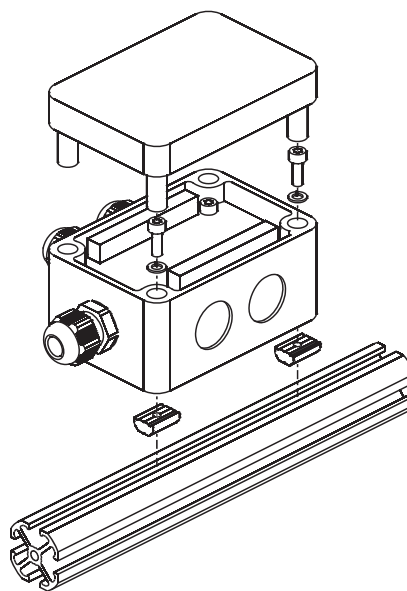
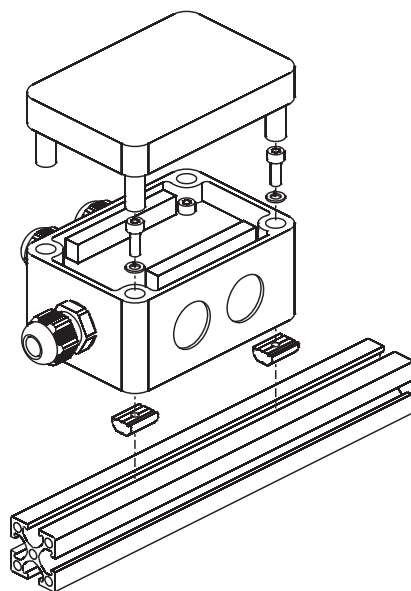
Serracavo (G) e viti per fissaggio forniti
in confezione

Strain reliefs (G) and fixing screws
included in the packaging



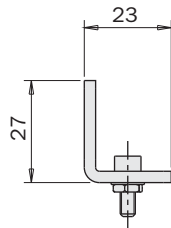
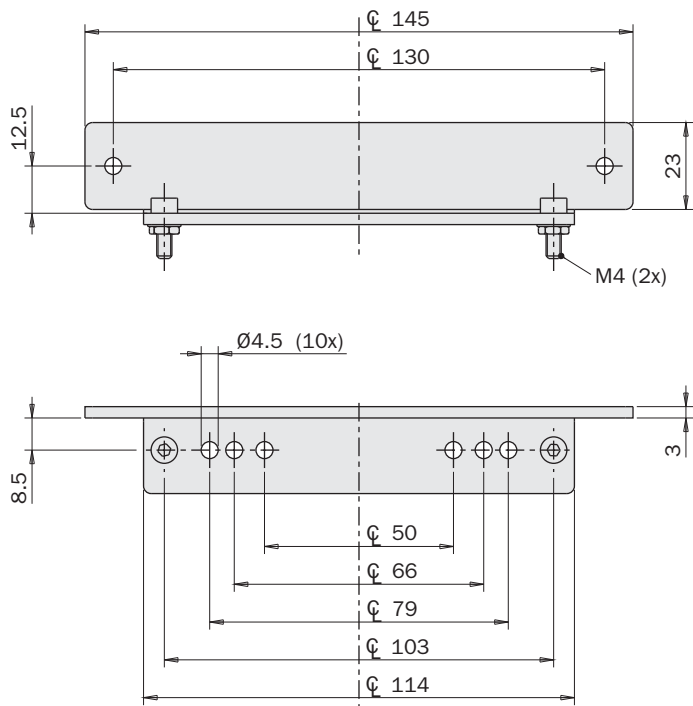
Serracavo
Strain reliefs

	SB8F	SB2C	SB4C	SB6C	SB8C	SB12C	SB15
A	57	57	57	57	57	57	57
B	65	65	65	94	94	94	65
C	25	25	25	25	25	25	25
D	94	65	94	94	130	180	94
E	79	50	79	79	115	165	79
F	50	50	50	79	79	79	50
G	n°3	n°2	n°3	n°4	n°6	n°8	n°3
Peso / Weight	165 g	120 g	160 g	190 g	235 g	325 g	150 g

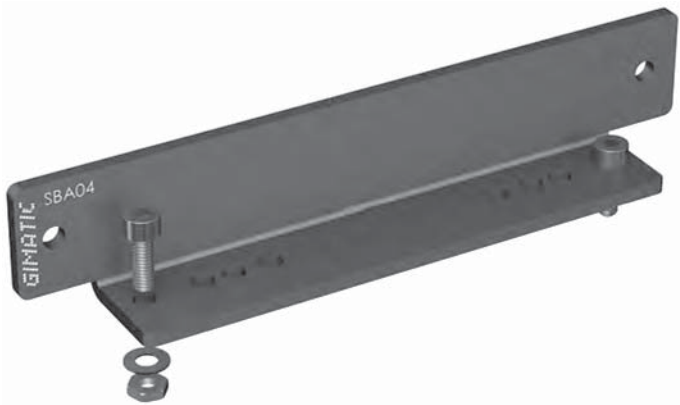
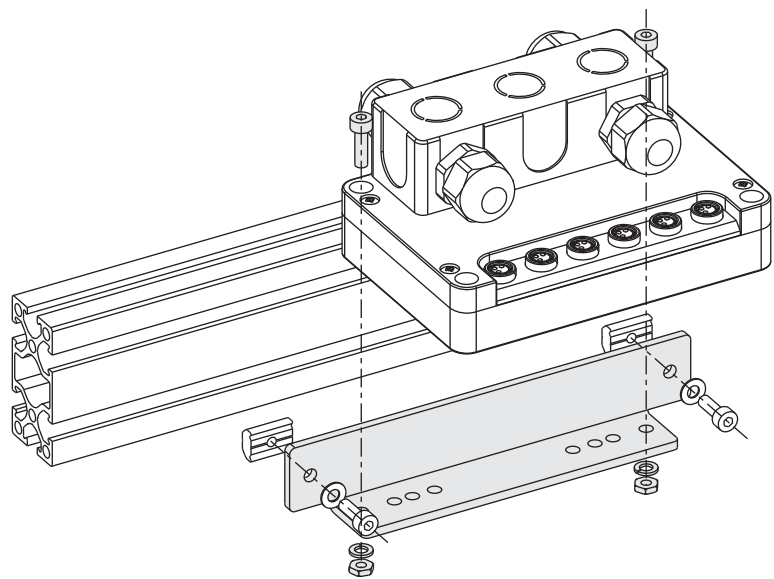


Staffa di fissaggio

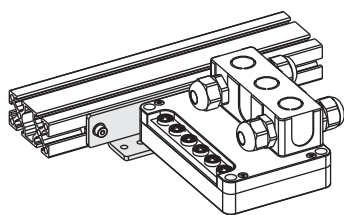
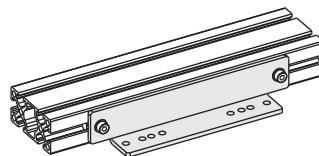
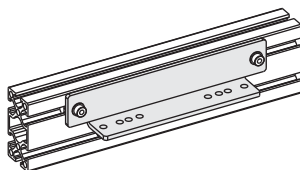
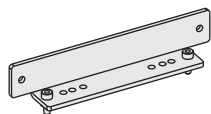
Mounting bracket



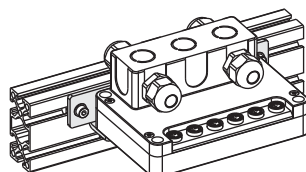
	SBA04
Peso / Weight	140 g



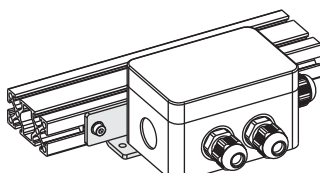
Esempio di utilizzo / Application example



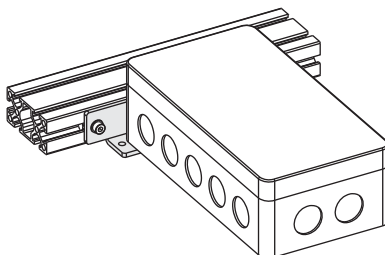
SB6B



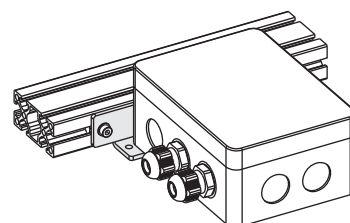
SB6B



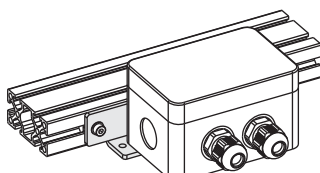
SB15



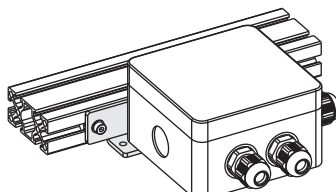
SB12C



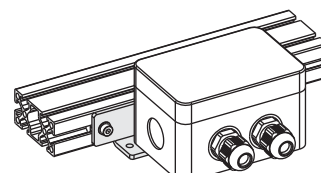
SB8C



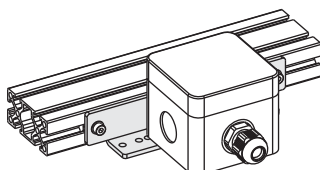
SB8F



SB6C



SB4C



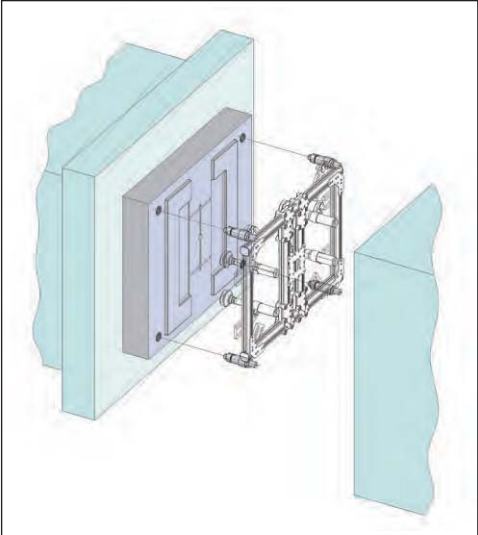
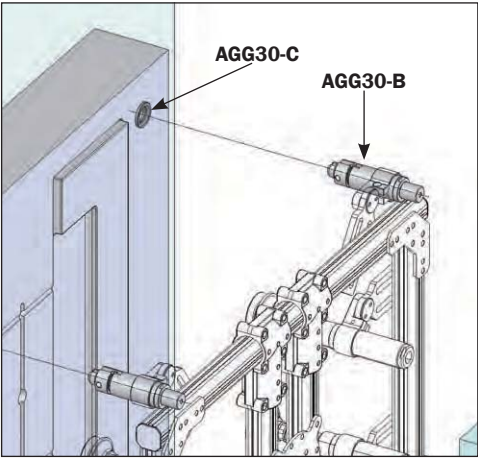
SB2C

Pinza per agganciamento

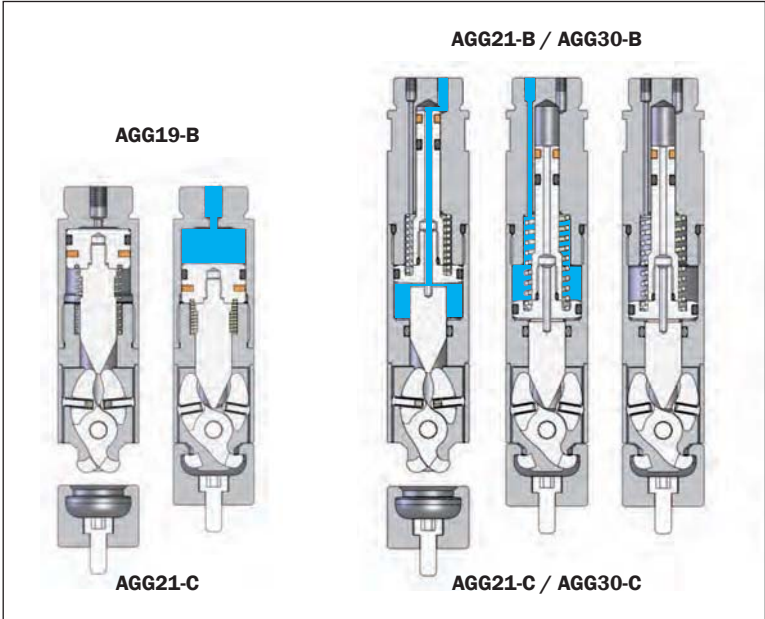
La AGG é usata per centrare in modo preciso il robot sullo stampo. Questo é necessario quando si devono posizionare degli inserti metallici nello stampo, prima di iniettare la plastica. La pinza AGG...-B è montata sull'EOAT e la bussola AGG...-C in acciaio sullo stampo. Dopo che il robot si é avvicinato 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).



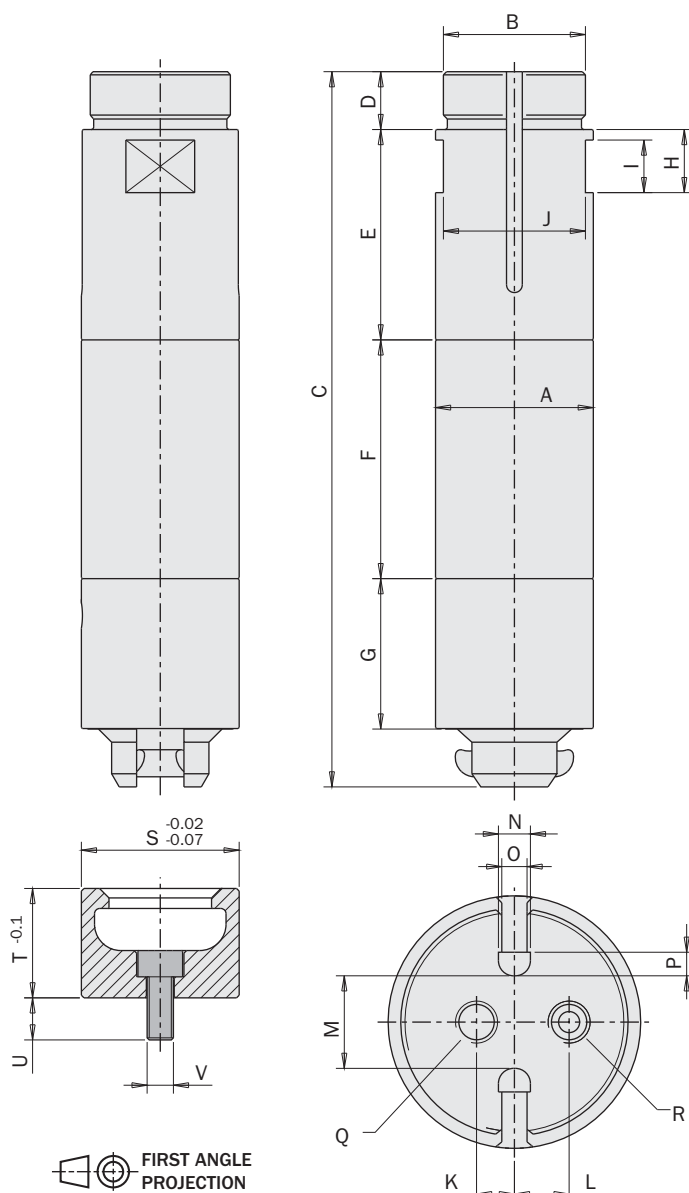
	AGG19-B	AGG21-B	AGG30-B
Massimo carico assiale senza aria compressa prima del rilascio Maximum axial load without compressed air before releasing	0 N	600 N	1400 N
Massimo carico assiale con aria compressa prima della rottura Maximum axial load with compressed air before breakage	2000 N	2000 N	5000 N
Pressione di esercizio Pressure range	2 ÷ 8 bar (NO)	4 ÷ 8 bar (NC)	4 ÷ 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	4.2	4.5
L	-	3.5	6.5
M	-	8	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



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.

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.



AA-23-NO



AA-22-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-26	AA-26-NO	AA-35	AA-35-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 (±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

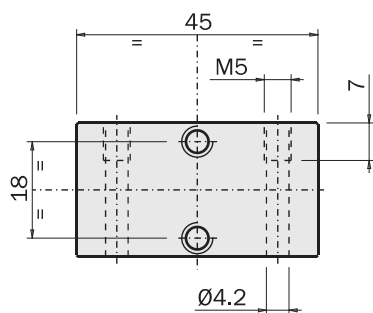
Dimensioni (mm) / Dimensions (mm)

AA-22

AA-22-NO

AA-26

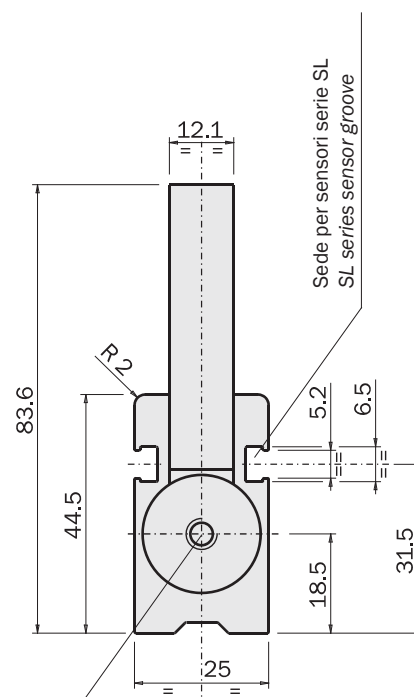
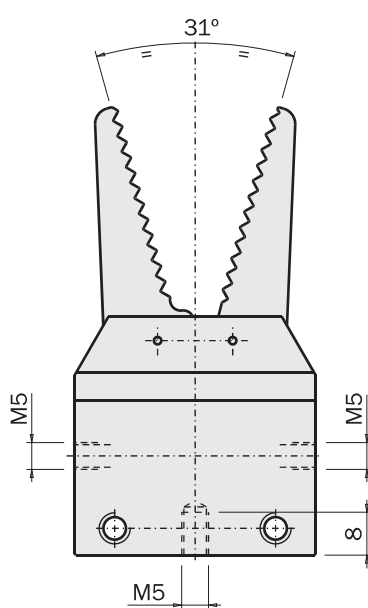
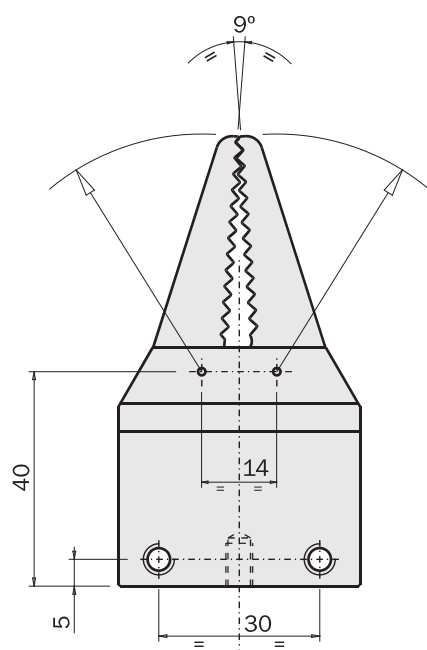
AA-26-NO



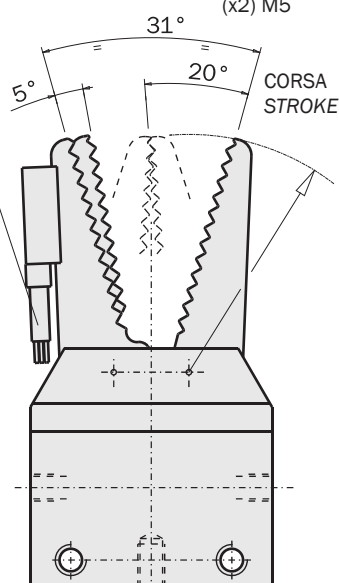
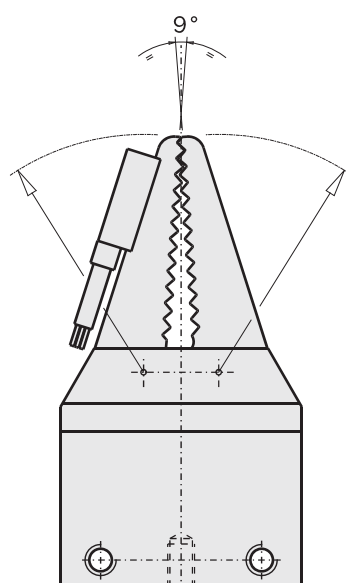
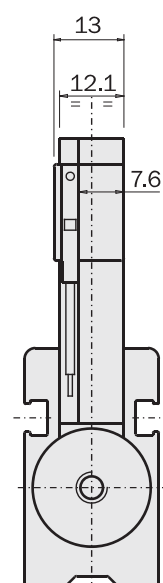
AA-22

CHIUSA / CLOSED

APERTA / OPEN

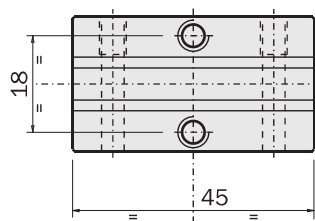
Sede per sensori serie SL
SL series sensor grooveIngresso aria
Air connection
(x2) M5

SS3N203-G1

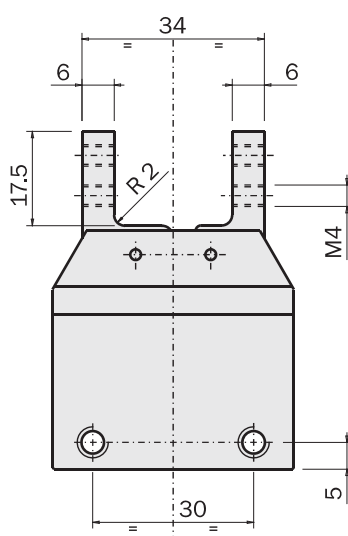
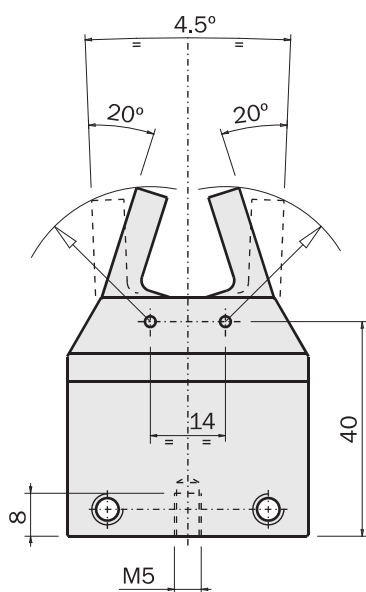
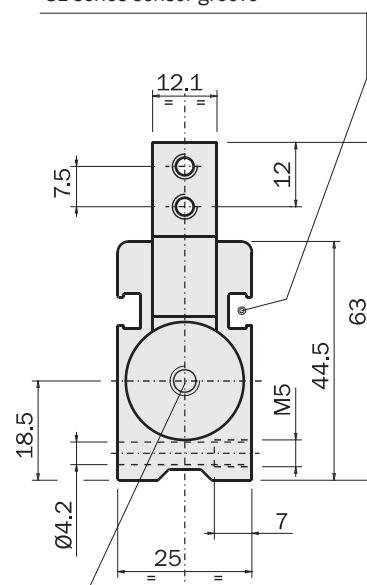
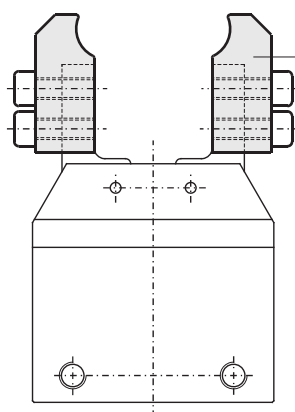
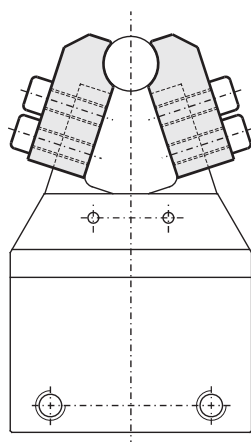
CORSO
STROKE

AA-26

FIRST ANGLE
PROJECTION

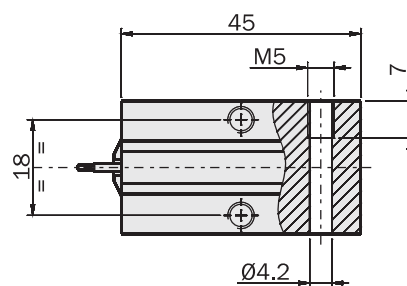


APERTA / OPEN

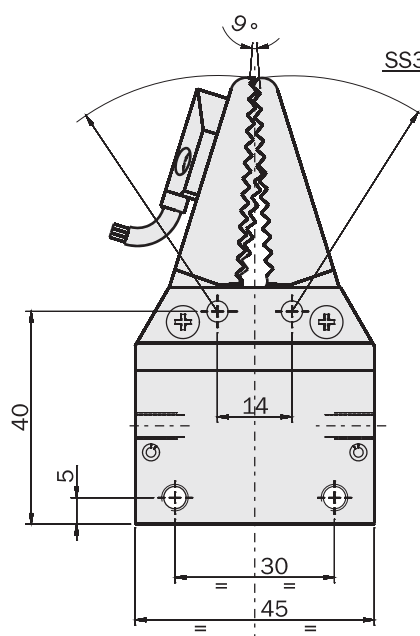
Sede per sensori serie SL
SL series sensor grooveIngresso aria
Air connection
(x2) M5Dito di presa (non fornito)
Gripping tool (not supplied)

Dimensioni (mm) / Dimensions (mm)

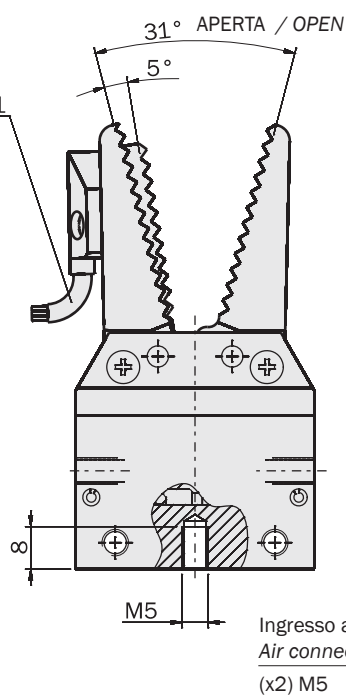
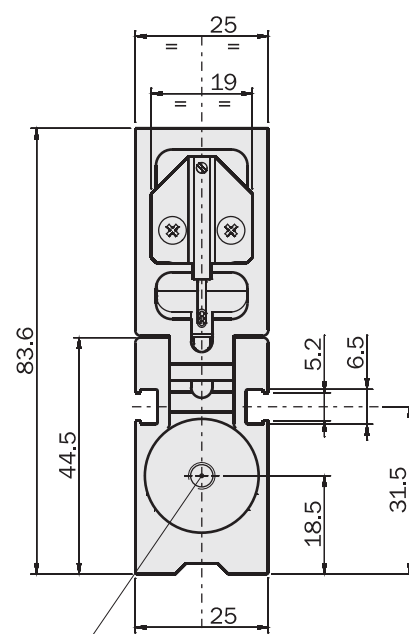
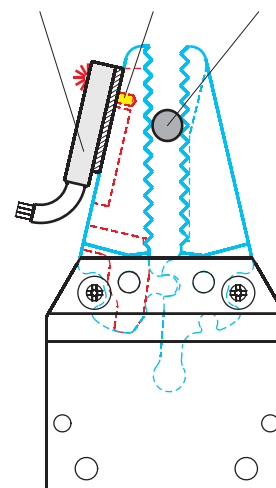
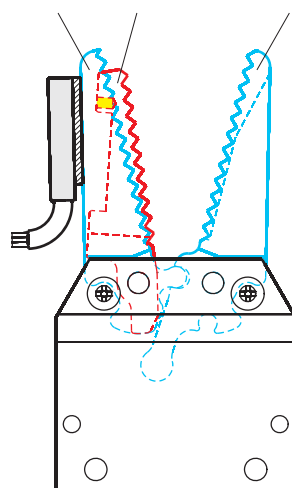
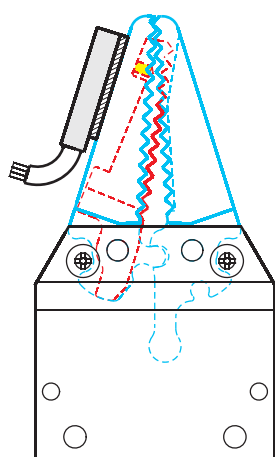
Dita più larghe e scanalate per una presa migliore
 Wider, grooved fingers for a better gripping

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


CHIUSA / CLOSED



SS3N203-G1


 Ingresso aria
 Air connection
 (x2) M5
GRIFFA SX
LEFT JAWTASTATORE
PROBEGRIFFA DX
RIGHT JAWSENSORE
SENSORMAGNETE
MAGNETMATEROZZA
SPRUE

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

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

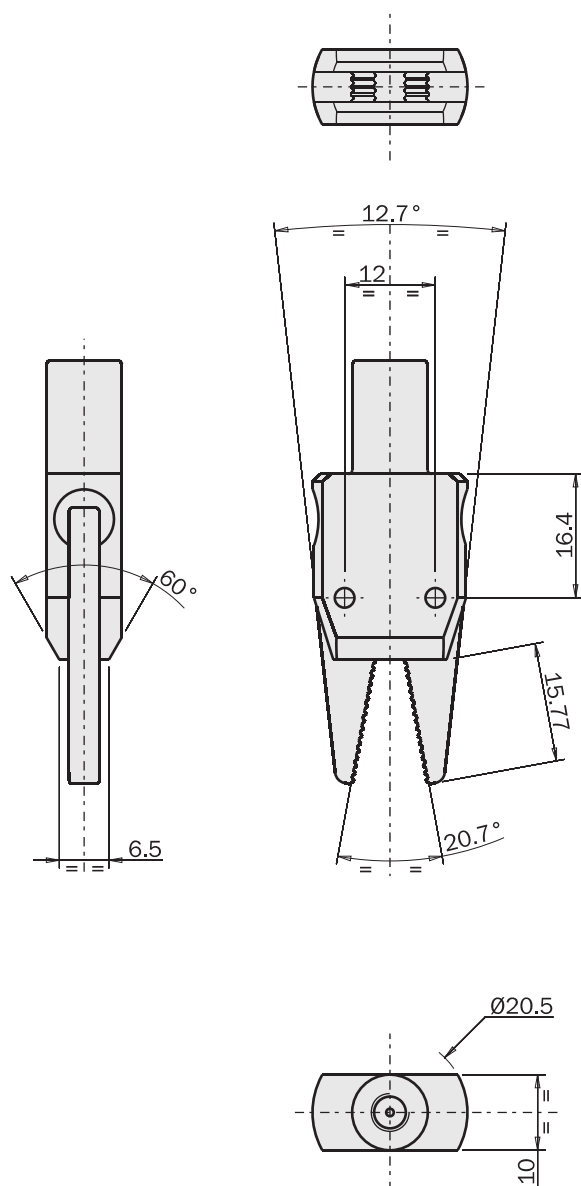
(*)
Il sensore SS3N203-G è incluso
The sensor SS3N203-G is included



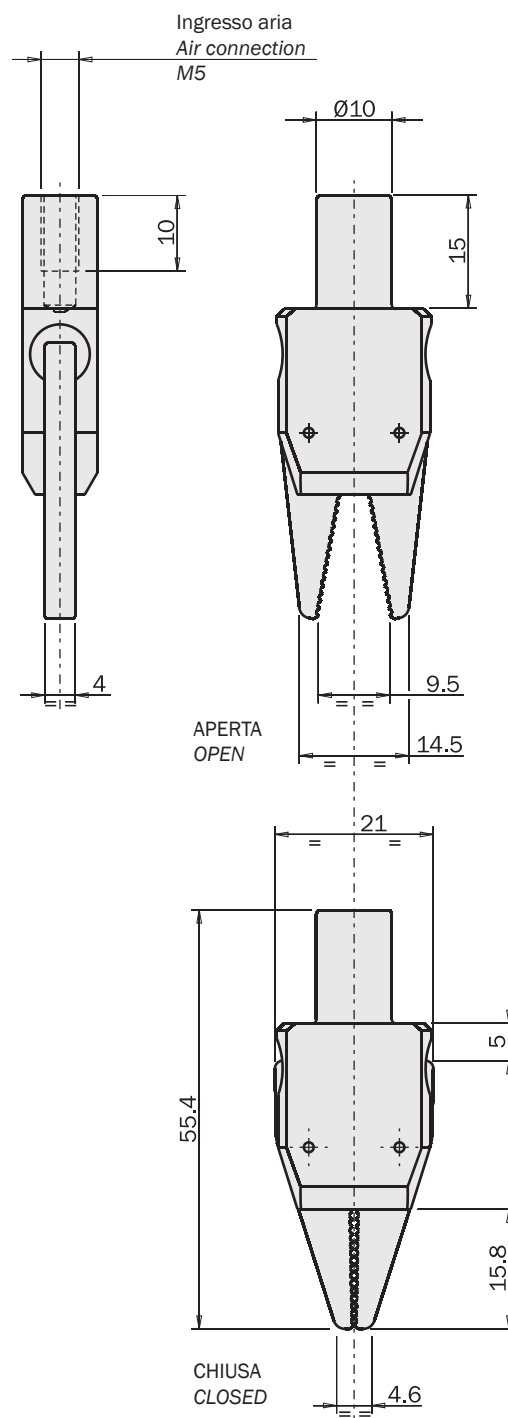
	PB-0008	PB-0009	PB-0013	PB-0014	PB-0015	PB-0017	PB-0140	PB-0150	PB-0160	PB-0170	PB-0180	PB-0181	PB-0182	PB-0187
Fluido Medium	Aria compressa filtrata, lubrificata / non lubrificata Filtered, lubricated / non lubricated compressed air													
Pressione di esercizio Pressure range	2.5 ÷ 8 bar													
Temperatura di esercizio Temperature range	5 ÷ 60 °C.													
Corsa Stroke (±2°)	2x10°	2x10°	2x15°	2x15°	2x16°	2x15°	2x15°	2x15°	2x15°	2x15°	2x15°	2x15°	2x15°	2x15°
Coppia di serraggio per griffa in chiusura a 6 bar Closing gripping torque at 6 bar each jaw	24 Ncm	24 Ncm	80 Ncm	80 Ncm	60 Ncm	80 Ncm	80 Ncm	80 Ncm	80 Ncm	80 Ncm	80 Ncm	80 Ncm	80 Ncm	80 Ncm
Coppia per griffa in apertura (a 6 bar) Opening gripping torque (at 6 bar) each jaw	2 Ncm	2 Ncm	5 Ncm	5 Ncm	5 Ncm (25 Ncm)	5 Ncm	5 Ncm	5 Ncm	5 Ncm	5 Ncm	5 Ncm	5 Ncm	5 Ncm	5 Ncm
Frequenza max funzionamento continuativo Maximum working frequency	3 Hz													
Consumo d'aria per ciclo Cycle air consumption	0.3 cm³	0.3 cm³	1.2 cm³	1.2 cm³	1.5 cm³	1.2 cm³	1.2 cm³	1.2 cm³	1.2 cm³	1.2 cm³	1.2 cm³	1.2 cm³	1.2 cm³	1.2 cm³
Tempo di chiusura senza carico Closing time without load	0.01 s													
Peso Weight	15 g	25 g	55 g	50 g	50 g	45 g	75 g	75 g	75 g	50 g	60 g	75 g	75 g	57 g

PB-0008

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

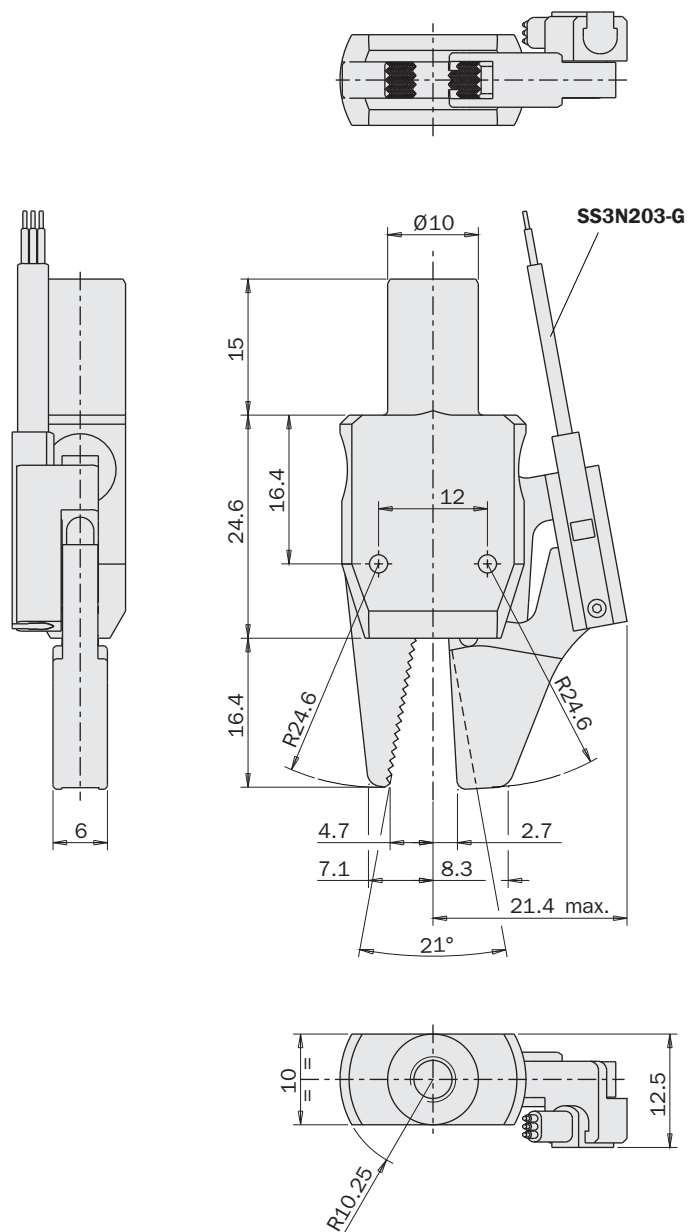
Dimensioni (mm)**PB-0008**

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

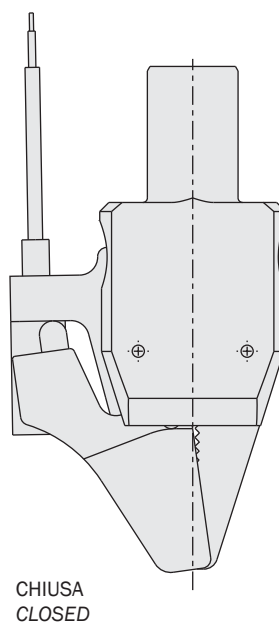
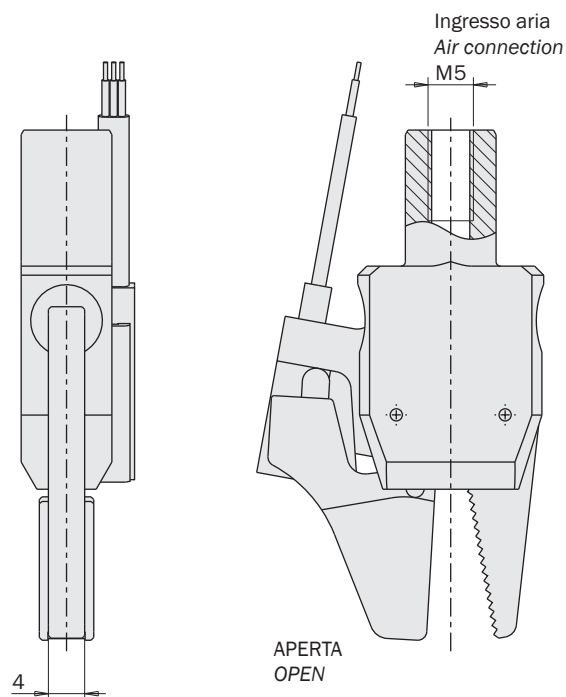
Dimensions (mm)FIRST ANGLE
PROJECTION

PB-0009

- Alesaggio: 8mm.
- A semplice effetto con molla in apertura.
- Sensore sulla griffa.

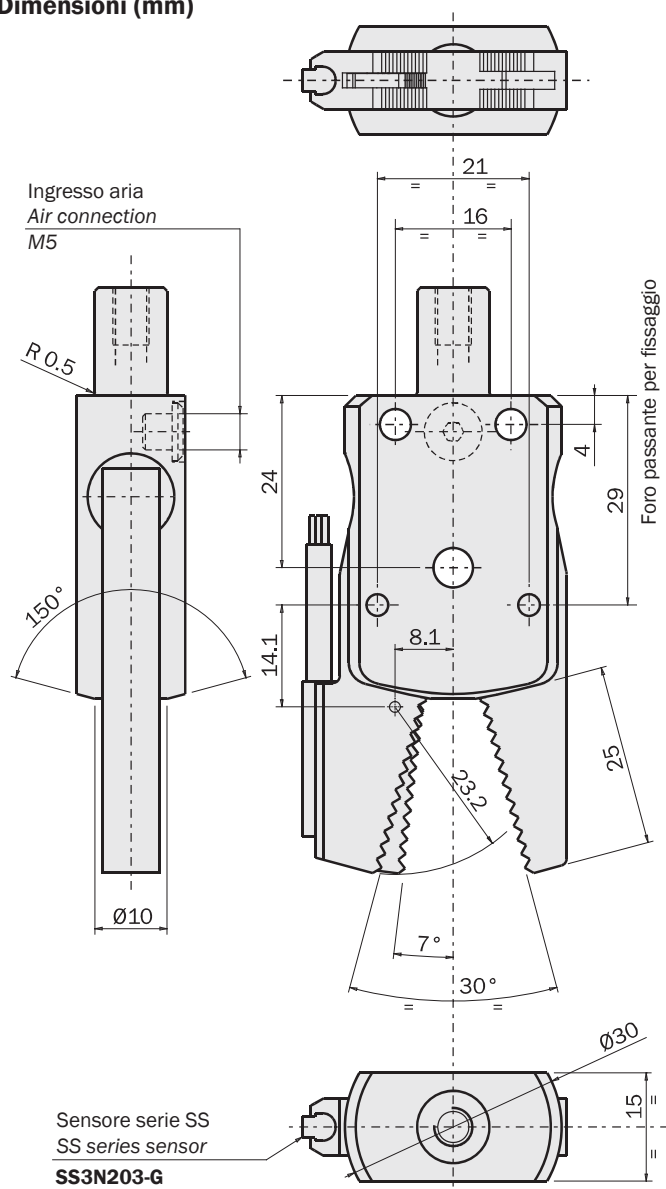
Dimensioni (mm)**PB-0009**

- Piston bore: 8mm.
- Single-acting with opening spring.
- Sensor on the jaw.

Dimensions (mm)

PB-0013

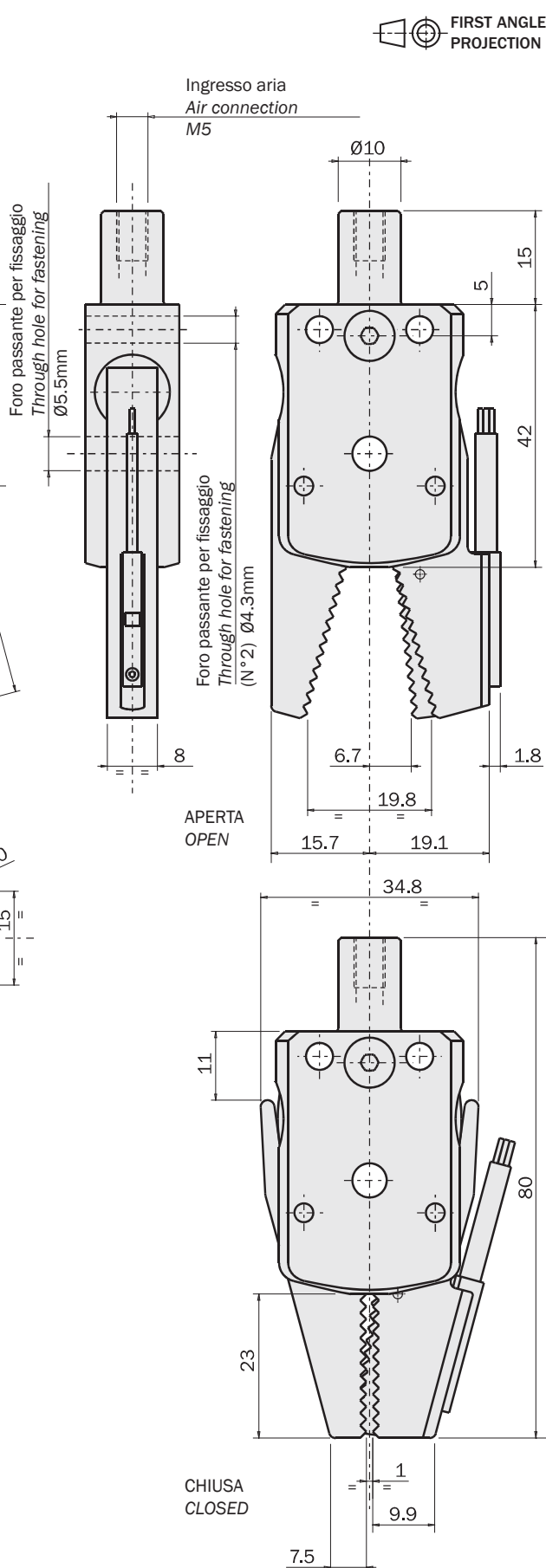
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore sulla griffa.

Dimensioni (mm)

Tastatore in acciaio
Steel probe

PB-0013

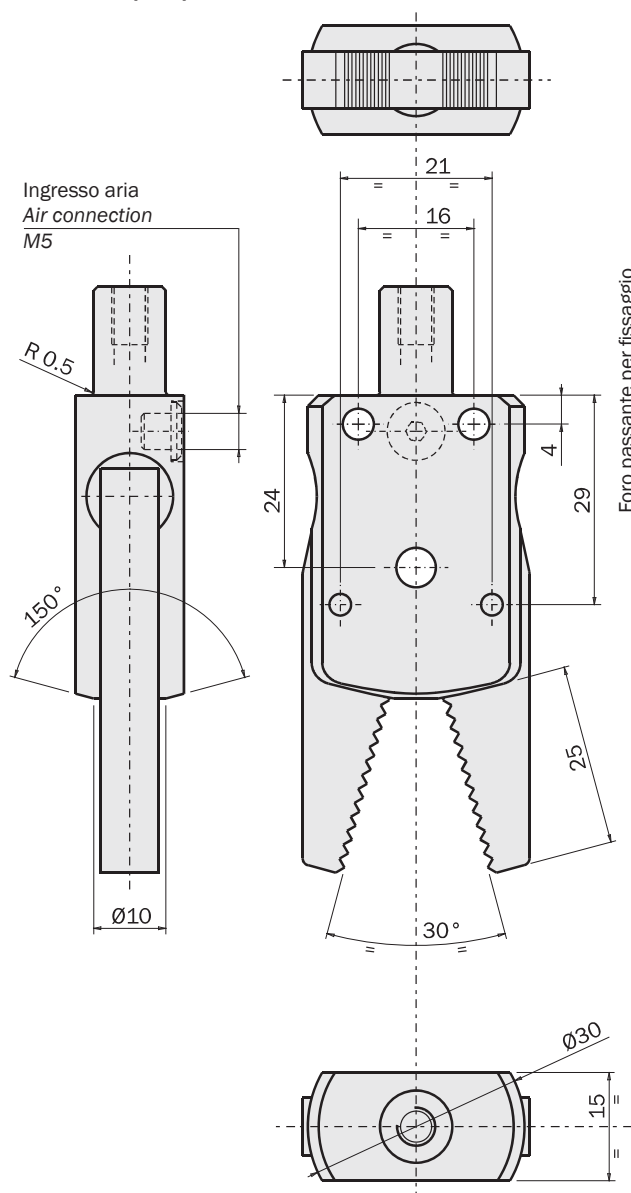
- Piston bore: 12mm.
- Single-acting with opening spring.
- Sensor on the jaw.

Dimensions (mm)

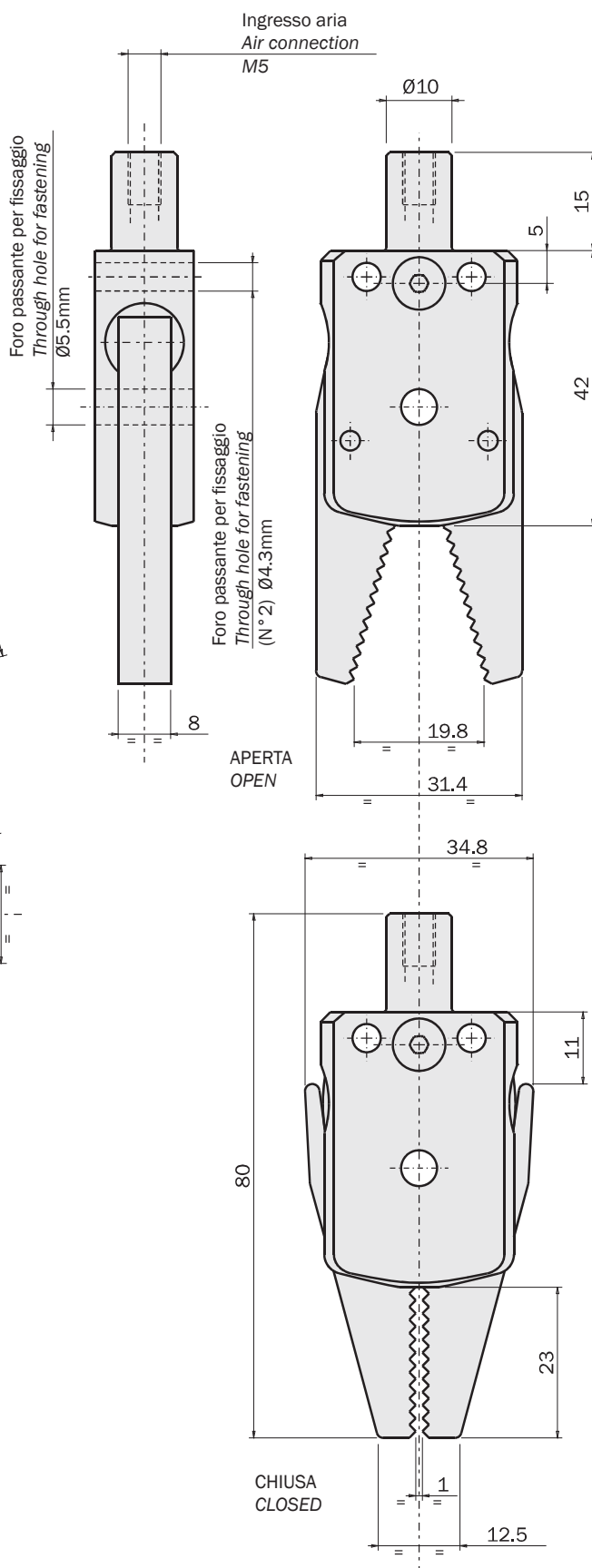
FIRST ANGLE
PROJECTION

PB-0014

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

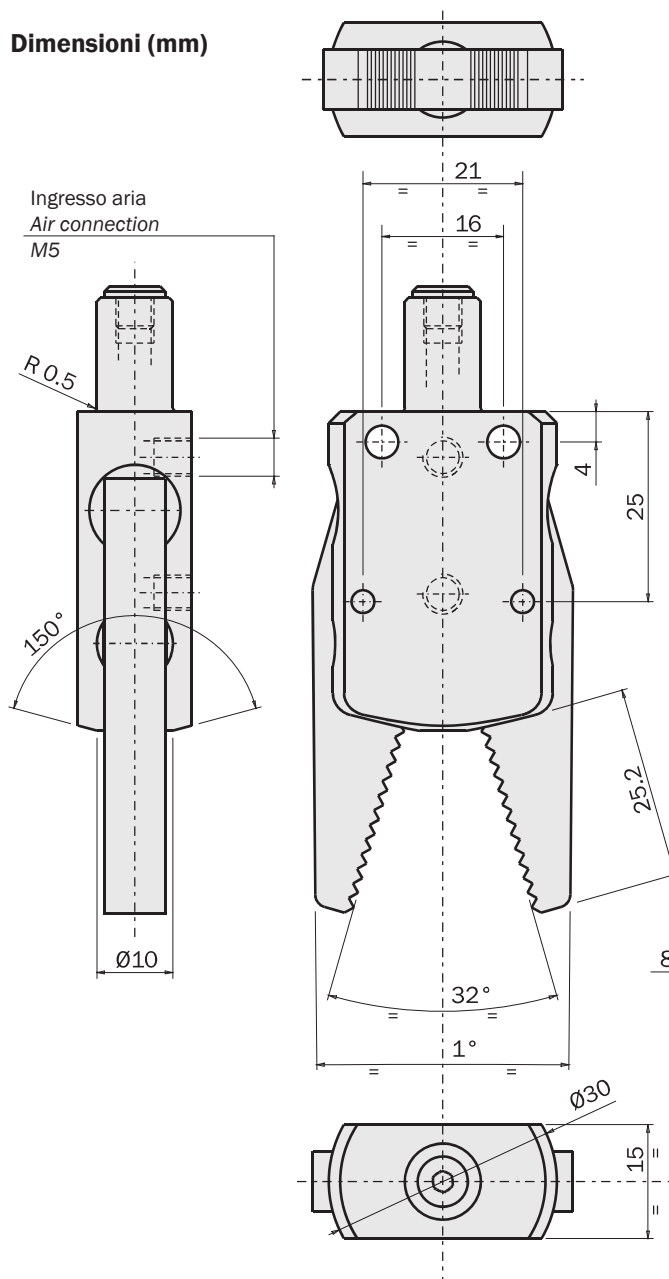
Dimensioni (mm)**PB-0014**

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

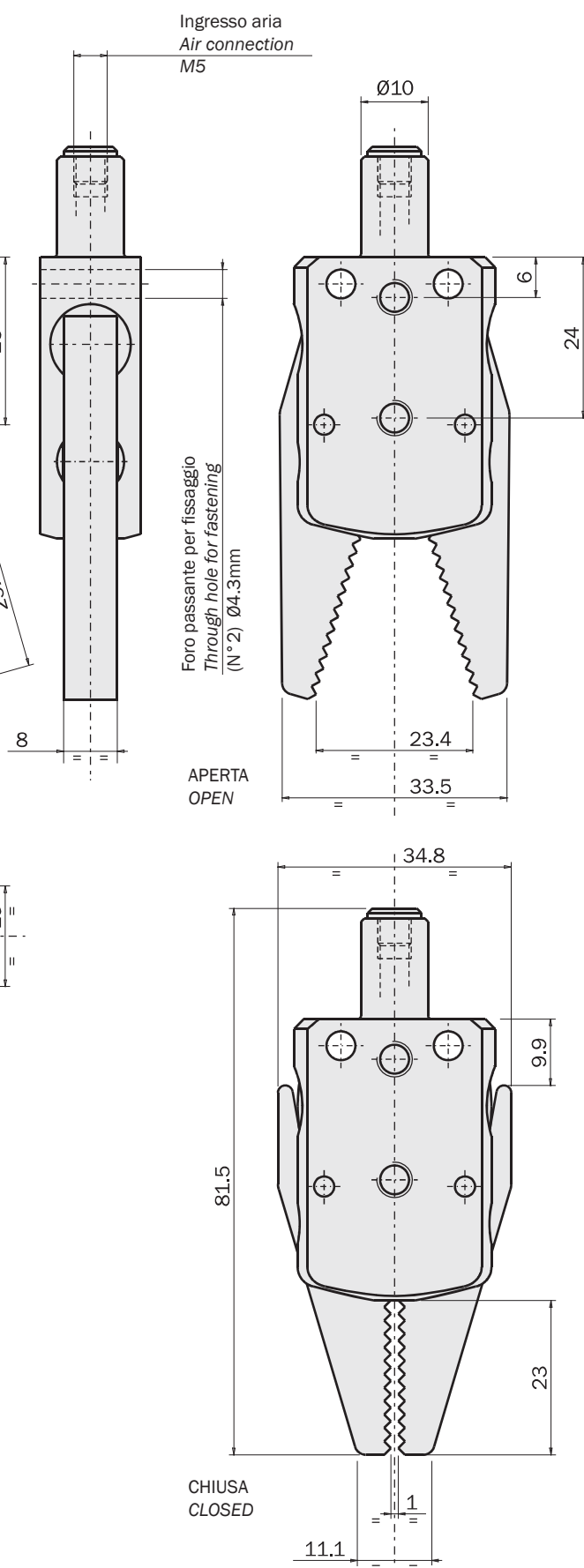
Dimensions (mm)

PB-0015

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

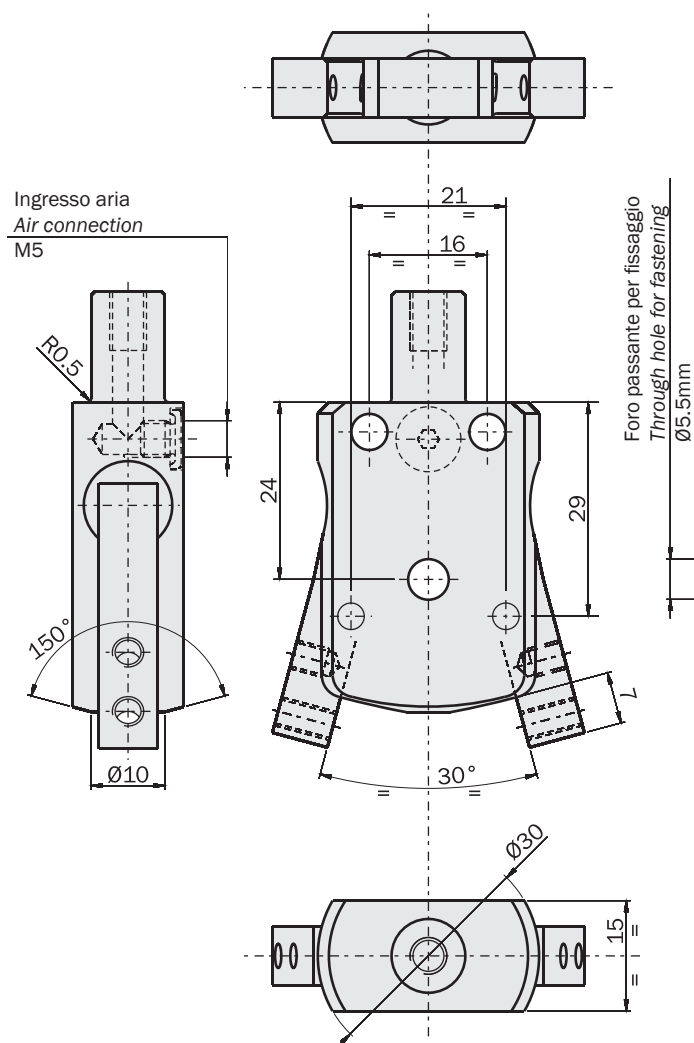
Dimensioni (mm)**PB-0015**

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

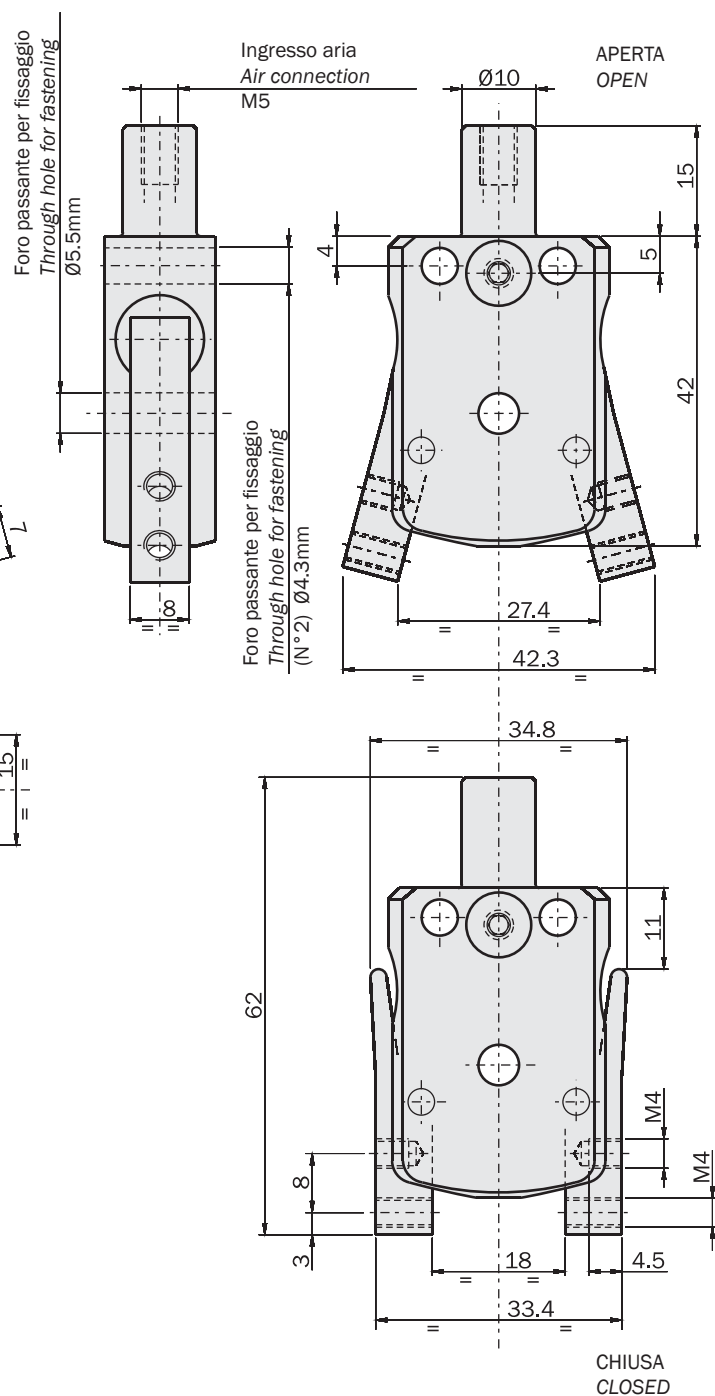
Dimensions (mm)

PB-0017

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

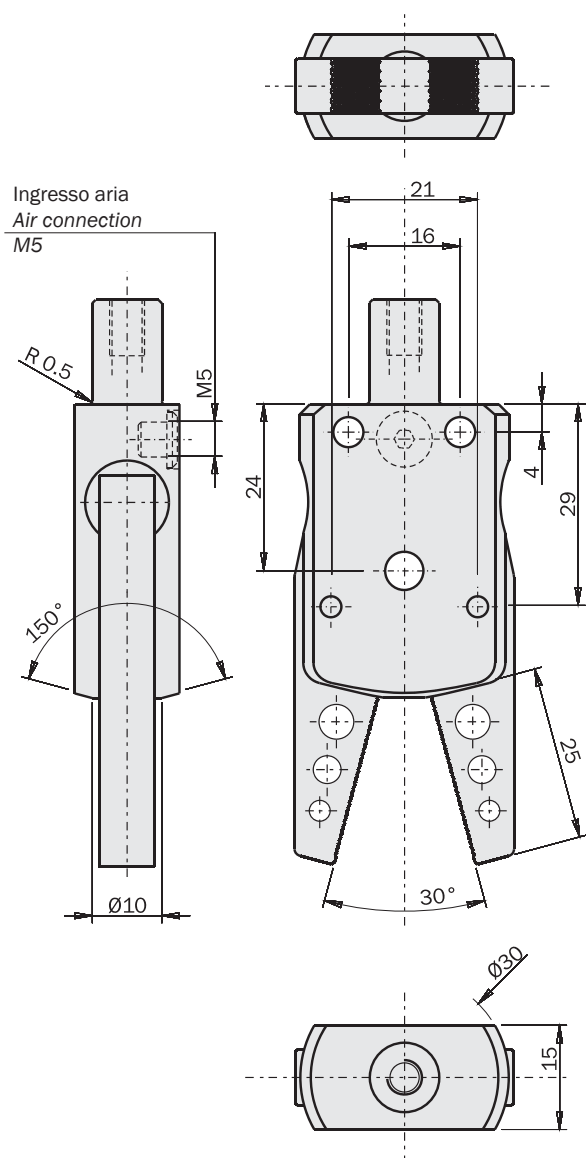
Dimensioni (mm)**PB-0017**

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

Dimensions (mm)

PB-0140

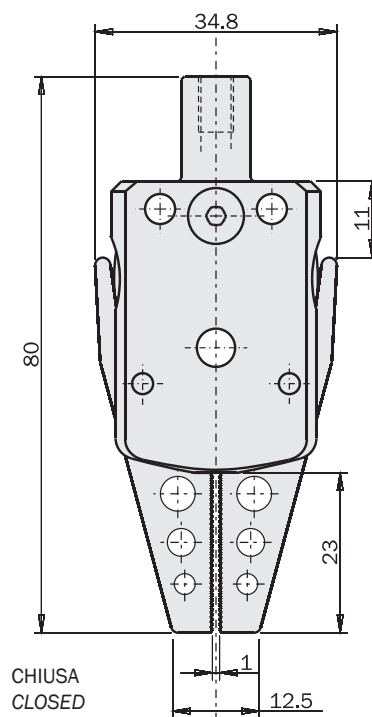
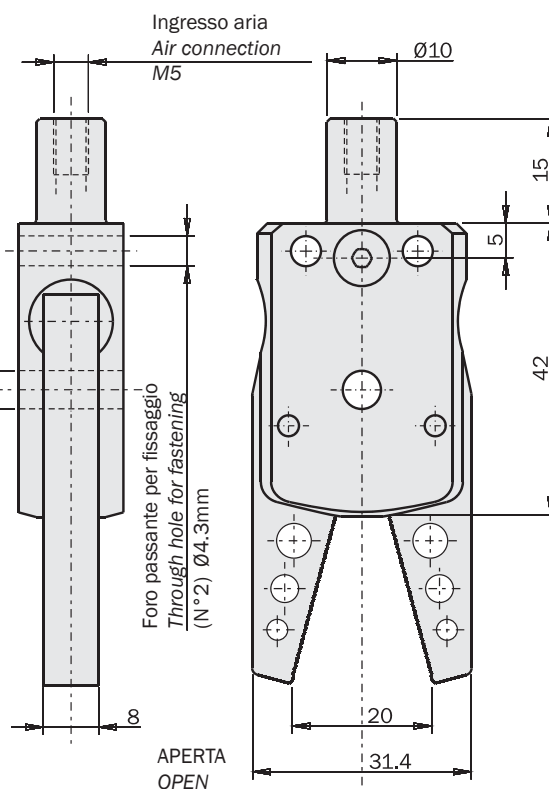
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe in acciaio.

Dimensioni (mm)

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

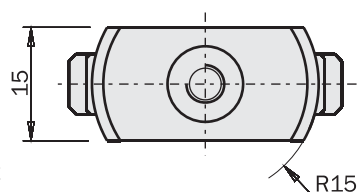
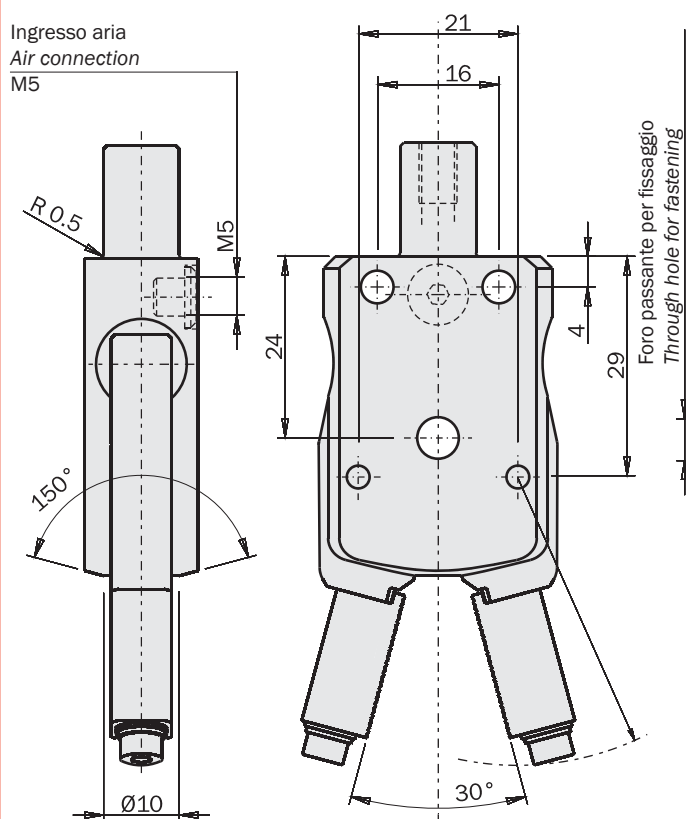
PB-0140

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

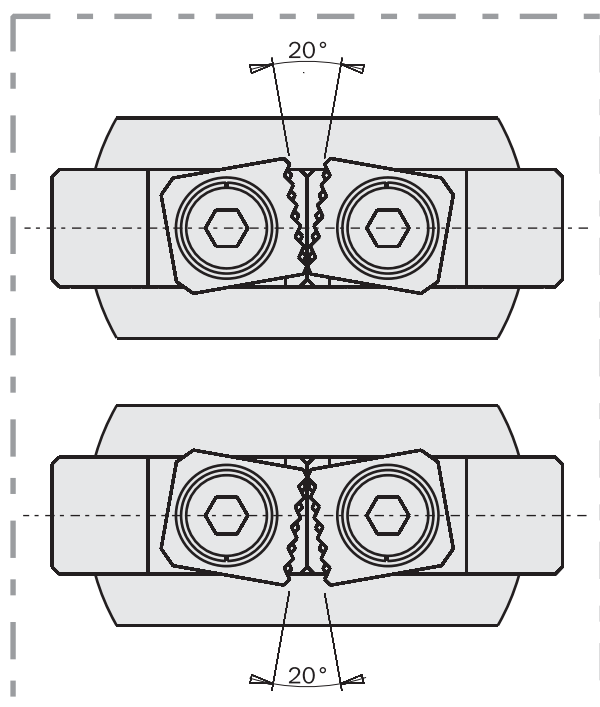
Dimensions (mm)

PB-0150

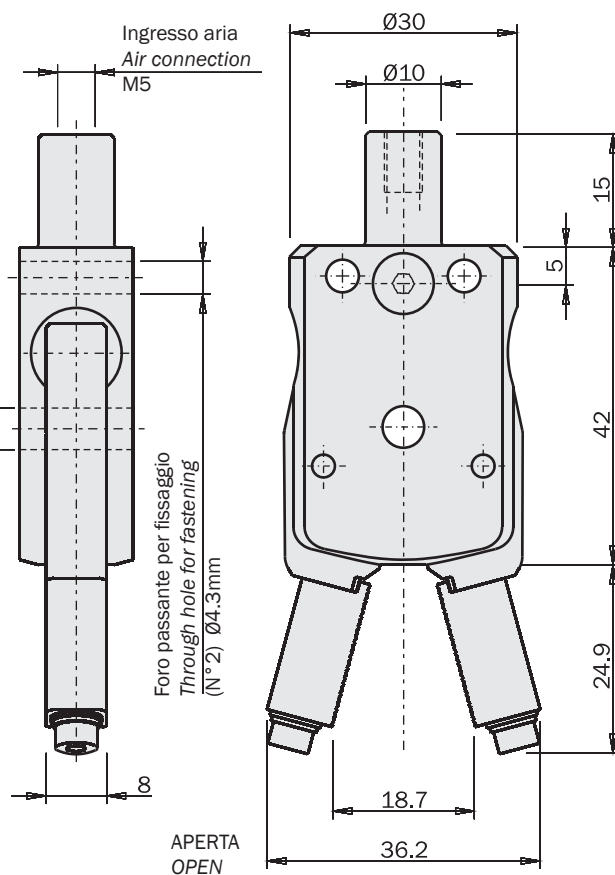
- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Griffe oscillanti per materozze coniche.

Dimensioni (mm)

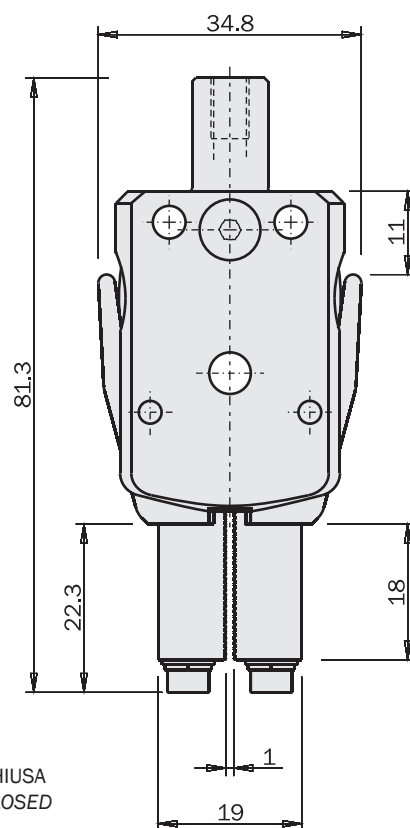
FIRST ANGLE
PROJECTION

**PB-0150**

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

Dimensions (mm)

APERTA
OPEN

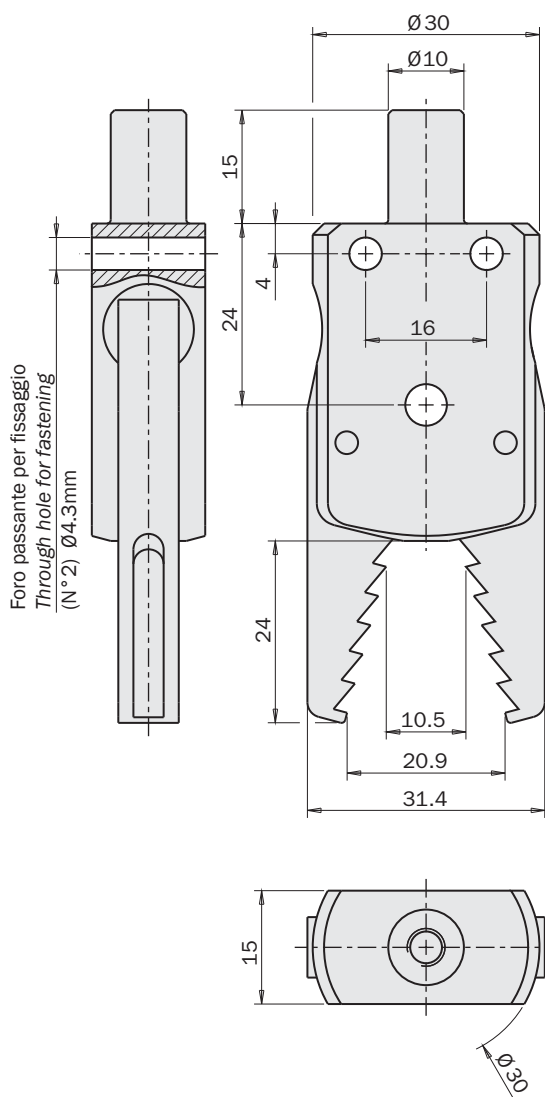


CHIUSA
CLOSED

PB-0160

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

Dimensioni (mm)

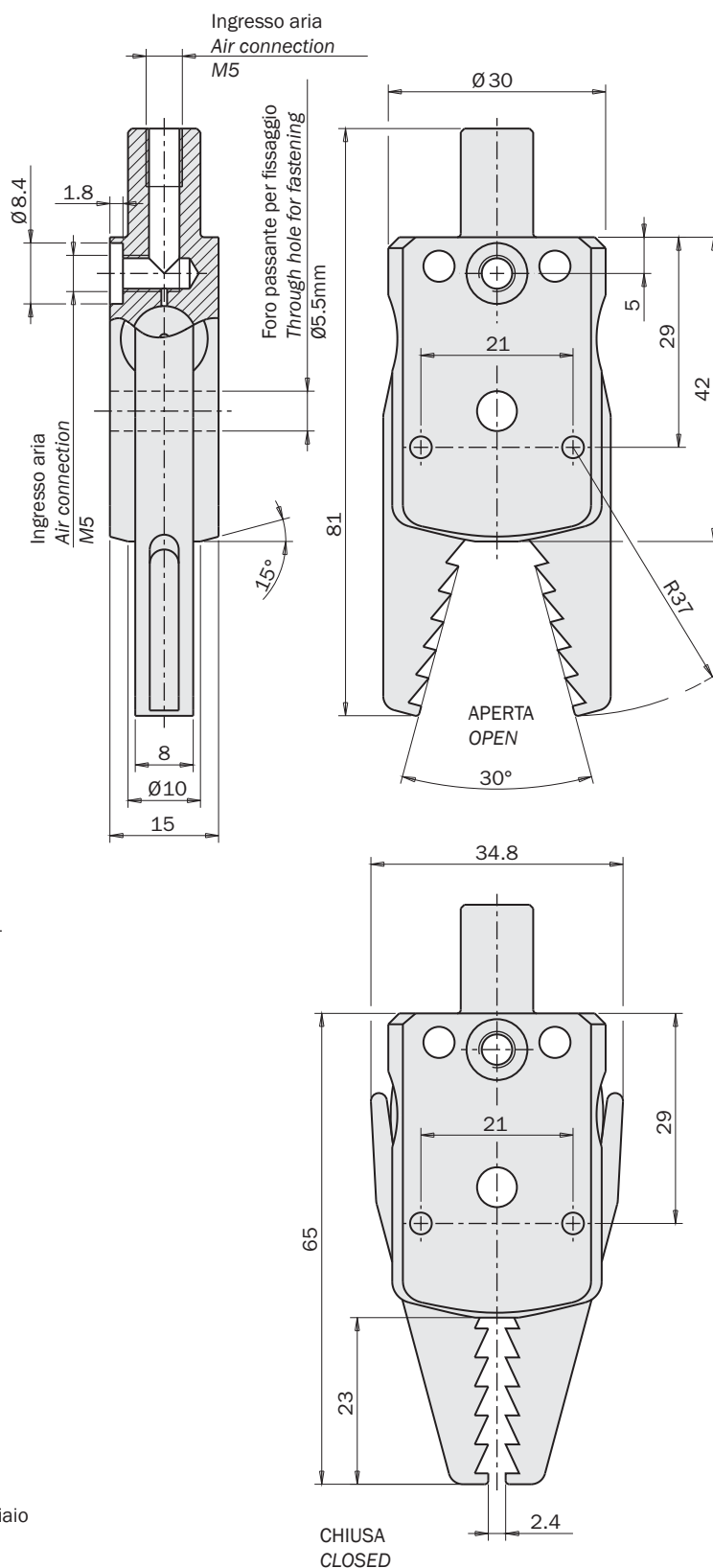


Griffe in acciaio
Steel jaws

PB-0160

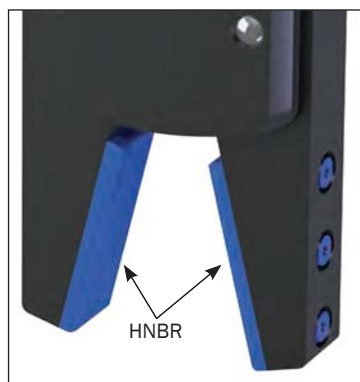
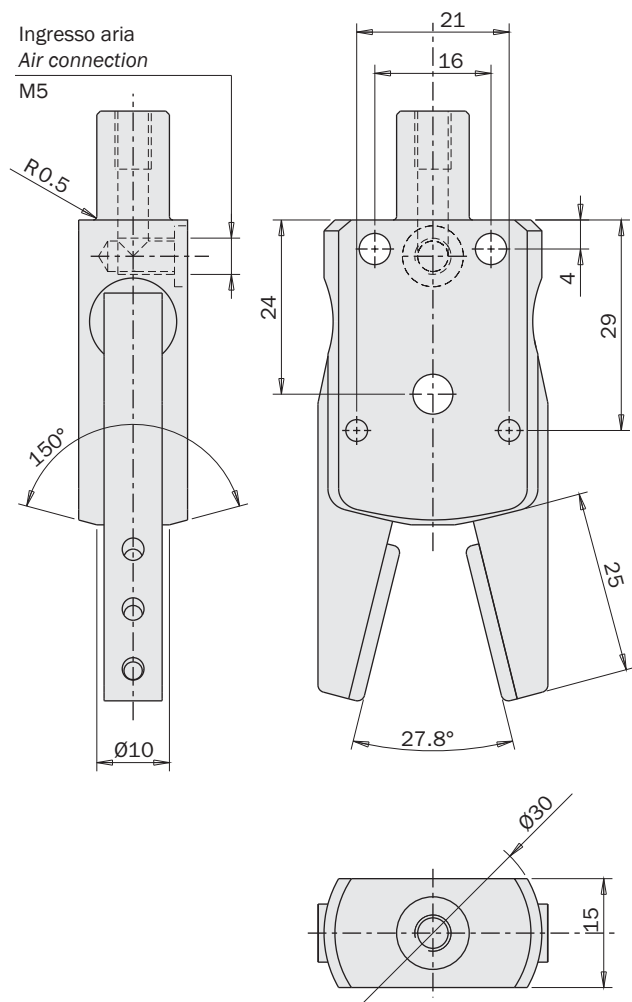
- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Steel jaws.*

Dimensions (mm)

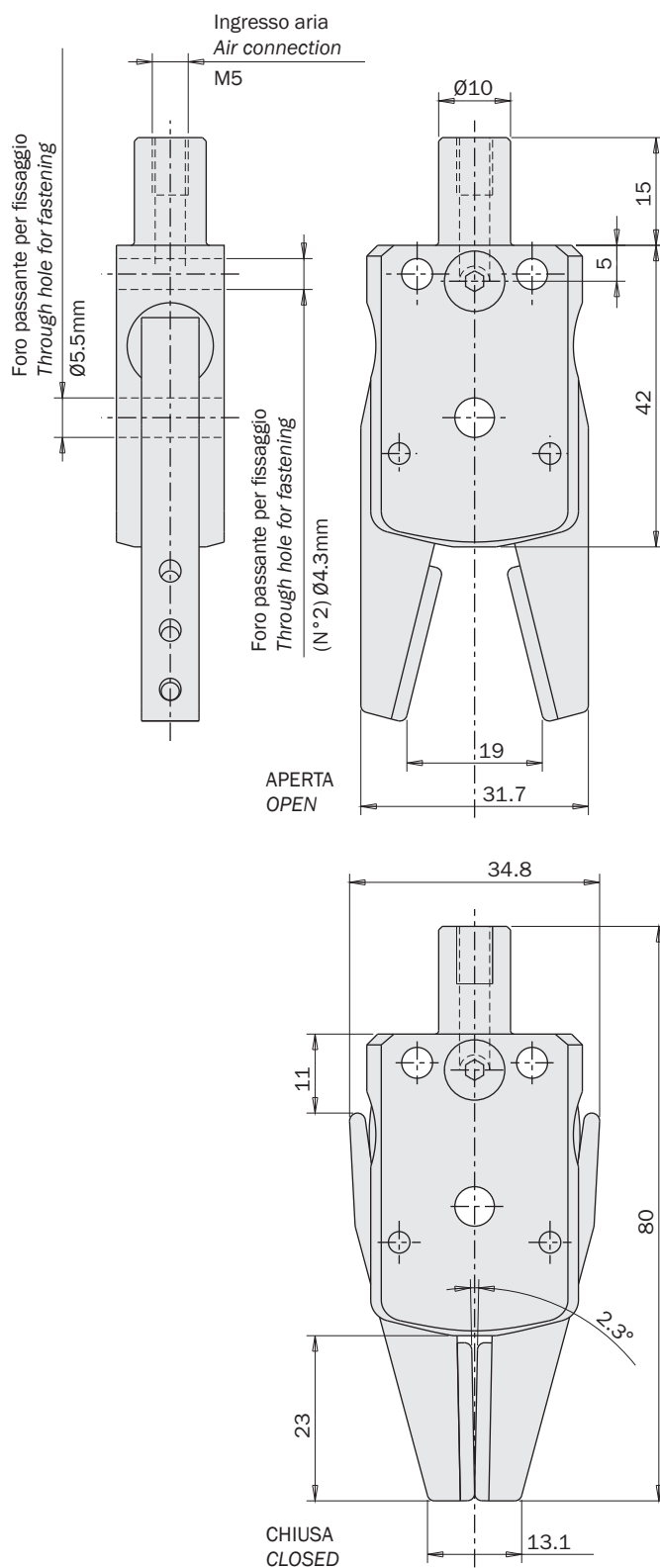


PB-0170

- 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.

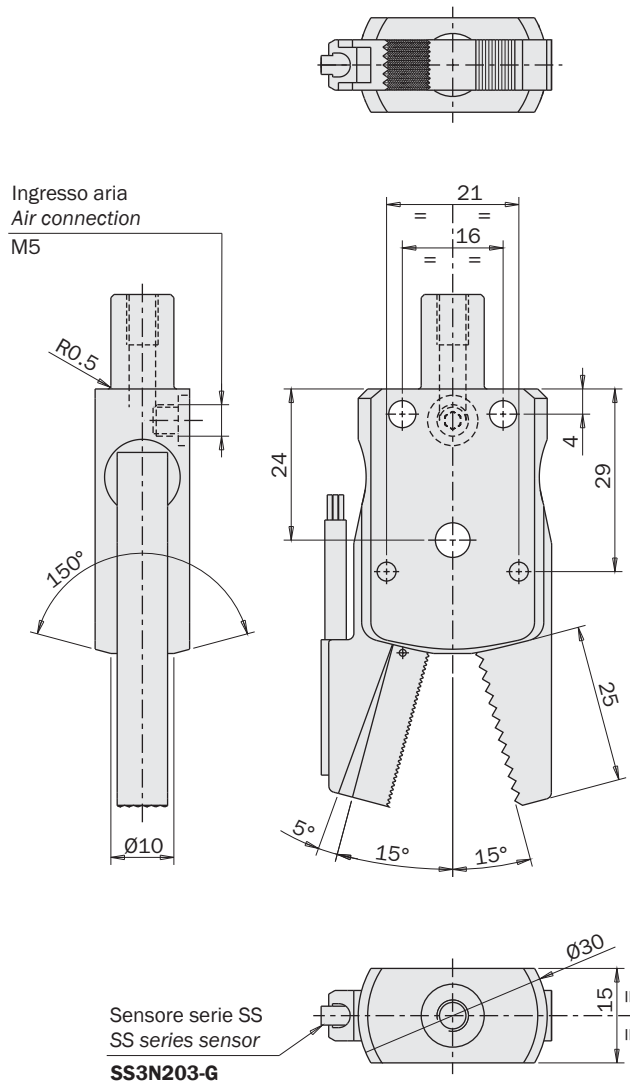
Dimensions (mm)

FIRST ANGLE
PROJECTION

PB-0180

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore sulla griffa.
- Tastatore in acciaio.

Dimensioni (mm)

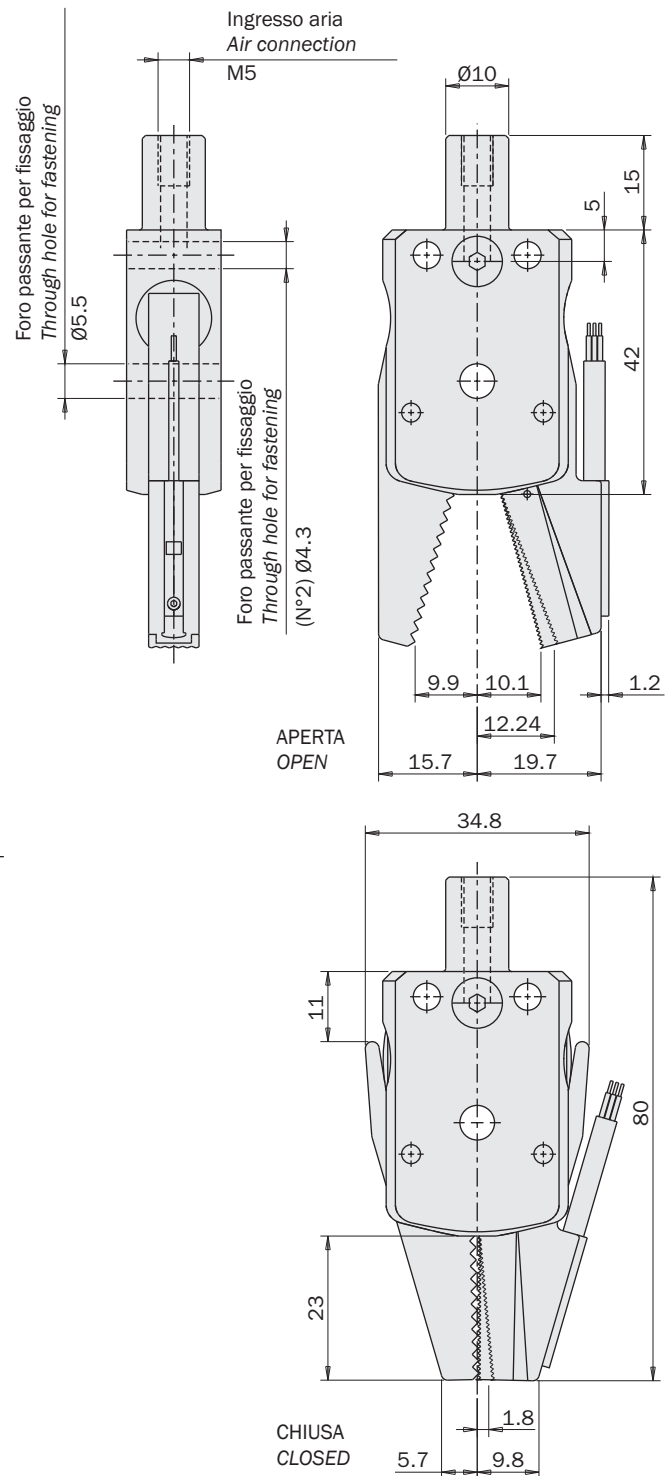


Tastatore in acciaio
Steel probe

PB-0180

- Piston bore: 12mm.
- Single-acting with opening spring.
- Sensor on the jaw.
- Steel probe.

Dimensions (mm)

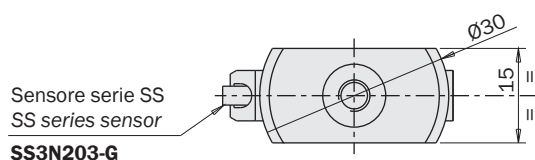
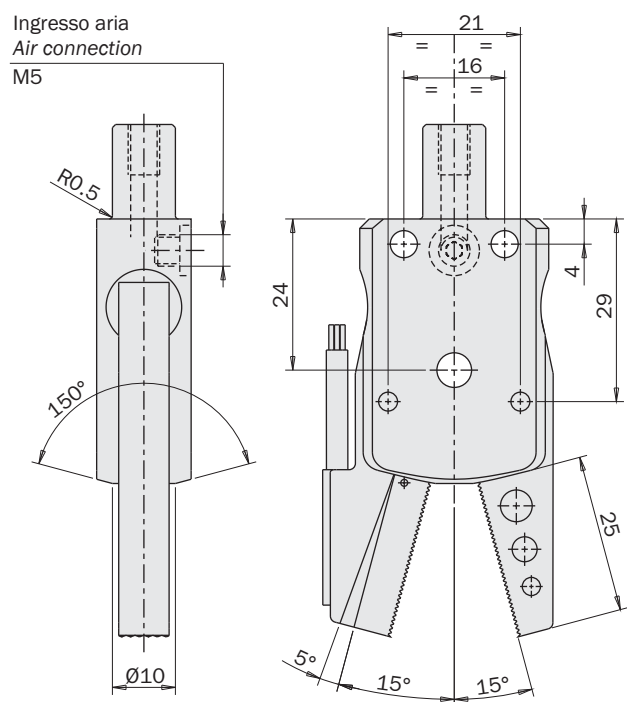
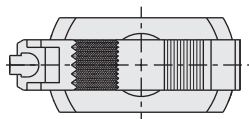


**FIRST ANGLE
PROJECTION**

PB-0181

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore sulla griffa.
- Griffa e tastatore in acciaio.

Dimensioni (mm)



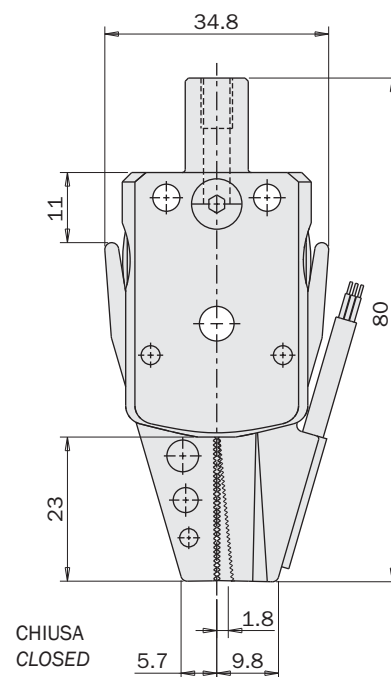
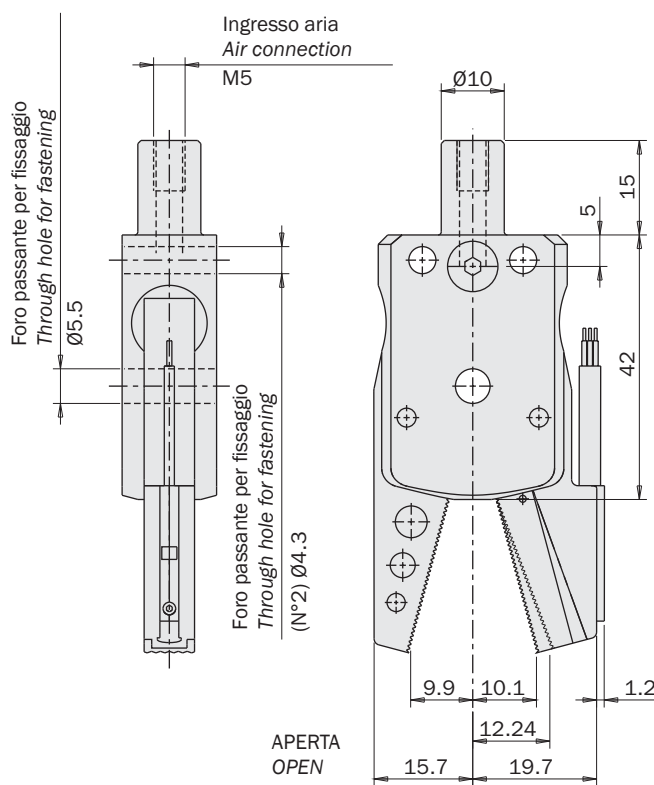
Griffa in acciaio
Steel jaw

Tastatore in acciaio
Steel probe

PB-0181

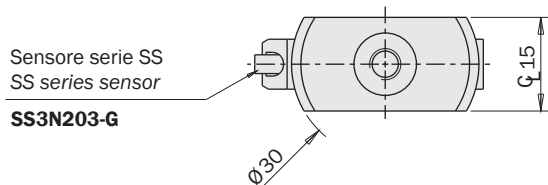
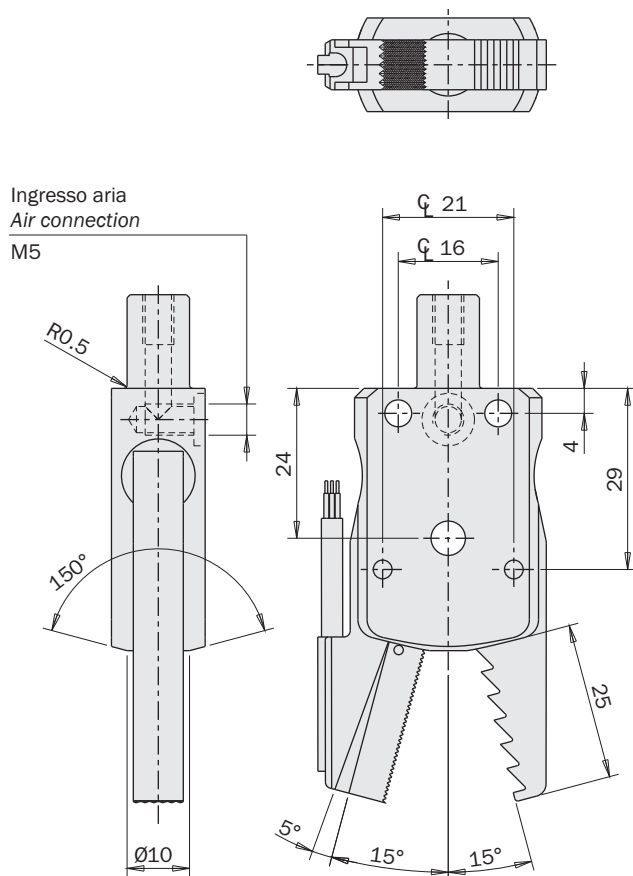
- *Piston bore: 12mm.*
- *Single-acting with opening spring.*
- *Sensor on the jaw.*
- *Steel jaw and probe.*

Dimensions (mm)



PB-0182

- Alesaggio: 12mm.
- A semplice effetto con molla in apertura.
- Sensore sulla griffa.
- Griffa e tastatore in acciaio.

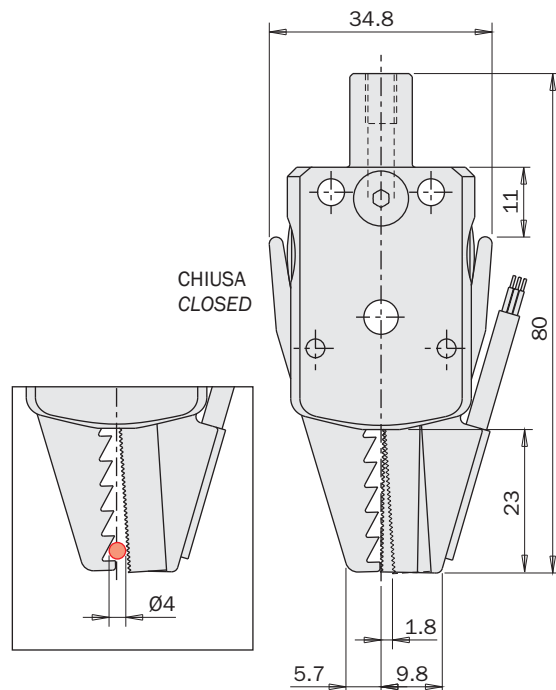
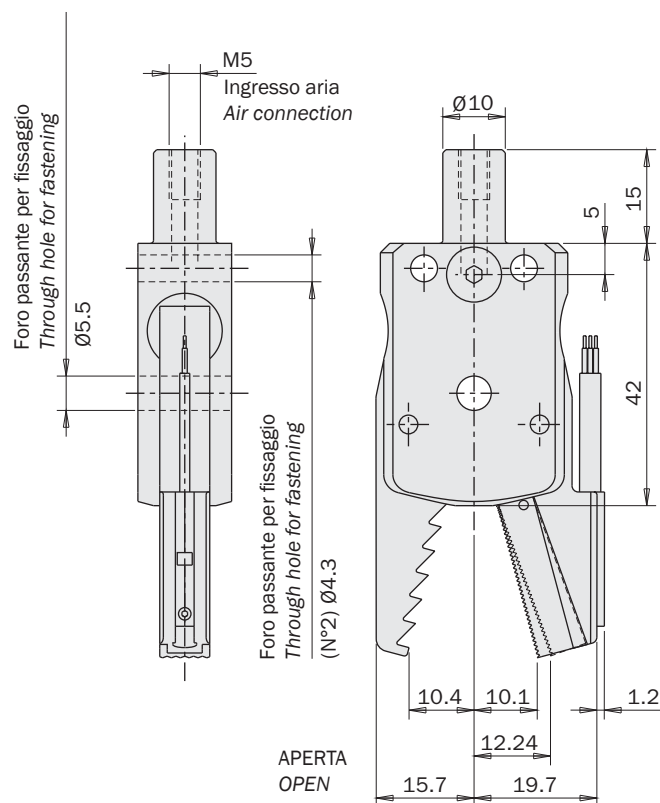
Dimensioni (mm)

Griffa in acciaio
Steel jaw

Tastatore in acciaio
Steel probe

PB-0182

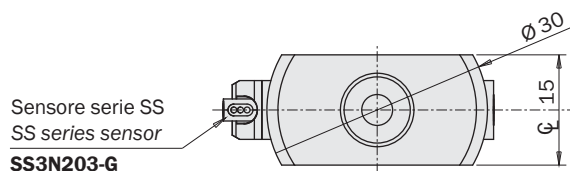
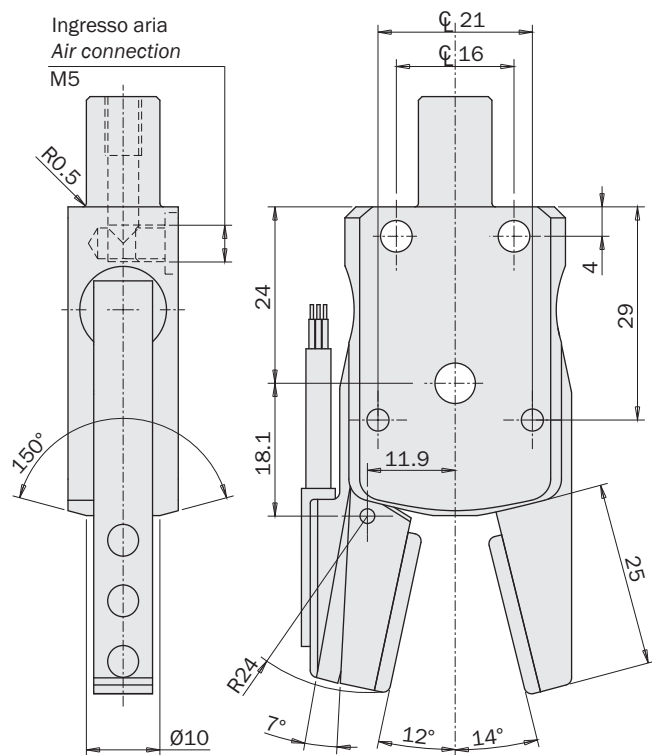
- Piston bore: 12mm.
- Single-acting with opening spring.
- Sensor on the jaw.
- Steel jaw and probe.

Dimensions (mm)

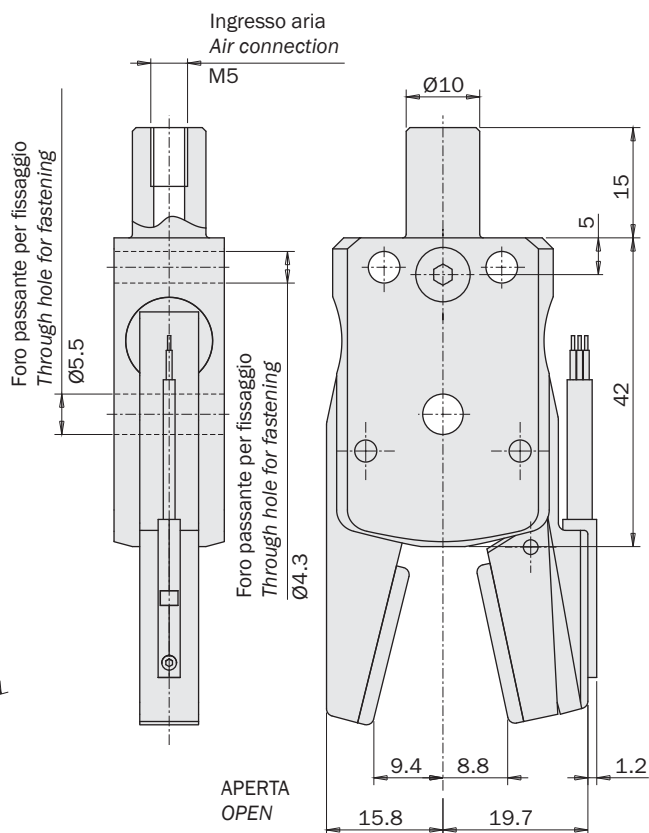
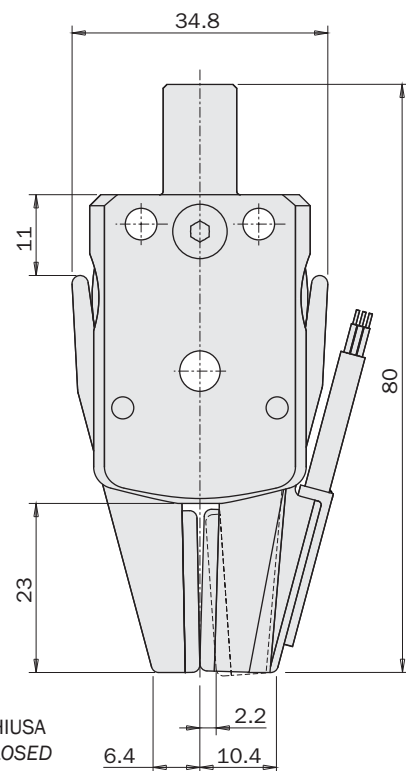
FIRST ANGLE
PROJECTION

PB-0187

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

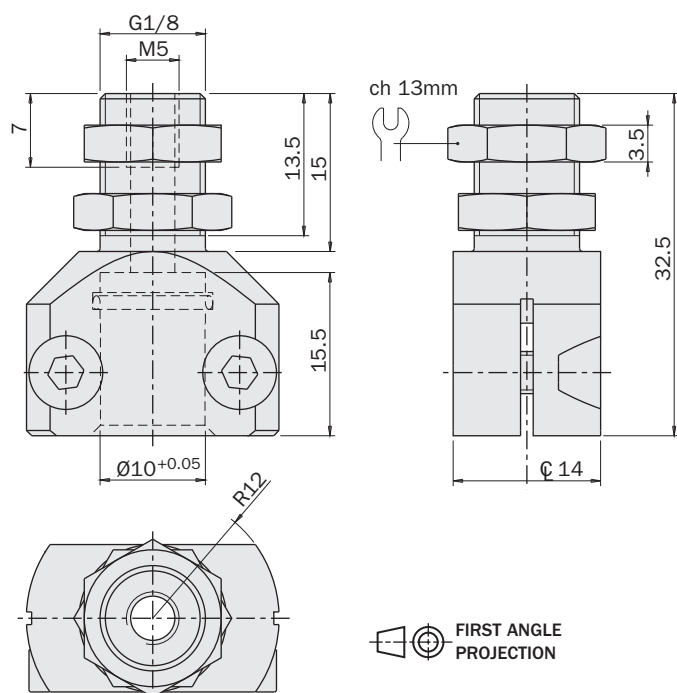
Dimensioni (mm)**PB-0187**

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

Dimensions (mm)APERTA
OPENCHIUSA
CLOSED

Adattatore per pinze PB

Adapter fitting for PB grippers

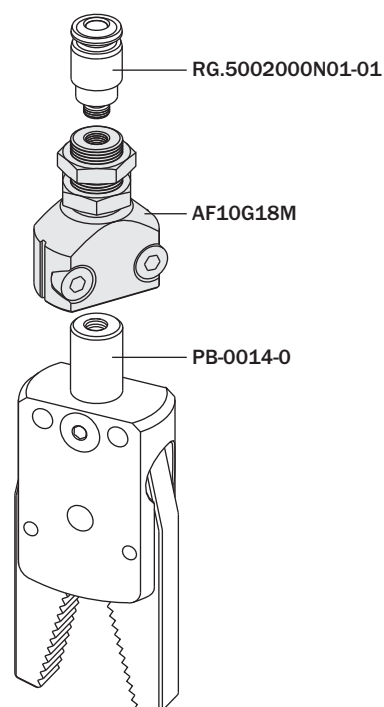
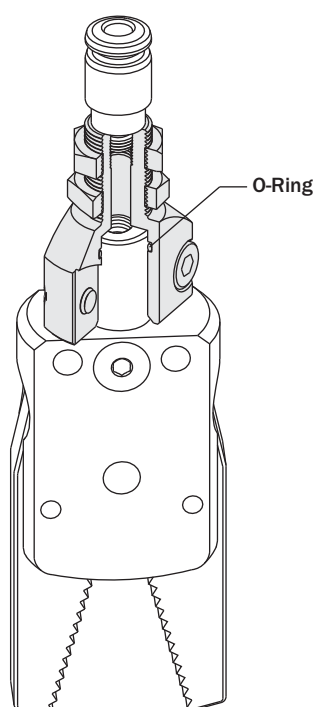


NEW

	AF10G18M
Peso Weight	18 g



Esempi di utilizzo / Application examples



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.

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

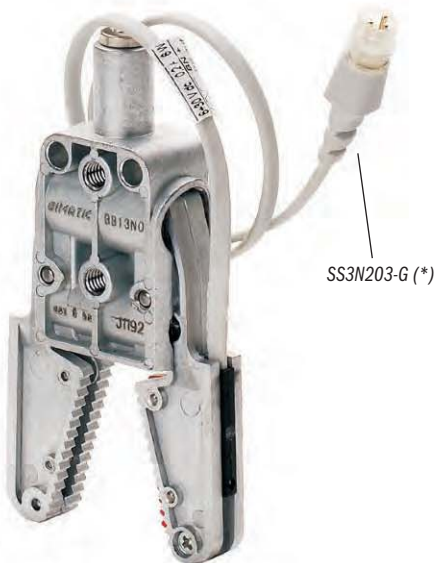
- BB-12-00 double-acting.
- BB-12-NO normally open.
- BB-13-NO normally open with sensor.
- Housing and jaws die-casted in zinc alloy (zamak).
- Flat profile.
- Two fastening options.



BB-12-00



BB-12-NO



BB-13-NO

SS3N203-G (*)

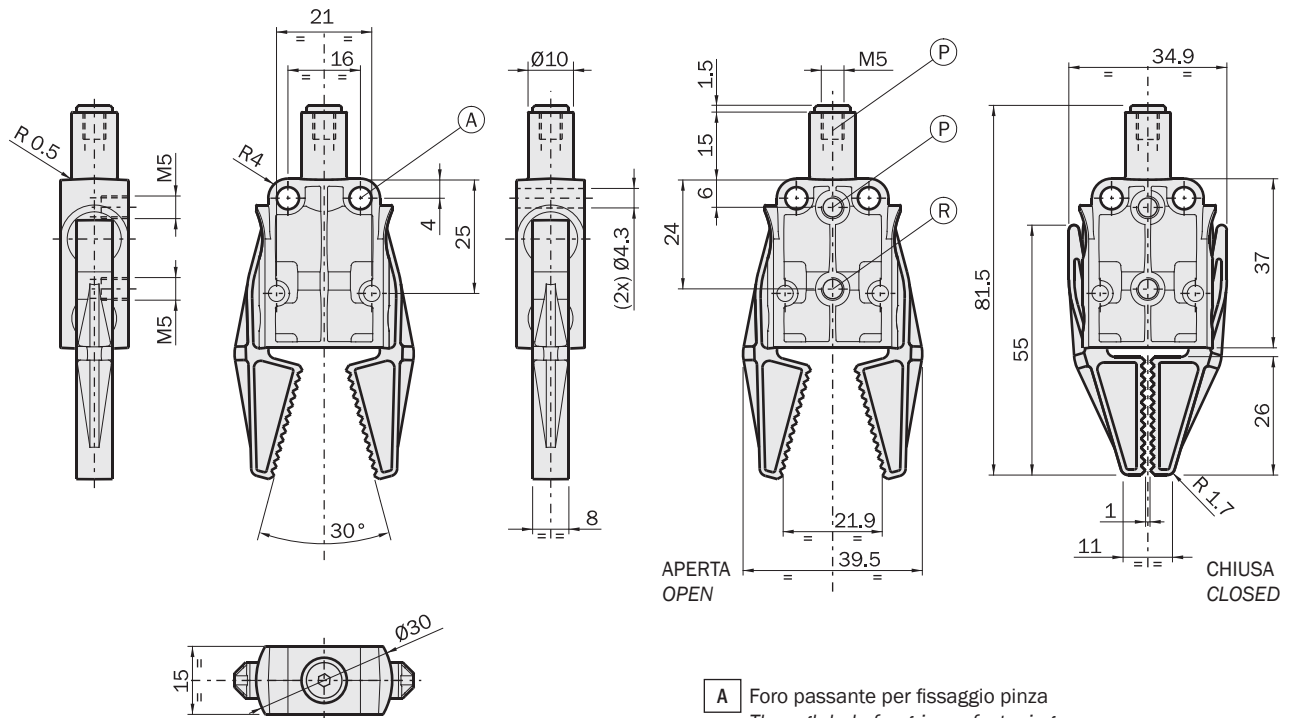
(*)
Il sensore SS3N203-G è incluso.
The sensor SS3N203-G is included.

	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 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 cm³	1.1 cm³	1.1 cm³
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

Dimensioni (mm) / Dimensions (mm)

BB-12-00

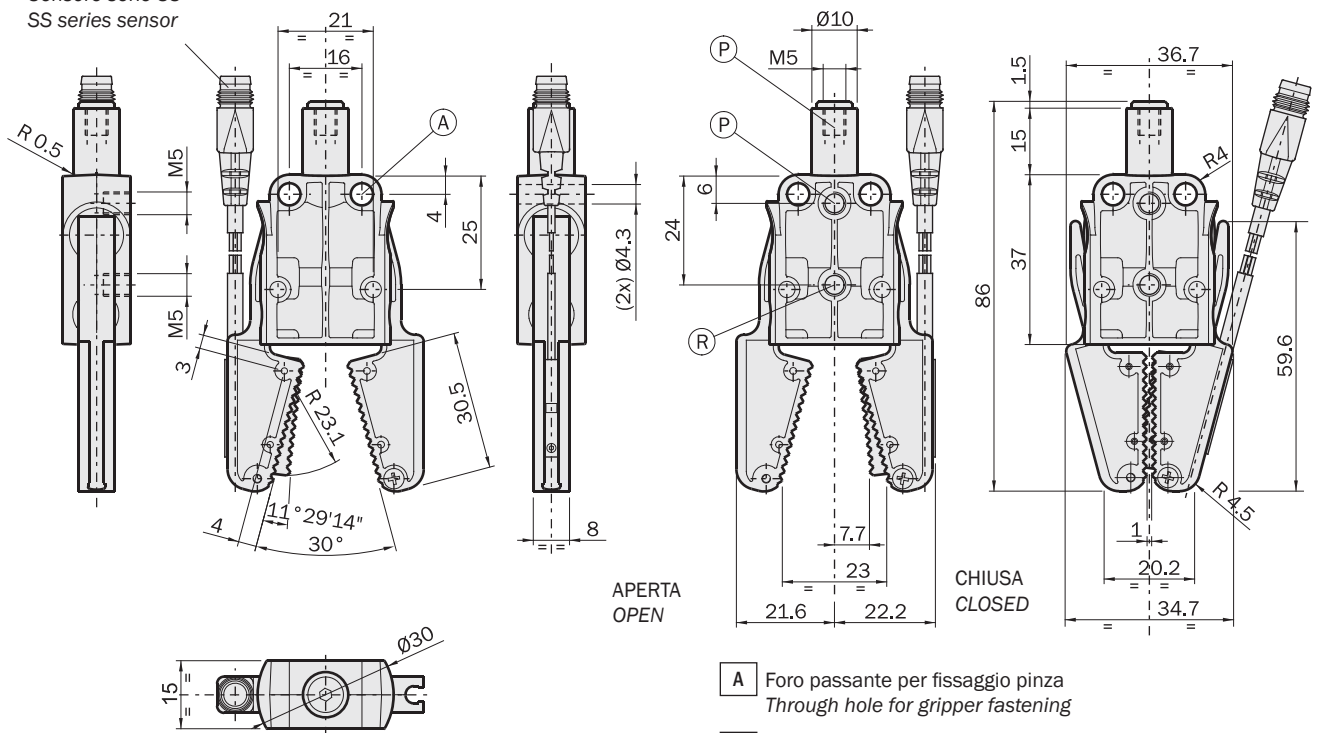
BB-12-N0



- A** Foro passante per fissaggio pinza
Through hole for gripper fastening
- P** Aria compressa in P: chiusura della pinza
Compressed air in P: gripper closing
- R** Aria compressa in R: apertura della pinza
Compressed air in R: gripper opening

Dimensioni (mm) / Dimensions (mm)

BB-13-N0

Sensore serie SS
SS series sensor

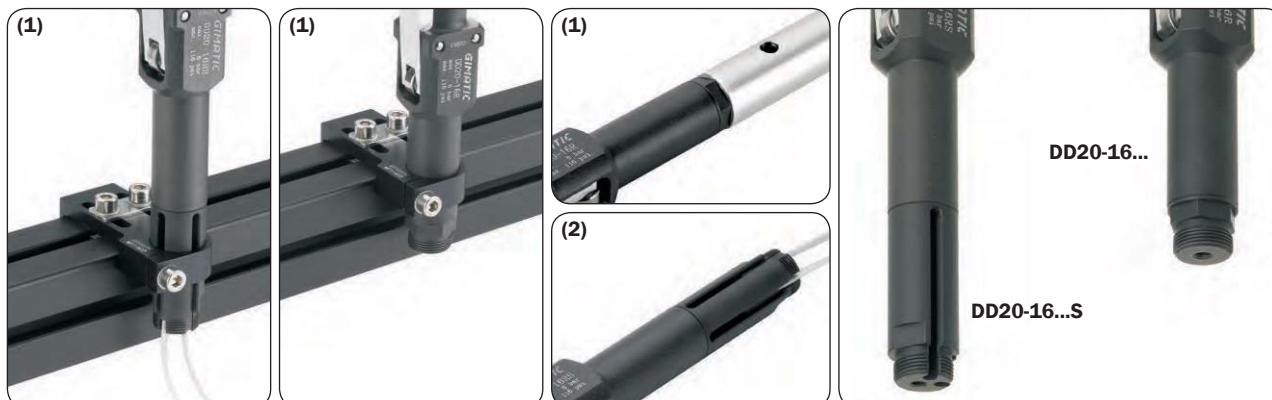
- A** Foro passante per fissaggio pinza
Through hole for gripper fastening
- P** Aria compressa in P: chiusura della pinza
Compressed air in P: gripper closing
- R** Aria compressa in R: apertura della pinza
Compressed air in R: gripper opening

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

- Azionamento a semplice effetto con apertura a molla.
- Elevata forza di serraggio.
- Vari accessori disponibili per il fissaggio (1).
- Sensori magnetici opzionali (2).
- Griffe in acciaio.

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

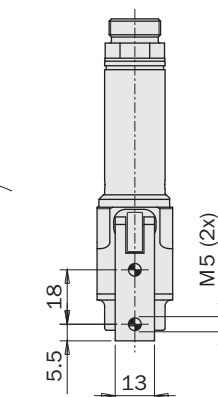
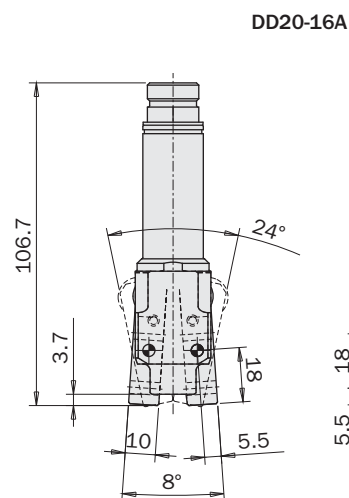
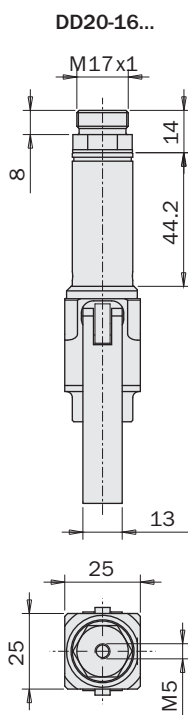
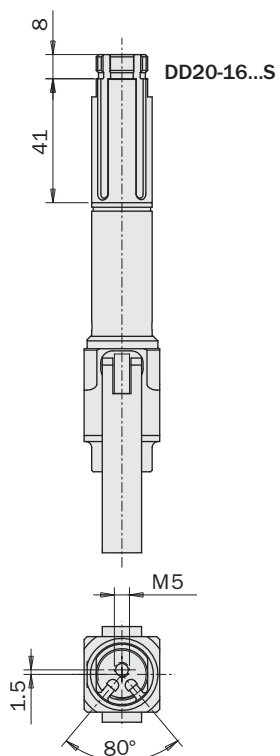
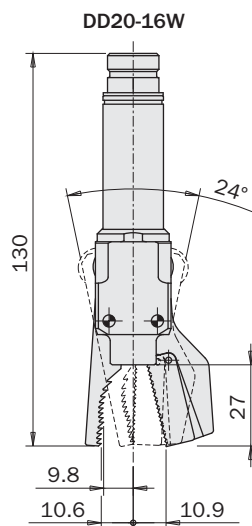
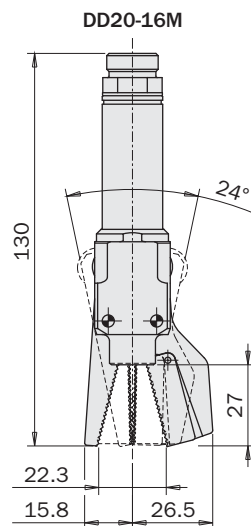
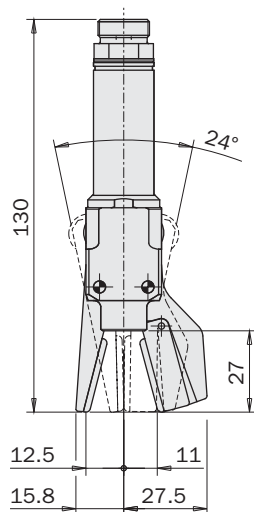
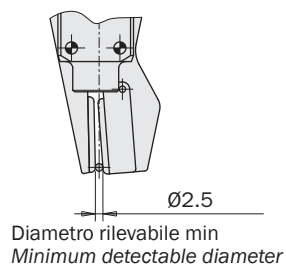
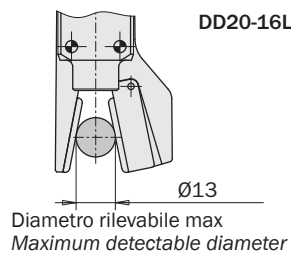
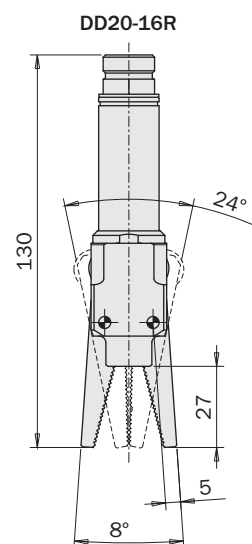
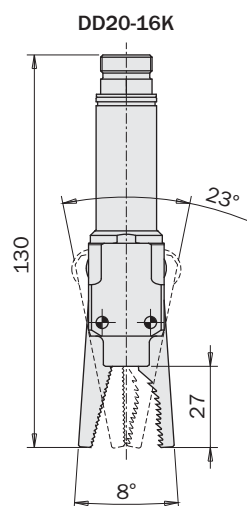
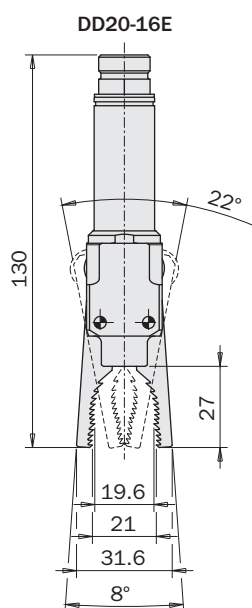
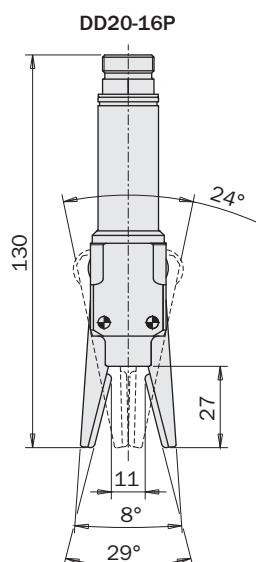
- Single acting with spring opening.
- Very high closing force.
- Several mounting accessories (1).
- Optional magnetic sensors (2).
- Steel jaws.



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

	DD20-16R DD20-16RS	DD20-16P DD20-16PS	DD20-16E DD20-16ES	DD20-16K DD20-16KS	DD20-16A DD20-16AS	DD20-16M	DD20-16W	DD20-16L
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 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 senza carico Closing time without load	0.02 s							
Peso Weight	165 g 190 g	160 g 195 g	165 g 200 g	170 g 200 g	135 g 175 g	165 g	170 g	160 g

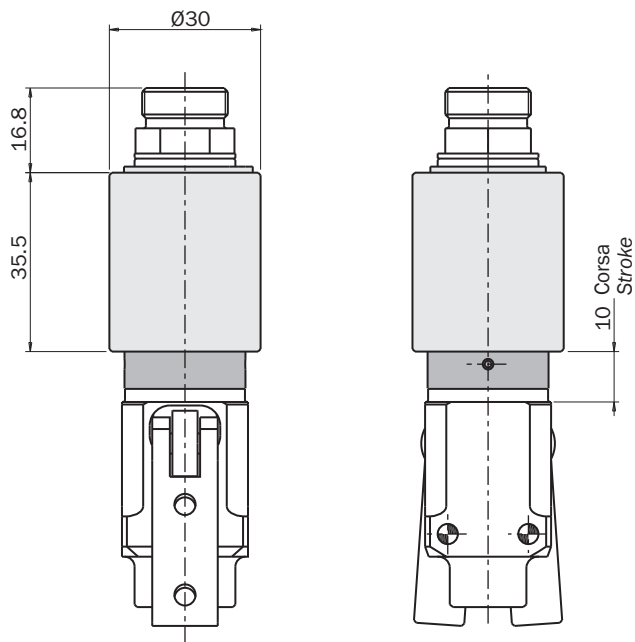
Dimensioni (mm) / Dimensions (mm)



FIRST ANGLE
PROJECTION

Sospensione

Con gli accessori DD20-K1 e TFA20SP10, è possibile montare la pinza su una sospensione di corsa 10mm.



	DD20-K1	TFA20SP10
Peso / Weight	5 g	85 g

Suspension

By the accessories DD20-K1 and TFA20SP10, it is possible to mount the gripper on a 10mm stroke suspension.

