



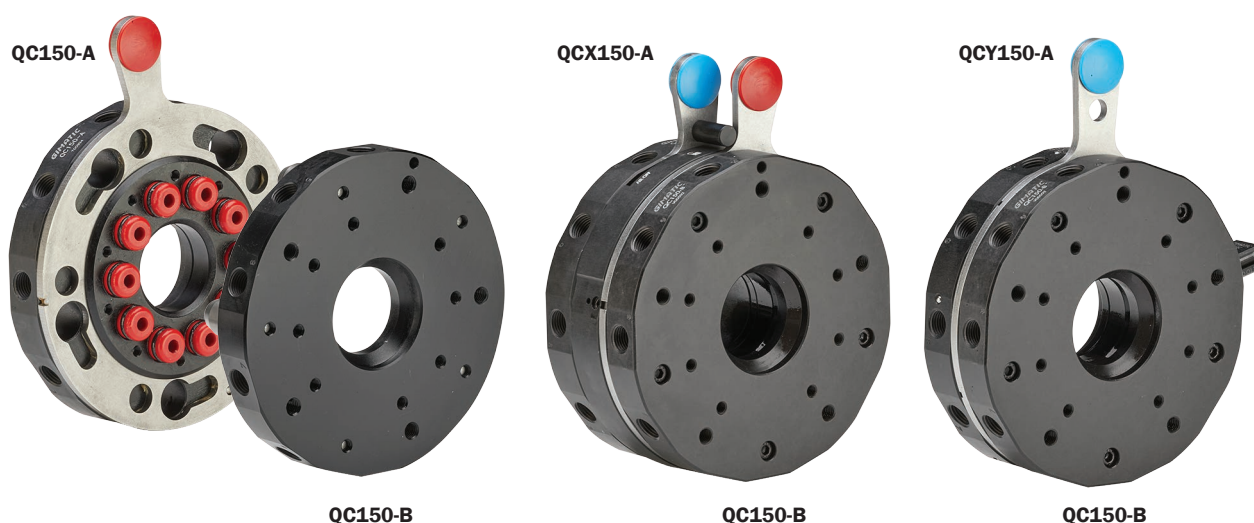
 A business of **BARNES**

Cambia utensile

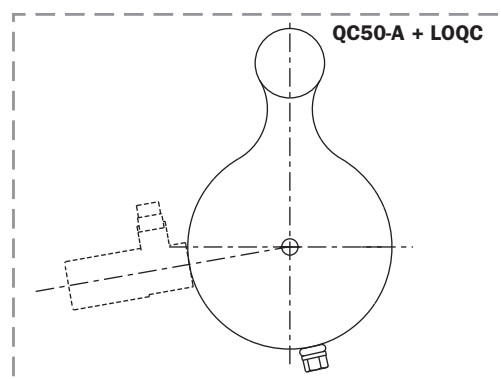
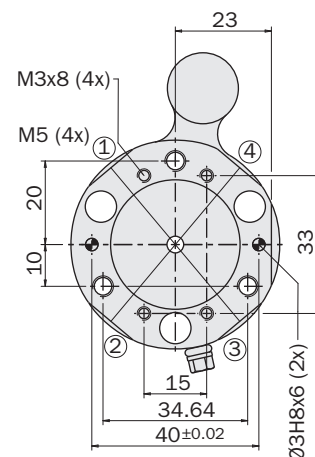
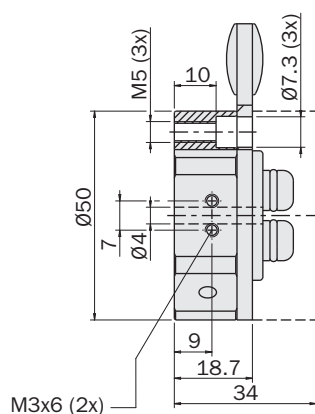
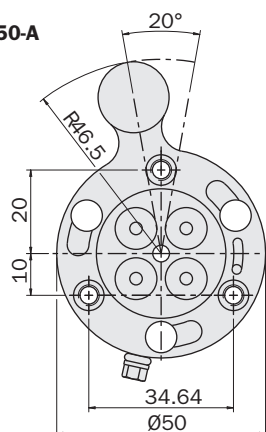
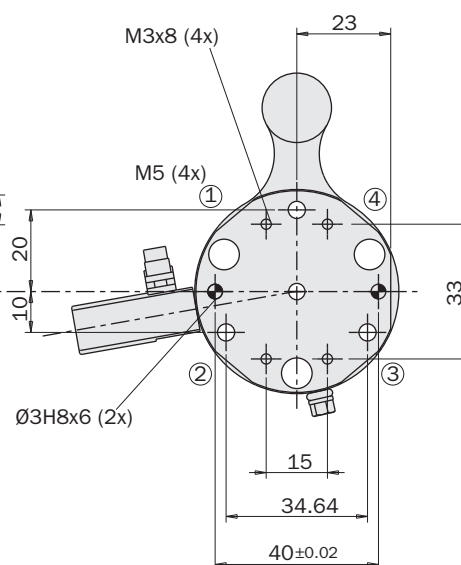
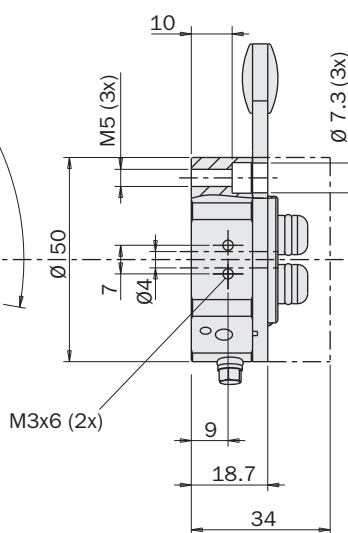
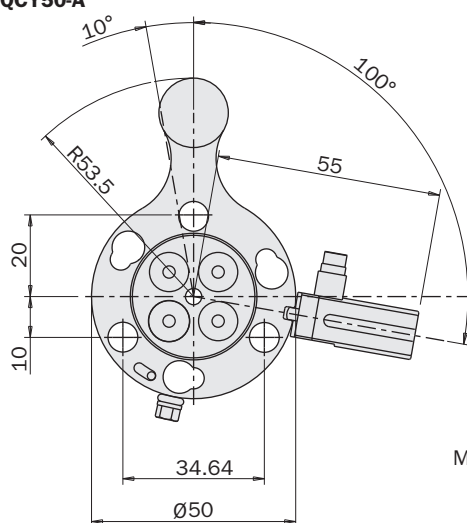
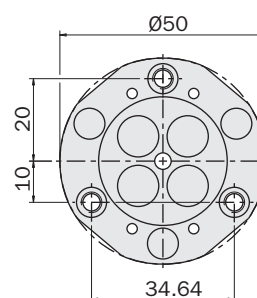
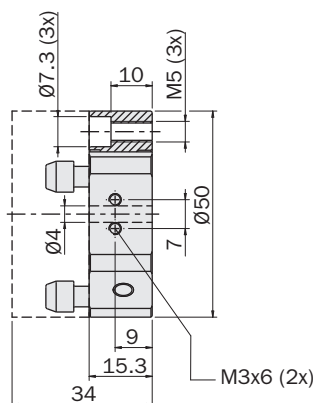
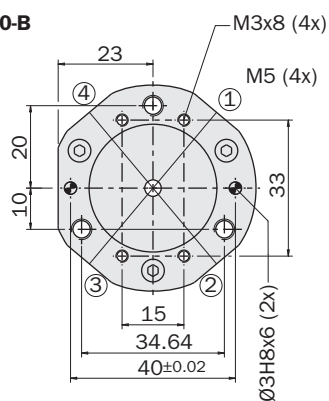
- Cambio rapido dell'attrezzatura sul robot.
- Adatto anche per canalizzazioni in depressione.
- Evita errori nelle connessioni pneumatiche ed elettriche.
- 4, 8, 10 o 12 connessioni pneumatiche.
- 15 connessioni elettriche.
- Le due parti (lato robot e lato pinza) sono fornite separatamente.
- Il lato 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.

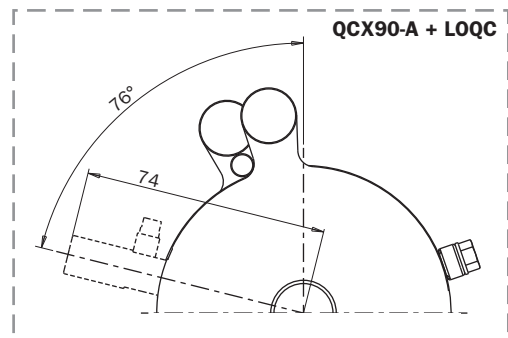
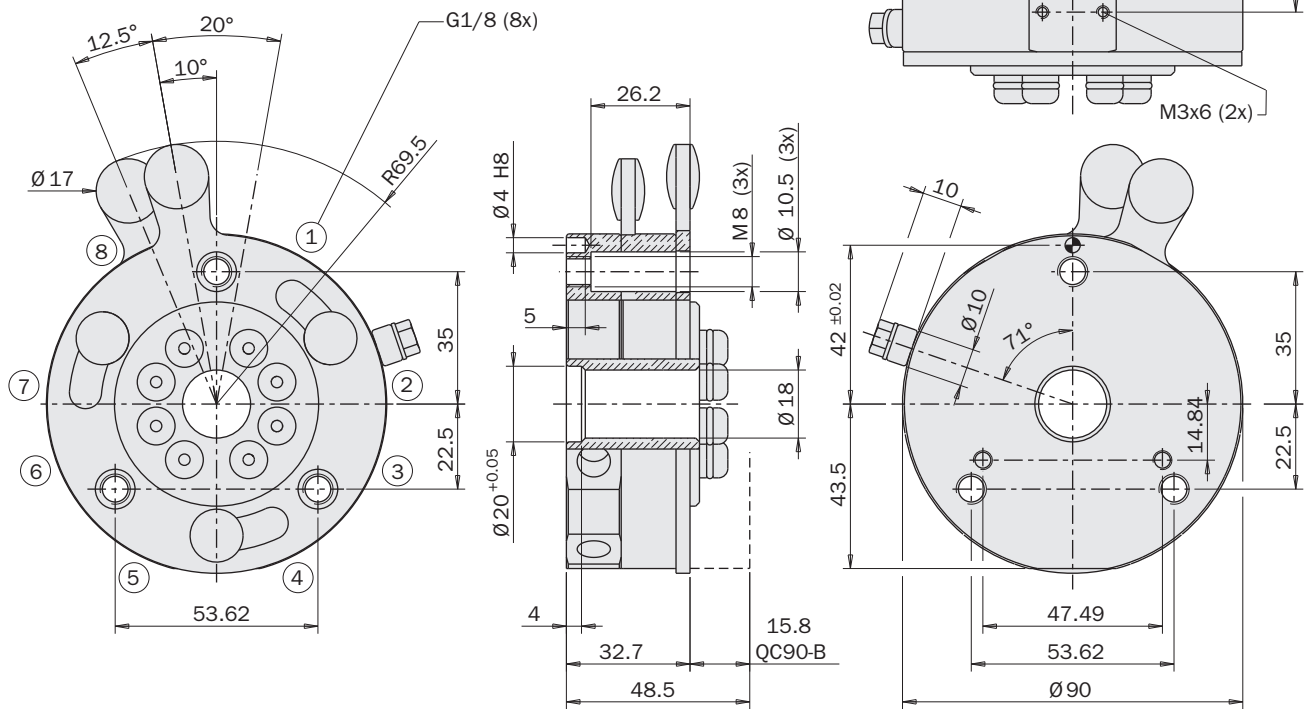


		50	90	150	160	200
Fluido Medium		Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]				
Pressione di esercizio Pressure range		-1 ÷ 6 bar				
Temperatura di esercizio Temperature range		5 ÷ 60 °C				
Cambia utensile lato robot Robot side quick changer	QC...-A	QC50-A (103 g)	QC90-A (318 g)	QC150-A (1123 g)	QC160-A (1200 g)	QC200-A (2640 g)
Cambia utensile lato robot con valvola di sicurezza Robot side quick changer with safety valve	QCX...-A	-	QCX90-A (595 g)	QCX150-A (2200 g)	QCX160-A (2200 g)	QCX200-A (4900 g)
Cambia utensile lato robot con valvola automatica Robot side quick changer with automatic valve	QCY...-A	QCY50-A (133 g)	QCY90-A (350 g)	QCY150-A (1180 g)	-	QCY200-A (2700 g)
Cambia utensile lato pinza universale Universal gripper side quick changer	QC...-B	QC50-B (65 g)	QC90-B (227 g)	QC150-B (827 g)	QC160-B (900 g)	QC200-B (1890 g)
Cambia utensile lato pinza con flangia Quick changer on gripper side, with flange	QCP...-B	QCP50-B (110 g)	QCP90-B (315 g)	QCP150-B (1090 g)	QCP160-B (1150 g)	QCP200-B (2400 g)
Cambia utensile lato pinza, specifico per QCY Gripper side quick changer, specific for QCY	QCY...-B	-	-	QCY150-B (862 g)	-	QCY200-B (1875 g)

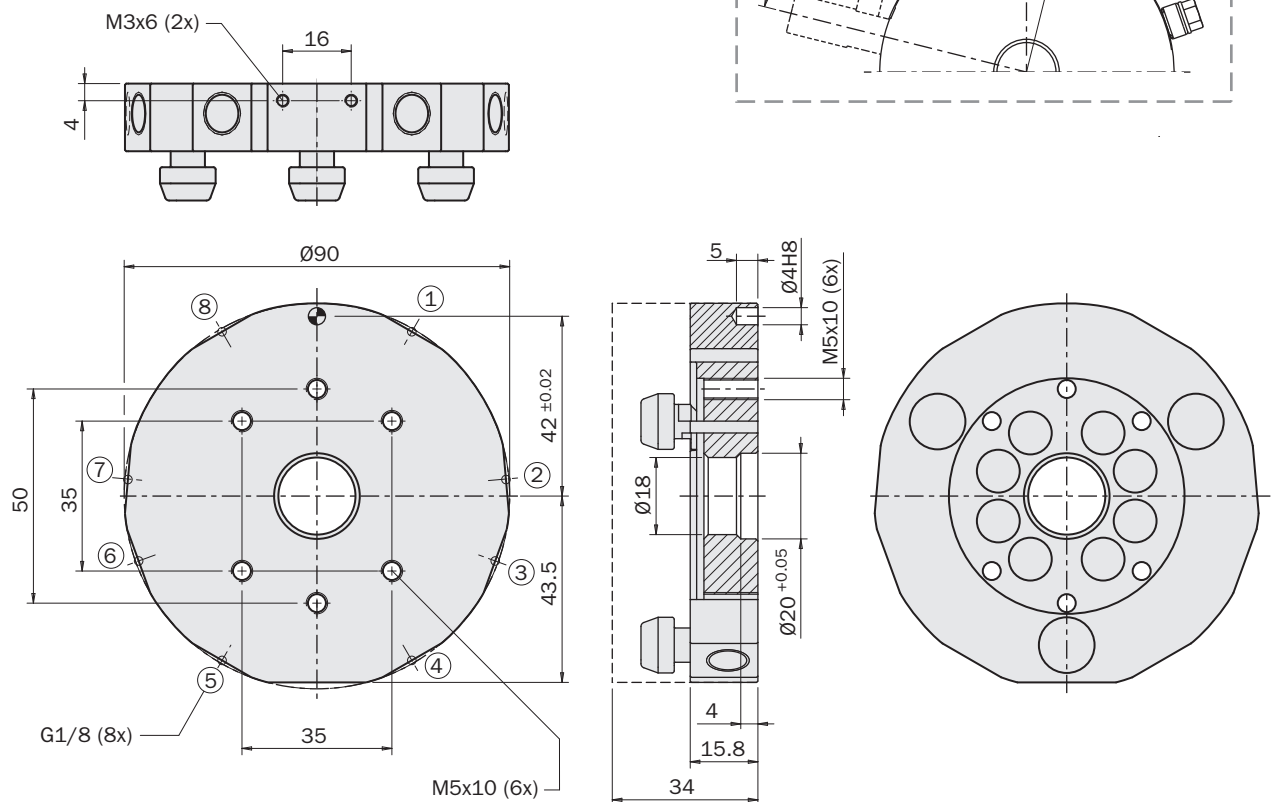
Dimensioni (mm)
Dimensions (mm)**QC50-A****QCY50-A****QC50-B**

Dimensioni (mm)
Dimensions (mm)

QCX90-A

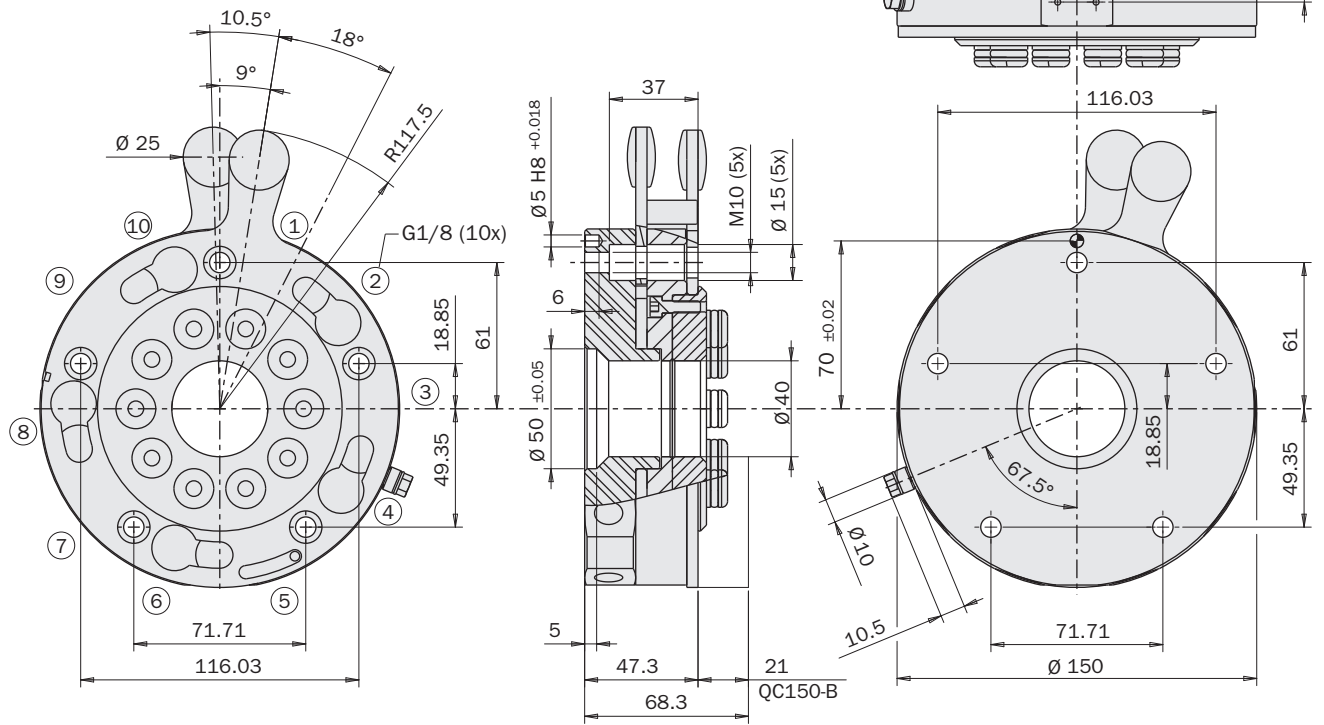


QC90-B

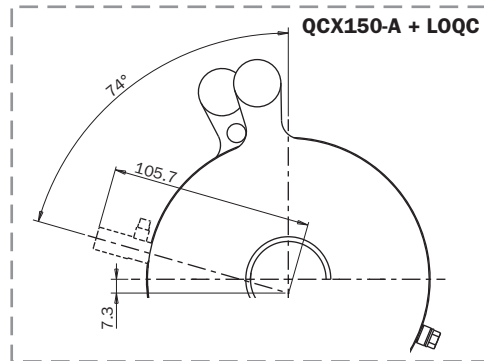


Dimensioni (mm)
Dimensions (mm)

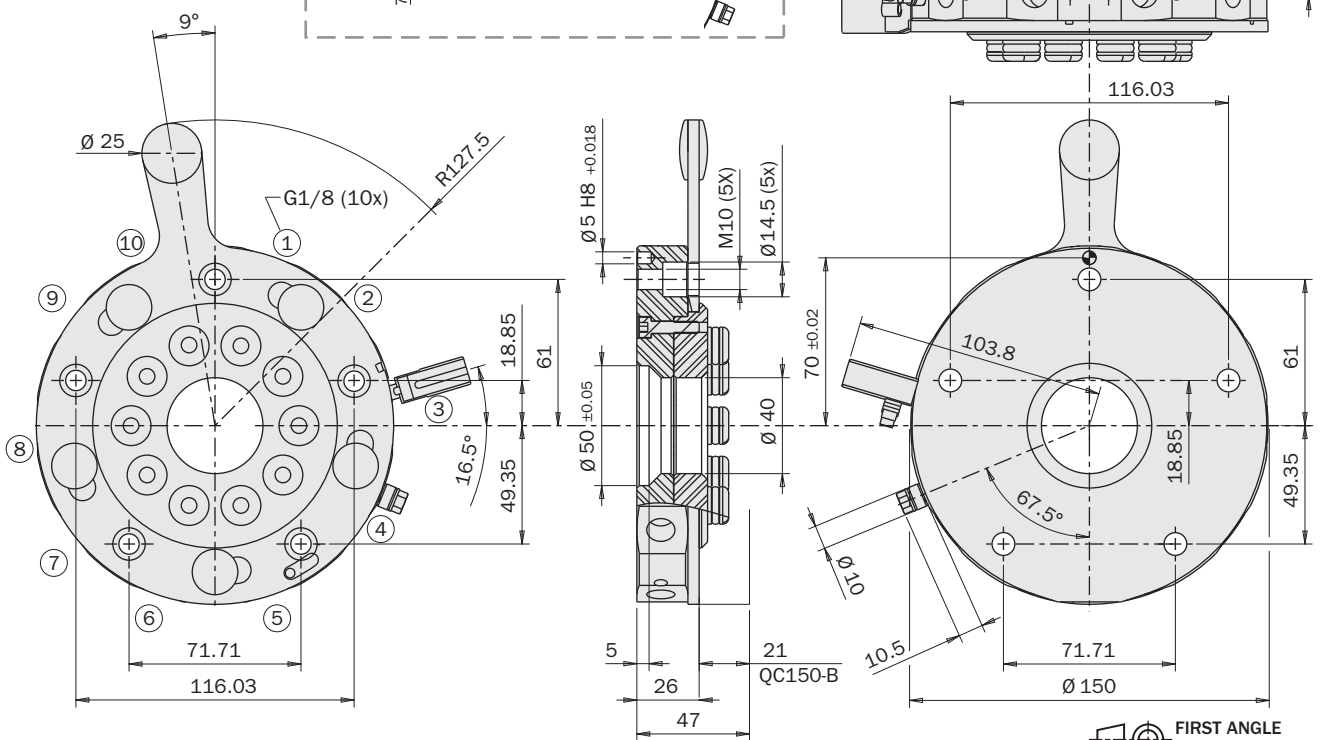
QCX150-A



QCX150-A + L0QC



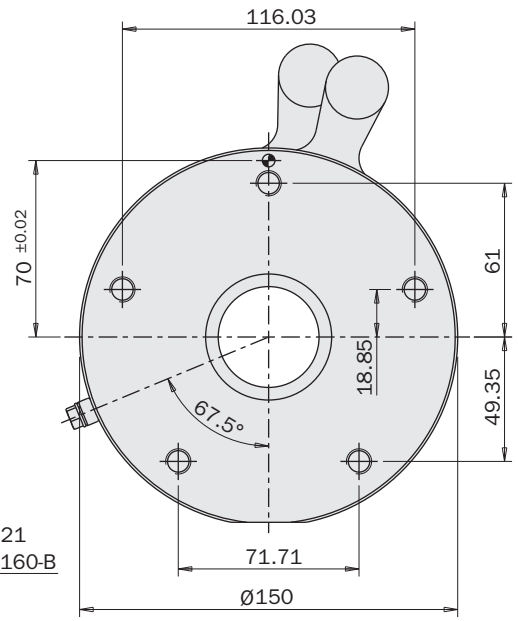
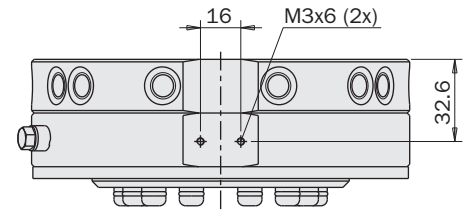
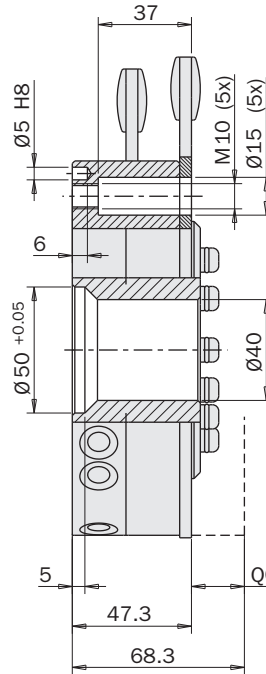
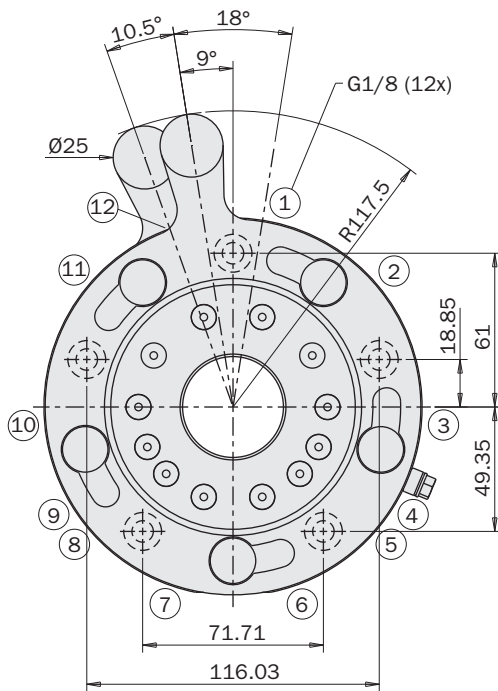
QCY150-A



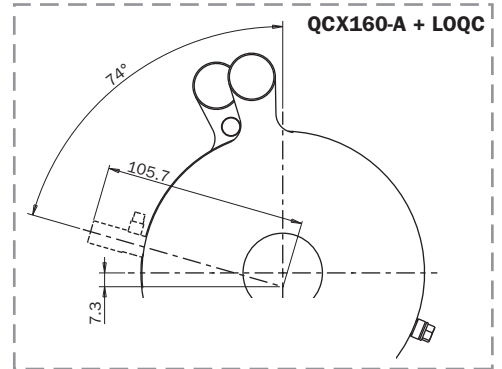
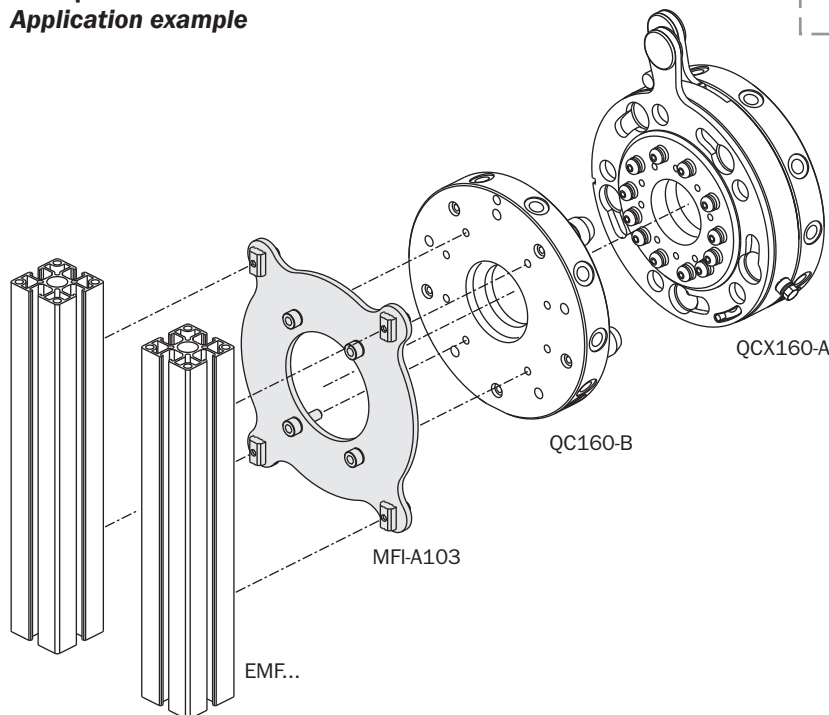
FIRST ANGLE
PROJECTION

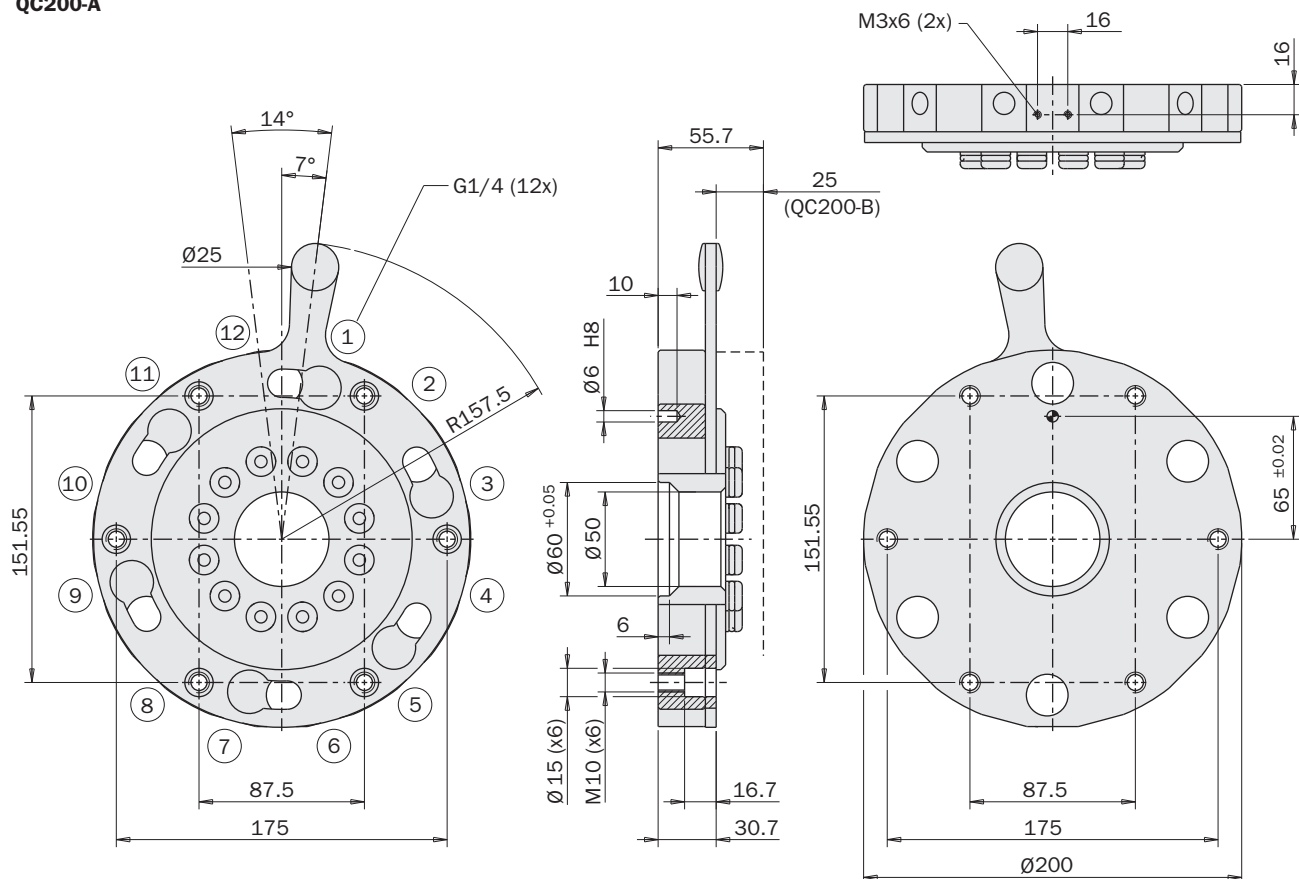
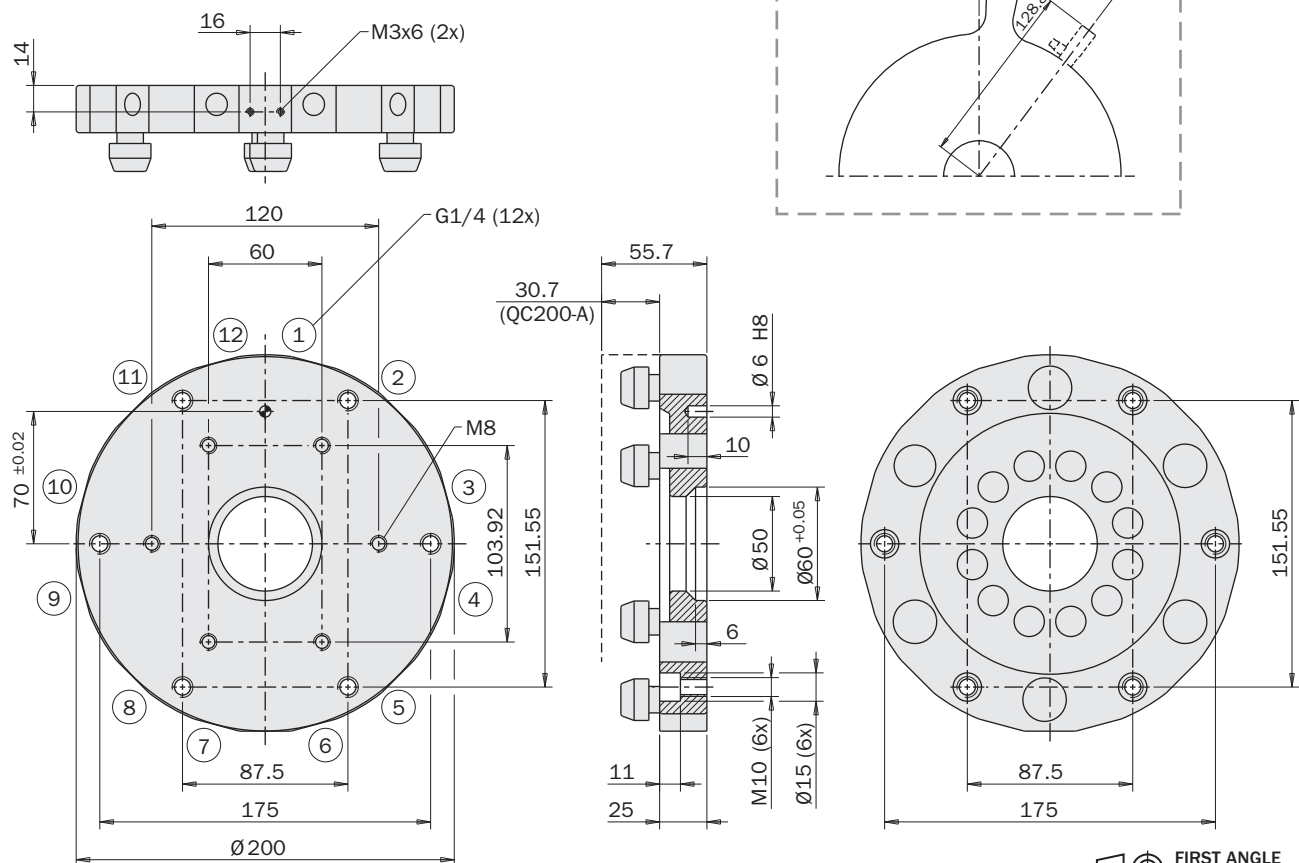
Dimensioni (mm)
Dimensions (mm)

QCX160-A



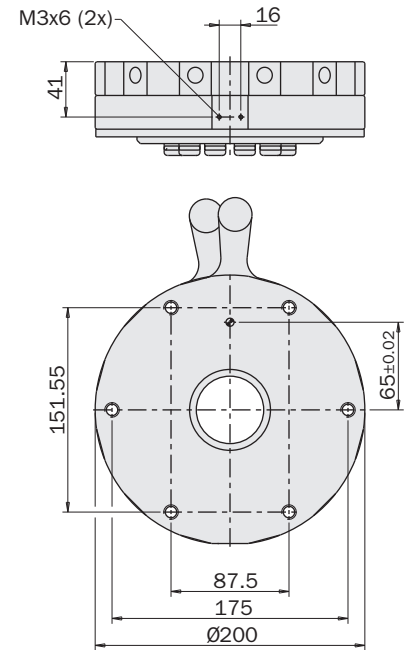
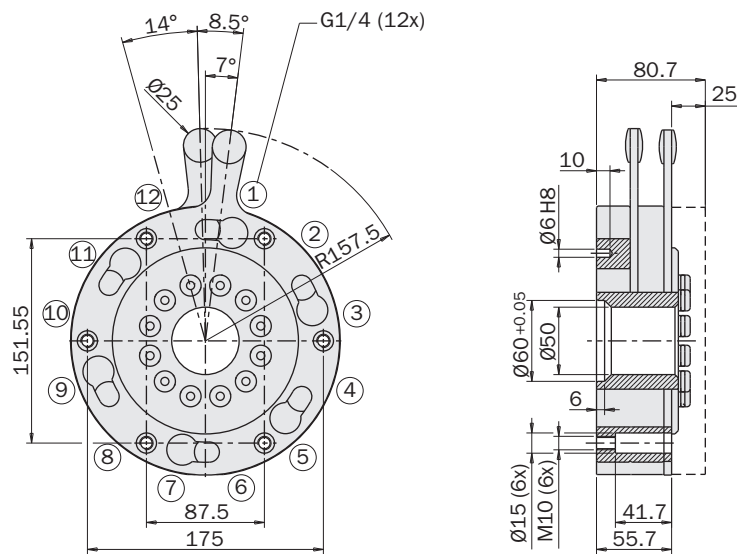
Esempio di utilizzo
Application example



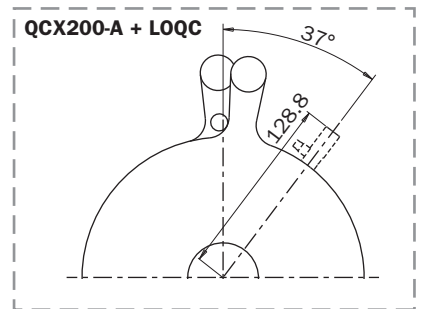
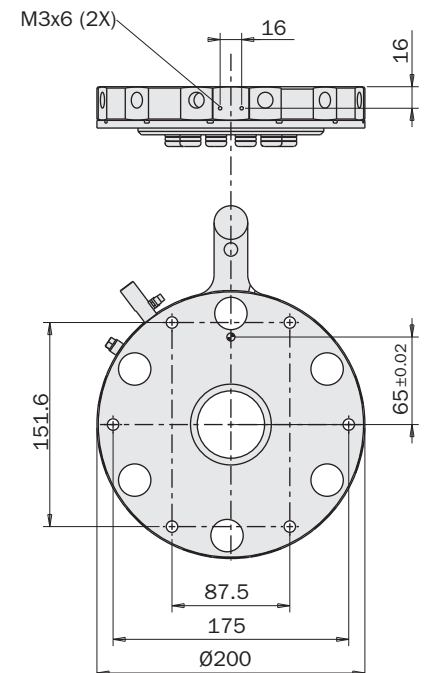
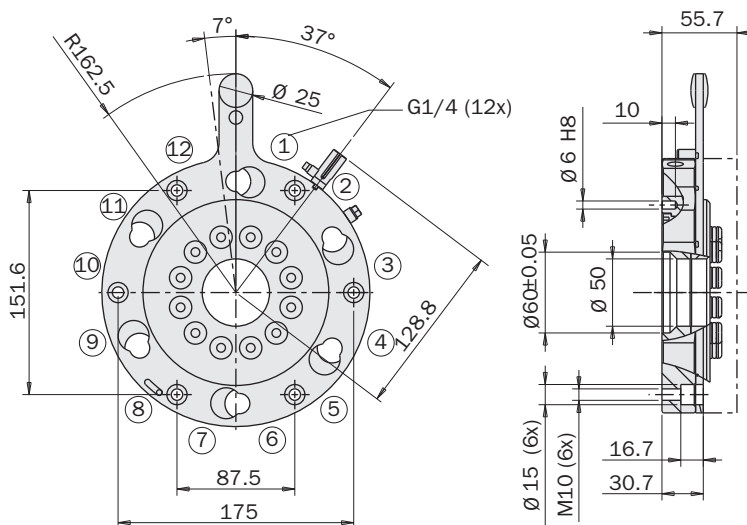
Dimensioni (mm)
Dimensions (mm)**QC200-A****QC200-B / QCY200-B**FIRST ANGLE
PROJECTION

Dimensioni (mm)
Dimensions (mm)

QCX200-A



QCY200-A

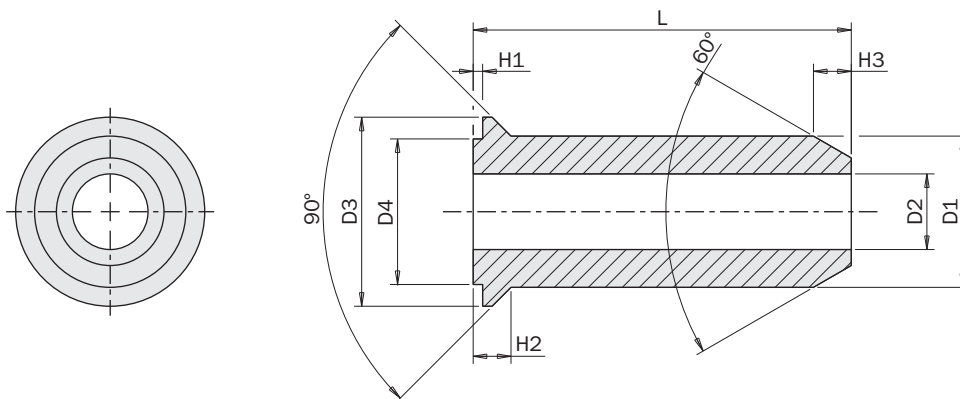


Spina di centraggio

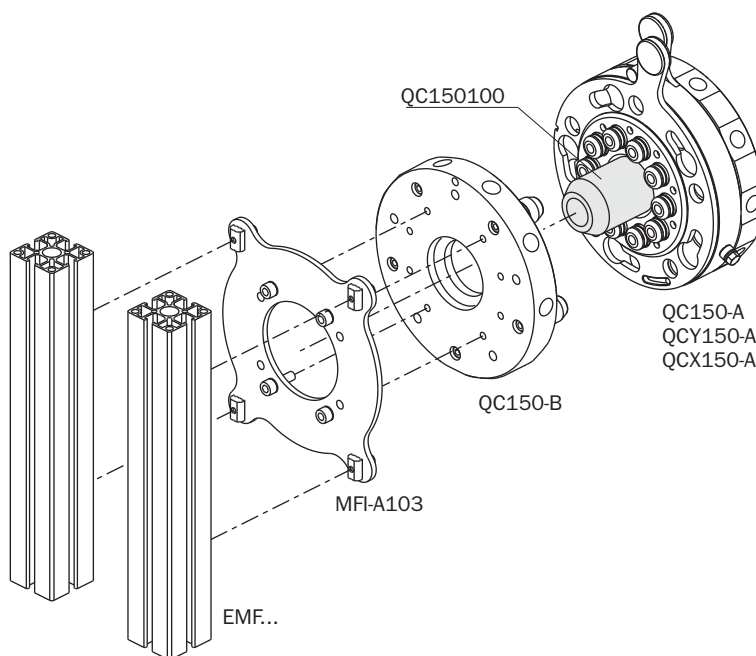
- Da posizionare sul lato robot.
- Aiuta il centraggio manuale di EOAT pesanti.

Centering pin

- To be positioned on the robot side.
- It helps the manual centering of heavy EOATs.

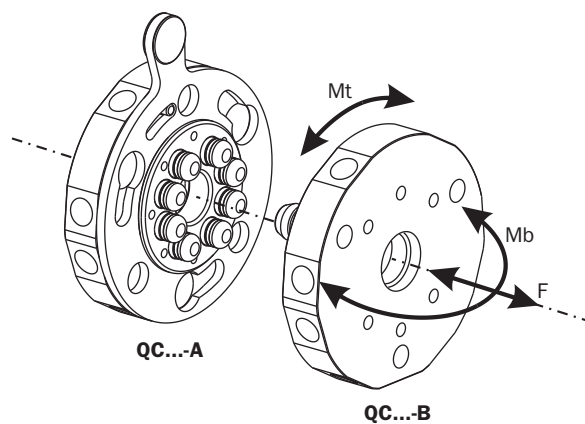


	QC9065	QC150100	QC200120
L	65	100	120
H1	2	2.5	3
H2	5	10	11
H3	5	10	15
D1	Ø18	Ø40	Ø50
D2	Ø8	Ø20	Ø25
D3	Ø20	Ø50	Ø60
D4	Ø14	Ø38.5	Ø43.5

**Carichi di sicurezza****Safety loads**

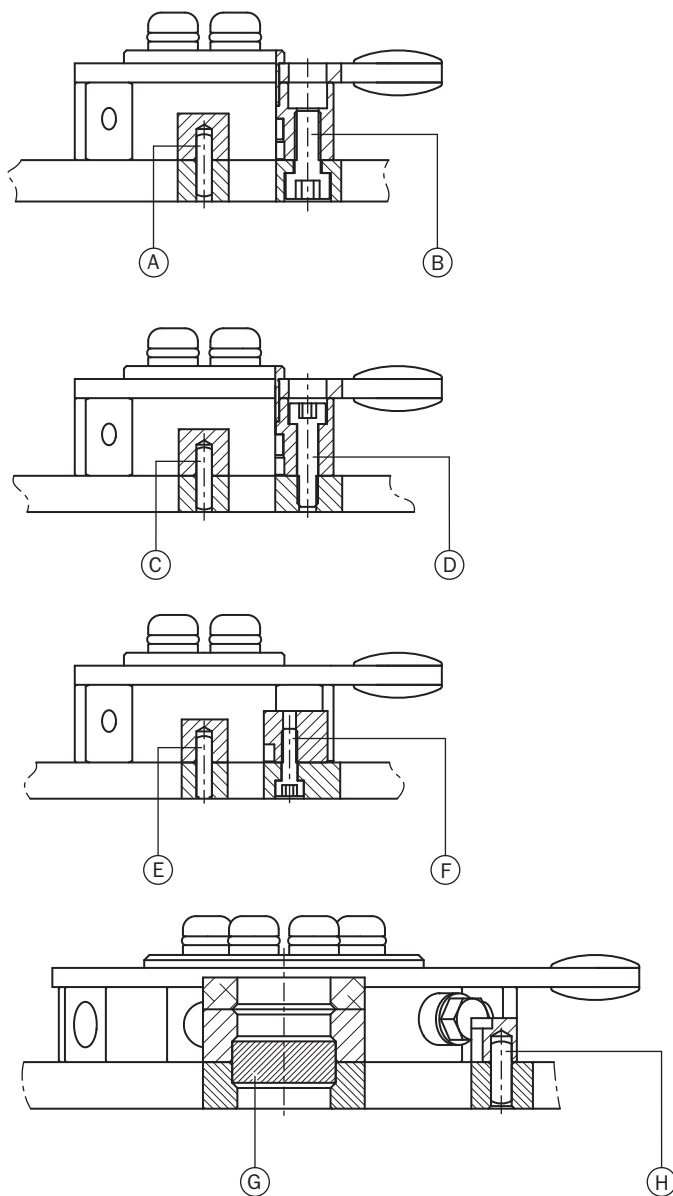
	QC50	QC90	QC150	QC160	QC200
F	350 N	1400 N	3000 N	3000 N	9000 N
Mt	30 Nm	180 Nm	600 Nm	600 Nm	2000 Nm
Mb	15 Nm	100 Nm	350 Nm	350 Nm	1350 Nm
m (*)	5 kg	20 kg	50 kg	50 kg	150 kg

(*)
Massimo carico raccomandato
Maximum recommended load



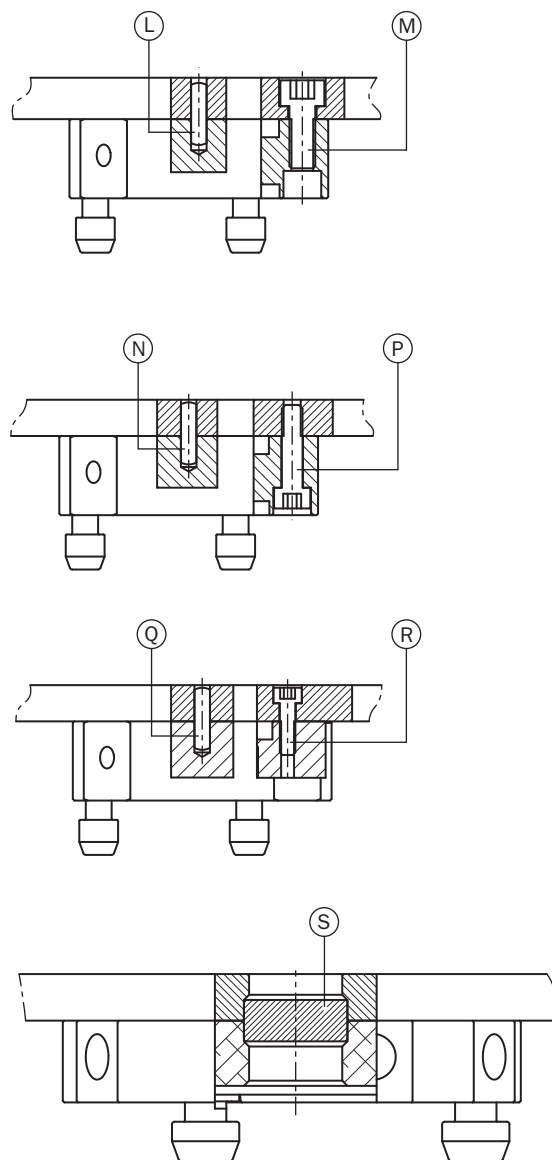
Fissaggio

Lato robot
Robot side



Fastening

Lato pinza
Gripper side



	QC50-A QCY50-A	QC90-A QCX90-A QCY90-A	QC150-A QCX150-A QCY150-A	QC160-A QCX160-A	QC200-A QCX200-A QCY200-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 QCY150-B	QC160-B	QC200-B QCY200-B
L	Ø3 (2x)	-	-	-	Ø6 (1x)
M	M5 (3x)	-	M8 (5x)	M8 (5x)	M10 (6x)
N	Ø3 (2x)	-	-	-	-
P	M4 (3x)	-	M6 (5x)	M6 (5x)	M8 (6x)
Q	Ø3 (2x)	-	-	-	-
R	M3 (4x)	M5 (6x)	M6 (8x)	M6 (8x)	M8 (6x)
S	-	Ø20	Ø50	Ø50	Ø60

QCX**Cambia utensile lato robot con valvola di sicurezza**

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**Robot side quick changer with safety valve**

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

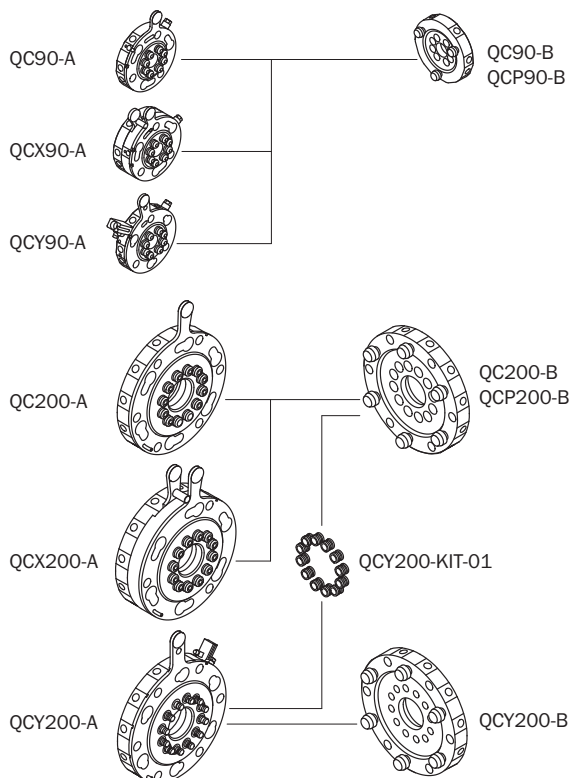
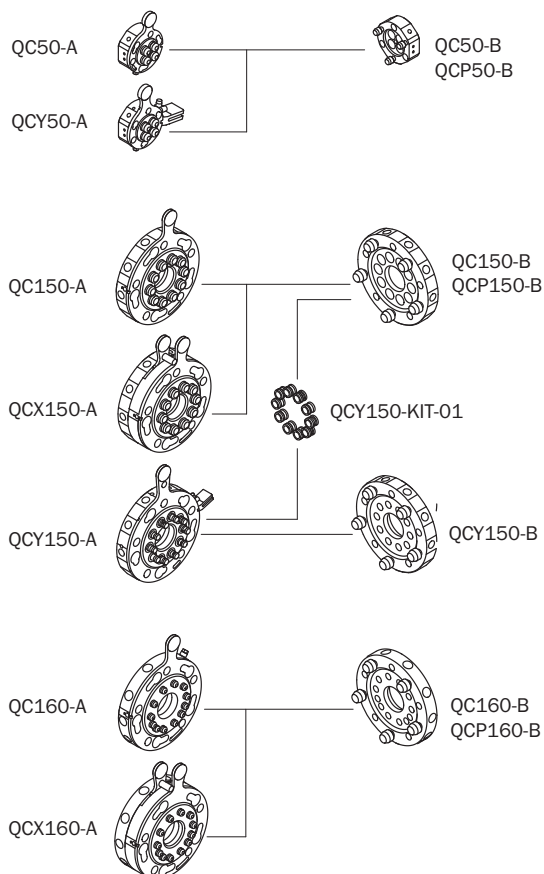
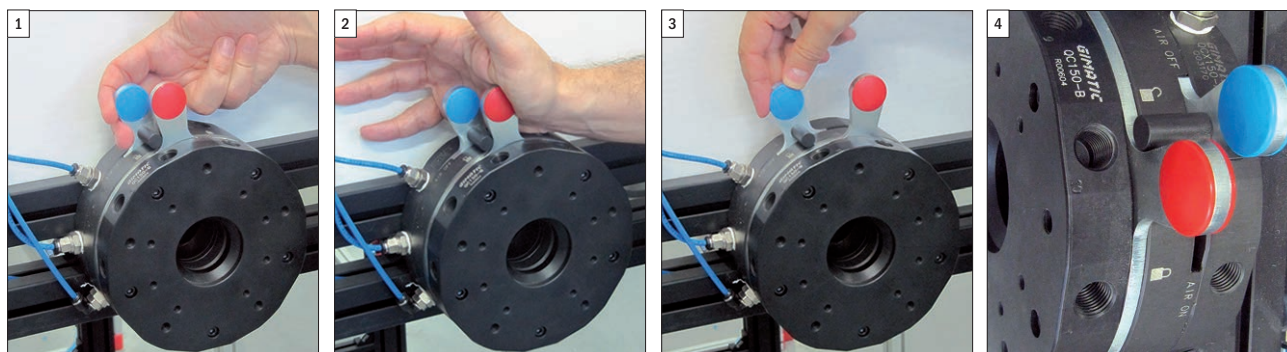
It is not possible to open the air flow, if the flange is not engaged (1).

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

Cambia utensile lato robot con valvola automatica

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 agganciamento.

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-KIT

Il KIT di trasformazione permette di rendere compatibili i modelli QC150-B e QC200-B con i nuovi cambia utensile QCY150-A e QCY200-A.

ATTENZIONE: il QC...-B non sarà più compatibile con i modelli QC...-A e QCX...-A dopo aver assemblato il KIT di trasformazione

QCY

Robot side quick changer with automatic valve

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.

QCY-KIT

The transformation KIT makes the QC150-B and QC200-B models compatible with the new QCY150-A and QCY200-A quick changers.

ATTENTION: the QC...-B will no longer be compatible with the QC...-A and QCX...-A models after assembling the transformation KIT.

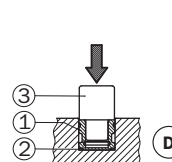
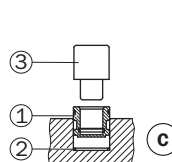
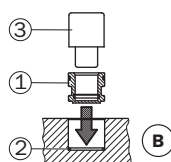
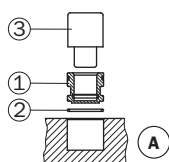
QCY...-A	QC...-B	KIT
QCY150-A	QC150-B, QCP150-B	QCY150-KIT-01
QCY200-A	QC200-B, QCP200-B	QCY200-KIT-01

Procedura di assemblaggio:

- Posizionare l'EOAT su una superficie che ne assicuri la stabilità.
- Pulire i fori del QC...-B dalla presenza di eventuale grasso.
- Introdurre gli o-ring (2) presenti nel KIT in ognuno dei fori del QC...-B, accertandosi che siano inseriti a fondo (come da Fig. B).
- Introdurre la boccola di riduzione (1) con il lato aperto rivolto verso l'alto sul foro del QC...-B (come da Fig. C).
- Posizionare la spina di inserimento (3) presente nel KIT nella boccola di riduzione.
- Mediante una mazzetta in plastica, inserire la boccola nel QC...-B facendo attenzione a mantenerla perpendicolare durante l'operazione (come da Fig. D). Una porzione eccedente di o-ring potrebbe essere tagliata durante l'operazione.
- Controllare che la boccola di riduzione (1) sia inserita fino in battuta: non deve sporgere rispetto al piano del QC...-B.
- Ripetere le operazioni precedenti per assemblare le altre boccole di riduzione nei fori rimanenti del QC...-B.

Assembly procedure:

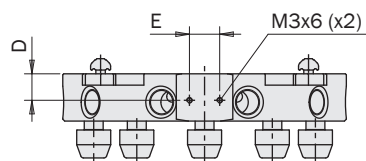
- Place the EOAT on a surface that ensures its stability.
- Clean the holes of the QC...-B from the presence of any grease.
- Introduce the o-rings (2) present in the KIT into each hole of the QC...-B, making sure that they are inserted fully (as shown in the Pic. B).
- Insert the reduction bushing (1) with the open side facing up on the hole of the QC...-B (as shown in the Pic. C).
- Place the insertion pin (3) in the KIT into the reduction bushing.
- Using a plastic hammer, insert the bushing into the QC...-B taking care to keep it perpendicular during the operation (as shown in the Pic. D). An excess portion of the o-ring could be cut off during the operation.
- Make sure that the reduction bushing (1) is in contact with the bottom of the hole: it must not protrude from the plane of the QC...-B.
- Repeat the previous steps to assemble the other reduction bushings in the remaining holes of the QC...-B.



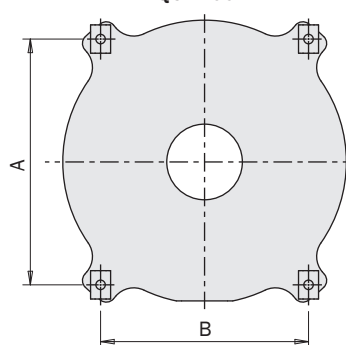
QCP

Cambia utensile lato pinza con flangia integrata

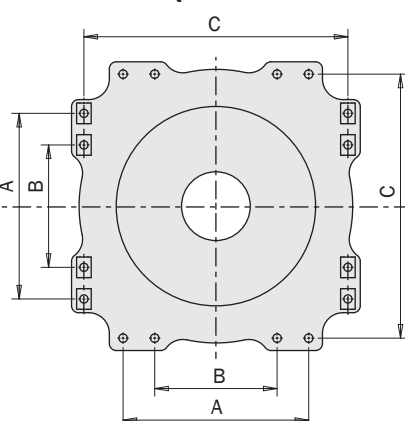
- L'interfaccia per le travi in alluminio è integrata.
- Peso ridotto.
- Gioco ridotto.
- Stesse dimensioni.



QCP50-B
QCP90-B
QCP150-B
QCP160-B



QCP200-B

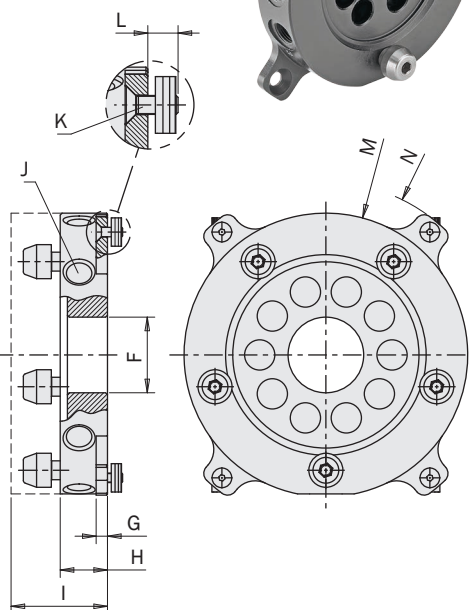


QCP

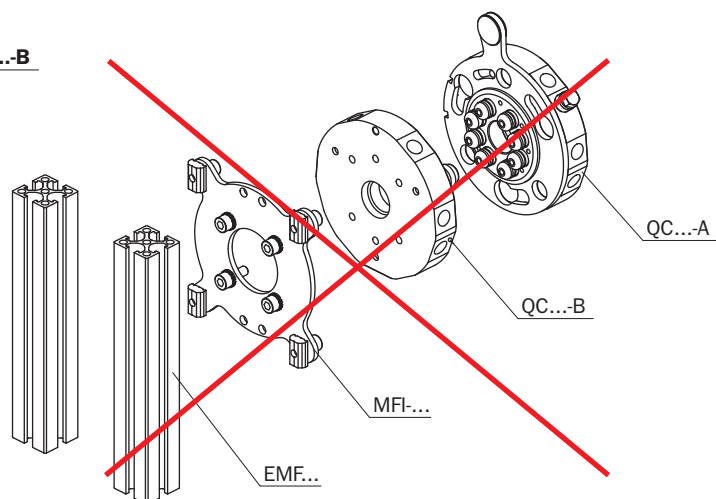
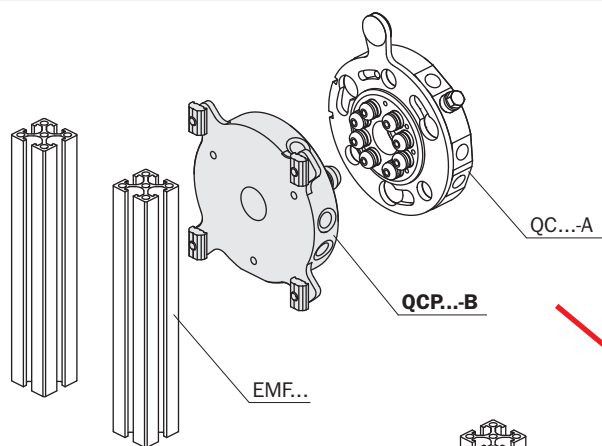
Gripper side quick changer with integrated flange

- The interface for the aluminum beams is integrated.
- Reduced weight.
- Reduced backlash.
- Same dimensions.

QCP90-B



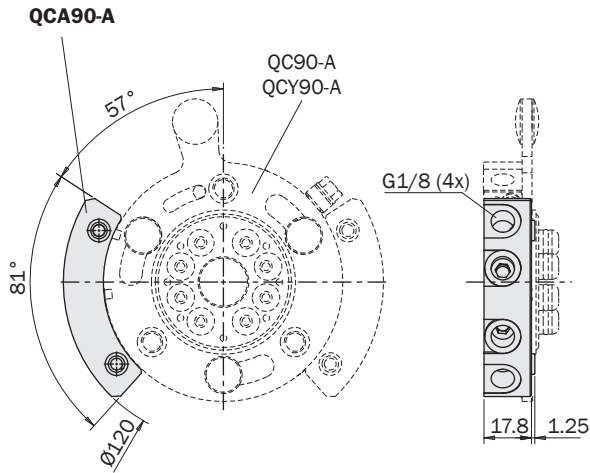
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Peso Weight
QCP50-B	50	32	-	13	7	Ø4	4	19.3	38	M5 (x4)	M4 (x4)	7.4	Ø50	Ø71.5	110 g
QCP90-B	76	76	-	7	16	Ø18	4	18.8	37	G1/8 (x8)	M5 (x4)	7.4	Ø90	Ø99.5	315 g
QCP150-B	130	110	-	14	16	Ø40	6	25	51	G1/4 (x10)	M5 (x4)	7.4	Ø150	Ø183	1092 g
QCP160-B	130	110	-	14	16	Ø40	6	25	51	G1/8 (x12)	M5 (x4)	7.4	Ø150	Ø183	1150 g
QCP200-B	135	89	192	22	16	Ø50	8	33	64	G1/4 (x12)	M6 (x16)	7.4	Ø200	Ø257	2400 g



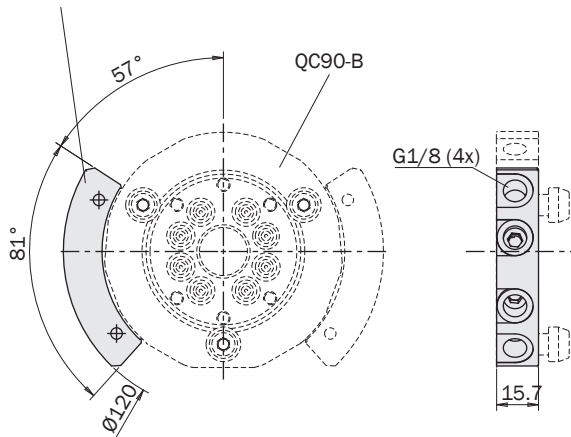
QCA

Canali dell'aria aggiuntivi

- Accessori per aggiungere 2 o 4 canali dell'aria.
- Le due parti (lato robot e lato pinza) sono fornite separatamente.
- Lo stesso accessorio può essere usato sul lato destro o sul lato sinistro.
- Adatti per il vuoto e per l'aria compressa.
- Due canali con portata elevata per ogni accessorio.



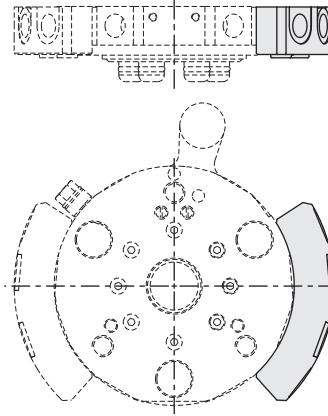
QCA90-B



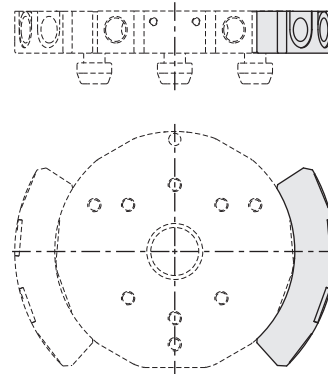
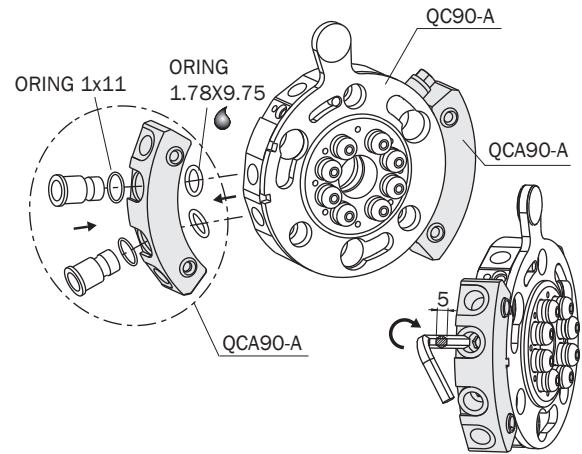
QCA

Additional air ports

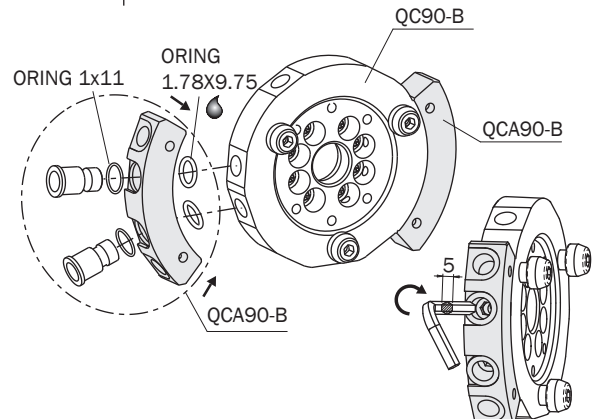
- Accessories for adding 2 or 4 extra air ports.
- The two parts (robot side and gripper side) are supplied separately.
- The accessory can be used on the left or on the right side.
- Suitable for vacuum and compressed air.
- Two high-flow air ports for each accessory.



QCA90-A	
Peso	53 g
Weight	



QCA90-B	
Peso	53 g
Weight	



LOQC

Unità di blocco per cambia utensili QC

- Accessorio opzionale adatto per QC50-A, QC90-A, QC150-A, QC160-A, QC200-A, QCX90-A, QCX150-A, QCX160-A, QCX200-A.
- Di serie su QCY50-A, QCY90-A, QCY150-A, QCY200-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.

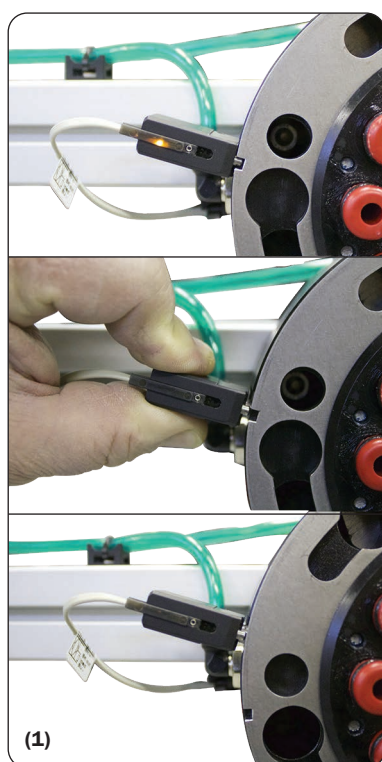
LOQC

Lock unit for QC quick changers

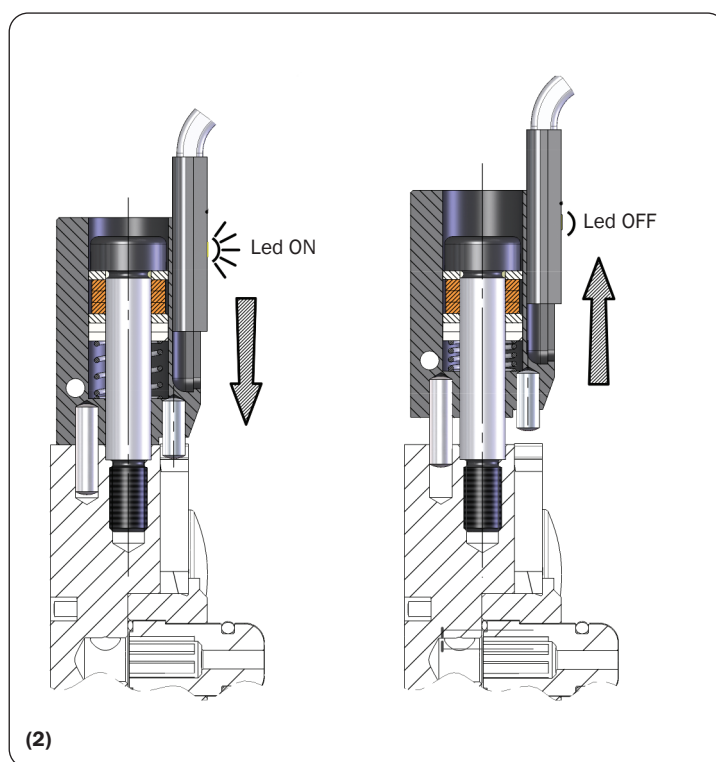
- Option suitable for QC50-A, QC90-A, QC150-A, QC160-A, QC200-A, QCX90-A, QCX150-A, QCX160-A, QCX200-A.
- Standard on QCY50-A, QCY90-A, QCY150-A, QCY200-A.
- It prevents accidental falling of the EOAT.
- Mechanical safety: it locks the handle of the quick changer, only when correctly engaged (1).
- Electrical 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

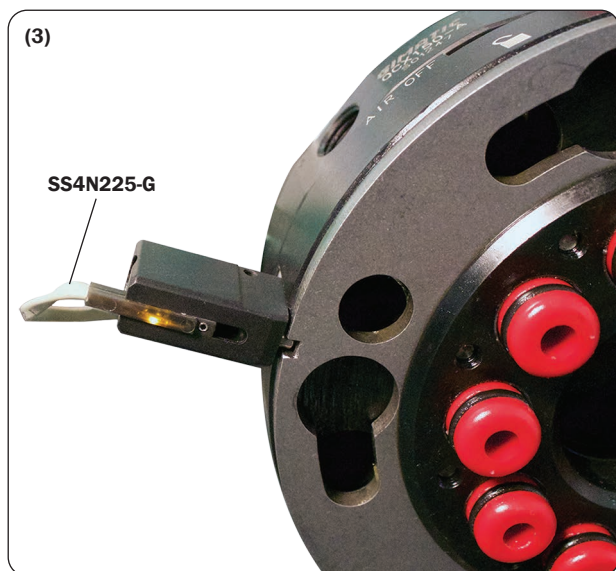
Peso	20 g
Weight	



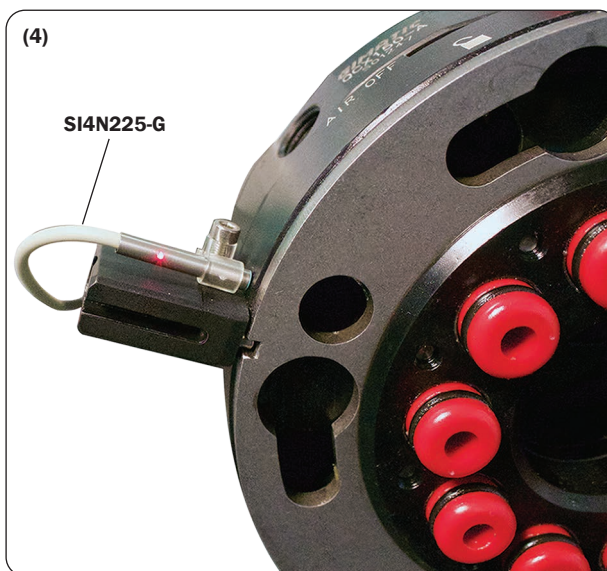
(1)



(2)



(3)



(4)

SI4N225-G

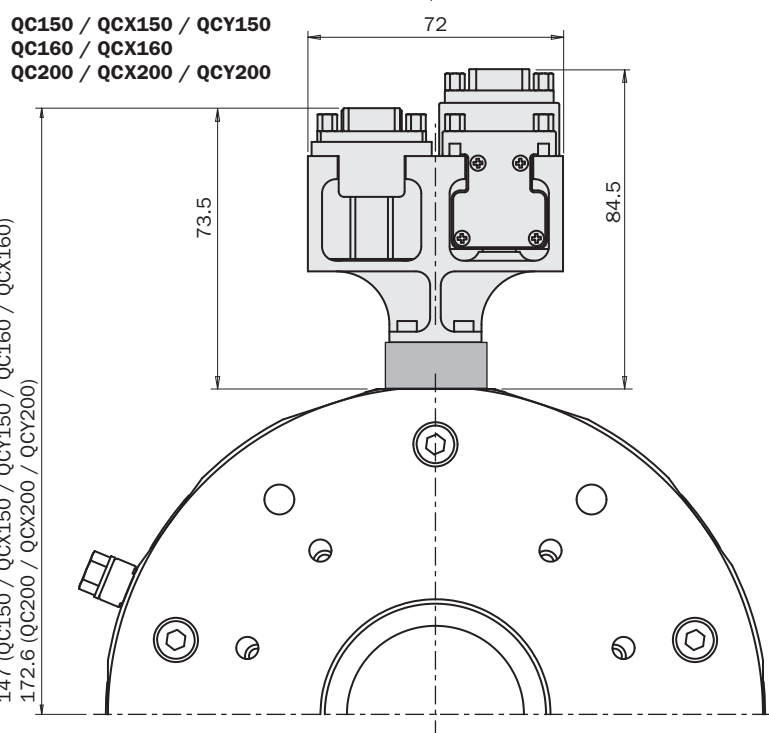
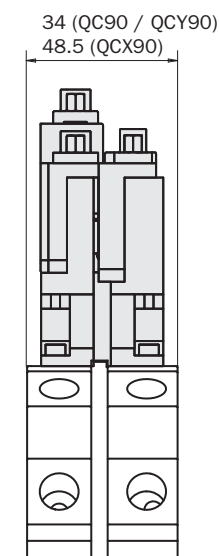
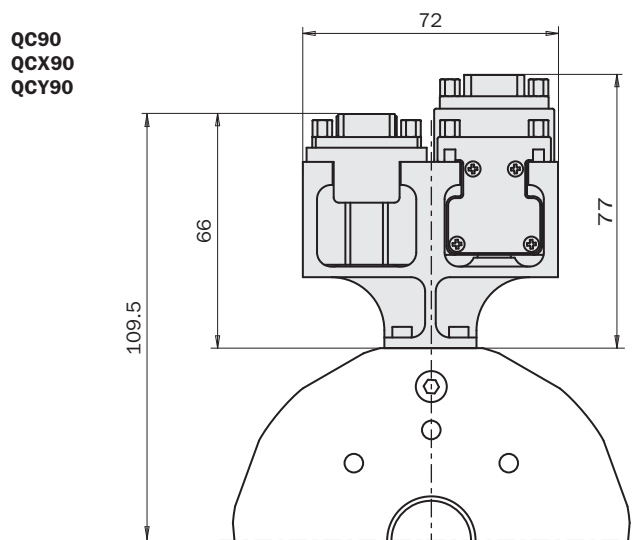
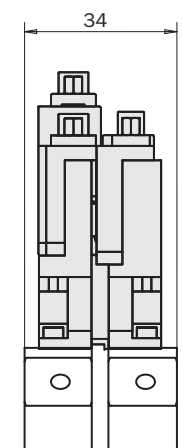
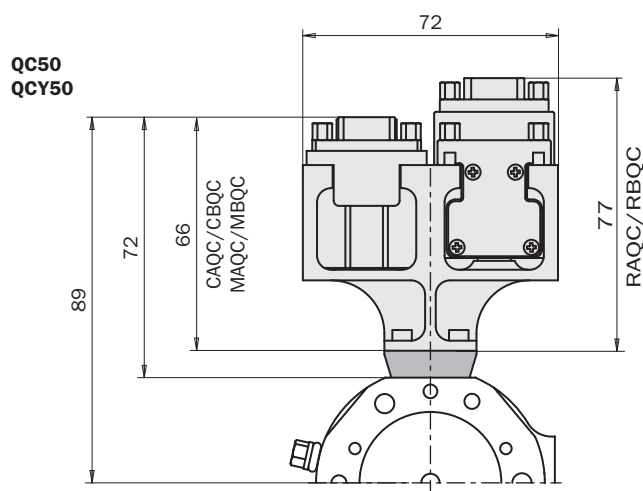
SS4N225-G

Staffa

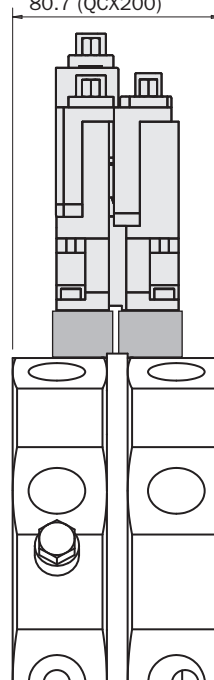
CQC-012 (lato robot).
CQC-013 (lato pinza).

Mounting bracket

CQC-012 (robot side).
CQC-013 (gripper side).



47 (QC150 / QCY150 / QC160)
68.3 (QCX150 / QCX160)
55.7 (QC200 / QCY200)
80.7 (QCX200)

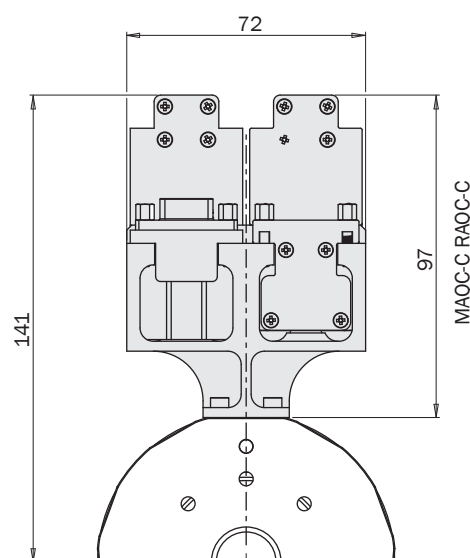
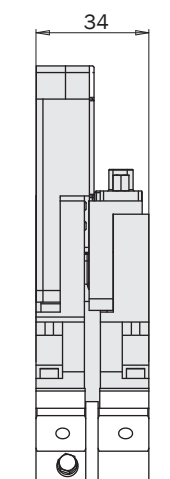
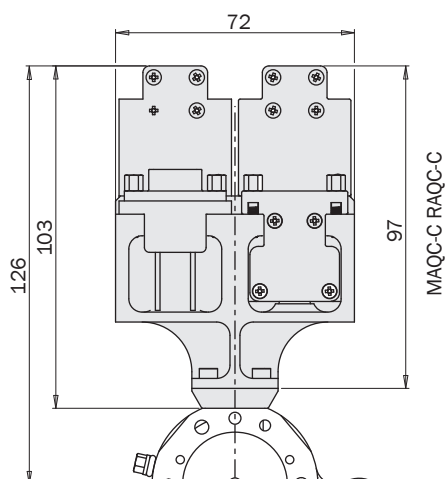


Staffa

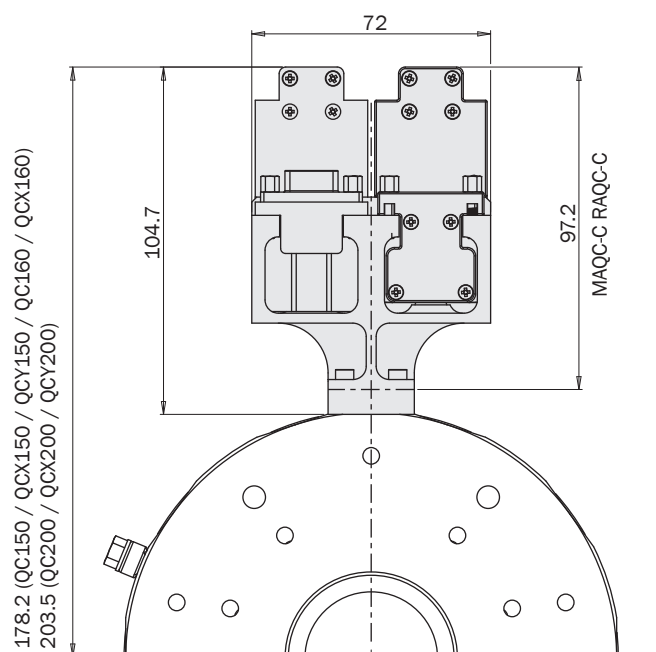
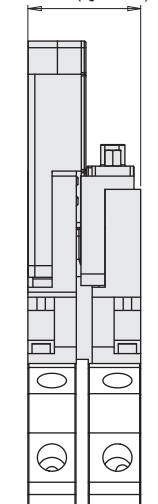
CQC-017 (lato robot).
CQC-013 (lato pinza).

Mounting bracket

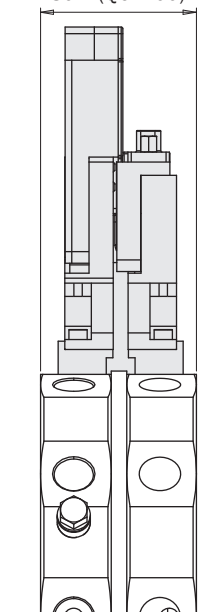
CQC-017 (robot side).
CQC-013 (gripper side).



34 (QC90 / QCY90)
48.5 (QCX90)



47 (QC150 - QCY150 / QC160)
68.3 (QCX150 / QCX160)
55.7 (QC200 / QCY200)
80.7 (QCX200)

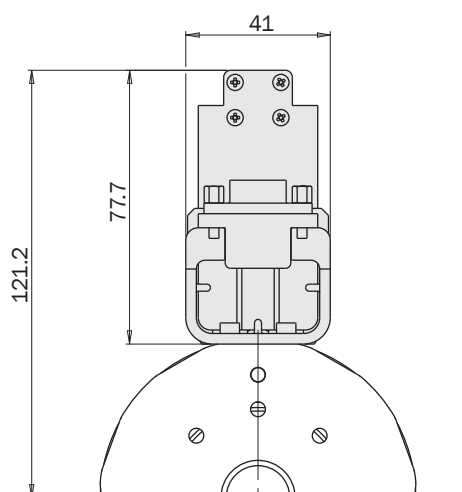
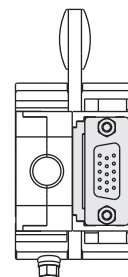
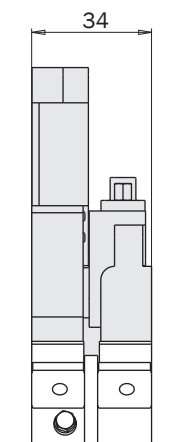
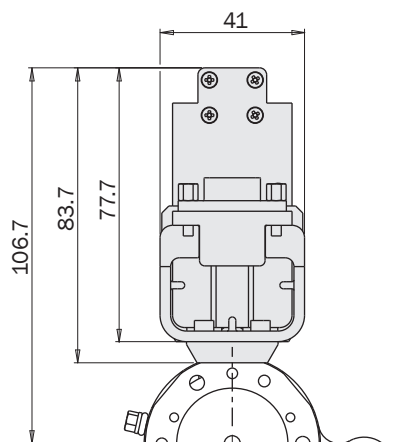


Staffa

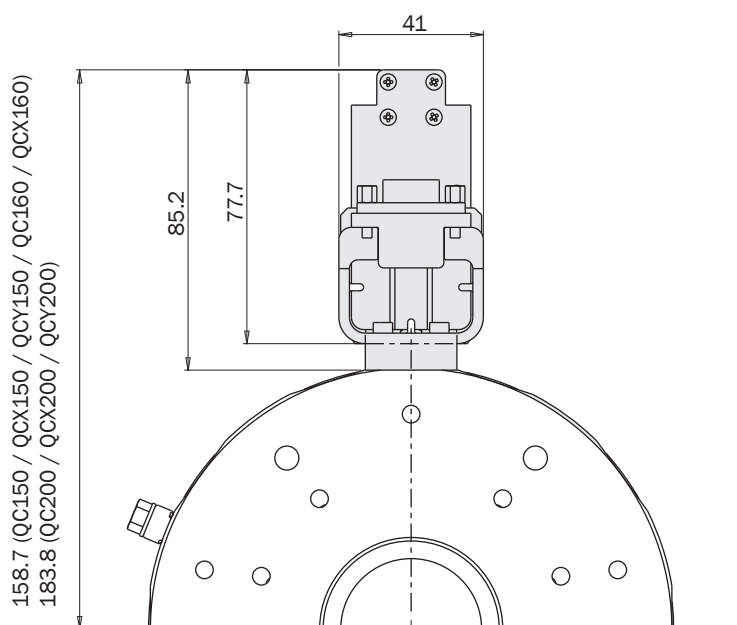
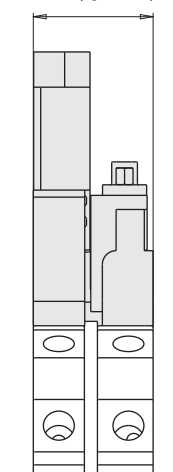
CQC-019 (lato robot).
CQC-013 (lato pinza).

Mounting bracket

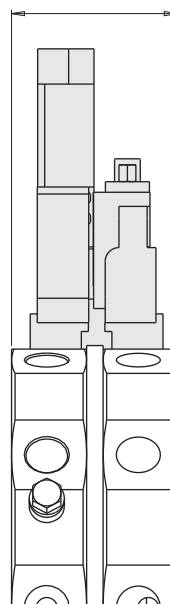
CQC-019 (robot side).
CQC-013 (gripper side).



34 (QC90 / QCY90)
48.5 (QCX90)



47 (QC150 / QCY150 / QC160)
68.3 (QCX150 / QCX160)
55.7 (QC200 / QCY200)
80.7 (QCX200)



AQC**Attuatore pneumatico per cambia utensile QC**

- Sensori opzionali tipo SS-G per la posizione del pistone (1) e sensori opzionali tipo SI4 per la prossimità del lato pinza QC...-B (2).
- Compatibile con QC90-A e QC150-A senza LOQC (3).

AQC**Pneumatic actuator for quick changer QC**

- Optional sensors series SS-G to detect the piston position (1) and optional sensors series SI4 to detect the proximity of the QC...-B gripper side (2).
- Compatible with QC90-A and QC150-A without LOQC (3).

	AQC90	AQC150
Peso	560 g	1480 g
Weight		

SS4N225-G

(1)

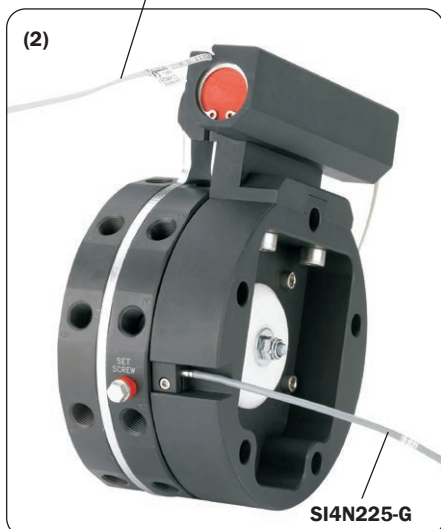


AQC90

AQC150

SS4N225-G

(2)



SI4N225-G

(3)

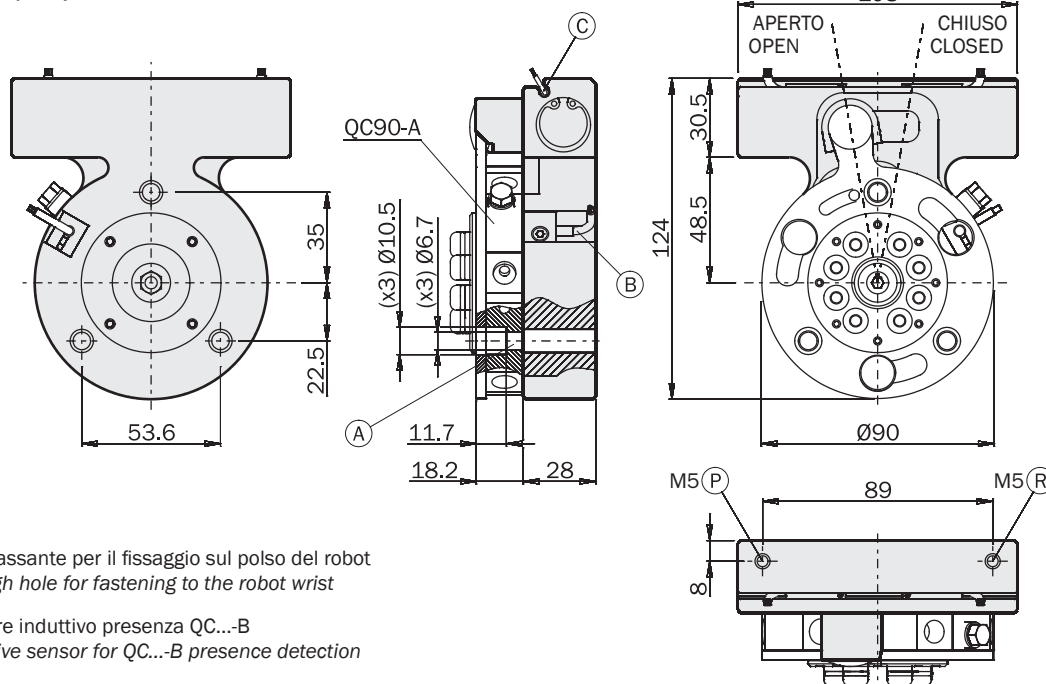
AQC150+QC150

AQC90+QC90



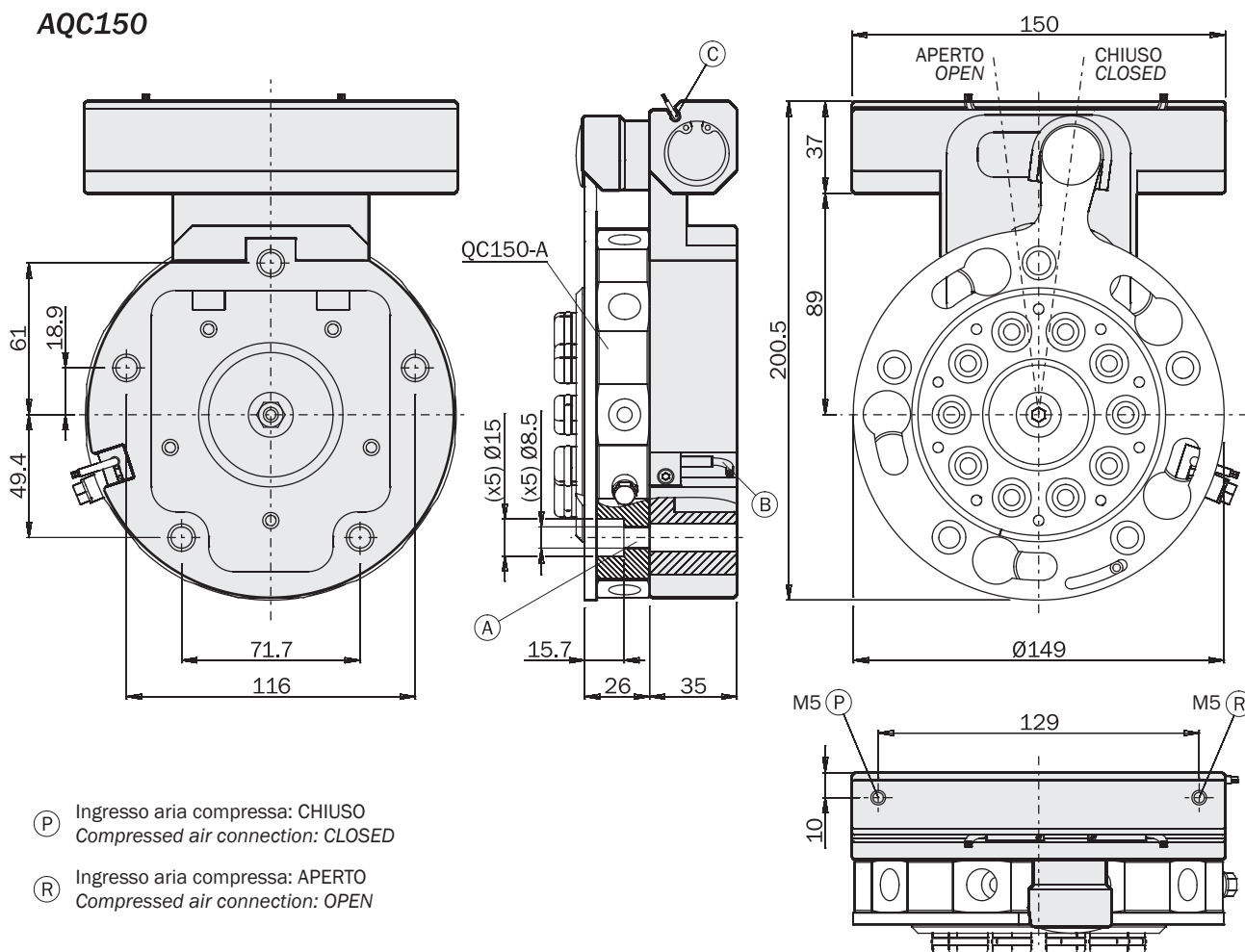
Dimensioni (mm)
Dimensions (mm)

AQC90



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

AQC150

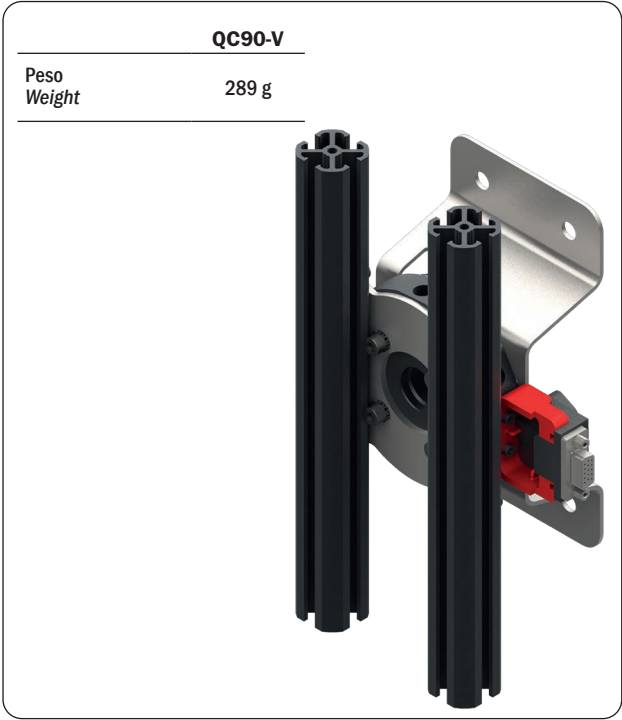
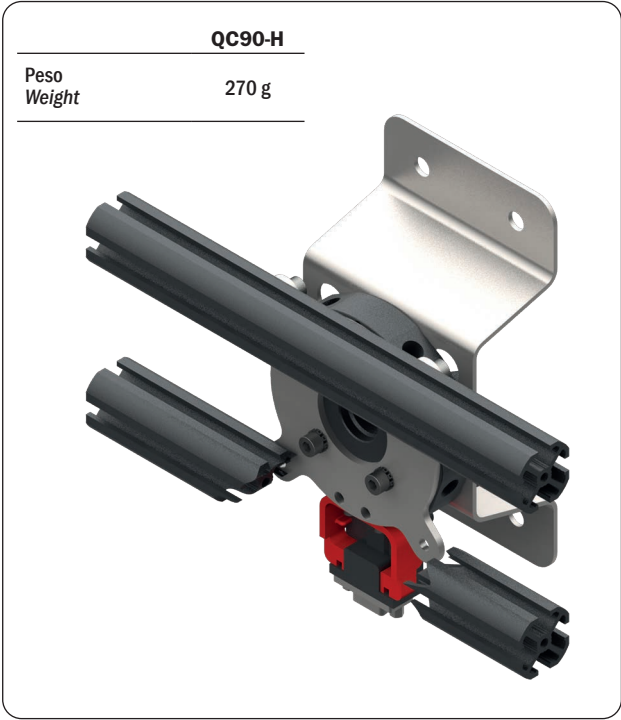


- Ⓐ Ingresso aria compressa: CHIUSO
Compressed air connection: CLOSED
- Ⓑ Ingresso aria compressa: APERTO
Compressed air connection: OPEN

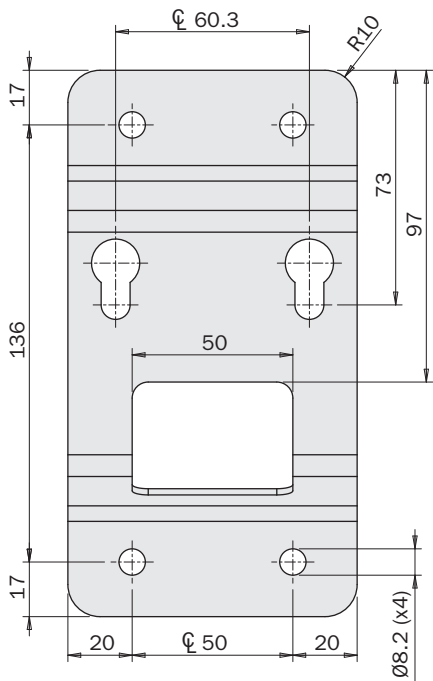


Magazzino per QC90-B

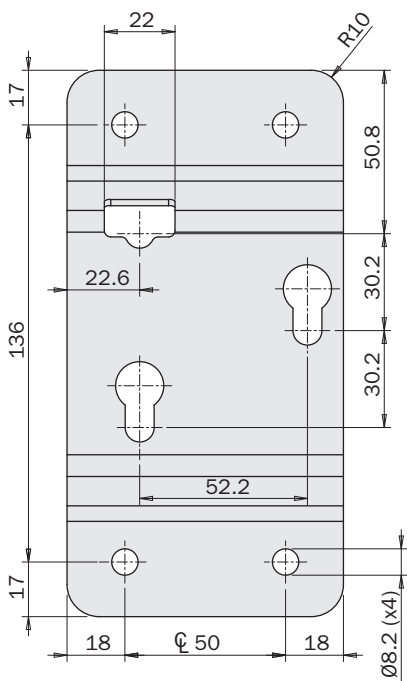
QC90-B Storage



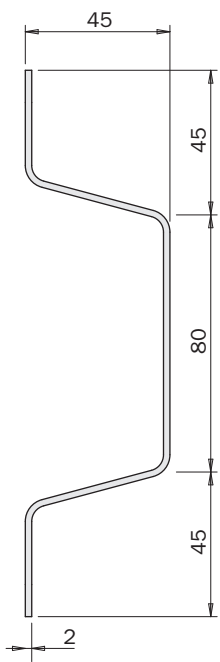
Dimensioni (mm)
Dimensions (mm)



QC90-H



QC90-V

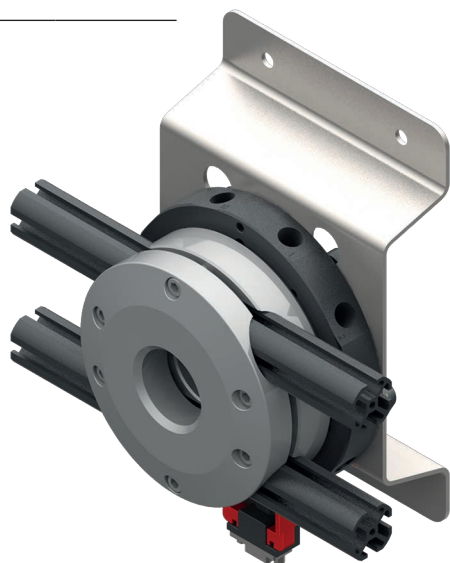


Magazzino per QC150-B/QC160-B

QC150-B/QC160-B Storage

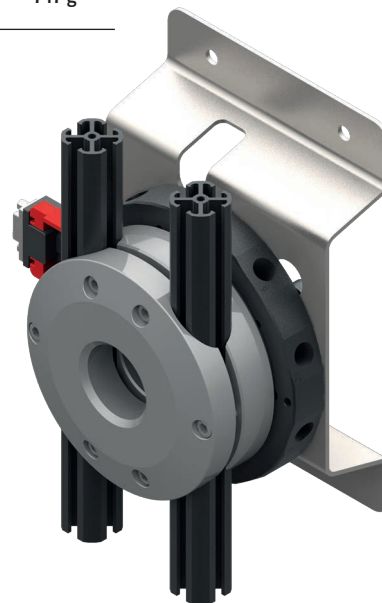
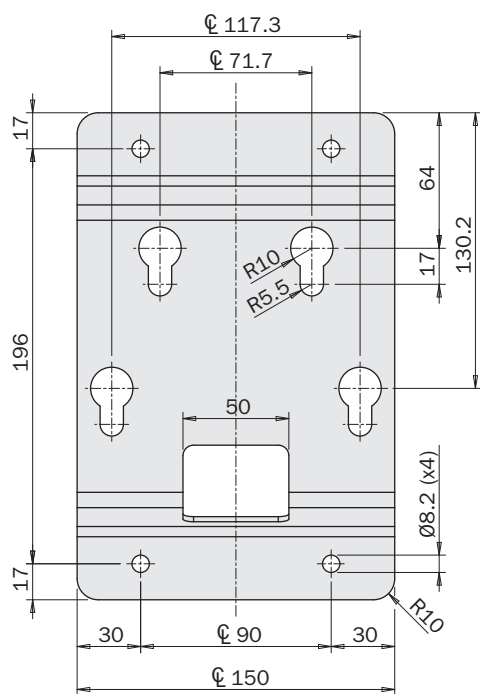
QC150-H

Peso Weight	752 g
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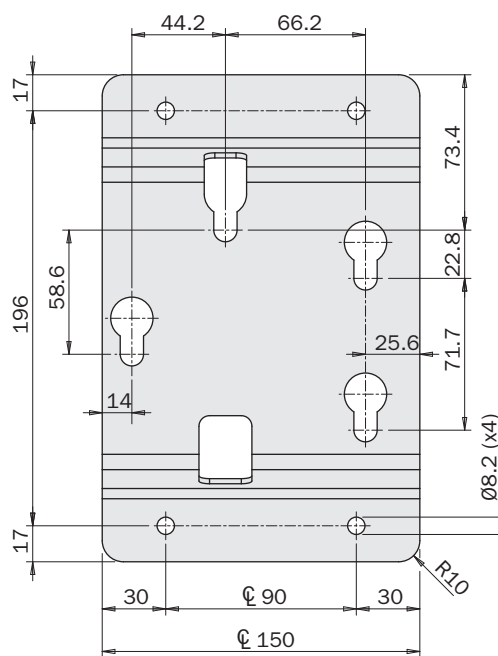


QC150-V

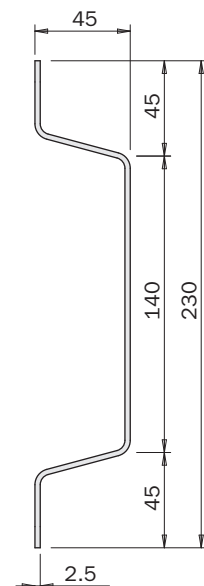
Peso Weight	747 g
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Dimensioni (mm)
Dimensions (mm)


QC150-H

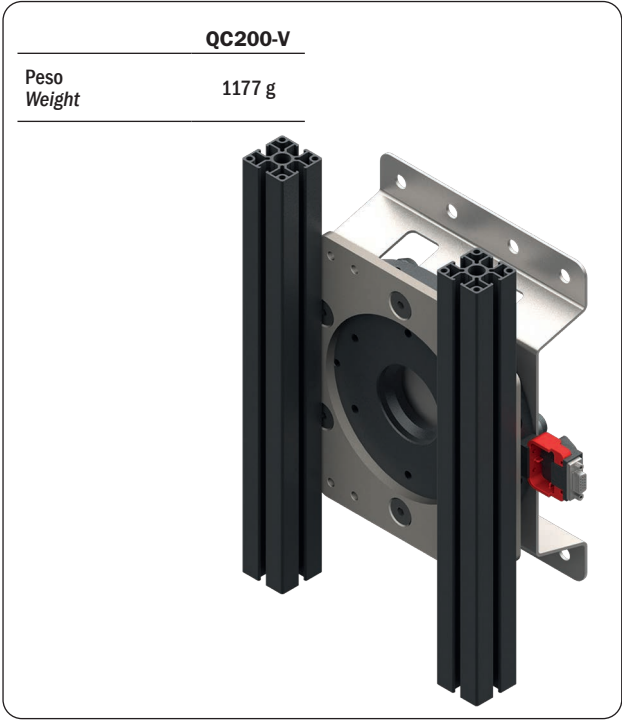
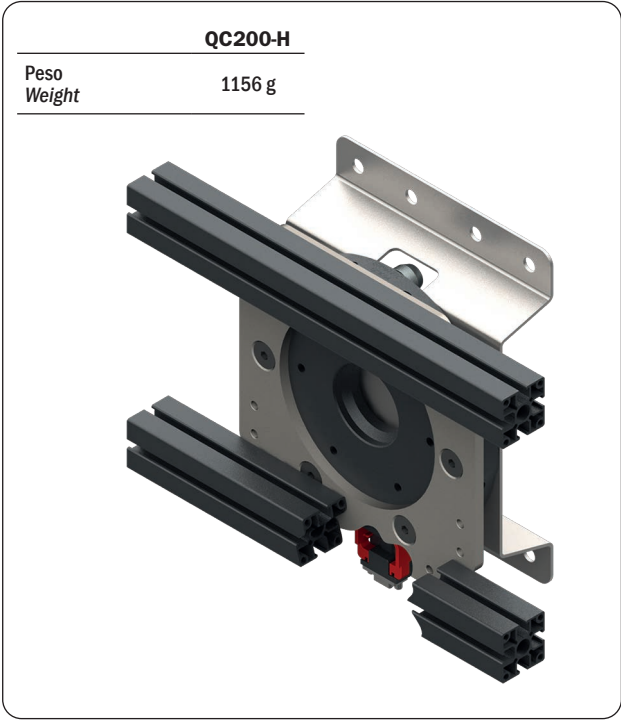


QC150-V



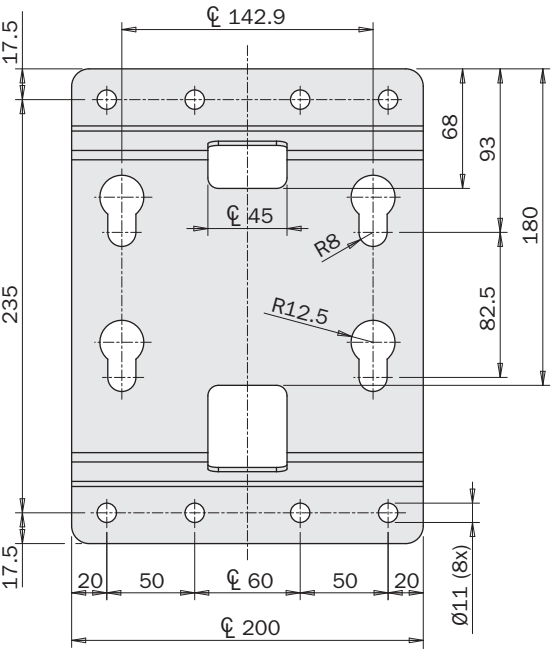
Magazzino per QC200-B

QC200-B Storage

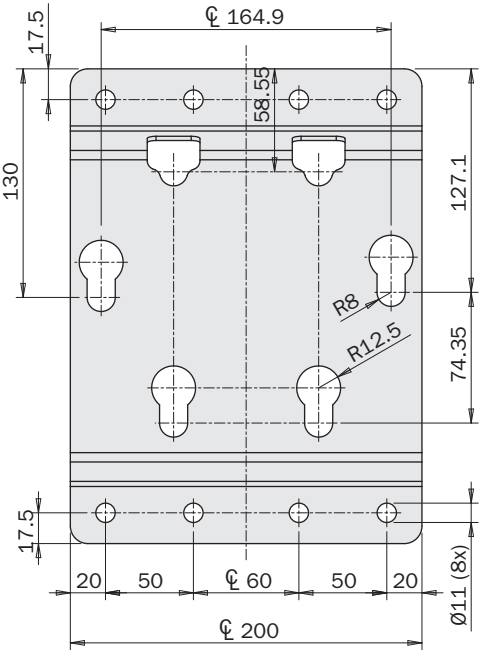


Dimensioni (mm)
Dimensions (mm)

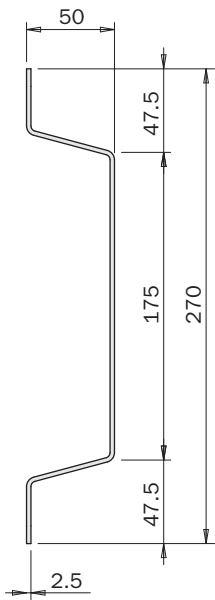
FIRST ANGLE
PROJECTION



QC200-H



QC200-V



Moduli di connessione elettrica

- 15 connessioni elettriche Ø1 mm.
- Le due parti sono fornite separatamente:
PMAQC/PAQC/MAQC/CAQC - lato robot;
PMBQC/PBQC/MBQC/CBQC - lato pinza.

Electrical connection modules

- 15 pins Ø1 mm.
- The two parts are supplied separately:
PMAQC/PAQC/MAQC/CAQC - robot side;
PMBQC/PBQC/MBQC/CBQC - gripper side.

CAQC



CBQC



MAQC

Connettori a molla
Spring connectors



MBQC

Connettori a molla
Spring connectors



PAQC

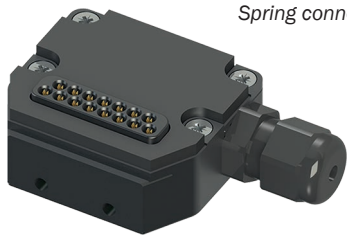


PBQC



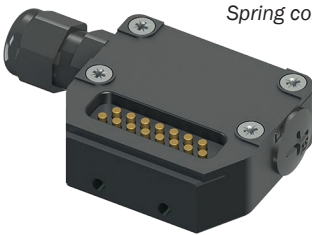
PMAQC

Connettori a molla
Spring connectors



PMBQC

Connettori a molla
Spring connectors

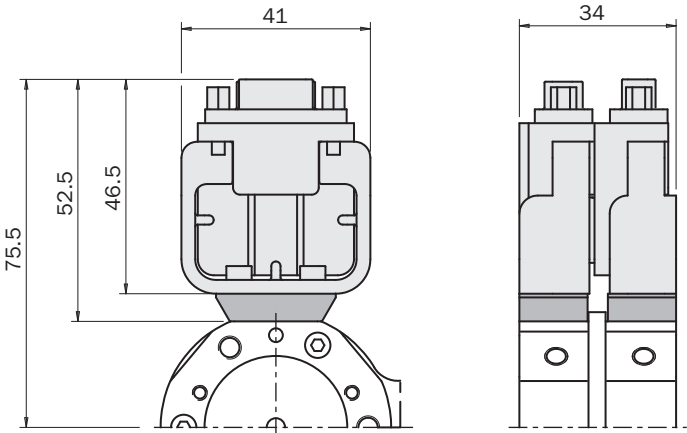


	CAQC	CBQC	MAQC	MBQC	PAQC	PBQC	PMAQC	PMBQC
Tipo di connessione I/O <i>I/O connection type</i>	15 pin D-SUB - Connettore alta densità - Tipo VGA <i>15 pins D-SUB - High density connector - VGA type</i>				15 pin <i>15 pins</i>			
Corrente d'esercizio <i>Working Current</i>	2 A (0.5A assoluto con CEQC-A, CEQC-B) <i>2A (0.5A absolute value with CEQC-A, CEQC-B)</i>				3A		0.5	
Tensione di scarica <i>Break down voltage</i>	0 ÷ 250 Vac							
Temperatura di esercizio <i>Temperature range</i>	-55°C ÷ +105°C							
Contatti <i>Contact</i>	Dorati <i>Gold plated</i>							
Massima sezione dei conduttori <i>Maximum conductor cross-section</i>	-				AWG28			
Diametro esterno massimo del cavo <i>Maximum cable outer diameter</i>	-				7 mm			

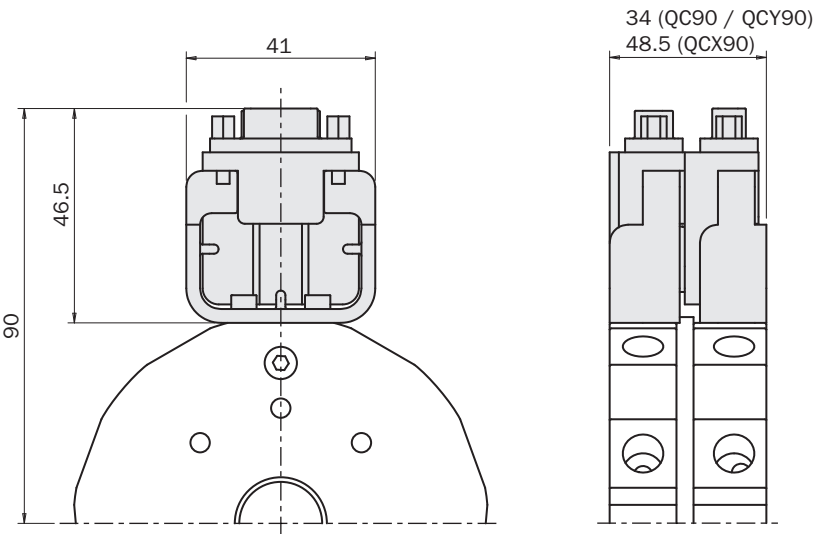
Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE
PROJECTION

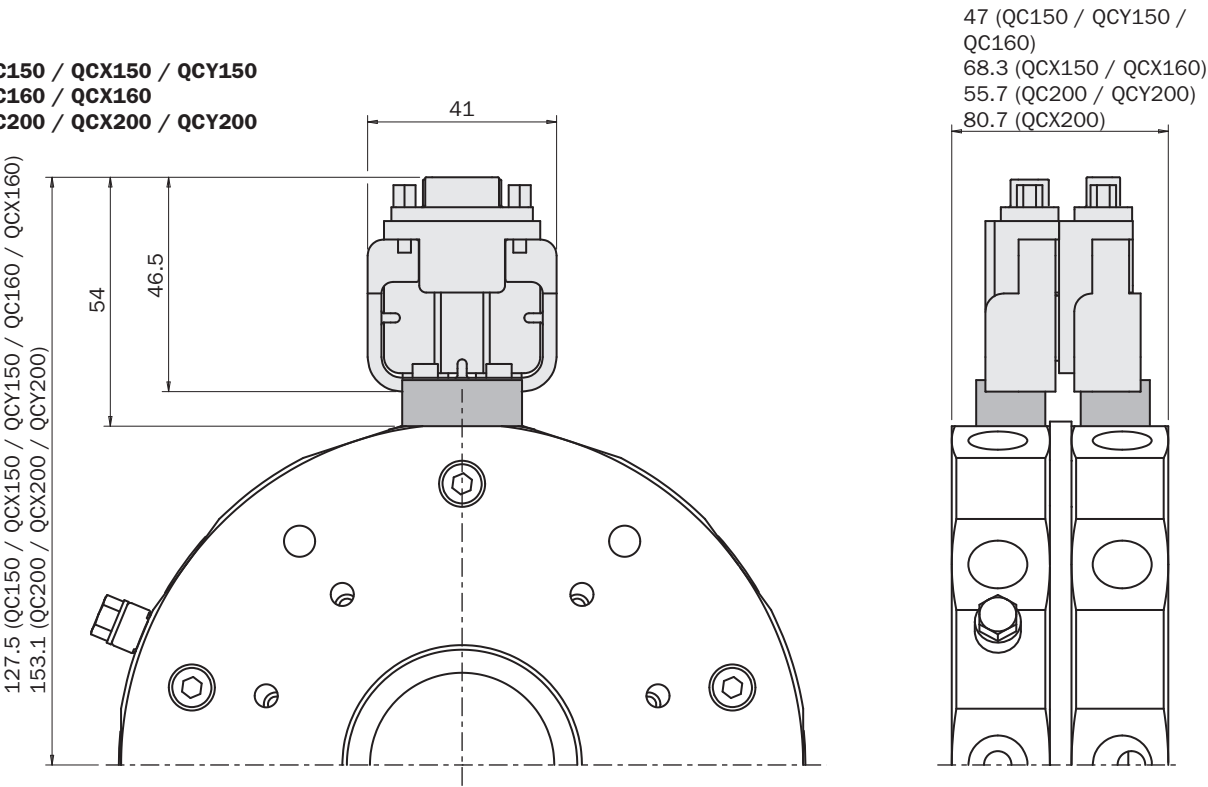
QC50
QCY50



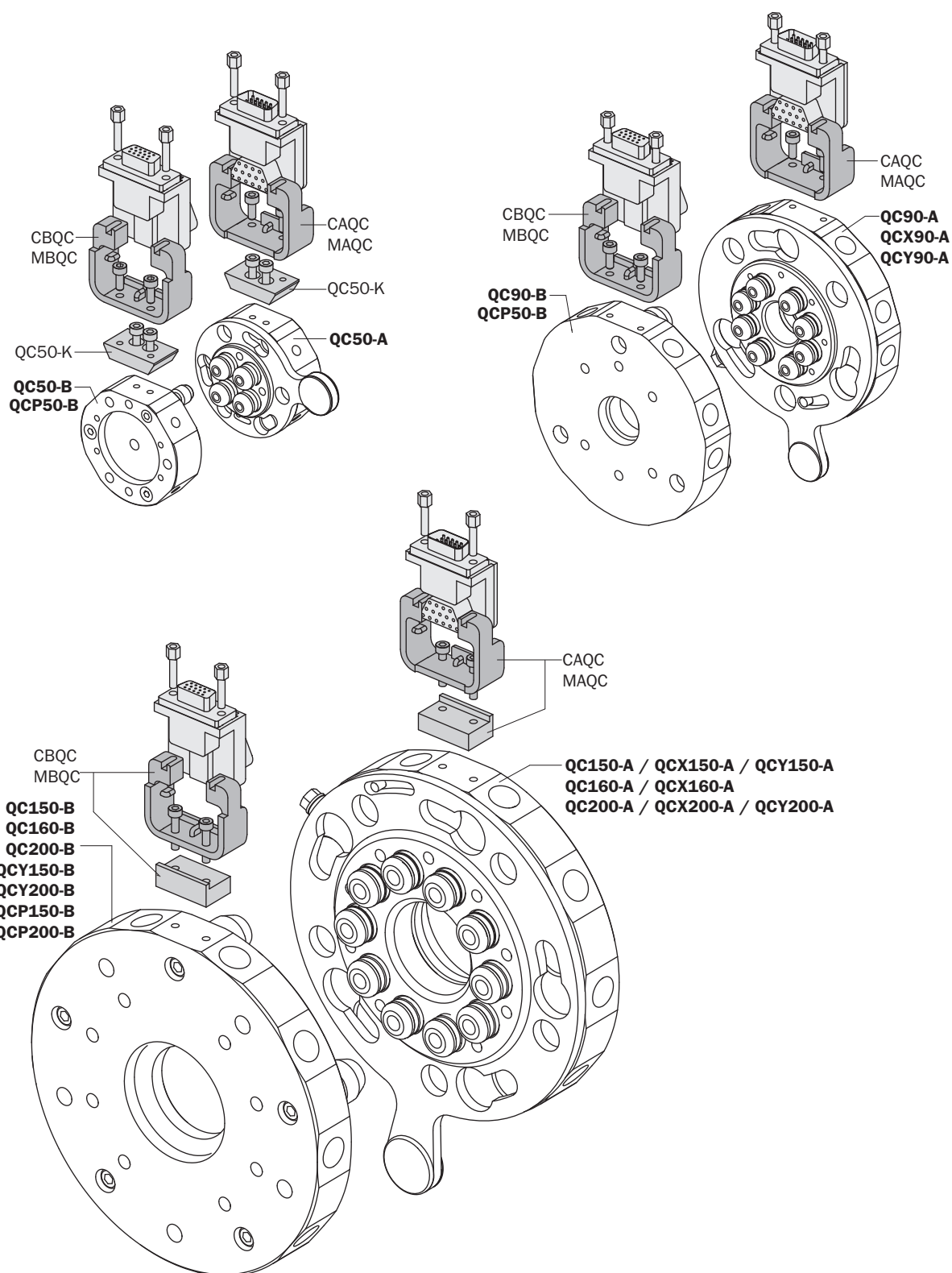
QC90
QCX90
QCY90

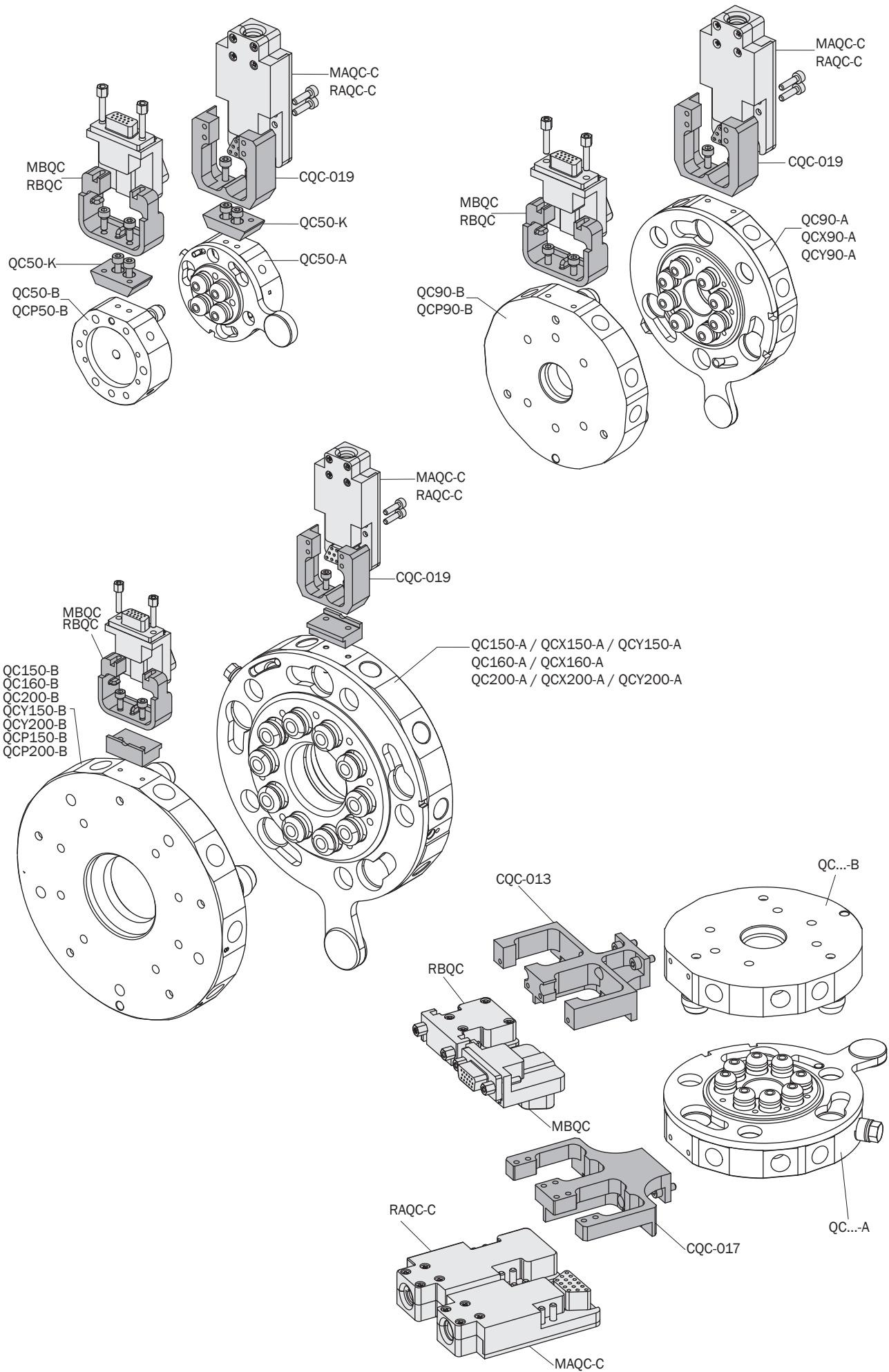


QC150 / QCX150 / QCY150
QC160 / QCX160
QC200 / QCX200 / QCY200



Fissaggio Fastening

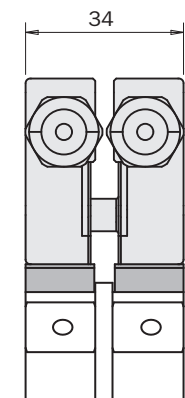
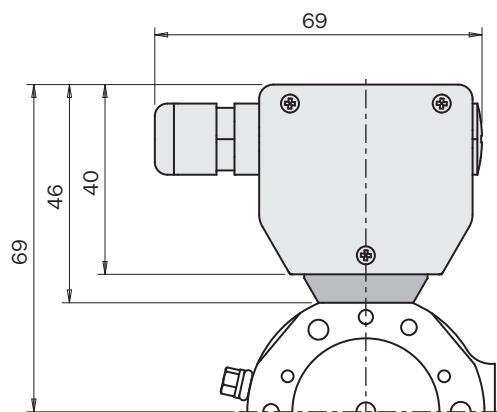




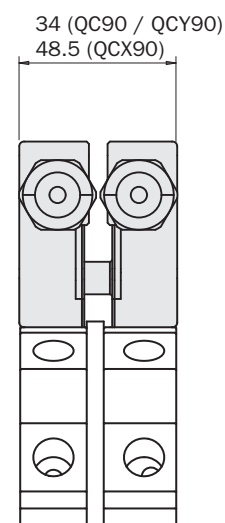
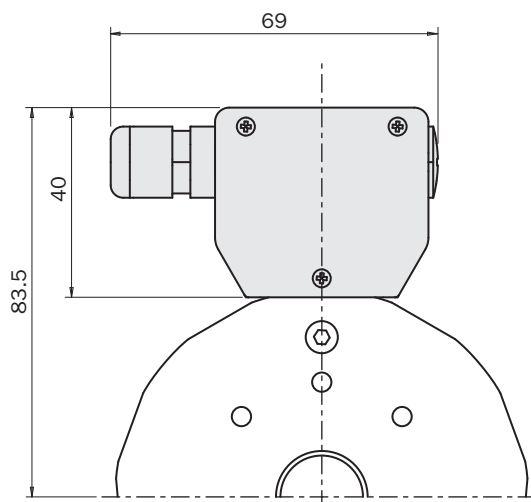
Dimensioni (mm) Dimensions (mm)

FIRST ANGLE
PROJECTION

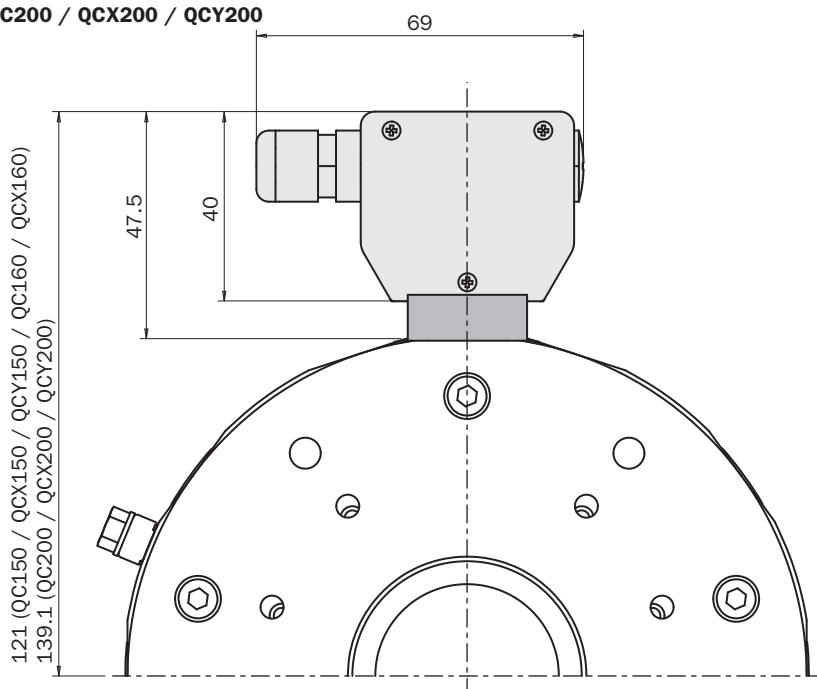
**QC50
QCY50**



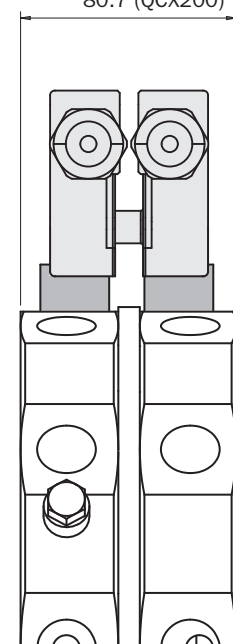
**QC90
QCX90
QCY90**



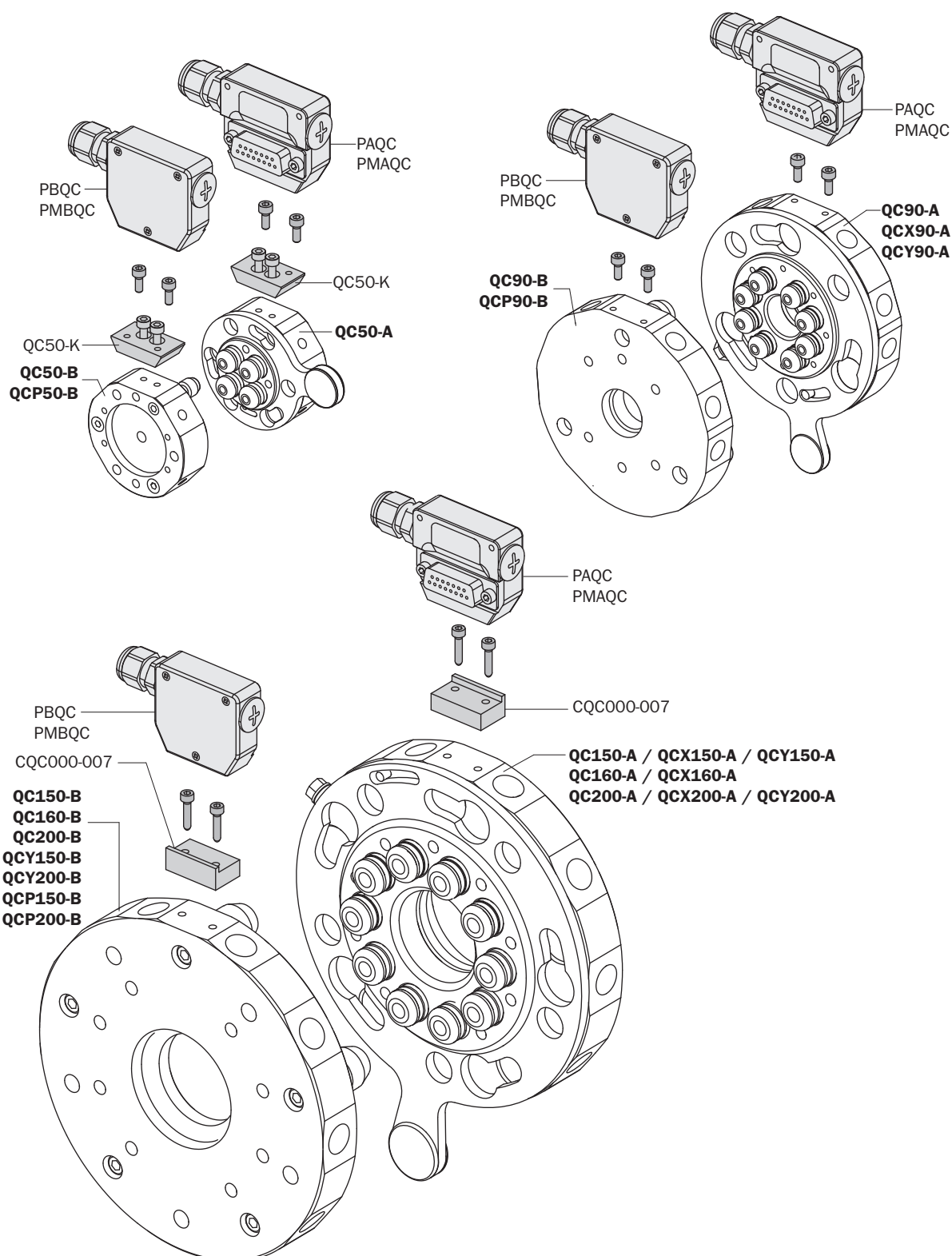
**QC150 / QCX150 / QCY150
QC160 / QCX160
QC200 / QCX200 / QCY200**

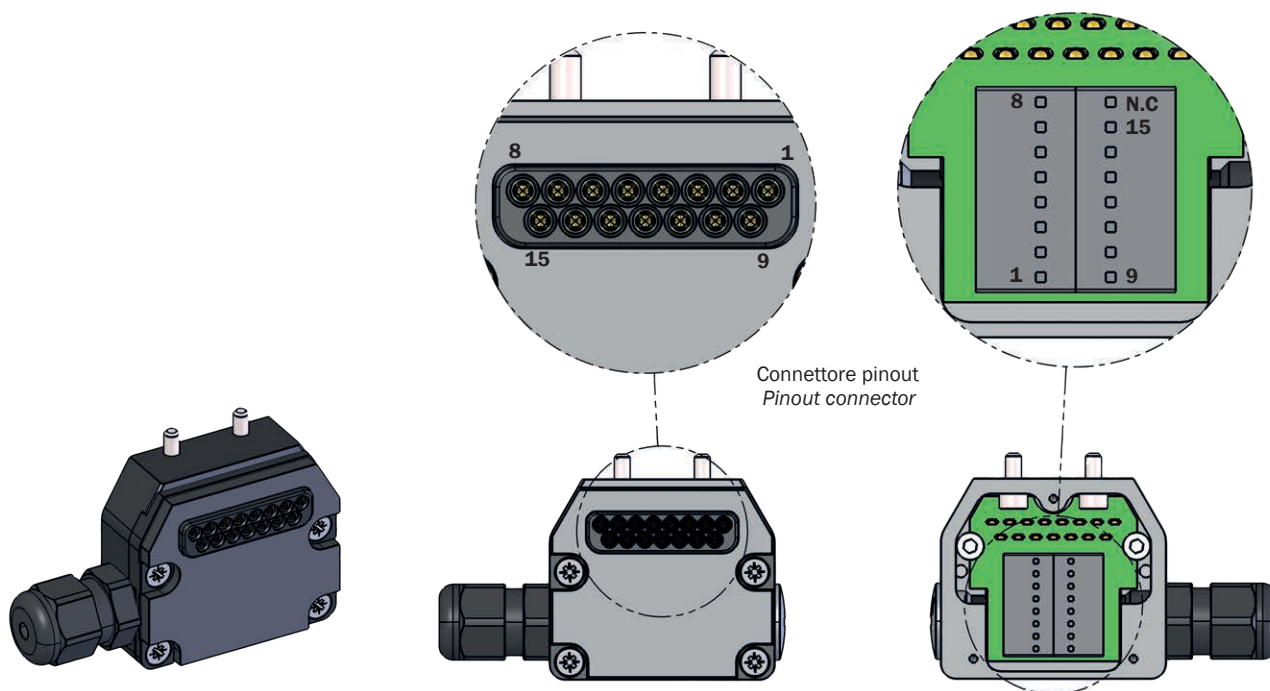
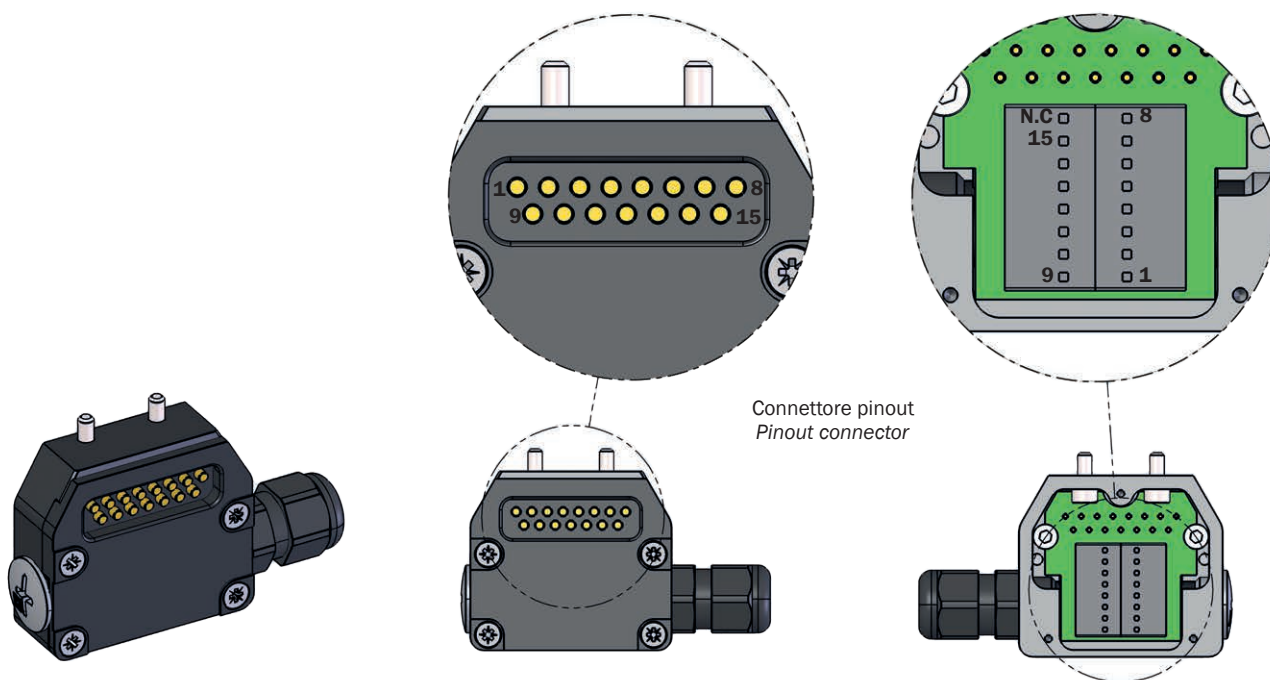


47 (QC150 / QCY150 / QC160)
68.3 (QCX150 / QCX160)
55.7 (QC200 / QCY200)
80.7 (QCX200)



Fissaggio Fastening



PMAQC**Connettore elettrico femmina**
Female electrical connector**PMBQC****Connettore elettrico maschio**
Male electrical connector

RAQC / RBQC

Moduli di identificazione RFID.

Sistema di riconoscimento automatico dell'organo di presa composto da un lettore RFID (RAQC) ed un TAG di memoria (RBQC).

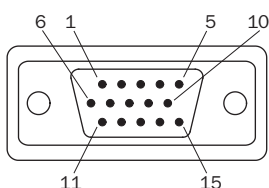
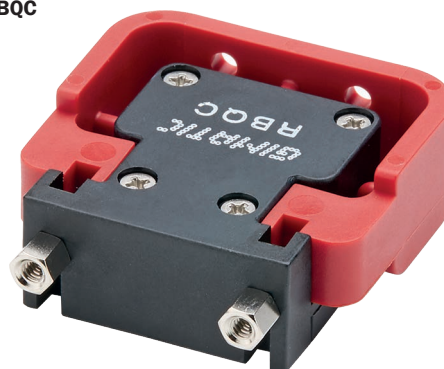
- Fino a 255 utensili distinguibili.
- Codifica binaria dell'utensile tramite 8 uscite digitali 24 Vdc.
- Ingresso digitale per il conteggio dei cicli di esecuzione dell'utensile.
- Uscita digitale per segnalazione intervento manutentivo richiesto dall'utensile al raggiungimento del numero cicli impostato.
- Attacco rapido I/O attraverso connettore VGA.
- Memorizzazione dati tecnici dell'utensile.
- Disponibile area dati utente.
- Le due parti sono fornite separatamente:
RAQC - lato robot (Lettore);
RBQC - lato utensile (TAG).

RAQC / RBQC

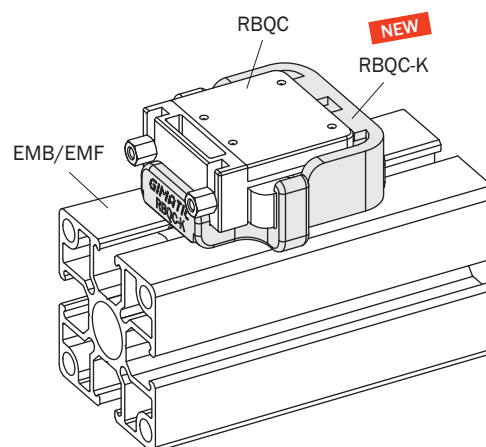
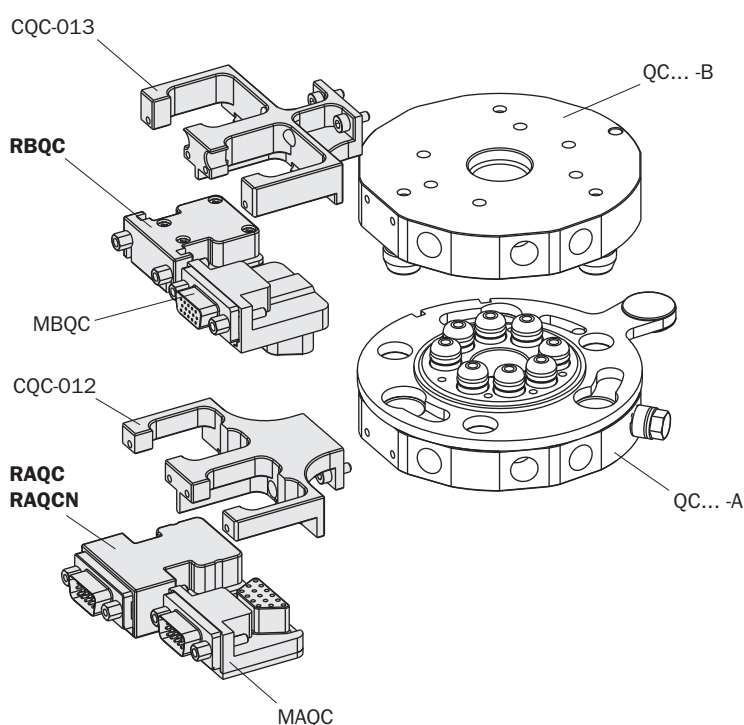
RFID identification modules.

System for automatic recognition of gripping tool composed of a RFID reader (RAQC) and a memory TAG (RBQC).

- Up to 255 identifiable tools.
- Binary coding of tools by means of 8 digital outputs 24 Vdc.
- Digital input to counting tool cycles execution.
- Generation of a maintenance warning signal once the tool reaches the preset number of cycles.
- I/O quick change by VGA connector.
- Memorization of tool technical data.
- User data memory available.
- The two parts are supplied separately:
RAQC - robot side (Reader);
RBQC - tool side (TAG).

RAQC**RBQC**

1	DOUT1	6	24 Vdc	11	DOUT5
2	DOUT2	7	DOUT_CNT	12	DOUT6
3	N/C	8	DOUT3	13	DOUT7
4	GND	9	DOUT_FAULT	14	DOUT8
5	N/C	10	DOUT4	15	DIN_COUNT

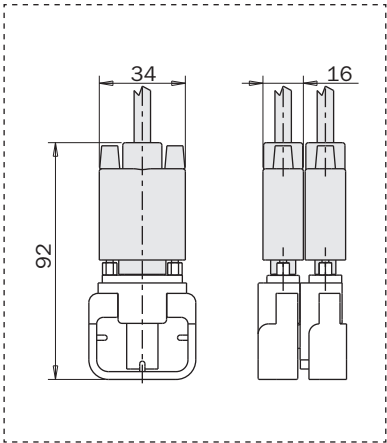
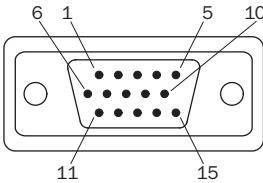
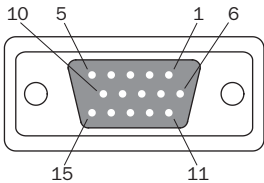
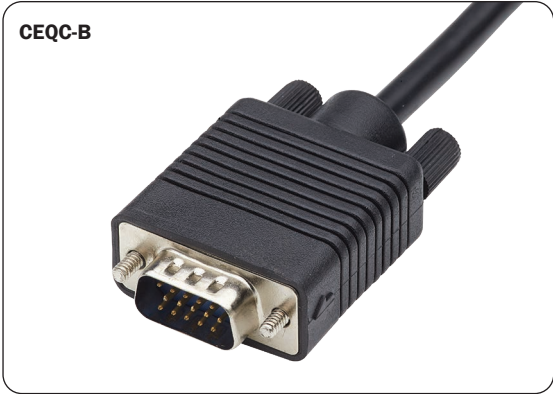


CEQC-A, CEQC-B

Sono forniti separatamente i cavi maschio e femmina necessari alla connessione elettrica secondaria.

CEQC-A, CEQC-B

The male and female cables required for the secondary electrical connection are supplied separately.



01	Arancio Orange
02	Giallo Yellow
03	Verde scuro Deep Green
04	Blu Blue
05	Verde chiaro Light Green
06	Marrone Brown
07	Marrone / Bianco Brown / White
08	Rosso Red

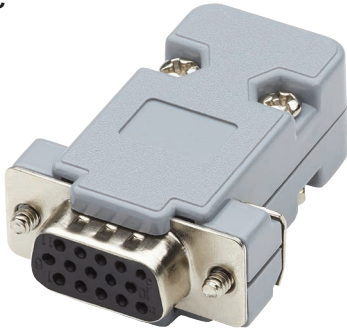
09	Rosso / Bianco Red / White
10	Rosa Pink
11	Viola Violet
12	Grigio Gray
13	Bianco White
14	Nero Black
15	Nero / Bianco Black / White

	CEQC-A	CEQC-B
Tipo di connessione I/O I/O connection type	15 pin D-SUB - Tipo VGA 15-pin D-SUB - VGA type	
Lunghezza cavo Cable length	1500 mm	
Isolamento Insulation	PVC	
Schermatura Shield	100% alluminio - Pellicola di mylar - 28÷26 AWG 100% aluminum - Mylar foil - 28 to 26 AWG	
Guaina Sheath	PVC nero Black PVC	
Temperatura di esercizio Temperature range	-55°C ÷ +105°C	
Gamma di tensione Voltage range	0 ÷ 250 Vac	
Corrente massima Max current	0.5 A	

CEQC-AC / CEQC-BC

Sono forniti separatamente i connettori a saldare maschio e femmina.

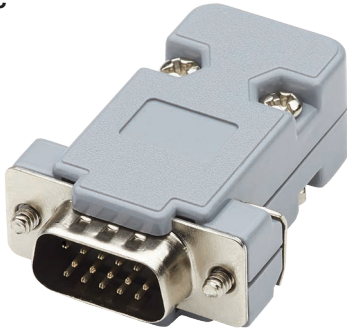
CEQC-AC



CEQC-AC / CEQC-BC

The male and female solder connectors are supplied separately.

CEQC-BC



CEQC-ACA / CEQC-BCA

Sono forniti separatamente i connettori a saldare maschio e femmina angolari.

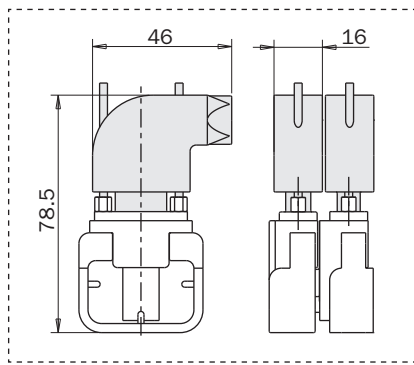
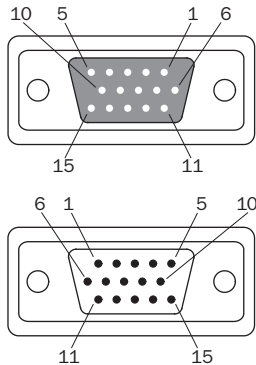
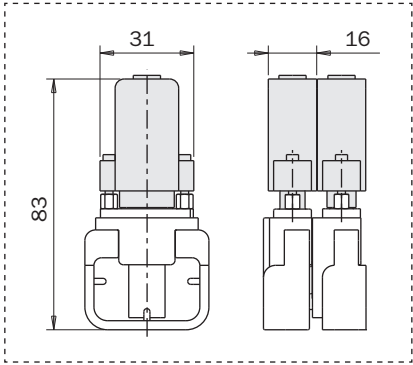
CEQC-ACA



CEQC-ACA / CEQC-BCA

The angular male and female solder connectors are supplied separately.

CEQC-BCA



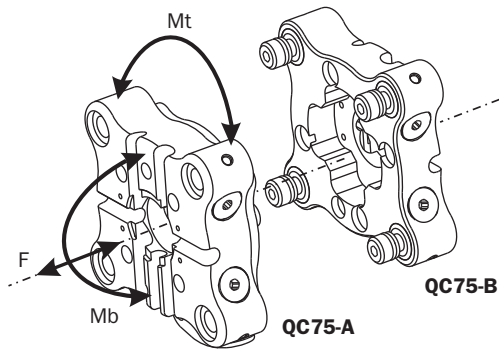
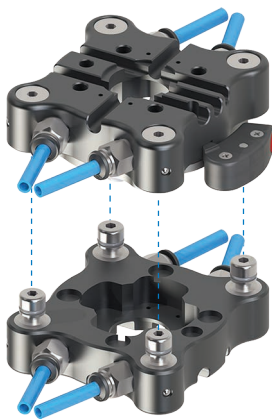
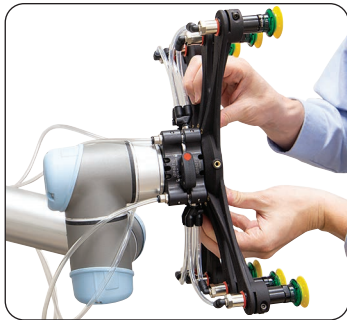
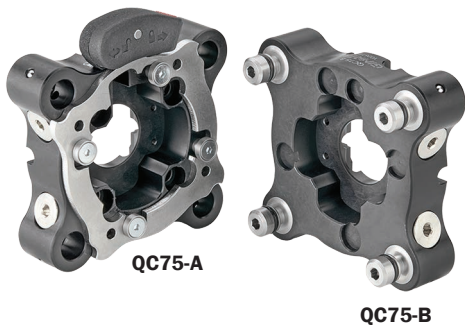
	CEQC-AC	CEQC-BC	CEQC-ACA	CEQC-BCA
Tipo di connessione I/O I/O connection type	15 pin D-SUB - Tipo VGA 15-pin D-SUB - VGA type			
Contatti Contacts	Rame Copper			
Isolamento Insulation	Poliestere Polyester			
Temperatura di esercizio Temperature range	-20°C ÷ +80°C			
Gamma di tensione Voltage range	0 ÷ 300 Vac			
Corrente massima Max current	3A			
Massima sezione dei conduttori Maximum conductor cross-section	AWG28			
Diametro esterno massimo del cavo Maximum cable outer diameter	7 mm			

Cambia utensile per robot collaborativi

- Superfici arrotondate.
- Fissaggio ISO-9409-1-50-4-M6.
- Foro passante centrale per le connessioni elettriche opzionali.
- 4 canali dell'aria integrati nelle spine.
- Uscita dei tubi dell'aria in linea o perpendicolare.
- Le due parti (lato robot e lato pinza) sono fornite separatamente.

Quick changer for collaborative robots

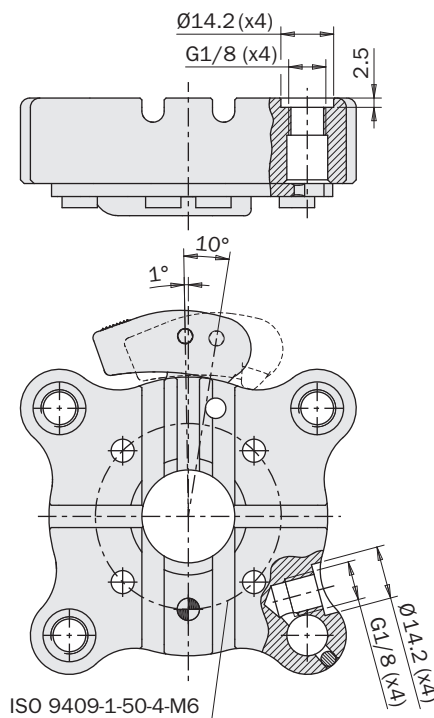
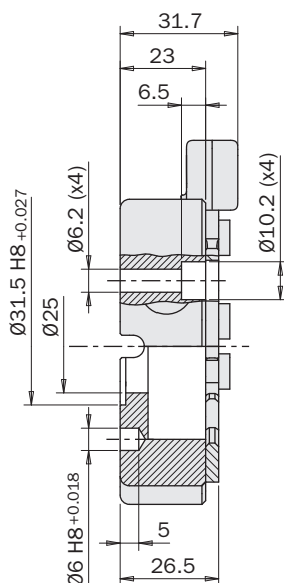
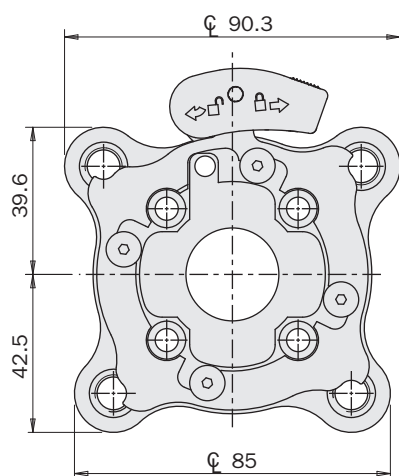
- Rounded surfaces.
- ISO-9409-1-50-4-M6 coupling system.
- Central through hole for optional electric connections.
- 4 built-in air ports in the pins.
- In-line or perpendicular air hose outlet.
- The two parts (robot side and gripper side) are supplied separately.



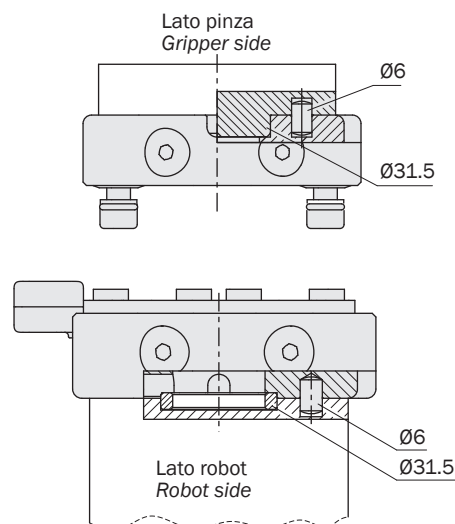
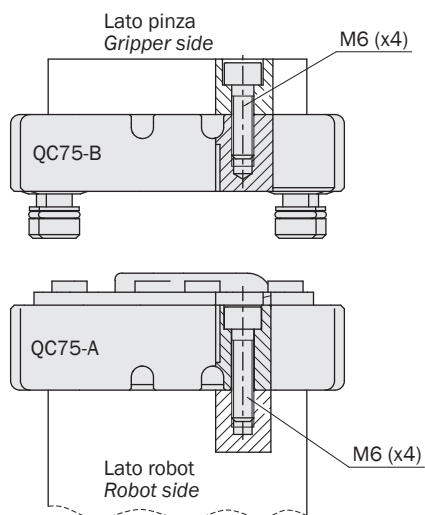
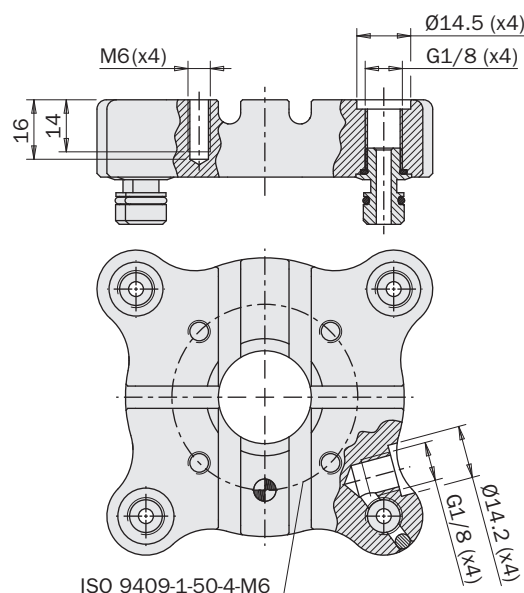
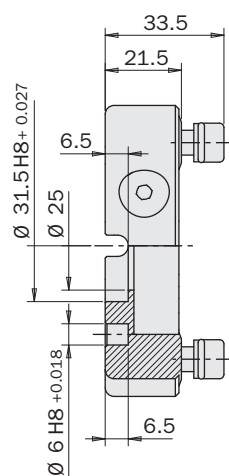
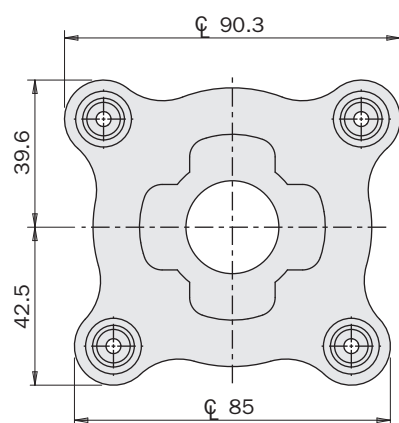
	QC75-A	QC75-B
	Cambia utensile lato robot Quick changer (robot side)	Cambia utensile lato pinza Quick changer (gripper side)
Fluido Medium	Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]	
Pressione di esercizio Pressure range	-1 ÷ 8 bar	
Temperatura di esercizio Temperature range	5 ÷ 60 °C	
Peso Weight	300 g	260 g
F	1000 N	
Mt	150 Nm	
Mb	50 Nm	
Massimo carico raccomandato Maximum recommended load	20 Kg	

Dimensioni (mm)
Dimensions (mm)

QC75-A



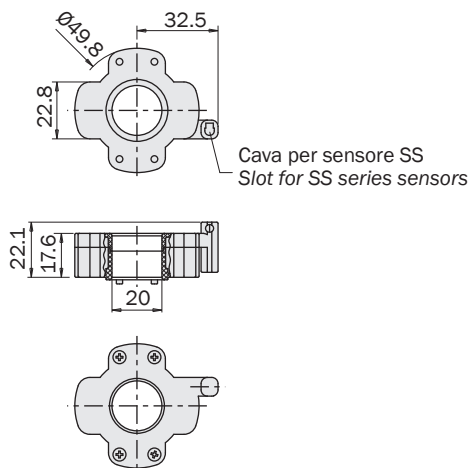
QC75-B



CSAQC (Lato robot)

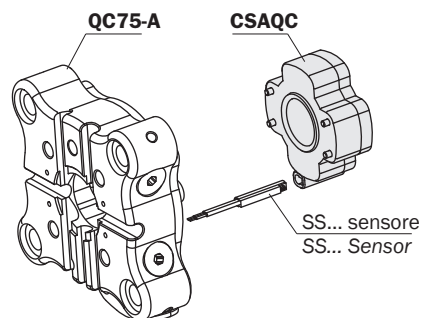
- Scatola porta sensore per la conferma dell'aggancio.

CSAQC	
Peso	15 g
Weight	



CSAQC (Robot side)

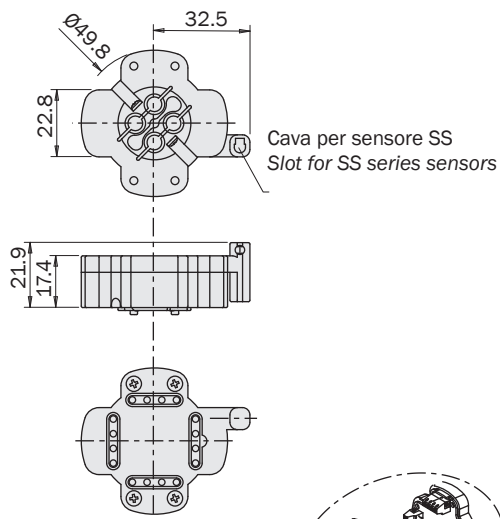
- Sensor holding box for the locking confirmation.



CMAQC (Lato robot) + CMBQC (Lato pinza)

- Le due parti sono fornite separatamente.
- 16 connessioni elettriche configurabili con morsettiere.
- 16 connettori a molla.
- Sede sensore per la conferma dell'aggancio in CMAQC.

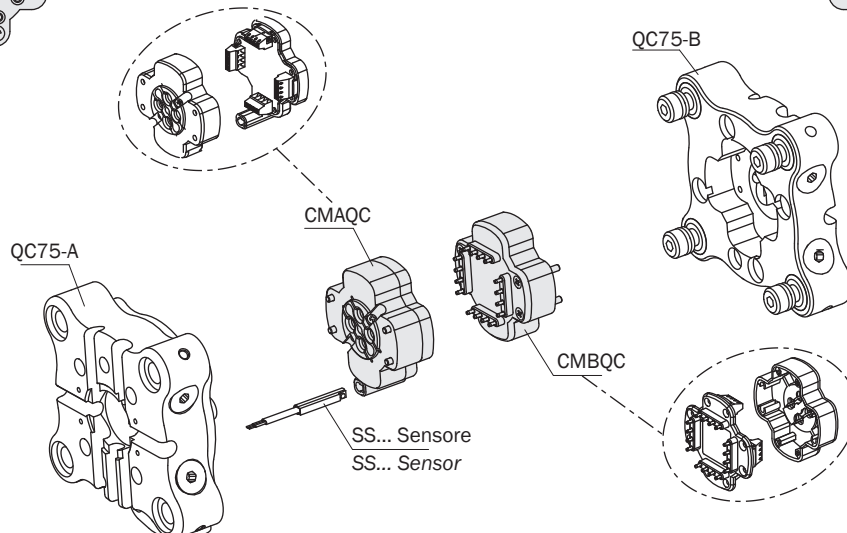
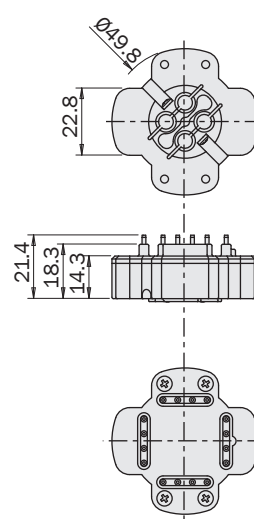
CMAQC	
Peso	19 g
Weight	



CMAQC (Robot side) + CMBQC (Gripper side)

- The two parts are supplied separately.
- 16 reconfigurable electric lines with screw terminals.
- 16 spring connectors.
- Sensor slot for the locking confirmation in CMAQC.

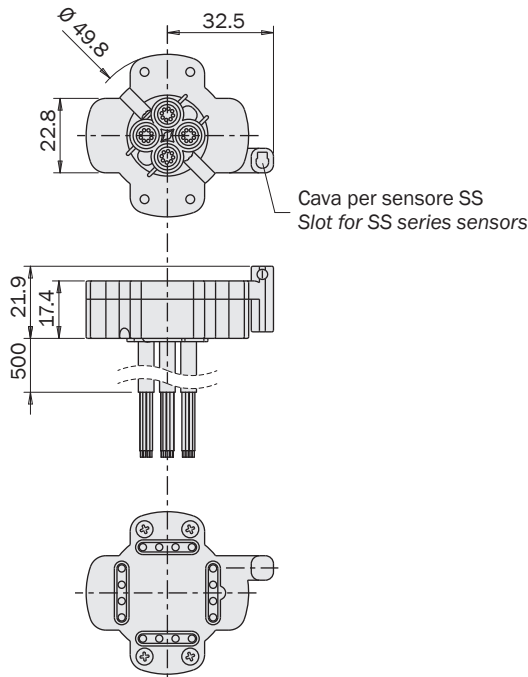
CMBQC	
Peso	19 g
Weight	



CRAQC (Lato robot) + CRBQC (Lato pinza)

- Le due parti sono fornite separatamente.
- 16 connessioni elettriche precablate a disposizione.
- 16 connettori a molla.
- Sede sensore per la conferma dell'aggancio in CRAQC.
- Lettore RFID precablati (2 cavi aggiuntivi da 8 poli) in CRAQC.
- TAG in CRBQC per il riconoscimento della pinza.

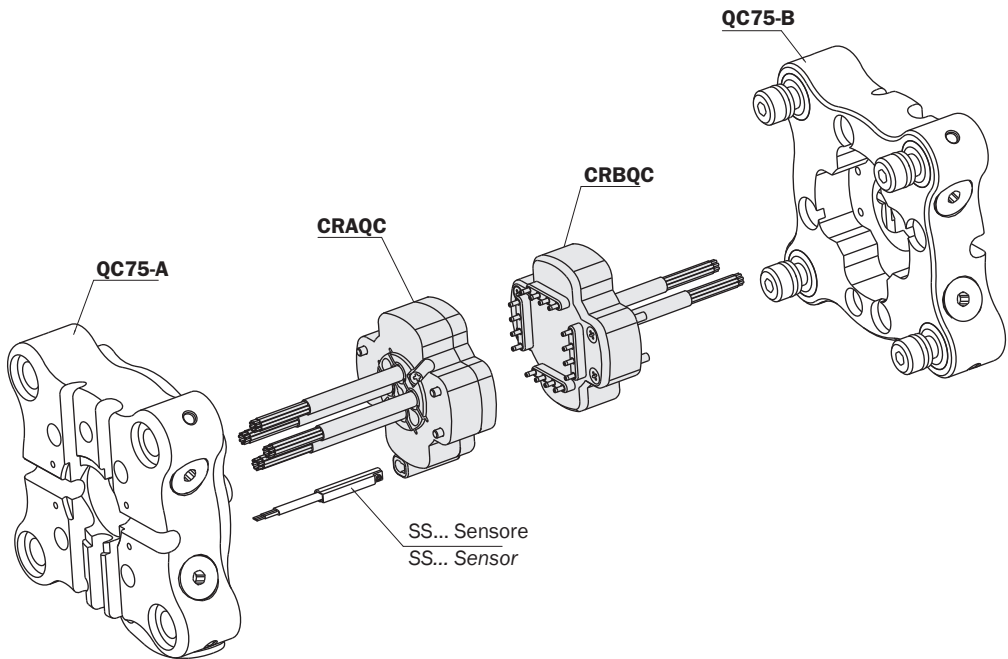
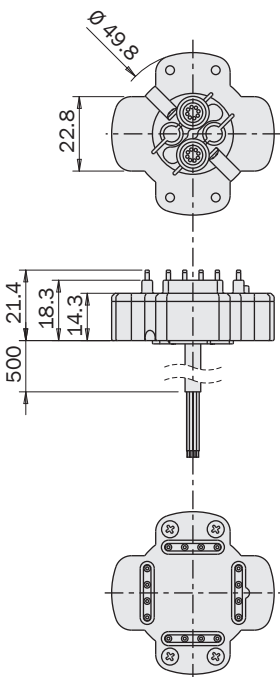
CRAQC	
Peso	140 g
Weight	



CRAQC (Robot side) + CRBQC (Gripper side)

- The two parts are supplied separately.
- 16 available prewired electric lines.
- 16 spring connectors.
- Sensor slot for the locking confirmation in CRAQC.
- RFID prewired (2 additional 8-pole cables) reader in CRAQC.
- TAG in CRBQC for the gripper recognition.

CRBQC	
Peso	80 g
Weight	

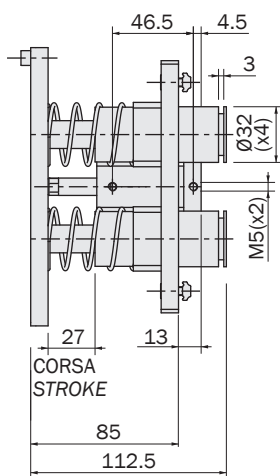
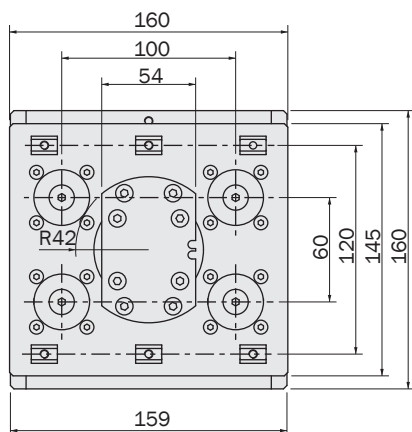
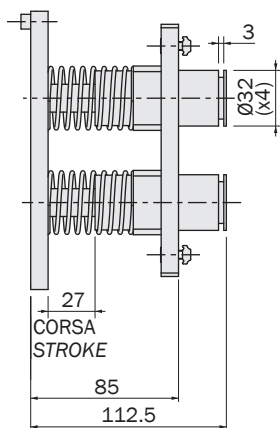
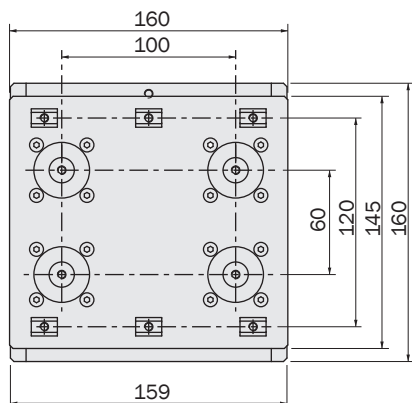


Cambia utensile lato pinza con sospensione

- SQM160-B con molle dure (molle morbide opzionali).
- SQP160-B con molle morbide (molle dure opzionali) e cilindro pneumatico a doppio effetto.
- Predisposti per ruotare la piastra di 90° [1].
- Adatti per SQC160-A, MFI-A42, QC150-B, QC160-B.

Gripper side quick-changer with suspension

- SQM160-B with hard springs (optional soft springs).
- SQP160-B with soft springs (optional hard springs) and double-acting pneumatic cylinder.
- Ready to enable 90° plate rotation [1].
- Suitable for SQC160-A, MFI-A42, QC150-B, QC160-B.



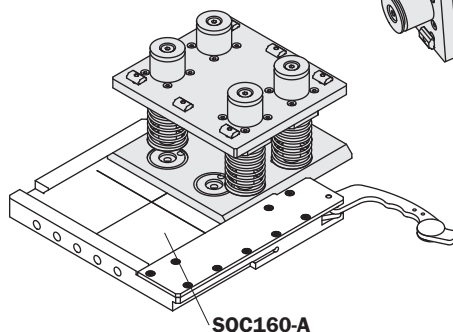
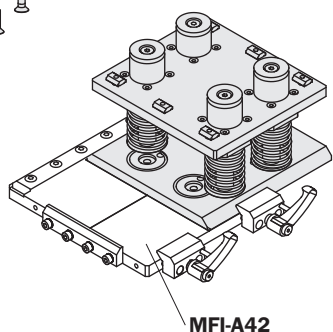
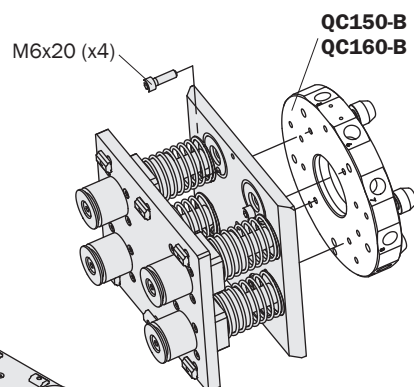
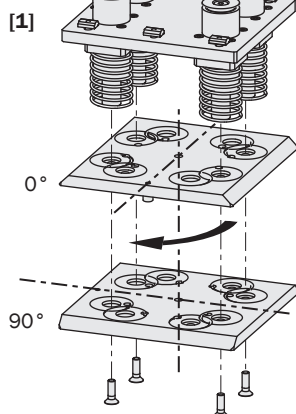
SQM160-B

Peso	2634 g
Weight	



SQP160-B

Peso	2898 g
Weight	

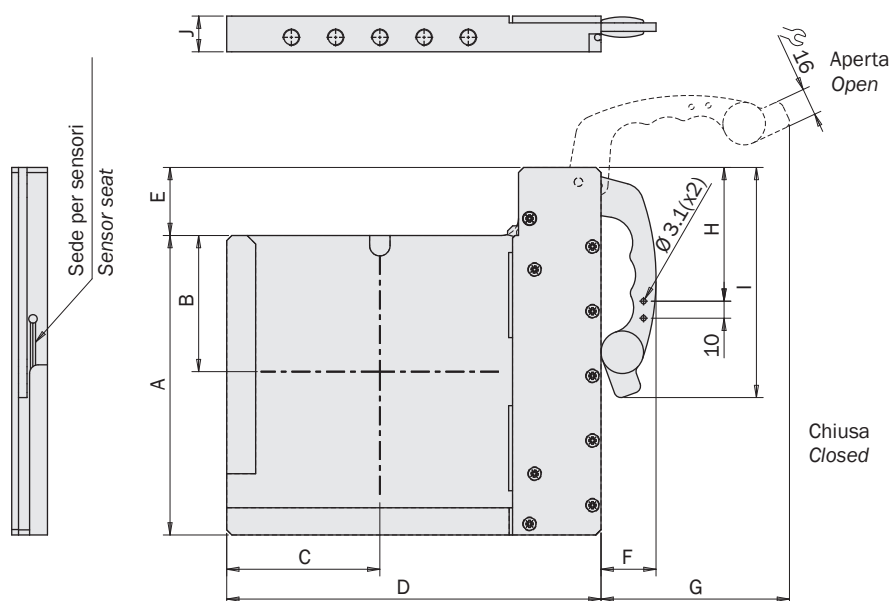


Cambia utensile quadro (lato robot)

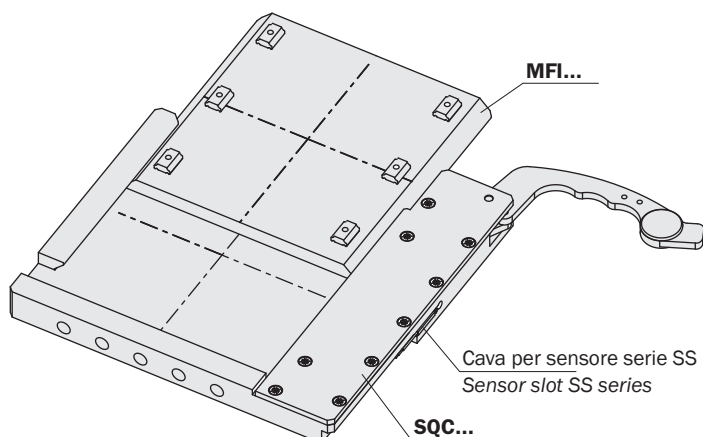
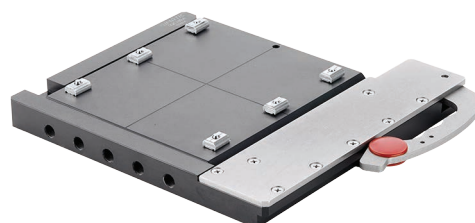
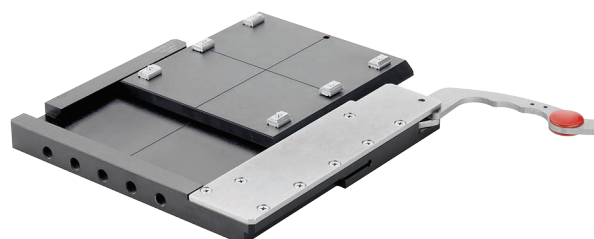
- Una sola maniglia.
- Sicurezza intrinseca.
- Conferma di chiusura con sensore magnetico (opzionale).

Square quick changer (robot side)

- One only handle.
- Intrinsic safety.
- Closure confirmation by an optional magnetic sensor.



	SQC100-A	SQC160-A	SQC250-A
A	110	176	270
B	50	80	125
C	57	90	150
D	147	220	325
E	5.5	40	40
F	28	32.3	32.3
G	76.6	110.8	110.8
H	55.5	78.6	78.6
I	100	135.3	135.3
J	19	21	20
Peso Weight	770 g	2050 g	3720 g
MFI..	MFI-A41	MFI-A43	MFI-A363



I sensori opzionali sono: The optional sensors are:		
SS4N225-G	PNP	Cavo 2.5m 2.5m cable
SS4M225-G	NPN	
SS3N203-G	PNP	Connettore M8 M8 snap plug connector
SS3M203-G	NPN	

Cambia utensile (lato robot)

Quick changer (robot side)

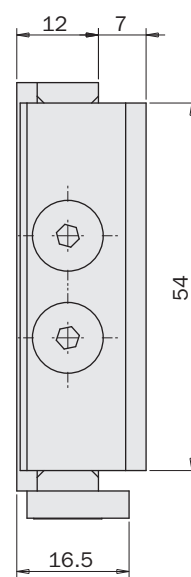
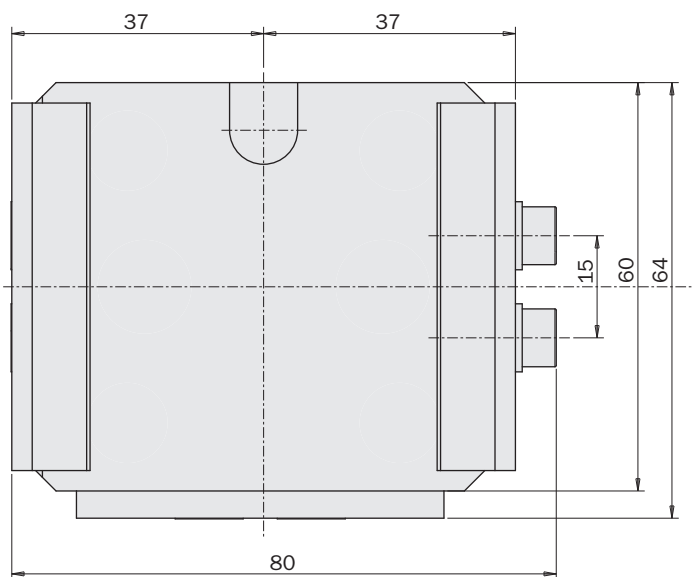
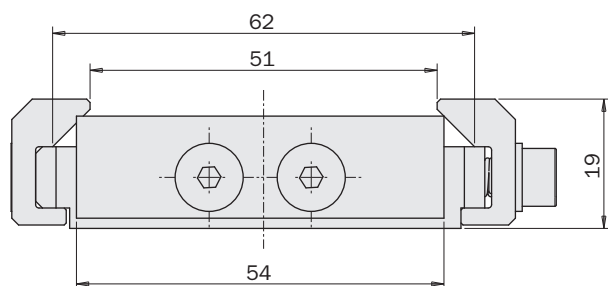
MFI-A343

FIRST ANGLE
PROJECTION

Peso

170 g

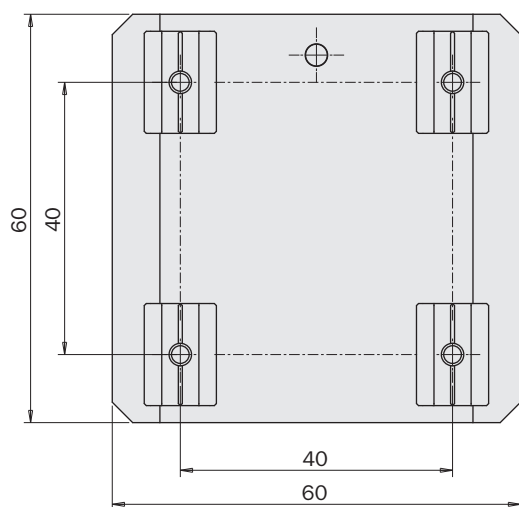
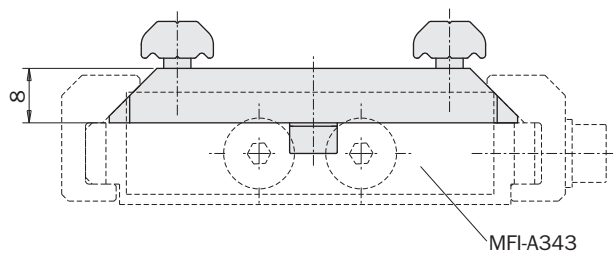
Weight



Cambia utensile (lato pinza)

Quick changer (gripper side)

FIRST ANGLE
PROJECTION



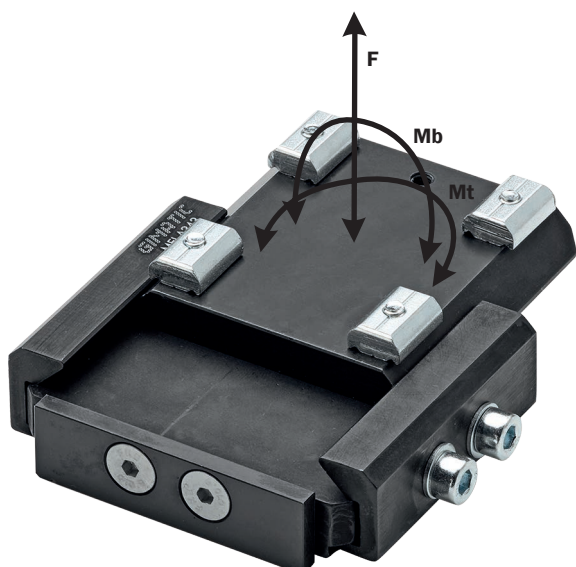
MFI-A344

Peso
Weight

65 g

Carichi di sicurezza

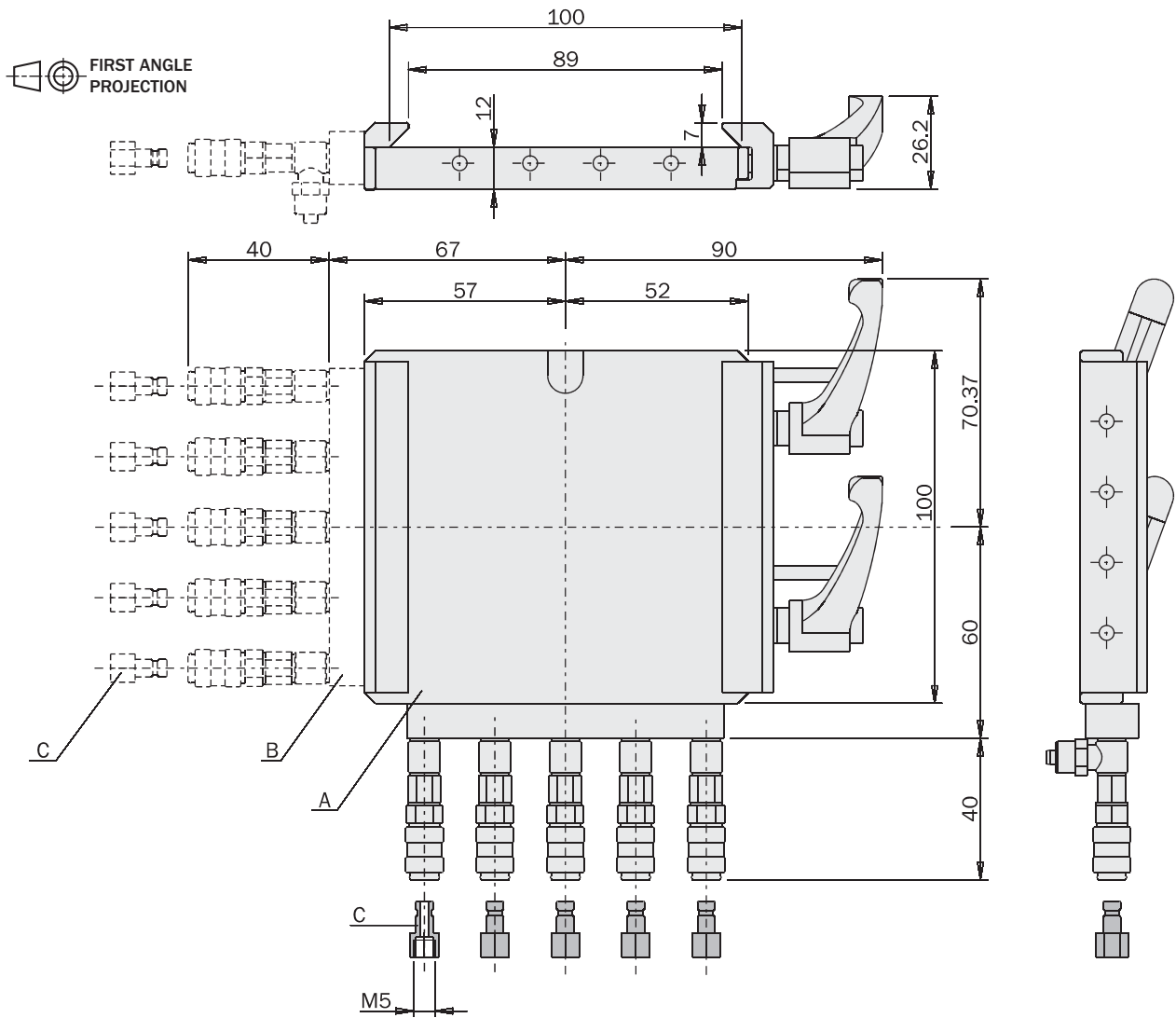
Safety loads



Lato robot Robot side	MFI-A343
Lato pinza Gripper side	MFI-A344
Carico utile suggerito Suggested payload	3kg
F	60N
Mt	9Nm
Mb	6Nm

Cambia utensile (lato robot)

Quick changer (robot side)

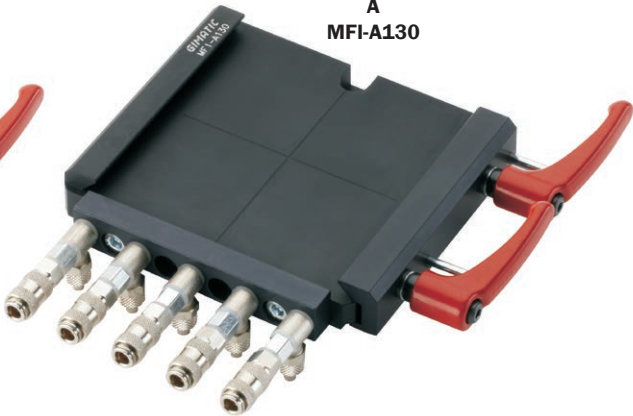


	MFI-A40	MFI-A130	MFI-A133	MFI-A135
Peso	500 g	620 g	140 g	17 g
Weight				

MFI-A40



A
MFI-A130



B
MFI-A133



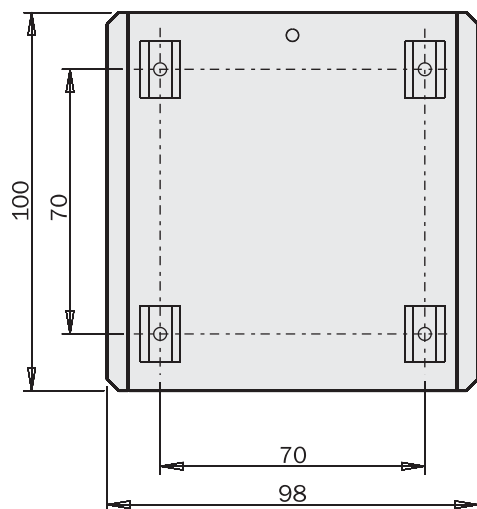
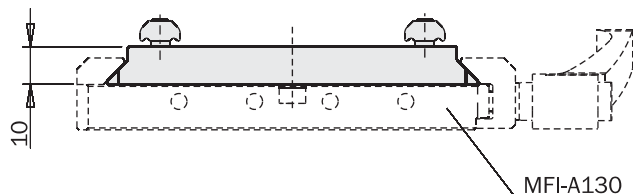
C
MFI-A135



Innesto rapido (n° 5 pezzi)
Quick coupling (5 pieces)

Cambia utensile (lato pinza)

Quick changer (gripper side)

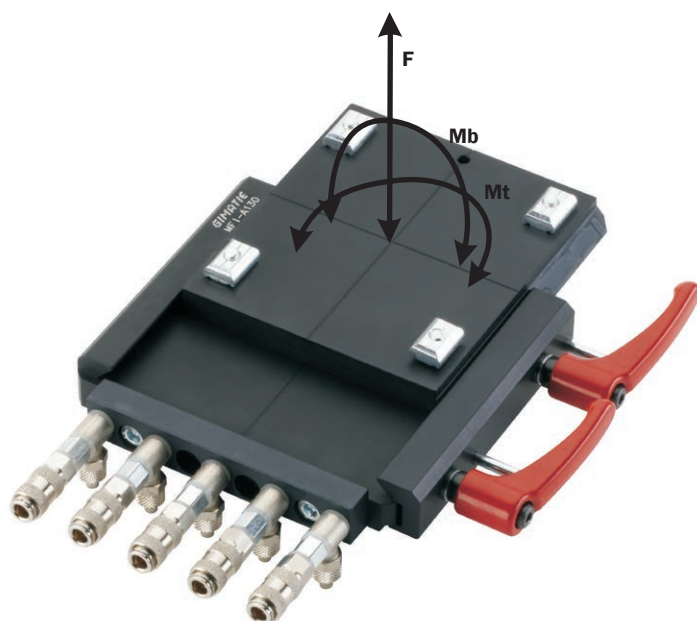


MFI-A41

Peso	270 g
Weight	

Carichi di sicurezza

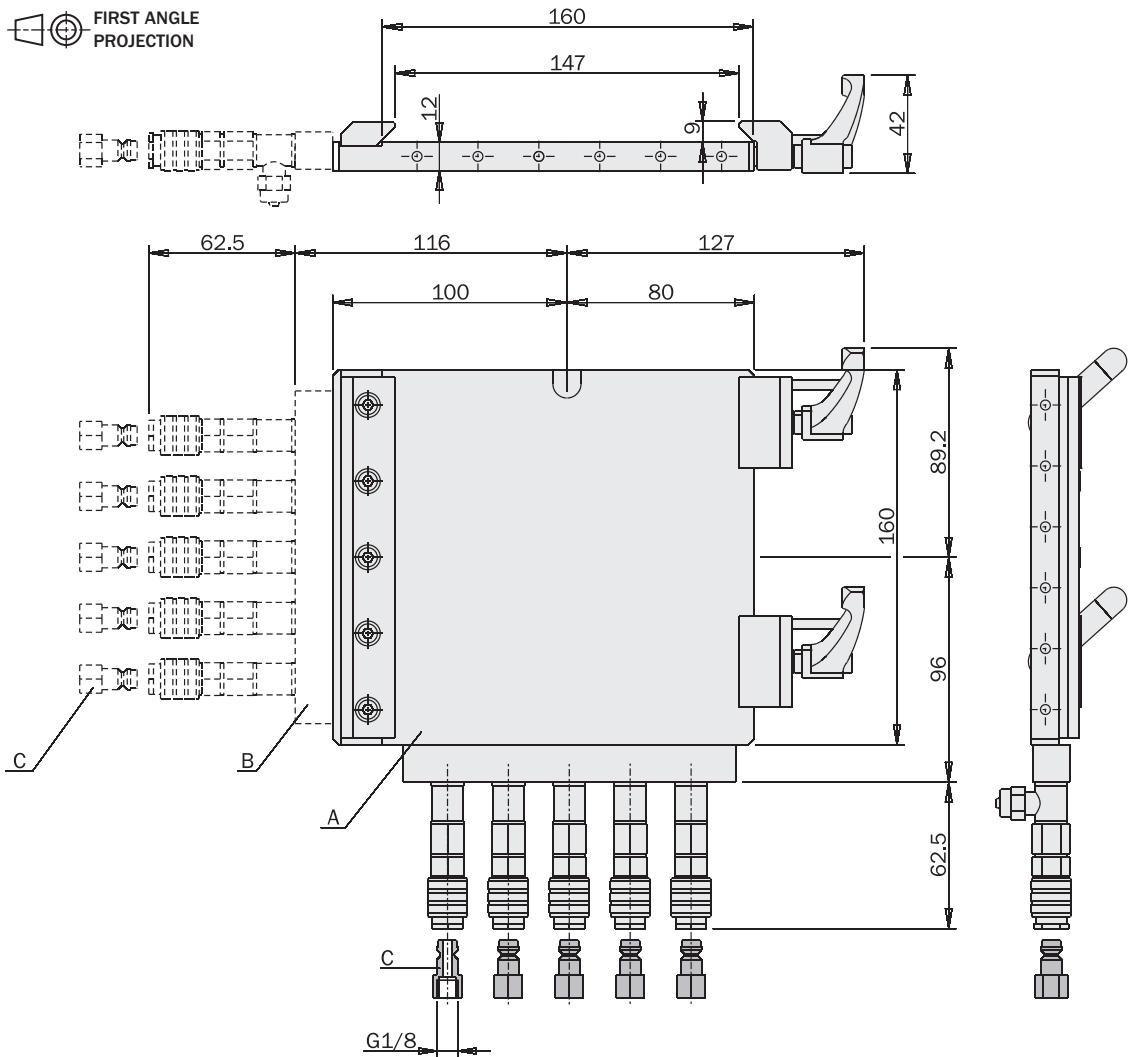
Safety loads



Lato robot a 1 maniglia 1-Handle robot side	SQC100-A
Lato robot a 2 maniglie 2-Handle robot side	MFI-A40
Lato pinza Gripper side	MFI-A41
Carico utile suggerito Suggested payload	10kg
F	200N
Mt	45Nm
Mb	30Nm

Cambia utensile (lato robot)

Quick changer (robot side)

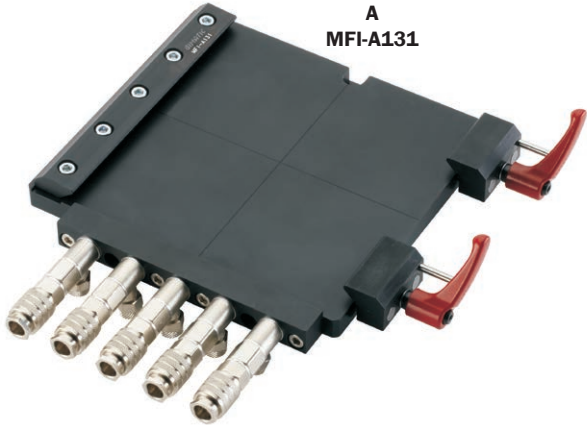


	MFI-A42	MFI-A131	MFI-A132	MFI-A134
Peso	1270 g	1650 g	450 g	40 g
Weight				

MFI-A42



A
MFI-A131



B
MFI-A132



C
MFI-A134

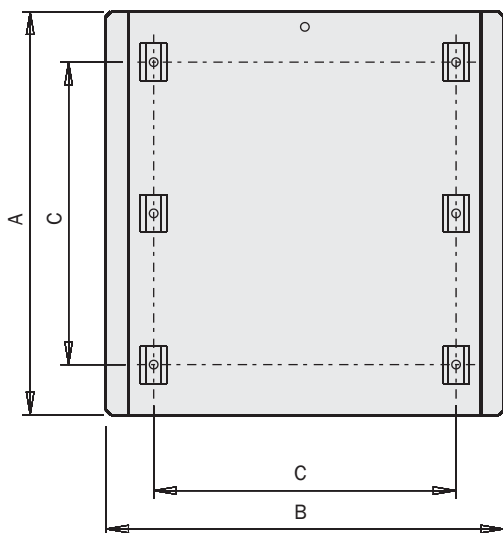
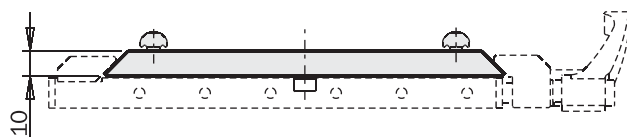


Innesto rapido (n° 5 pezzi)
Quick coupling (5 pieces)

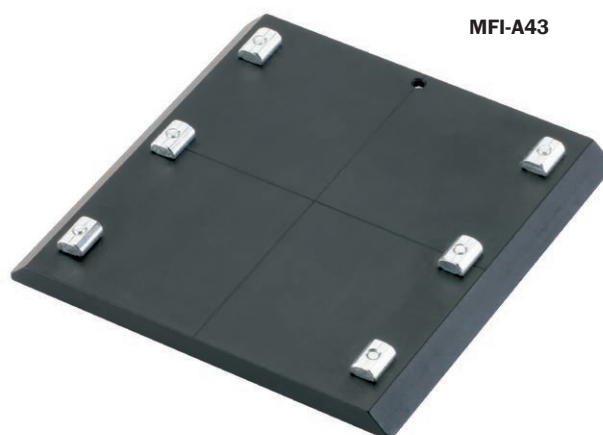
Cambia utensile (lato pinza)

Quick changer (gripper side)

FIRST ANGLE
PROJECTION



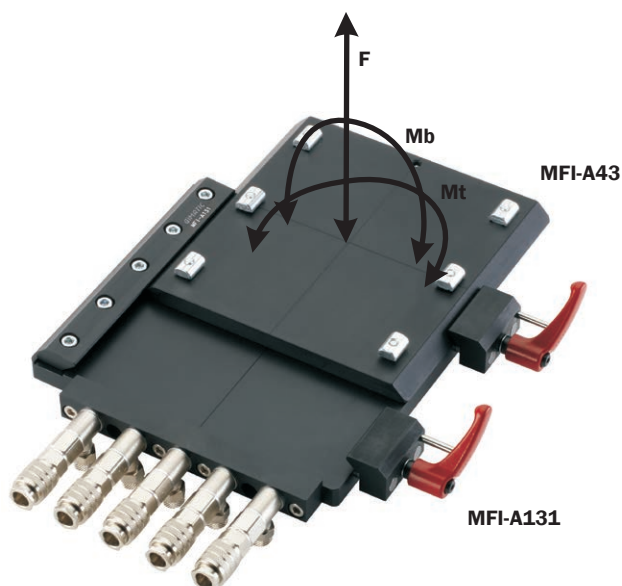
	MFI-A43	MFI-A363
Peso Weight	670 g	1600 g
A	160 mm	250 mm
B	159 mm	249 mm
C	120 mm	200 mm



MFI-A43

Carichi di sicurezza

Safety loads



Lato robot a 1 maniglia 1-Handle robot side	SQC160-A	SQC250-A
Lato robot a 2 maniglie 2-Handle robot side	MFI-A42	-
Lato pinza Gripper side	MFI-A43	MFI-A363
Carico utile suggerito Suggested payload	20kg	40kg
F	400N	800N
Mt	120Nm	300Nm
Mb	80Nm	200Nm

Magazzino per EOAT MFI-A344-H
(da usare con MFI-A344, 60x60mm)

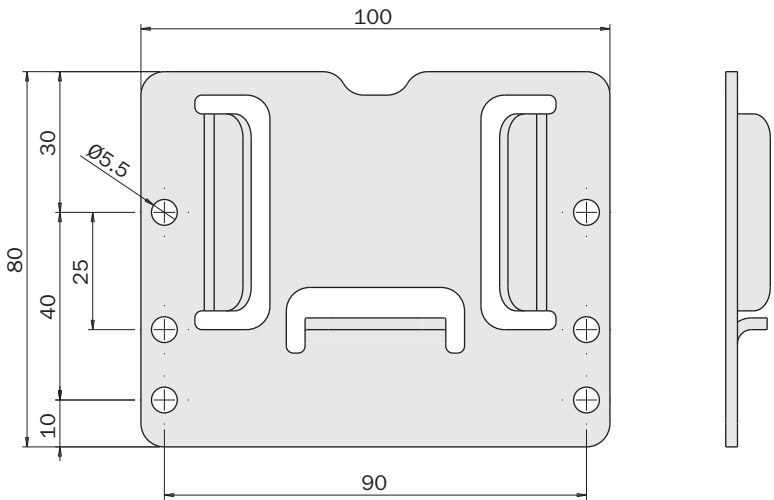
EOAT storage MFI-A344-H
(to be used with MFI-A344, 60x60mm)



Dimensioni (mm)
Dimensions (mm)

MFI-A344-H

Peso	136 g
Weight	



FIRST ANGLE
PROJECTION

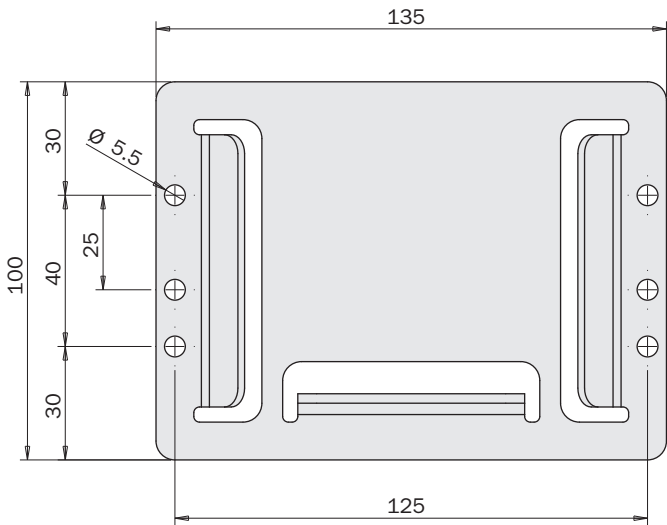
Magazzino per EOAT MFI-A41-H
(da usare con MFI-A41, 98x100mm)

EOAT storage MFI-A41-H
(to be used with MFI-A41, 98x100mm)



Dimensioni (mm)
Dimensions (mm)

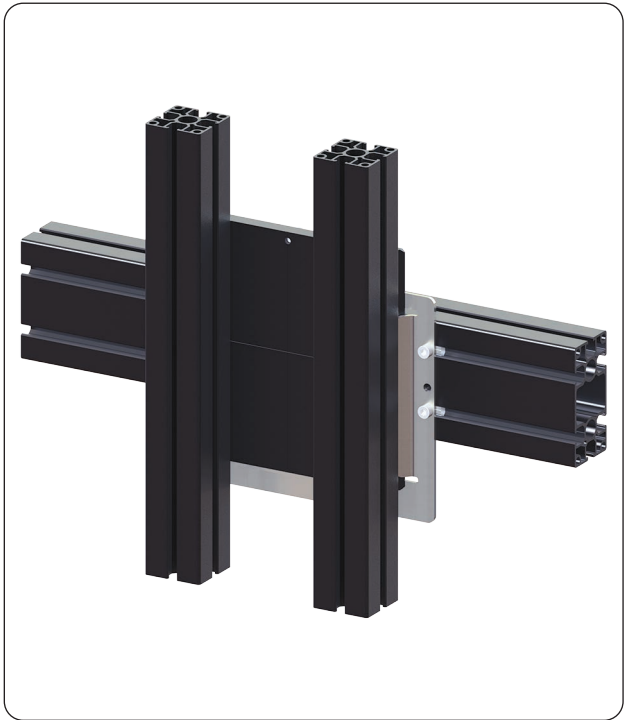
MFI-A41-H	
Peso	238 g
Weight	



FIRST ANGLE
PROJECTION

Magazzino per EOAT MFI-A43-H
(da usare con MFI-A43, 158x160mm)

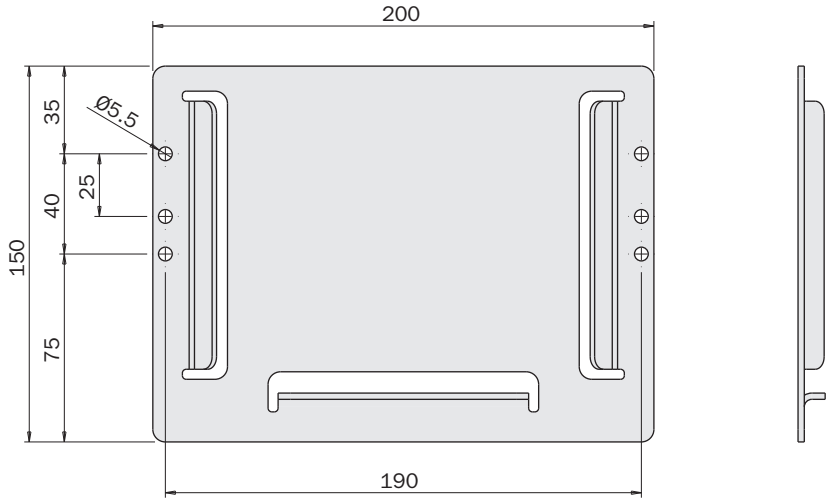
EOAT storage MFI-A43-H
(to be used with MFI-A43, 158x160mm)



Dimensioni (mm)
Dimensions (mm)

MFI-A43-H

Peso	547 g
Weight	



FIRST ANGLE
PROJECTION

[illegible]

Cambia utensile elettrico

Per le applicazioni che richiedono il cambio automatico dell'organo di presa è disponibile la famiglia di cambia utensili elettrici EQC.

Si tratta di un sistema composto da una parte attiva (lato A) ed una flangia meccanica passiva (lato B).

La parte attiva tipicamente è collegata al polso di un robot mentre una o più flange sono collegate agli organi di presa intercambiabili.

- Versione completamente automatica.
- Sistema Plug & Play.
- Design studiato per applicazioni con i robot collaborativi.
- Flange ISO 9409 opzionali per una interfaccia diretta con i robot.
- Cavo di alimentazione con connettore M8x1 a 8 poli, lunghezza 200 mm.
- Alimentazione a bassa tensione 24 Vdc.
- Fino a 6 collegamenti per utenze pneumatiche.
- Connessioni elettriche opzionali posizionabili nel foro centrale passante.

Electric quick changer

The EQC electric quick changer family is available for applications with automatic change of gripping element.

The system consists of an active part (side A) and a passive mechanical tool plate (side B).

The active part is usually connected to a robot's wrist while one or more flange are connected to the interchangeable gripping elements.

- Fully automatic version.
- Plug & Play system.
- Designed to collaborative robot application.
- Optional flange ISO 9409 to interface directly with robot.
- Power cable with 8-pin M8x1 connector, length 200 mm.
- 24 Vdc low voltage supply.
- Up to 6 user pneumatic connections.
- Optional electric connectors to be positioned in the central through hole.

EQC05-B



EQC20-B



EQC100-B

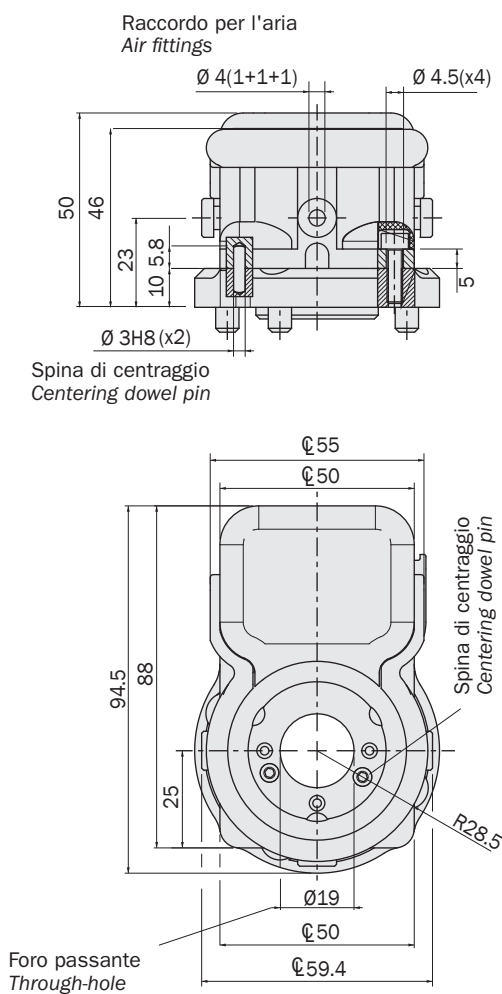
EQC05-A
EQC05N-AEQC20-A
EQC20N-AEQC100-A
EQC100N-A

COMING SOON

	EQC05	EQC05N	EQC20	EQC20N	EQC100	EQC100N
Massa della parte attiva (lato-A) <i>Mass of the master plate (side-A)</i>	500 g		810 g		2700 g	
Massa della flangia (lato-B) <i>Weight of the tool plate (side-B)</i>	100 g		210 g		720 g	
Tempo di movimento <i>Movement time</i>	0.5 s		1 s		1 s	
Massima distanza di aggancio <i>Maximum coupling distance</i>	0.5 mm		1 mm		2 mm	
Disallineamento torsionale <i>Torsional misalignment</i>	± 2°		± 2°		± 2.5°	
Disallineamento planare (R) <i>Planar misalignment (R)</i>	1 mm		2 mm		2.5 mm	
Ripetibilità <i>Repeatability</i>	0.01 mm		0.01 mm		0.01 mm	
Grado di protezione <i>Protection rating</i>	IP40		IP54		IP54	
Capacità di carico <i>Load capacity</i>	5 kg		20 kg		100 kg	
Intervallo di temperatura di lavoro <i>Allowed temperature range</i>	5-60°C					
Alimentazione pneumatica (integrati) <i>Pneumatic supply (integrated)</i>	Ø4 (x3)		Ø6 (x6)		Ø8 (x6)	
Intercambiabilità <i>Interchangeability</i>	X-Y: 0.1 mm Z: 0.1 mm					
Ripetibilità <i>Repeatability</i>	X-Y: 0.02 mm Z: 0.02 mm					
Momento d'inerzia asse Z (centro della flangia del Robot)(lato-A) <i>Moment of inertia Z-axis (Center of the robot flange)(side-A)</i>	3745 g · cm ²		13082 g · cm ²		109158 g · cm ²	
Momento d'inerzia asse Z (centro della flangia del Robot)(lato-B) <i>Moment of inertia Z-axis (Center of the robot flange)(side-B)</i>	338 g · cm ²		1719 g · cm ²		21370 g · cm ²	

Dimensioni (mm)
Dimensions (mm)

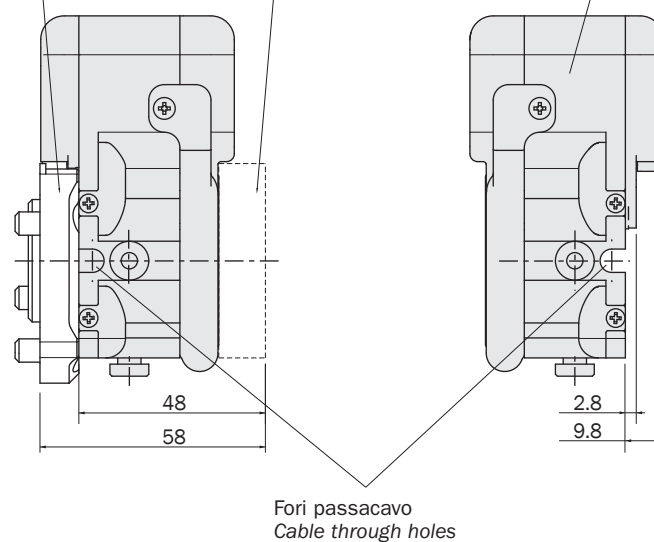
EQC05-A
EQC05N-A



EQC05-K50

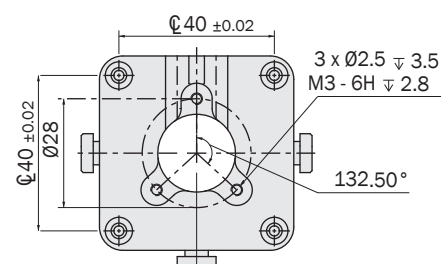
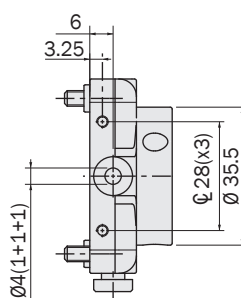
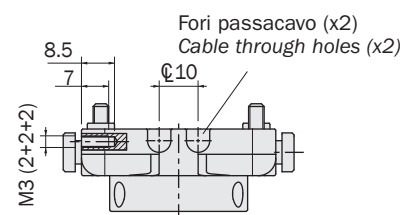
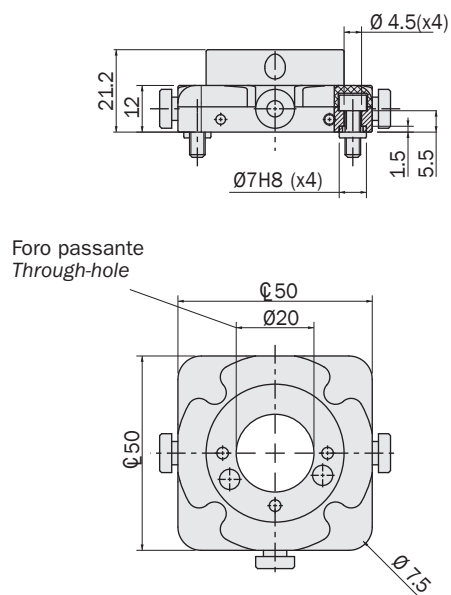
EQC05-B

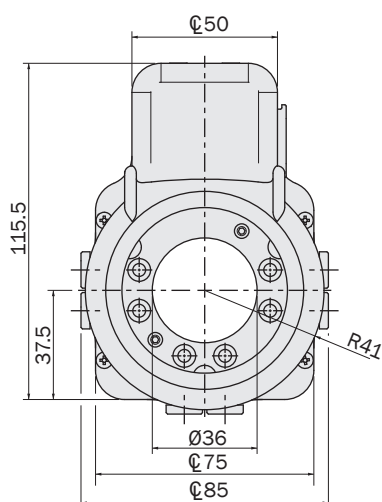
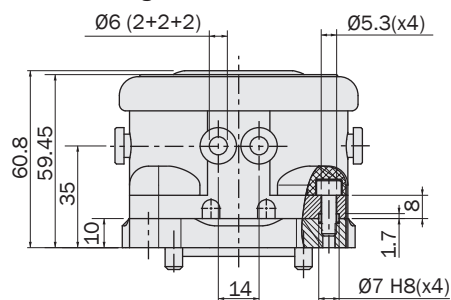
Senza piastra di interfaccia
Without interface plate



Dimensioni (mm)
Dimensions (mm)

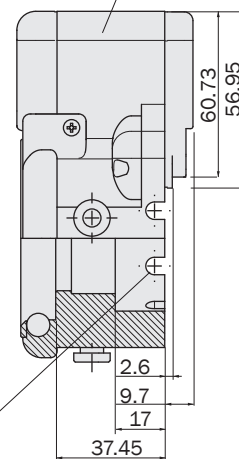
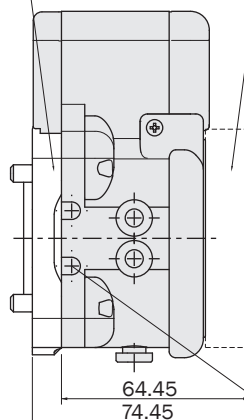
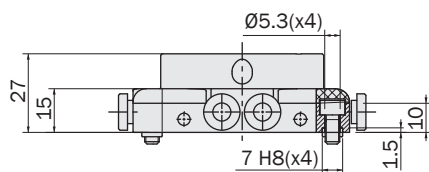
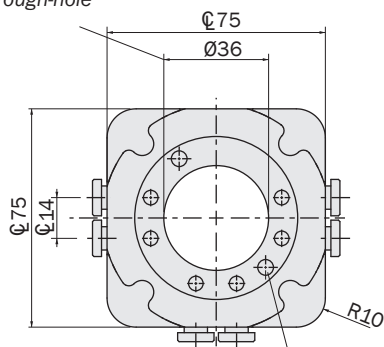
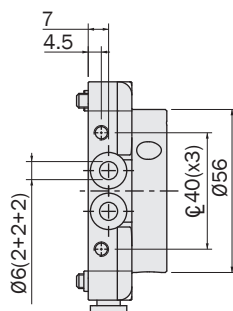
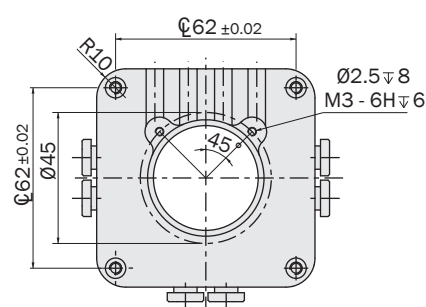
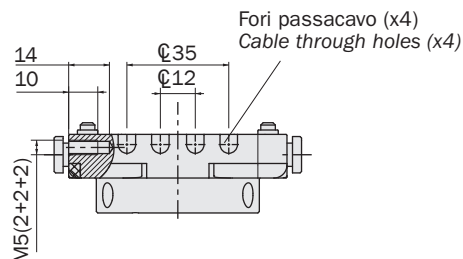
EQC05-B



Dimensioni (mm)
Dimensions (mm)**EQC20-A**
EQC20N-ARaccordo per l'aria
Air fittings

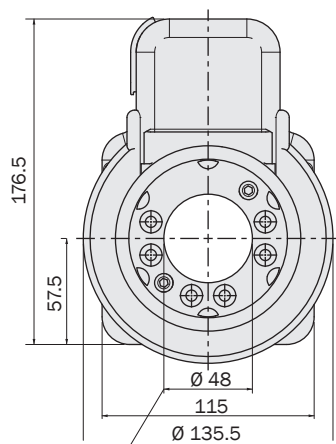
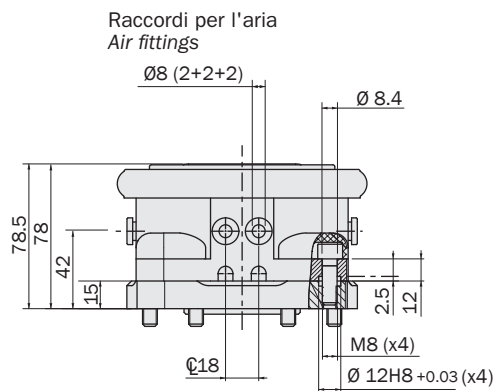
EQC20-K63

EQC20-B

Senza piastra di interfaccia
Without interface plateFori passacavo (2+2+2)
Cable through holes (2+2+2)**Dimensioni (mm)**
Dimensions (mm)**EQC20-B**Foro passante
Through-holeForo per il perno di centraggio
Centering pin holeRaccordo per l'aria
Air fittings

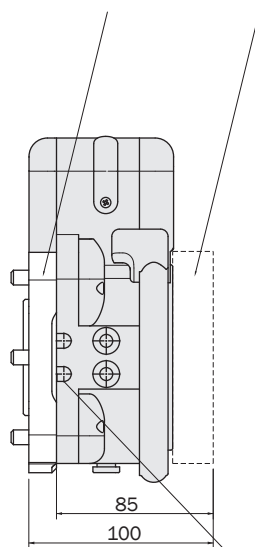
Dimensioni (mm)
Dimensions (mm)

EQC100-A
EQC100N-A



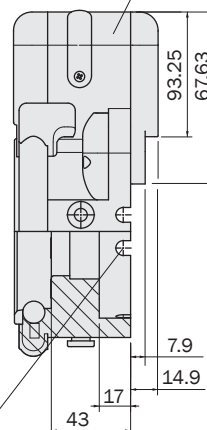
Foro passante
Through-hole

EQC100-K100 **EQC100-B**



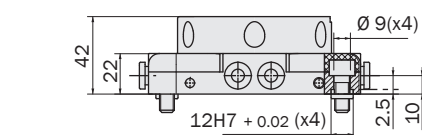
Fori passacavo (2+2+2)
Cable through holes (2+2+2)

Senza piastra di interfaccia
Without interface plate

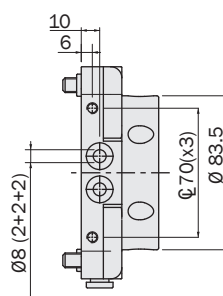
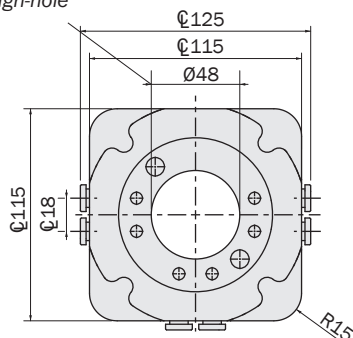


Dimensioni (mm)
Dimensions (mm)

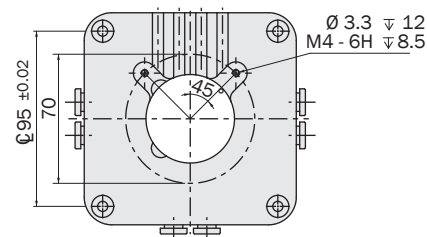
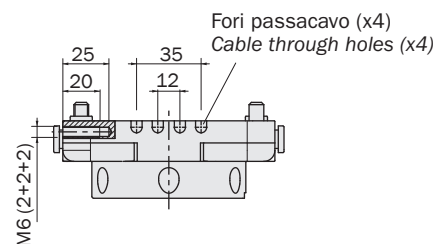
EQC100-B



Foro passante
Through-hole



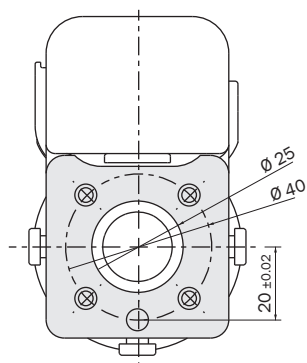
Raccordi per l'aria
Air fittings



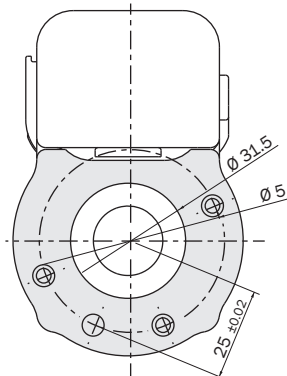
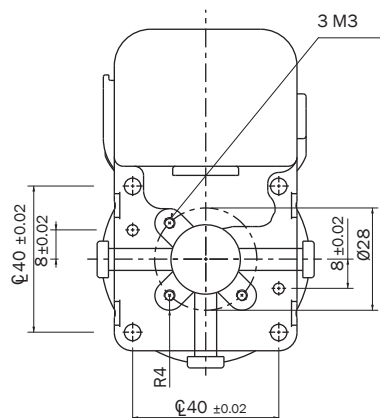
EQC05-A/ EQC05N-A

EQC05-K40

ISO 9409-1-40-4-M6

**EQC05-K50**

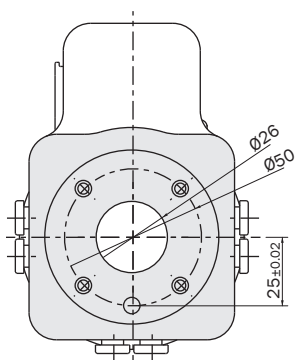
ISO 9409-1-50-4-M6

**Senza piastra****Without interface plate**

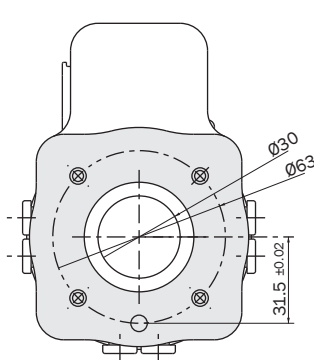
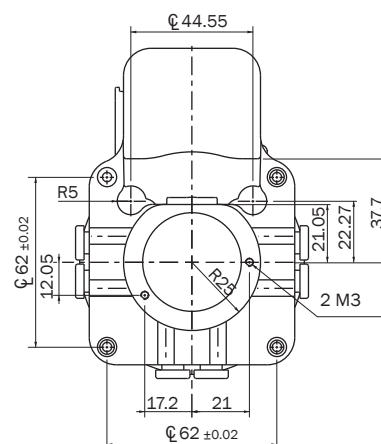
EQC20-A/ EQC20N-A

EQC20-K50

ISO 9409-1-50-4-M6

**EQC20-K63**

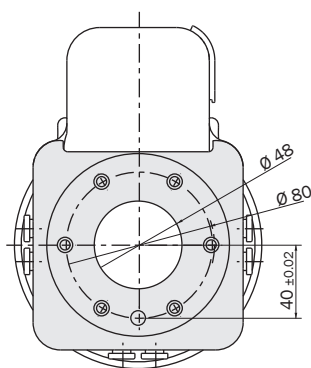
ISO 9409-1-63-4-M6

**Senza piastra****Without interface plate**

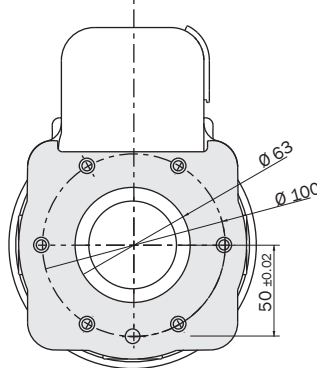
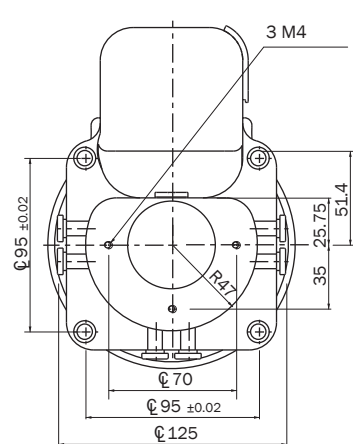
EQC100-A/ EQC100N-A

EQC100-K80

ISO 9409-1-80-6-M8

**EQC100-K100**

ISO 9409-1-100-6-M8

**Senza piastra****Without interface plate**

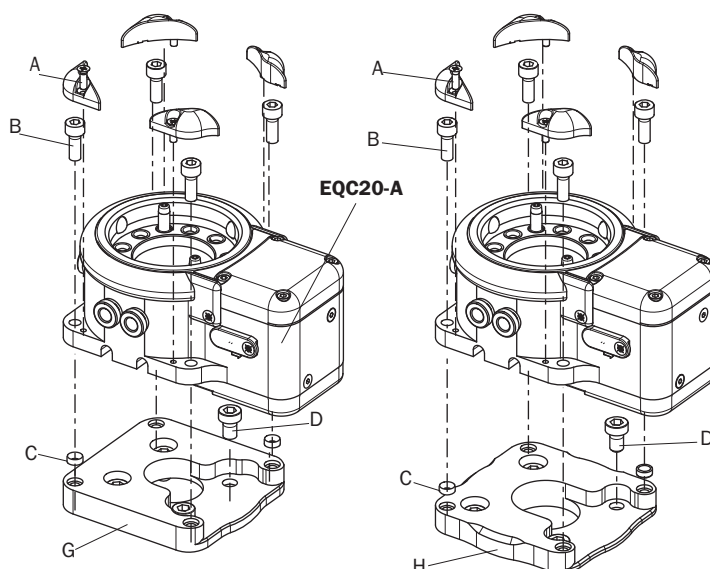
Fissaggio

La parte attiva del cambia utensile può essere fissata esclusivamente sul fondo utilizzando quattro viti.
La flangia B può essere fissata sul carico in modo analogo.
Sia per la parte A che per la parte B, utilizzare per il centraggio due boccole (C), fornite nella confezione.

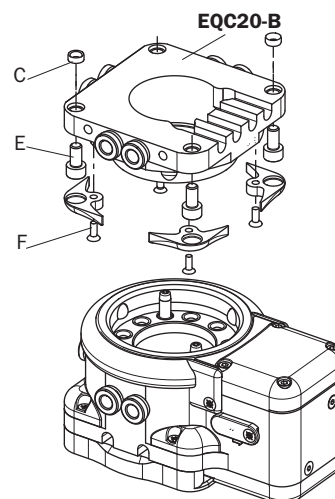
Fastening

The active part of the quick changer can only be fastened on the bottom using four screws.
The tool plate, B, can be fastened on the load in a similar manner.
For proper centering of parts A and B, use the two bushes (C) supplied in the package.

Esempio con EQC20-A



Example with EQC20-A



	EQC05-A/ EQC05N-A	EQC20-A/EQC20N-A	EQC100-A/EQC100N-A
A	TSP M2.5X6 DIN965	TSP M3X10 DIN 965A	M3X14 DIN7985A
B	TCEI M4X14 DIN 912	TCEI M5X14 DIN912	TCEI M8X25 DIN 912
C	Ø 3X12 DIN 6325	390677 Ø7xØ5.3x3	354236 Ø12xØ8.4x5
D	TCEI M6X10 DIN 7984	TCEI M6x10 DIN 7984	TCEI M8X16 DIN 912
E	TCEI M4 DIN912	TCEI M5 DIN912	TCEI M8 DIN912
F	TSP M2.5X8 DIN965A	TSP M3x8 DIN 965A	TSP M4X16 DIN965A
G	EQC05-K50 (ISO 9409-1-50-4-M6)	EQC20-K63 (ISO 9409-1-63-4-M6)	EQC100-K100 (ISO 9409-1-100-6-M6)
H	EQC05-K40 (ISO 9409-1-404M6)	EQC20-K50 (ISO 9409-1-50-5-M6)	EQC100-K63 (ISO 9409-1-63-6-M6)

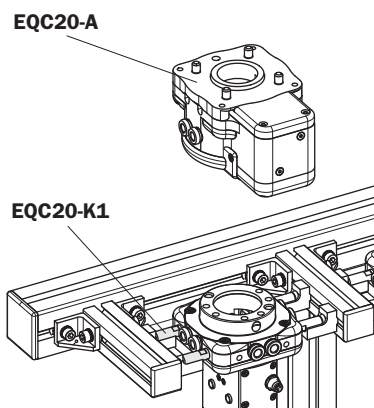
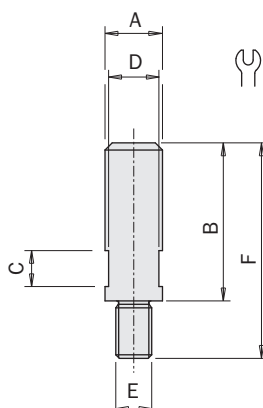
Kit pioli per lo stoccaggio (opzionale)

Sono forniti separatamente i pioli necessari allo stoccaggio della flangia in condizioni di non utilizzo.

Kit pin for storage (optional)

The pins required for storage of the tool plate when not in use are supplied separately.

	EQC05-K1	EQC20-K1	EQC100-K1
A	D7	D8	D12
B	15	22	52
C	4+1	5+1	8+1
D	6	7	10
E	M4	M5	M6
F	20	30	70
G	5	7	10



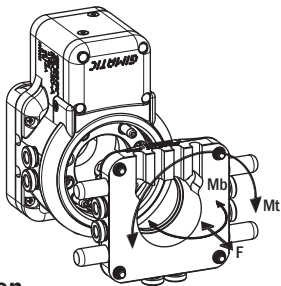
Carichi di sicurezza

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

	EQC05-A/ EQC05N-A	EQC20-A/ EQC20N-A	EQC100-A/ EQC100N-A
Mt	8 Nm	150 Nm	600 Nm
Mb	8 Nm	100 Nm	400 Nm
F	500 N	2000 N	8000 N

Safety loads

Check the table for the maximum loads allowed. Excessive forces or torques can damage the system, cause operation problems and endanger the safety of the operator.



Connessione elettrica principale

Il cambia utensile elettrico è dotato di un cavo con connettore maschio M8 a 8 poli per l'alimentazione a 24 Vdc, per il segnale di comando di aggancio/sgancio e per la connessione dei segnali digitali di uscita che identificano la configurazione di sistema accoppiato e disaccoppiato. La taglia maggiore di questo cambia utensile elettrico (EQC100-A / EQC100N-A) presenta un ulteriore ingresso (IN SECURE) che deve rimanere abilitato (collegato a 24Vdc) per permettere il funzionamento del prodotto. Non è necessaria un'ulteriore elettronica di comando esterna.

Main electrical connection

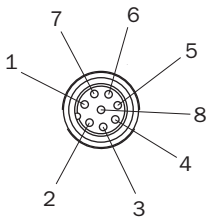
The electrical quick changer is equipped with an 8-poles M8 male connector that provides a 24Vdc power supply for the locking/unlocking command and for the connection of the digital outputs that identify the coupled and uncoupled system status. No additional external electronic control system is required. The major size of this electric tool changer (EQC100-A / EQC100N-A) has an additional input (IN SECURE) that must remain enabled (connected to 24vdc) to allow the operation of the product. No additional external electronic control system is required.

EQC05-A / EQC20-A

1	Bianco / White	N/C
2	Marrone / Brown	N/C
3	Verde / Green	OUT CLOSED (PNP)
4	Giallo / Yellow	OUT OPENED (PNP)
5	Grigio / Grey	24 Vdc
6	Rosa / Pink	OPEN/CLOSE (PNP)*
7	Blu / Blue	N/C
8	Rosso / Red	GND

EQC100-A

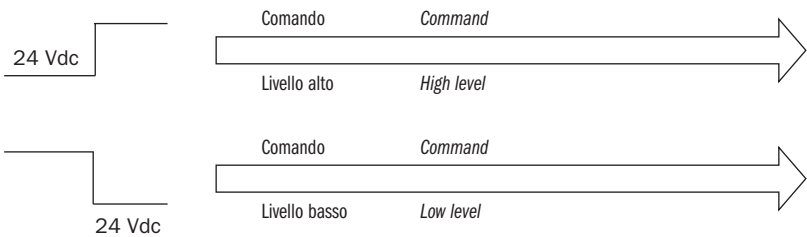
1	Bianco / White	N/C
2	Marrone / Brown	N/C
3	Verde / Green	OUT CLOSED (PNP)
4	Giallo / Yellow	OUT OPENED (PNP)
5	Grigio / Grey	24 Vdc
6	Rosa / Pink	OPEN/CLOSE (PNP)*
7	Blu / Blue	IN SECURE
8	Rosso / Red	GND



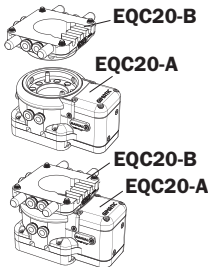
*Per le versioni EQC05N-A, EQC20N-A e EQC100N-A il tipo di comando è NPN.

*For EQC05N-A, EQC20N-A and EQC100N versions the type command is NPN

Esempio di comando con EQC20-A (tipo di comando: PNP)



Command example with EQC20-A (type command: PNP)



Basso: comando di aggancio Alto: comando di sgancio

Low: coupling command High: uncoupling command

Per la versione NPN la logic è inversa.

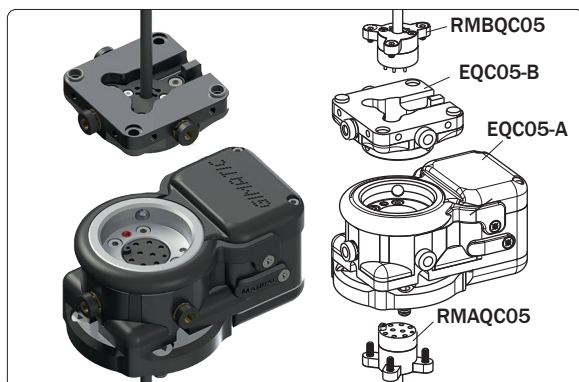
For NPN versions the logic is inverse.

	EQC05-A	EQC05N-A	EQC20-A	EQC20N-A	EQC100-A	EQC100N-A
Connessione elettrica Electrical connection	M8, 8 poli M8, 8-pole					
Alimentazione Power supply	24 Vdc ± 10% 0.35 Arms, 0.8 Apk		24 Vdc ± 10% 0.5 Arms, 1.2 Apk		24 Vdc ± 10% 1.5 Arms, 6 Apk	
Ingresso digitale PNP Digital input	PNP	NPN	PNP	NPN	PNP	NPN
Ritardo di inizializzazione uscite Output initialisation delay	200 ms					

Modulo di connessione elettrica: RMAQC05/ RMBQC05 (optional per EQC05)

- Modulo di connessione elettrica per cambia utensile elettrico EQC05.
- 8 connessioni elettriche a molla.
- 1 uscita a cavo precablato.

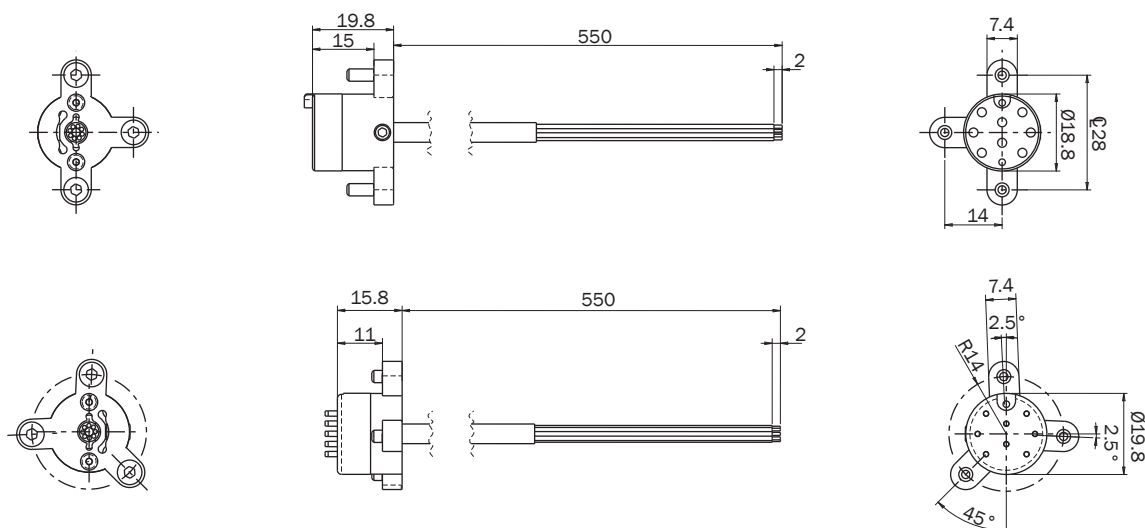
Esempio di applicazione



Electrical connection module: RMAQC05/ RMBQC05 (optional for EQC05)

- Electrical connection module for EQC05 quick changer.
- 8 electrical spring connections.
- 1 output with pre-wired cable.

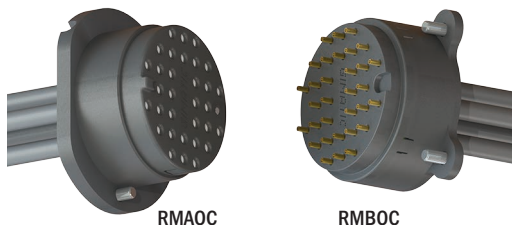
Application example



	RMAQC05	RMBQC05
Numero connessioni utente Number of user connections	8	
Rivestimento contatti Contact coating	Doratura Gold-plating	
Tipo di contatto Type of contact	Femmina Female	Maschio Male
Tensione nominale Rated voltage	24 Vdc	
Corrente massima per contatto Max current per contact	1 A	
Temperatura di esercizio Operating temperature	5/60°C	
Grado di protezione IP rating	IP40	
Connessione elettrica Electrical connection	1 cavo (8 x 0.14mm ²) 1 cable (8 x 0.14mm ²)	
Lunghezza cavo Cable length	500mm	
Isolamento cavo Cable insulation	PUR	
Guaina cavo Cable sheath	PUR	
Massa Weight	70g	

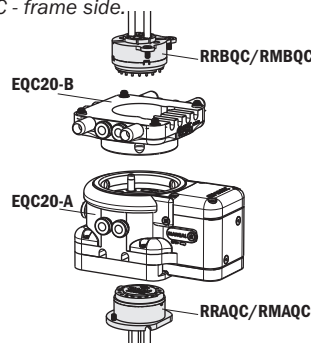
Modulo di connessione elettrica: RMAQC/ RMBQC (optional per EQC20)

- Modulo di connessione elettrica.
- 32 connessioni elettriche.
- Pin a tasteggio autopulenti.
- Uscita: 4 cavi da 8 x 0.14 mm².
- Le due parti sono fornite separatamente:
RMAQC – lato robot;
RMBQC – lato utensile.



Electrical connection module: RMAQC/RMBQC (optional for EQC20)

- Electric connection module.
- 32 electrical connection.
- Feeler pin with self-clearing heads.
- Output: four 8-pole cable x 0.14 mm².
- The two parts are supplied separately:
RMAQC – robot side;
RMBQC – frame side.

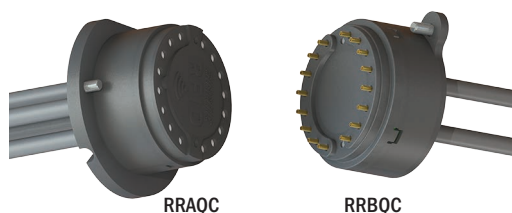


RRAQC/RRBQC (optional)

Modulo di identificazione RFID + Modulo di connessione elettrica.

Sistema di riconoscimento automatico dell'organo di presa composto da un lettore RFID (RRAQC) ed un TAG di memoria (RRBQC).

- Fino a 255 utensile distinguibili.
- Codifica binaria dell'utensile tramite 8 uscite digitali 24 Vdc.
- Ingresso digitale per il conteggio dei cicli di esecuzione dell'utensile.
- Uscita digitale per segnalazione intervento manutentivo richiesto dall'utensile al raggiungimento del numero cicli impostato.
- Memorizzazione dati tecnici dell'utensile.
- Disponibile area dati utensile.
- 16 connessioni elettriche.
- Pin a tasteggio autopulenti.
- Uscita modulo RFID: 2 cavi da 8 poli x 0.14 mm².
- Uscita modulo connessione elettrica: 2 cavi da 8 x 0.14 mm².
- Le due parti sono fornite separatamente:
RRAQC – lato robot (lettore) [NPN: RRAQCN];
RRBQC – lato utensile (TAG).
- Comunicazione anche con il tuo smartphone grazie alla nuova app "Gimatic Android App".



RRAQC/RRBQC (optional)

RFID identification modules + Electric connection module.

System for automatic recognition of gripping tool composed of a RFID reader (RRAQC) and memory TAG (RRBQC).

- Up to 255 identifiable tools.
- Binary coding of tools by means of 8 digital outputs 24 Vdc.
- Digital input to counting tool cycles execution.
- Generation of a maintenance warning signal once the tool reaches the preset number of cycles.
- Memorization of tool technical data.
- User data memory available.
- 16 pins connections.
- Feeler pin with self-clearing heads.
- RFID module output: two 8-pole cable x 0.14 mm².
- Electric connection module output: two 8-pole cable x 0.14 mm².
- The two parts are supplied separately:
RRAQC – robot side (Reader) [NPN: RRAQCN];
RRBQC – frame side (TAG).
- Communication also through your smartphone thanks to the new app "Gimatic Android App".



	RRAQC/RRBQC	RMAQC/RMBQC
Numero connessioni utente Number of user connections	16	32
RFID	Si Yes	No No
Connessioni Connections	8 x 0.14 mm ² 4 cavi (diametro cavo 4.8 mm) 8 x 0.14 mm ² 4 cable (cable diameter 4.8 mm)	
Corrente max per contatto Max current per contact	1 A	
Tensione nominale Rated voltage	24 Vdc ± 10%	
Contatti Contacts	A molla autopulenti con doratura Self-cleaning spring contacts, gold-plated	
Temperatura esercizio Temperature range	5 ÷ 60°C	

[illegible]