

QUICK-CHANGE®

ALL LINEUP



www.bl-autotec.co.jp

BANDO BANDO GROUP
BL AUTOTEC, LTD.

2025.11

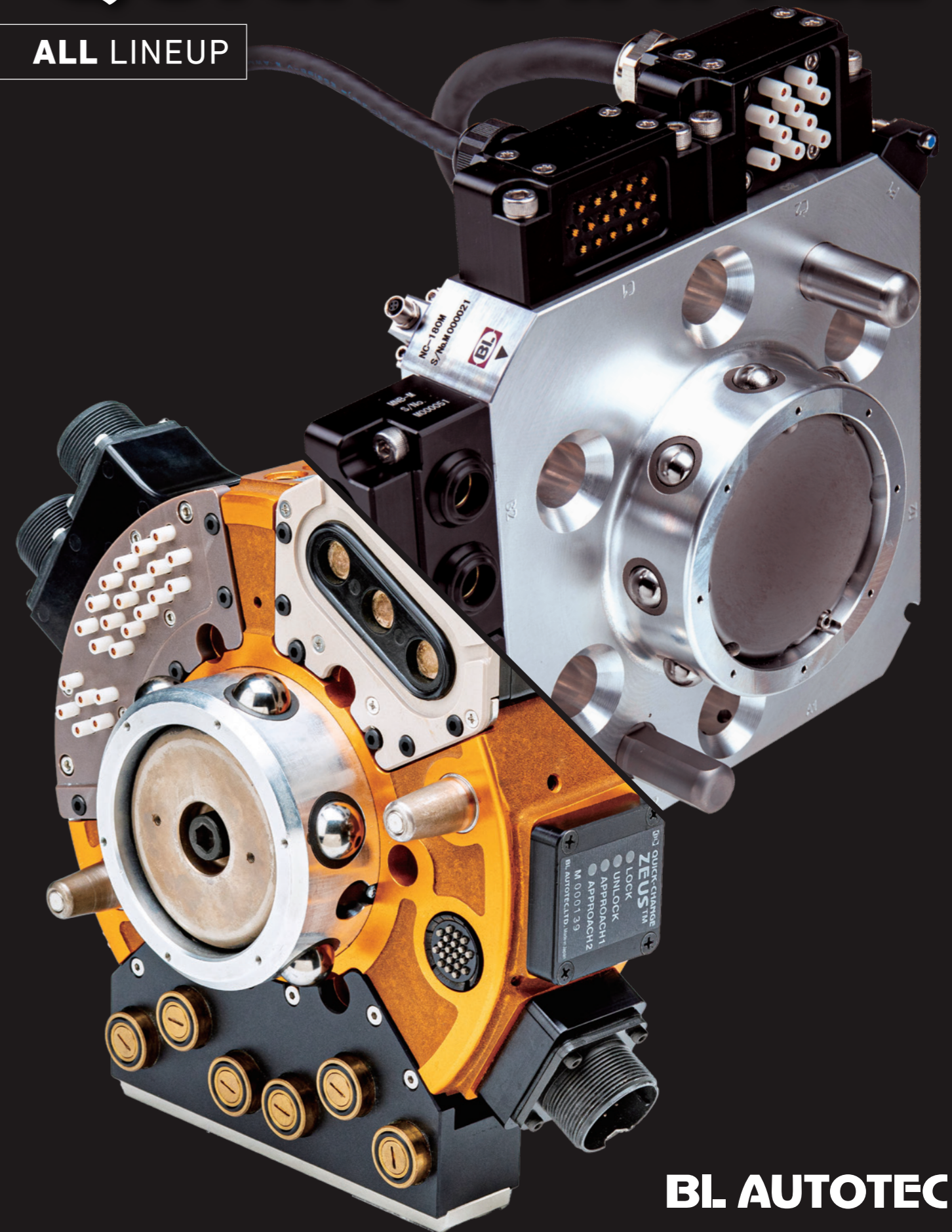
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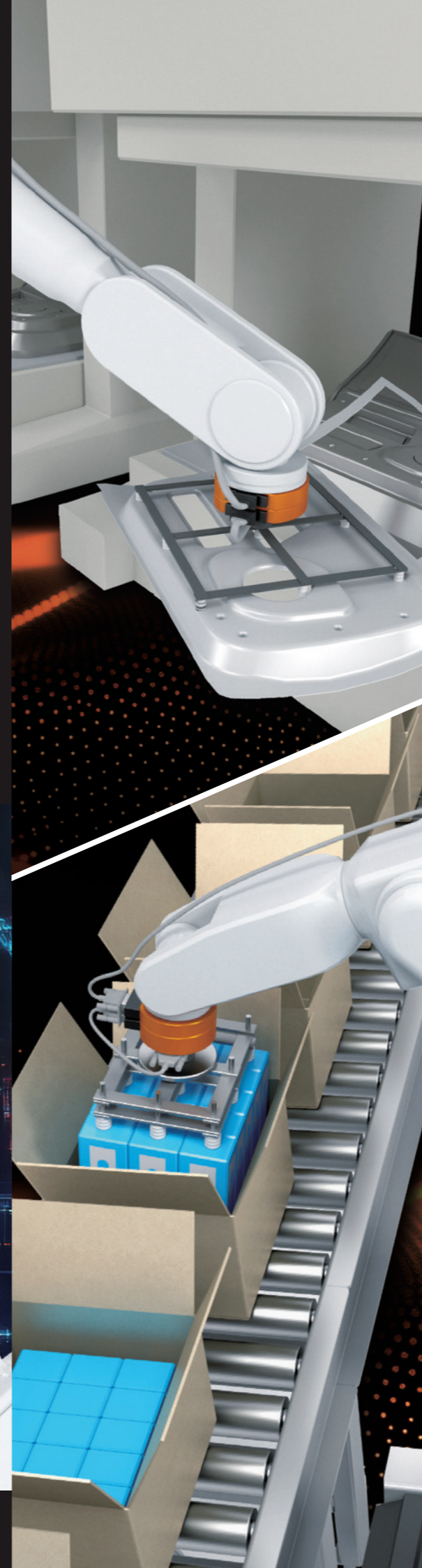
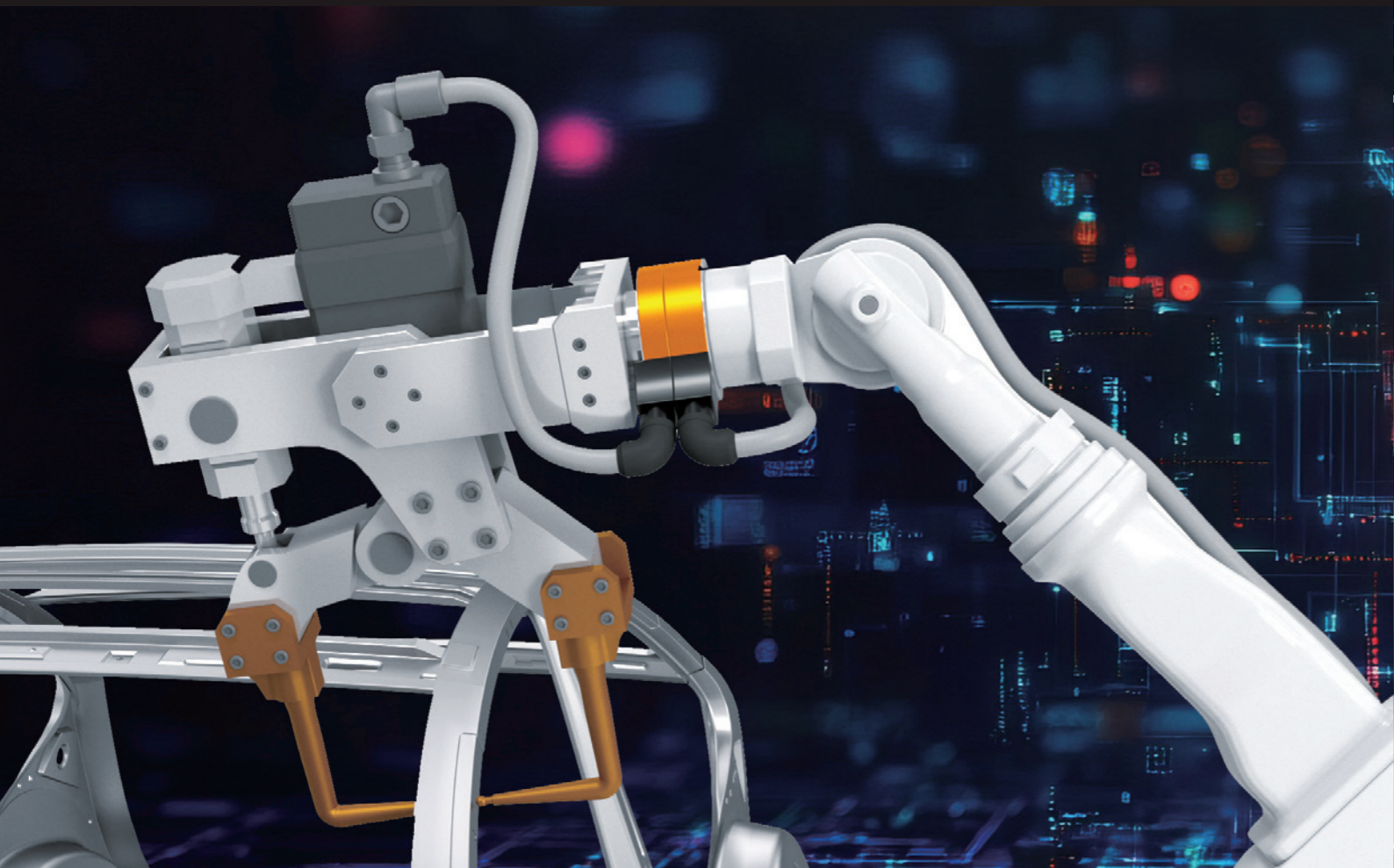
BL-ATCD-E0001



BL AUTOTEC

BL AUTOTEC offers production line solutions that exceed expectations based on our abundant experience in the factory automation field.

With a proven track record, and as a pioneer maker of automatic tool changers, BL Autotec has been responding to customer needs and proposing solutions in this field since 1987. We offer optimum solutions to accommodate individual customer requirements, and deliver original products that exceed expectations.



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QUICK-CHANGE[®] NEO[™]

Test sample available!
Feel free to contact us.

Single-mindedly engineered with
Lightweight Design.

BL AUTOTEC, a pioneer in robot tool changers, has been pursuing a single goal for over 35 years—**weight reduction!** By bringing together expertise in customized solutions, we have finally achieved this goal with the development of the **QUICK-CHANGE NEO[™]** next-generation tool changer, which sets a new standard.



90kg payload model

NC-090

Module

Up to 6 locations
available for install

Minimized thickness for maximum slimness,
allowing direct mounting to ISO flange!

Amazing! Approximately 55% lighter!

We've applied weight reduction expertise gained during the development of the **QUICK-CHANGE[®] ZEUS**. Without compromising fundamental performance, rigidity, or durability, we achieved a significant weight reduction of approximately 55% compared to the current model (Flex-70A).

Reduced robot load (compared to Flex-70A)

- The moment acting on the robot's wrist has been reduced by about 12% (equivalent to about 7kg).
- Reduced load means shorter takt times. *When the center of gravity is located 300 mm from the tool mounting surface.



Improved workability

- A significant reduction in weight means shorter setup times and lower loads on robots and other equipment.

Lock/Unlock operation requires as little as 0.3 MPa air pressure!

The minimum lock/unlock operation air pressure has been lowered to 0.3 MPa, aligning with the trend of reduced air pressure standardization in industries such as automotive manufacturing. This will also contribute to the achievement of the SDGs.

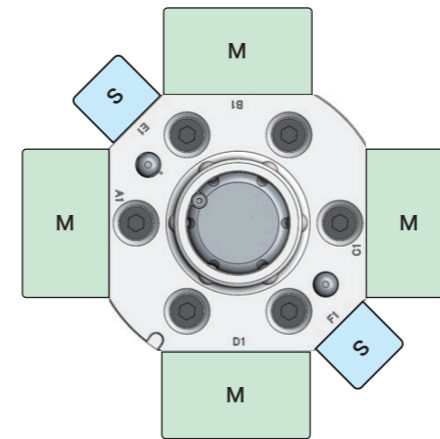
The NC-090 is designed to maintain sufficient clamping force and moment resistance at 0.3 MPa, an improvement that also serves to reduce air consumption by over 15%.

Principal specifications (Main body)

Payload capacity (kg)	40~90		Product weight (kg)	Master plate	0.95	1.15
Positioning repeatability (mm)	±0.015			Tool plate	0.45	0.45
Dynamic allowable bending moment (N-m)	830		Total	1.4	1.6	
Dynamic allowable torsional moment (N-m)	830		Compared to Flex-70A	45.2%	40.5%	
Lock/Unlock sensor (X: No, O: Yes)	X	O	Lock/Unlock operation air pressure (MPa)	0.3~0.7		
Outside diameter (mm)	□102	□102	Allowable temperature (°C)	0~55		
Thickness (mm)	Master plate	28	38	Humidity range (%)	35~90(non-condensing)	
	Tool plate	25	25	Direct mounting to ISO flange	○ (Interface No. 6: PCD80) *Choose your desired center fitting diameter.	
	Total	53	63			
Compared to Flex-70A	85.5%	64.6%				

Flexible expandability

Modules can be chosen freely and installed to meet your specific needs!

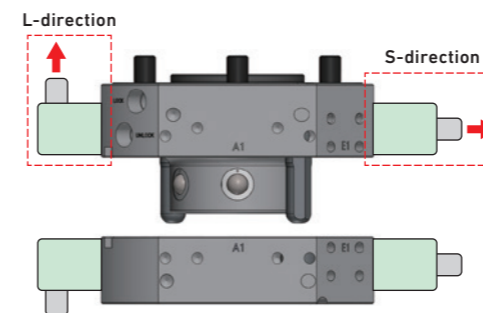


Modules can be installed at up to 6 locations

- M-size modules: Up to 4 locations (electrical and pneumatic)
- S-size modules: Up to 2 locations (approach sensor)

Please note that the **QUICK-CHANGE NEO[™]** tool changer and modules are sold separately. No modules are pre-installed at the time of factory shipment, so customers are requested to install them as desired.

Electrical module



Product model (Master plate)

Model	—	Payload (kg)	Master/Tool	—	Lock/Unlock sensor	Boss Diameter
NC		090	M		X	A
					N	
					P	

Product model (Tool plate)

Model	—	Payload (kg)	Master/Tool
NC		090	T

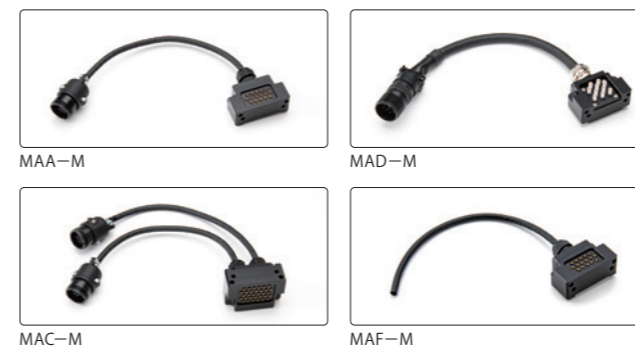
X: No A: φ50h7
N: Yes (NPN) B: φ63h7
P: Yes (PNP) C: φ80h7

*Lock/Unlock sensor (M5 connector, 4-pin, A-coding, male)

Electrical module *Module size: M

Module specifications (Cable length: 300 mm)	Connector	Master side		Tool side	
		Model number	Receptacle connector	Model number	Receptacle connector
2A × 16 wires (S-direction)	JM connector	MAA-M	JMCR-2116M-D	MAA-T	JMCR-2116F-D
2A × 16 wires (L-direction)	JM connector	MAB-M	JMCR-2116M-D	MAB-T	JMCR-2116F-D
2A × 32 wires (L-direction)	JM connector	MAC-M	JMCR-2116M-D JMCR-2116MX-D	MAC-T	JMCR-2116F-D JMCR-2116FX-D
13A × 10 wires (S-direction)	MS connector	MAD-M	D/MS-3101A18-1P	MAD-T	D/MS-3101A18-1S
13A × 10 wires (L-direction)	MS connector	MAE-M	D/MS-3101A18-1P	MAE-T	D/MS3101A18-1S
2A × 16 wires (S-direction)	—	MAF-M	—	MAF-T	—
2A × 16 wires (L-direction)	—	MAG-M	—	MAG-T	—
2A × 32 wires (L-direction)	—	MAH-M	—	MAH-T	—
13A × 10 wires (S-direction)	—	MAJ-M	—	MAJ-T	—
13A × 10 wires (L-direction)	—	MAK-M	—	MAK-T	—

*S-direction modules can be combined with L-direction modules.



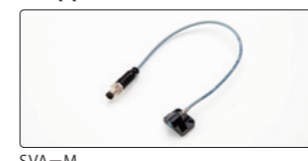
Pneumatic module



Pneumatic module *Module size: M

Module specifications	Master side	Tool side
Rc1/8 × 4 ports (S-direction)	MNA-M	MNA-T
Rc3/8 × 2 ports (S-direction)	MNB-M	MNB-T

Approach sensor



Approach sensor ※Module size: S

Module specifications	Master side	Tool side
Approach sensor (NPN, M8 connector, 3-pin, A-coding, male)	SVA-M	SVA-T
Approach sensor (PNP, M8 connector, 3-pin, A-coding, male)	SVB-M	

180kg payload model
NC-180

Module
Up to **10** locations
available for install



Minimized thickness for maximum slimness,
allowing direct mounting to ISO flange!

Amazing! Approximately 50% lighter!

We've applied weight reduction expertise gained during the development of the QUICK-CHANGE[®] ZEUS. Without compromising fundamental performance, rigidity, or durability, we achieved a significant weight reduction of approximately 50% compared to the current model (QC-150C).

Reduced robot load (compared to QC-150C)

- The moment acting on the robot's wrist has been reduced by about 15% (equivalent to about 20 kg).
- Reduced load means shorter takt times. *When the center of gravity is located 300 mm from the tool mounting surface.



Improved workability

- A significant reduction in weight means shorter setup times and lower loads on robots and other equipment.

Lock/Unlock operation requires as little as 0.3 MPa air pressure!

The minimum lock/unlock operation air pressure has been lowered to 0.3 MPa, aligning with the trend of reduced air pressure standardization in industries such as automotive manufacturing. This will also contribute to the achievement of the SDGs.

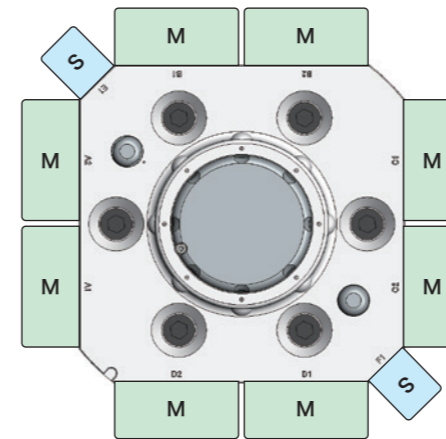
The NC-180 is designed to maintain sufficient clamping force and moment resistance at 0.3 MPa, an improvement that also serves to reduce air consumption by over 30%.

Principal specifications (Main body)

Payload capacity (kg)	90~180			
Positioning repeatability (mm)	±0.020			
Dynamic allowable bending moment (N-m)	2352			
Dynamic allowable torsional moment (N-m)	2352			
Lock/Unlock sensor (X: No; O: Yes)	X	O		
Outside diameter (mm)	□162	□162		
Thickness (mm)	Master plate	33	43	
	Tool plate	31	31	
	Total	64	74	
Compared to QC-150C	73.6%	59.0%		
Product weight (kg)	Master plate	2.8	3.2	
	Tool plate	1.6	1.6	
	Total	4.4	4.8	
	Compared to QC-150C	50.7%	45.0%	
Lock/Unlock operation air pressure (MPa)	0.3~0.7			
Allowable temperature (°C)	0~55			
Humidity range (%)	35~90(non-condensing)			
Direct mounting to ISO flange	○ (Interface No. 8: PCD125) *Choose your desired center fitting diameter.			

Flexible expandability

Modules can be chosen freely and installed to meet your specific needs!

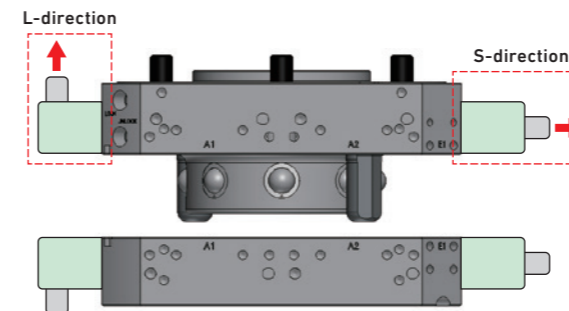


Modules can be installed at up to **10** locations

- M-size modules: Up to 8 locations (electrical and pneumatic)
- S-size modules: Up to 2 locations (approach sensor)

Please note that the QUICK-CHANGE NEO[™] tool changer and modules are sold separately. No modules are pre-installed at the time of factory shipment, so customers are requested to install them as desired.

Electrical module



Product model (Master plate)

Model	—	Payload (kg)	Master/Tool	—	Lock/Unlock sensor	Boss Diameter
NC		180	M		X N P	A B C

Product model (Tool plate)

Model	—	Payload (kg)	Master/Tool
NC		180	T

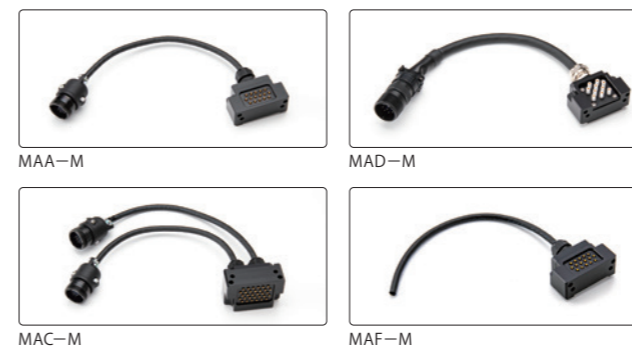
X: No A: φ50h7
N: Yes (NPN) B: φ63h7
P: Yes (PNP) C: φ80h7

*Lock/Unlock sensor (M5 connector, 4-pin, A-coding, male)

Electrical module *Module size: M

Module specifications (Cable length: 300 mm)	Connector	Master side		Tool side	
		Model number	Receptacle connector	Model number	Receptacle connector
2A × 16 wires (S-direction)	JM connector	MAA-M	JMCR-2116M-D	MAA-T	JMCR-2116F-D
2A × 16 wires (L-direction)	JM connector	MAB-M	JMCR-2116M-D	MAB-T	JMCR-2116F-D
2A × 32 wires (L-direction)	JM connector	MAC-M	JMCR-2116M-D JMCR-2116MX-D	MAC-T	JMCR-2116F-D JMCR-2116FX-D
13A × 10 wires (S-direction)	MS connector	MAD-M	D/MS-3101A18-1P	MAD-T	D/MS-3101A18-1S
13A × 10 wires (L-direction)	MS connector	MAE-M	D/MS-3101A18-1P	MAE-T	D/MS3101A18-1S
2A × 16 wires (S-direction)	—	MAF-M	—	MAF-T	—
2A × 16 wires (L-direction)	—	MAG-M	—	MAG-T	—
2A × 32 wires (L-direction)	—	MAH-M	—	MAH-T	—
13A × 10 wires (S-direction)	—	MAJ-M	—	MAJ-T	—
13A × 10 wires (L-direction)	—	MAK-M	—	MAK-T	—

*S-direction modules can be combined with L-direction modules.



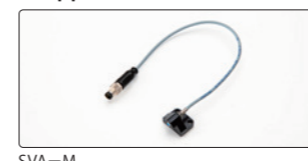
Pneumatic module



Pneumatic module *Module size: M

Module specifications	Master side	Tool side
Rc1/8 × 4 ports (S-direction)	MNA-M	MNA-T
Rc3/8 × 2 ports (S-direction)	MNB-M	MNB-T

Approach sensor



SVA-M

Approach sensor ※Module size: S

Module specifications	Master side	Tool side
Approach sensor (NPN, M8 connector, 3-pin, A-coding, male)	SVA-M	SVA-T
Approach sensor (PNP, M8 connector, 3-pin, A-coding, male)	SVB-M	

ATOM

QUICK-CHANGE for collaborative robots, 5 kg load capacity

Main body

Applicable robot flange diameter: ISO 9409-1 *1	PCD50	
Load capacity (Rated load)	49N (5kg)	
Positional repeatability (including Z-axis) *2	±0.05mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	15N·m (1.5kgf·cm)
	Twisting direction (Tz)	20N·m (2.0kgf·cm)
Product weight (Main body part)	Master plate	330g
	Tool plate	260g
Outer dimensions (when fastened, excluding leaf spring and connector)	φ75xH35mm	
Electrical signal	1.5 A x 8 (30 VDC)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	

* Can be attached directly on collaborative robots such as CRX (FANUC), Universal Robots, and Techman.



QC-1

Quick-Change, 1 kg load capacity

Main body

Load capacity (Rated load)	9.8N (1kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	4N·m (40.8kgf·cm)
	Twisting direction (Tz)	16.6N·m (169.4kgf·cm)
Fastening force (when air pressure is 0.49 MPa)*2	185N (18.9kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ32xH29mm	
Product weight (Main body part)	Master plate	Approx. 60 g
	Tool plate	Approx. 30 g
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm2)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	



Master plate
(QC-1-M-DA1-XA2-VB1-XB2)

Tool plate
(QC-1-T-DA1-XA2-VB1-XB2)

Light-5A

Quick-Change, 5 kg load capacity

Main body

Load capacity (Rated load)	49N (5kg)	
Positional repeatability*1	±0.01mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	25.4N·m (260 kgf·cm)
	Twisting direction (Tz)	33.2N·m (340 kgf·cm)
Fastening force (when air pressure is 0.49 MPa)*2	612.5N (62.5kgf)	
Material	Master plate	Stainless steel
	Tool plate	Aluminum alloy (coupling/uncoupling part is stainless steel)
Outer dimensions (when fastened)	φ49xH43.5mm	
Product weight (Main body part)	Master plate	Approx. 260 g
	Tool plate	Approx. 100 g
Coupling/uncoupling mechanism	Ball-lock system (self-separating mechanism)	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm2)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic port	M5 x 6



Master plate
(Light-5A-M-H20A)

Tool plate
(Light-5A-T-H20A)

QC-10C

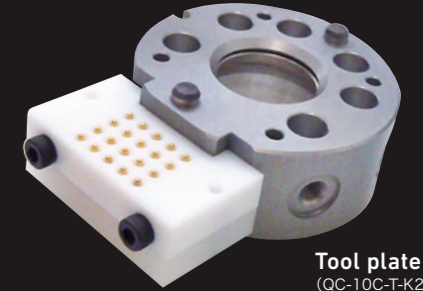
Quick-Change, 10 kg load capacity

Main body

Load capacity (Rated load)	98N (10kg)	
Positional repeatability*1	±0.01mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	49N·m (500 kgf·cm)
	Twisting direction (Tz)	68.6N·m (700 kgf·cm)
Fastening force (when air pressure is 0.49 MPa)*2	970.8N (99kgf)	
Material	Master plate	Stainless steel
	Tool plate	Aluminum alloy (coupling/uncoupling part is stainless steel)
Outer dimensions (when fastened)	φ50xH35.5mm	
Product weight (Main body part)	Master plate	Approx. 245 g
	Tool plate	Approx. 85 g
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm2)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic port	M5 x 6



Master plate
(QC-10C-M-K20A)



Tool plate
(QC-10C-T-K20A)

Robot mounting plate
SP101

CT8
Master side

CT8
Tool side

QC-10C
Master side

QC-10C
Tool side

CT8/CT16

Connector-type contact block

Connector type for easy connection!
Easy connection with M8 connector cables

Organized cable routing makes it less susceptible to disconnection!
No soldering work is required, so it can be handled safely even by inexperienced users.

Rounded shape for safe handling!
Chamfered edges improved safety and workability.

Electrical signal contact block CT8

Number of electrodes	8
Maximum current	1.5A
Maximum voltage	30V
Connection method	Spring probe
Terminal	M8 connector
Weight	Master side: 21g Tool side: 21g
Mating plug (Model example)*	Master side: CONEC SAL-8-RS8-2/A1(42-11230) PVC, 2 m Tool side: CONEC SAL-8-RK8-2/A1(42-11226) PVC, 2 m

*Use M8 connector pins of A-coding.

Compatible robot manufacturers and models	YASKAWA MOTOMAN GP7 / GP8	FUJIKOSHI MZ07	FANUC M-10iA	Kawasaki RS007(N)(L) FANUC LR MATE200i(D)	Mitsubishi RV-7FR DENSO VS-068/087	Compatible with hollow wrist robots	
	AP101	AP102	AP103	AP104*	AP105	AP106	
Robot mounting plate type							
Robot mounting plate type with Lock/Unlock sensor					Installation example of robot mounting plate with sensor 		

*Can also be used for the dual-armed SCARA robot duAro manufactured by Kawasaki
For more information, please contact us.

*1 Positional repeatability refers to the repeatability achieved when repeatedly locking and unlocking tool plate (A) to specific master plate. It does not indicate the repeatability between tool plate (A) and tool plate (B) when locking and unlocking different tool plates.

*2 Coupling force means force which assures repeatability. Coupling itself is kept by unlocking with air supply or it's broken.

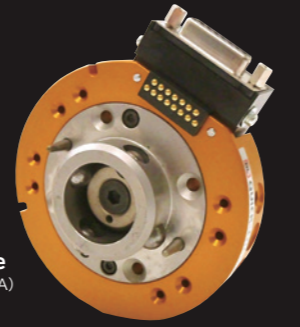
QC-20D

Quick-Change, 20 kg load capacity

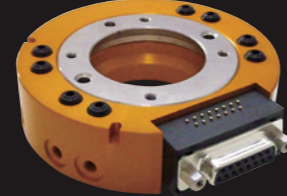
Main body

Load capacity (Rated load)	196N (20kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	113.6N·m (1,160 kgf·cm)
	Twisting direction (Tz)	156.8N·m (1,600 kgf·cm)
Fastening force (when air pressure is 0.49 MPa)*2	2,059N (210kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ90xH42.4mm	
Product weight (Main body part)	Master plate	Approx. 515 g
	Tool plate	Approx. 355 g
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm2)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	

Master plate
(QC-20D-M-DAPA)



Tool plate
(QC-20D-T-DAPA)



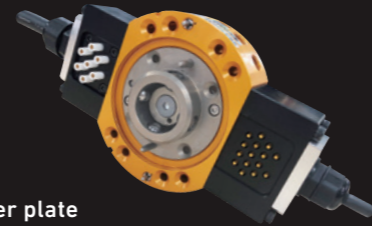
FlexR-25

Quick-Change, 25 kg load capacity

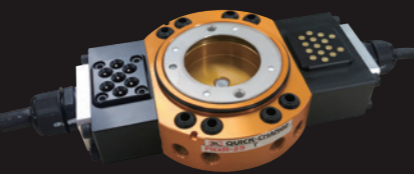
Main body

Load capacity (Rated load)	245N(25kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	113.6N·m(1,160kgf·cm)
	Twisting direction (Tz)	156.8N·m(1,600kgf·cm)
Fastening force (when air pressure is 0.49 MPa)*2	2,381N(243kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ98xH58mm	
Product weight (Main body part)	Master plate	Approx. 660 g
	Tool plate	Approx. 470 g
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm2)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic port Rc1/8 × 8	

Master plate



Tool plate



Standard optional contact blocks can be mounted on two sides

Signal contact blocks and wiring-saving modules, which previously could only be installed on models with 40 kg or more load capacity, can be installed on both the A and B sides. This greatly expanded the range of applications.

Increased protection class of main body

The coupling/uncoupling part conforms to protection classes IP66 and IP67*, offering excellent environmental resistance. All rubber materials such as packings are made of fluorine, which exhibits excellent environmental resistance.

*IP protection class represents the rating of protection against water. Therefore, the sealing performance may be degraded depending on the type or brand of coolant, cleaning fluid, or other liquids. If rubber degradation (swelling, ozone degradation, etc.) is found due to the usage environment and conditions, please contact us for consultation.

[Environmentally resistant specification]

Master plate



Tool plate



※ Product image with non-contact electrical block

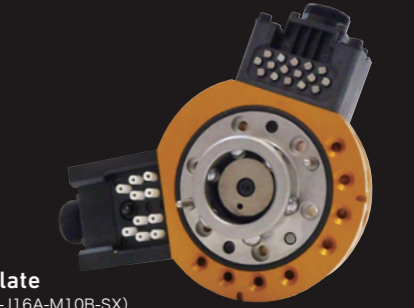
Flex-40B

Quick-Change, 40 kg load capacity

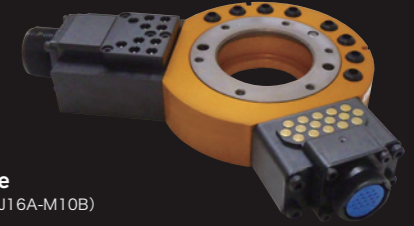
Main body

Load capacity (Rated load)	392N (40kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	314N·m (32 kgf·cm)
	Twisting direction (Tz)	430N·m (44 kgf·cm)
Fastening force (when air pressure is 0.49 MPa)*2	4,000N (408kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ115xH54mm	
Product weight (Main body part)	Master plate	Approx. 1,140 g
	Tool plate	Approx. 610 g
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm2)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic port	Rc1/8 × 8

Master plate
(Flex-40B-M-J16A-M10B-SX)



Tool plate
(Flex-40B-T-J16A-M10B)



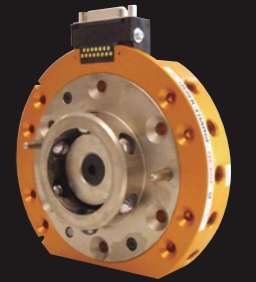
QC-60D

Quick-Change, 60 kg load capacity

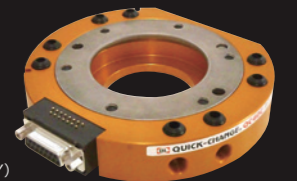
Main body

Load capacity (Rated load)	588N (60kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	392N·m (40 kgf·cm)
	Twisting direction (Tz)	588N·m (60 kgf·cm)
Fastening force (when air pressure is 0.49 MPa)*2	6,570N (670kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ130xH47mm	
Product weight (Main body part)	Master plate	Approx. 1,340 g
	Tool plate	Approx. 720 g
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm2)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic port	Rc1/8 × 8

Master plate
(QC-60D-M-D15N-XXXX-SX)



Tool plate
(QC-60D-T-D15N-XXXX)



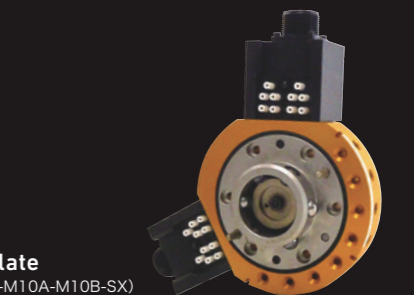
Flex-70A

Quick-Change, 70 kg load capacity

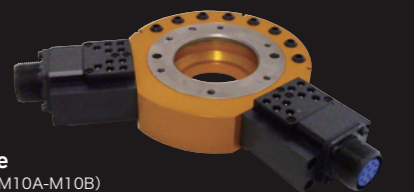
Main body

Load capacity (Rated load)	686N (70kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	686N·m (70 kgf·cm)
	Twisting direction (Tz)	784N·m (80 kgf·cm)
Fastening force (when air pressure is 0.49 MPa)*2	7,056N (720kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ139xH62mm	
Product weight (Main body part)	Master plate	Approx. 1,900 g
	Tool plate	Approx. 1,200 g
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm2)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic port	Rc1/8 × 8

Master plate
(Flex-70A-M-M10A-M10B-SX)



Tool plate
(Flex-70A-T-M10A-M10B)



*1 Positional repeatability refers to the repeatability achieved when repeatedly locking and unlocking tool plate (A) to specific master plate. It does not indicate the repeatability between tool plate (A) and tool plate (B) when locking and unlocking different tool plates.
*2 Coupling force means force which assures repeatability. Coupling itself is kept by unlocking with air supply or it's broken.

QCP-100A

Quick-Change, 100 kg load capacity

Main body

Load capacity (Rated load)	980N (100kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	1,372N · m (140 kgf · cm)
	Twisting direction (Tz)	1,372N · m (140 kgf · cm)
Fastening force (when air pressure is 0.49 MPa)*2	10,290N (1,050kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ 179xH76.5mm	
Product weight (Main body part)	Master plate	Approx. 3.7kg
	Tool plate	Approx. 2.0kg
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm ²)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic port	Rc3/8 × 8

Master plate
(QCP-100A-M-J16A-XXXB-SX)



Tool plate
(QCP-100A-T-J16A-XXXB)

Flex-100B

Quick-Change, 100 kg load capacity

Main body

Load capacity (Rated load)	980N (100kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	1,372N · m (140kgf · m)
	Twisting direction (Tz)	1,372N · m (140kgf · m)
Fastening force (when air pressure is 0.49 MPa)*2	10,290N (1,050kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ 179xH76.5mm	
Product weight (Main body part)	Master plate	Approx. 3,900g
	Tool plate	Approx. 2,250g
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm ²)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Electrical signals Max. 5 DC/AC200V Probe contact	5A-5 *3
	Pneumatic port	Rc3/8-4 (self-sealing) *4 Rc3/8-2
	Approach sensor	Senses Tool plate position up to 1.5mm distance

Master plate
(Flex-100B-M-J16A-M10B-SX)



Tool plate
(Flex-100B-T-J16A-M10B)

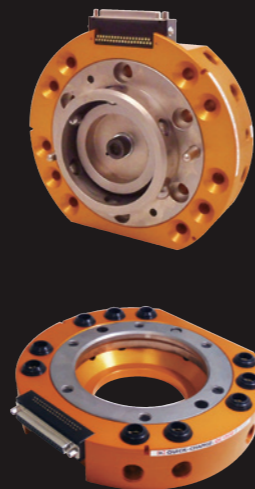
QC-150C

Quick-Change, 150 kg load capacity

Main body

Load capacity (Rated load)	1,470N (150kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	1,960N · m (200 kgf · cm)
	Twisting direction (Tz)	1,960N · m (200 kgf · cm)
Fastening force (when air pressure is 0.49 MPa)*2	14,317N (1,460kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ 200xH87mm	
Product weight (Main body part)	Master plate	Approx. 5,810g
	Tool plate	Approx. 2,860g
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm ²)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic port	Rc3/8 × 10

Master plate
(QC-150C-M-D37N-XXXZ-SX)



Tool plate
(QC-150C-T-D37N-XXXZ)

QC-166

Quick-Change, 166 kg load capacity

Main body

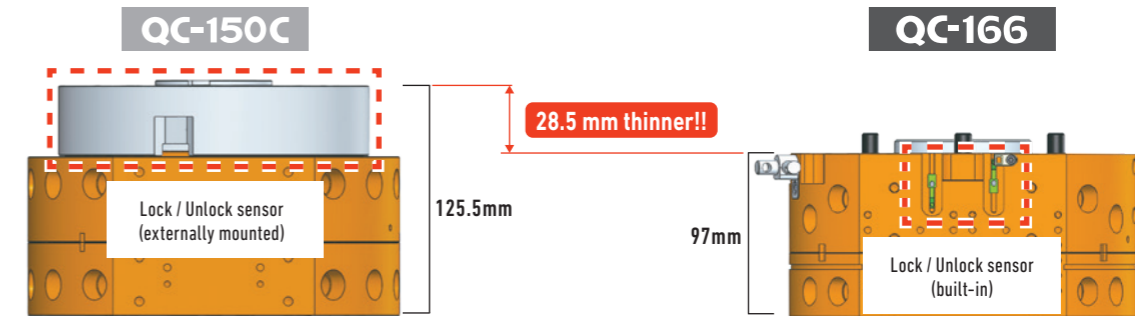
Load capacity (Rated load)	1,626N(166kg)	
Positional repeatability*1	±0.015mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	2,000N · m(204kgf · m)
	Twisting direction (Tz)	2,000N · m(204kgf · m)
Fastening force (when air pressure is 0.49 MPa)*2	15,738N(1,606kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ 203xH97mm	
Product weight (Main body part)	Master plate	Approx. 6.3kg
	Tool plate	Approx. 2.7kg
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm ²)	
Allowable temperature and humidity range	0 to 50°C, 35 to 90% (no condensation allowed)	
Safety mechanism	Piston lock (manual)	
Utilities	Pneumatic port	Rc3/8 × 10

Master plate
(QC-166-M-L16NA-XXXB)



Tool plate
(QC-166-T-J16A-XXXB)

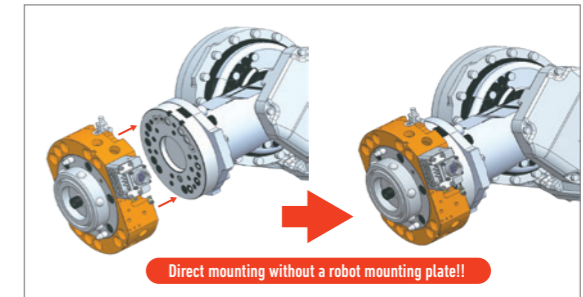
Thin and lightweight design achieved by built-in Lock / Unlock sensor
Compared to our current product (150 kg load capacity model), it achieved a 23% thinner and 15% lighter structure.



Can be installed directly to a robot

This model can be directly mounted to major Japanese robot without a robot mounting plate.
(Boss diameter varies depending on the robot, so please select an appropriate plate)

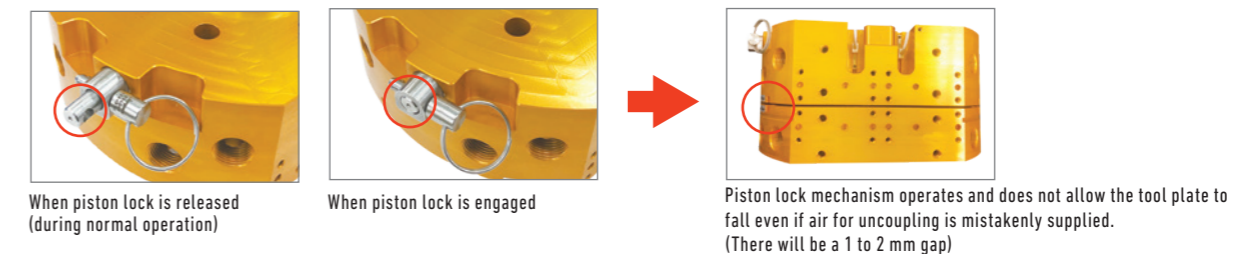
Robot manufacturer	Compatible models	Inlay plate
YASKAWA	SP165	Select IN63
Kawasaki	ZX165U	Select IN80
FANUC	R-2000iD/165FH	Select IN80 <small>*In the case of bracket flange version</small>
FUJIKOSHI	SRA166	Select IN50



*Installation view

Additional safety measure with ATC equipped with a piston lock mechanism as standard.

A manual locking mechanism is provided to the master plate body to prevent accidental operation during teaching or falling of the tool during long vacation. When the piston lock mechanism is engaged, the tool does not fall even if air for uncoupling is mistakenly supplied.
(Please release the piston lock during normal operation)



*1 Positional repeatability refers to the repeatability achieved when repeatedly locking and unlocking tool plate (A) to specific master plate. It does not indicate the repeatability between tool plate (A) and tool plate (B) when locking and unlocking different tool plates.
*2 Coupling force means force which assures repeatability. Coupling itself is kept by unlocking with air supply or it's broken.

QCP-220

Quick-Change, 220 kg load capacity

Main body

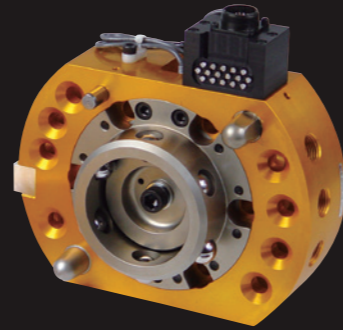
Load capacity (Rated load)	2,156N (220kg)	
Positional repeatability*1	±0.025mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	3,332N·m (340kgf·m)
	Twisting direction (Tz)	3,332N·m (340kgf·m)
Fastening force (when air pressure is 0.49 MPa)*2	27,444N (2,800kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ229·H110mm	
Product weight (Main body part)	Master plate	Approx. 8.4kg
	Tool plate	Approx. 3.6kg
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39~0.68MPa (4~7kgf/cm ²)	
Lock/unlock sensor	Lock status	1 built-in proximity switch EZE-X2D1-N(OMRON)(2-wire direct current)
	Unlock status	1 built-in proximity switch EZE-X2D1-N(OMRON)(2-wire direct current)
Allowable temperature and humidity range	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic port	Rc1/2·8 (can use vacuum pressure)

Utilities specifically for press applications

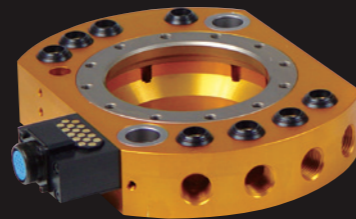
Pneumatic ports (Rc1/2) can be used for vacuum pressure and electrical signals can be used for ID confirmation.

Built-in Lock/Unlock sensor

Due to built-in design, QCP-220 is 12.4% thinner than QC-150C with the lock/unlock sensor.



Master plate
(QCP-220-M-L16A-XXXB-SA)



Tool plate
(QCP-220-T-J16A-XXXB)

USP-100A

Slimline Press Handling Specification, 100 kg load capacity

Main body

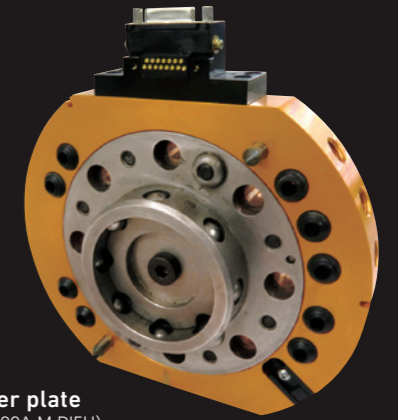
Load capacity (Rated load)	980N (100kg)	
Positional repeatability*1	±0.025mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	980N·m (100kgf·m)
	Twisting direction (Tz)	980N·m (100kgf·m)
Fastening force (when air pressure is 0.49 MPa)*2	12,740N (1,300kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ189·H50mm	
Product weight (Main body part)	Master plate	Approx. 3.0kg
	Tool plate	Approx. 1.7kg
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39~0.68MPa (4~7kgf/cm ²)	
Position-confirming sensor	1 built-in proximity switch EZE-X2D1-N (OMRON) 1m sensor cable (lead wire)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Pneumatic ports	Rc1/4·9 (can use vacuum pressure)

Slimline design

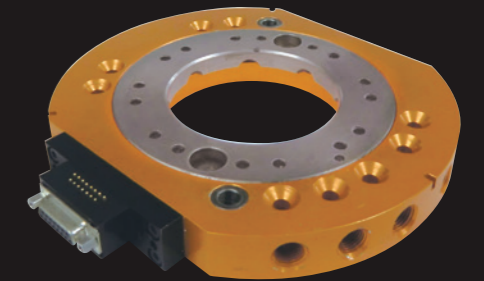
BL's unique lock/unlock mechanism was newly designed to this specification, with a thickness of only 50mm when coupled, so it can handle narrow press openings.

Built-in position confirmation sensor

The built-in position confirmation sensor is equipped with a proximity switch.



Master plate
(USP-100A-M-DI5U)



Tool plate
(USP-100A-T-DI5U)

Flex-300A

Quick-Change, 300 kg load capacity

Main body

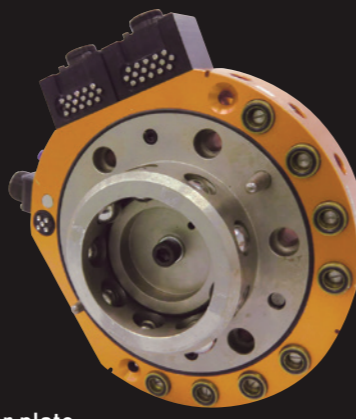
Load capacity (Rated load)	2,940N (300kg)	
Positional repeatability*1	±0.025mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	5,292N·m (540kgf·m)
	Twisting direction (Tz)	4,704N·m (480kgf·m)
Fastening force (when air pressure is 0.49 MPa)*2	31,360N (3,200kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ259·H110mm	
Product weight (Main body part)	Master plate	Approx. 13.2kg
	Tool plate	Approx. 7.2kg
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39 to 0.68 MPa (4 to 7 kgf/cm ²)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Utilities	Electrical signals	5A·5 *3
	Max. 5 DC/AC200V Probe contact	
	Pneumatic port	Rc3/8·4 (self-sealing) *4
		Rc3/8·2
Approach sensor	Senses Tool plate position up to 2.5mm distance	

*3 Plug connector is not included. Please prepare plug connector by customer.

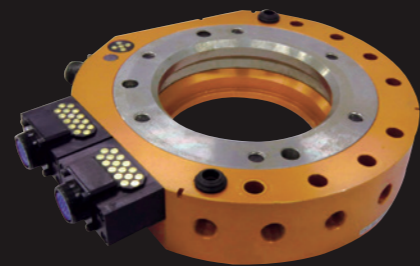
*4 Port with self-sealing of pneumatic ports cannot be used for vacuum.

Large misalignment correction capability

The unique design corrects misalignment when the Master and Tool plates couple. An approach sensor system, built into the plates, verifies coupling capability.



Master plate
(Flex-300A-M-J32A-XXXB-SX)



Tool plate
(Flex-300A-T-J32A-XXXB)

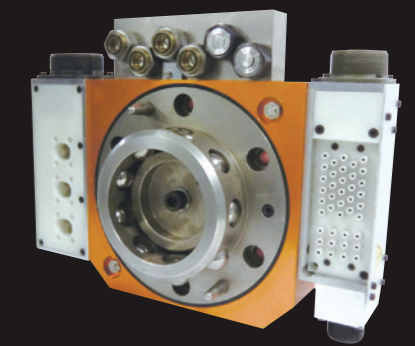
GC-300A

Spot-welding Gun-Changer

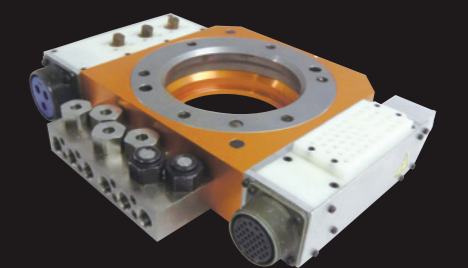
Main body

Load capacity (Rated load)	2,940N (300kg)	
Positional repeatability*1	±0.025mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	5,292N·m (540kgf·m)
	Twisting direction (Tz)	4,704N·m (480kgf·m)
Fastening force (when air pressure is 0.49 MPa)*2	31,360N (3,200kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when coupled with all options)	W355·D265·H163mm	
Product weight (with all options)*3	Master plate	Approx. 18.5kg
	Tool plate	Approx. 9.5kg
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39~0.68MPa (4~7kgf/cm ²)	
Allowable temperature and humidity ranges	0~50°C, 35~90% (Non-condensing)	
Lock/unlock sensor	Lock status	1 built-in proximity switch EZE-X2D1-N(OMRON)(2-wire direct current)
	Unlock status	1 built-in proximity switch EZE-X2D1-N(OMRON)(2-wire direct current)
Approach sensor	for Tool plate position	Two built-in switch EZE-X2D4 (OMRON)

*3 Weight shown is of GC-300-ES-28-FD24-PC3E-SA.



Master plate
(GC-300A-M-SC06M-FD24M-PC3DM-SA)



Tool plate
(GC-300A-T-SC06T-FD24T-PC3DT)

*1 Positional repeatability refers to the repeatability achieved when repeatedly locking and unlocking tool plate (A) to specific master plate.

It does not indicate the repeatability between tool plate (A) and tool plate (B) when locking and unlocking different tool plates.

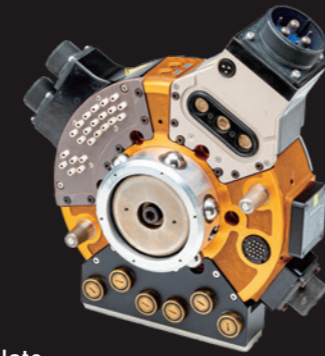
*2 Coupling force means force which assures repeatability. Coupling itself is kept by unlocking with air supply or it's broken.

ZEUS™

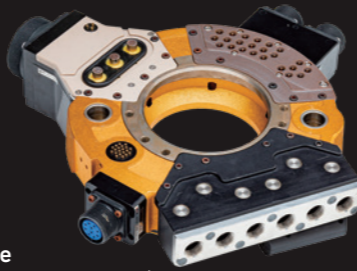
New-Generation Heavy Payload Auto Tool Changer, 150 - 230kg load capacity

Main body

Load capacity (Rated load)	1,470-2,254N(150-230kg)	
Positioning repeatability *1	±0.025mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	3,332N·m(340kgf·m)
	Twisting direction (Tz)	3,332N·m(340kgf·m)
Fastening force (when air pressure is 0.49 MPa)*2	27,444N(2,800kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ226×H110mm	
Product weight (Main body part)	Master plate	Approx. 5.4kg
	Tool plate	Approx. 2.3kg
Electric signal connection (Built-in)	Connector(Master side)	D/MS3102A24-28P
	Connector(Tool side)	5A×20 D/MS3102A24-28S
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39~0.68MPa (4~7kgf/cm ²)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Lock/unlock sensor	Lock status	1 built-in proximity switch
	Unlock status	1 built-in proximity switch
Insulation plate set	Model	With/without insulation plate
	IS	Insulation plate (Fiber-reinforced Bakelite)
	IN	Without insulation plate



Master plate
(ZEUS-M1N-SEAM-QL6BM-WPCM-IS-AS-XN)



Tool plate
(ZEUS-T-SEAT-QL6BT-WPCT-X)

GIGA™

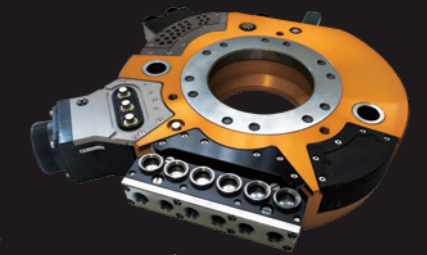
New-Generation Heavy Payload Auto Tool Changer, 350 - 700kg load capacity

本体

Load capacity (Rated load)	6,860N(700kg)	
Positioning repeatability *1	±0.025mm	
Allowable dynamic moment	Bending direction (Tx,Ty)	7,840N·m(800kgf·m)
	Twisting direction (Tz)	5,880N·m(600kgf·m)
Fastening force (when air pressure is 0.49 MPa)*2	63,239N(6,453kgf)	
Material	Frame	Aluminum alloy
	Coupling/uncoupling part	Stainless steel
Outer dimensions (when fastened)	φ350×H160mm	
Product weight (Main body part)	Master plate	Approx. 25kg
	Tool plate	Approx. 15kg
Electric signal connection (Built-in)	Connector(Master side)	5A×20 D/MS3102A24-28P
	Connector(Tool side)	D/MS3102A24-28S
Coupling/uncoupling mechanism	Ball-lock system	
Coupling/uncoupling working air pressure	0.39~0.68MPa (4~7kgf/cm ²)	
Allowable temperature and humidity ranges	0 to 50°C, 35 to 90% (no condensation allowed)	
Lock/unlock sensor	Lock status	1 built-in proximity switch
	Unlock status	1 built-in proximity switch
Approach sensor	for Tool plate position	
Drop prevention valve	Mechanical Valve	



Master plate
(GIGA-M1N-SEAM-QL6BM-WPCM-SCDM-VE)

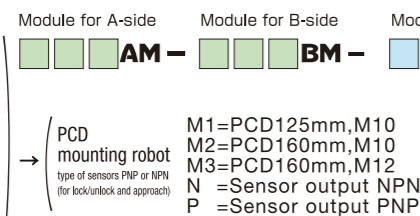


Tool plate
(GIGA-T-SEAT-QL6BT-WPCT-SCDT-V)

Ordering Information

Master plate

ZEUS -M1N-
-M2N-
-M3N-
-M1P-
-M2P-
-M3P-



IS With insulation plate
IN02 Without insulation plate, knock pin x 2
IN50 Without insulation plate, inlay φ50 n7
IN63 Without insulation plate, inlay φ63 n7
IN80 Without insulation plate, inlay φ80 n7
IN10 Without insulation plate, inlay φ100 n7
INAB For ABB robot (Boss φ100) n7 (Master Plate side only)

AS With approach sensor
AN Without approach sensor (Master Plate side only)

(When selecting M3, Only INAB is available and IS is also excluded from option.
When selecting M1 or M2, INAB is unavailable.

VE With valve for prevent releasing tool plate
With solenoid valve for lock/unlock #
VN With valve
Without solenoid valve
XE Without valve
With solenoid valve #
XN Without valve
Without solenoid valve
*When you add solenoid valve, usable electric signal(Built-in) are limited upto 18.

Drop-prevention valve
V With valve prevent releasing tool plate
X Without valve for prevent releasing tool plate

Tool plate

ZEUS -T-



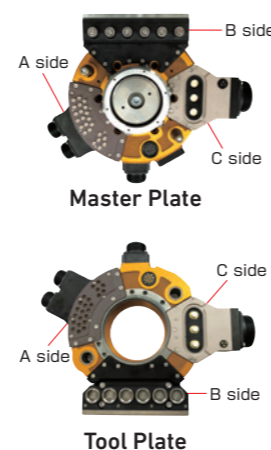
[Servo module]
SE Servo power 20A×6
Electric signal 5A×17
SEY Servo power 20A×6
Electric signal 5A×17
Connector for motor has 7pins
SEP Servo power 20A×6
Electric signal 5A×17
37probe contacts is added in servo module
LC Covers for A and B (always use the cover when the modules are not in use)

[Pneumatic port]
P38 Pneumatic Rc3/8×4
LC Covers for A and B (modules are not in use)
[Electric signal module]
J J16A module 5A×16
R 5A×16 (without connector) for Tool Plate
M 13A×10 (insertion contact)
MW 13A×10 Resistance to dust and water
BN non-contact electric signal15 NPN output (available for master plate only)
BP non-contact electric signal15 PNP output (available for master plate only)
BD non-contact electric signal15 Sensor input (available for tool plate only)
SC Cover for C side (always use the cover when the modules are not in use)

[Pneumatic port]
P18 Pneumatic Rc1/8×4
P3W Pneumatic Rc3/8×2
SC Cover for C side (always use the cover when the modules are not in use)

[Other]
E51 500A×1
GL Attachment module
LC Covers for A and B (modules are not in use)

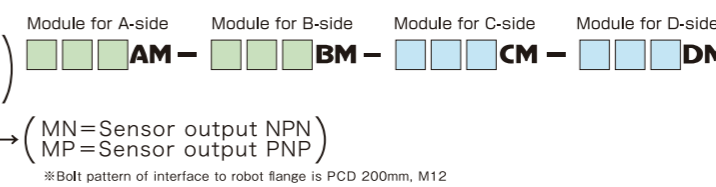
Installing position



Ordering Information

Master plate

GIGA -MN-
-MP-



IS With insulation plate
IN02 Without insulation plate, knock pin x 2
IN12 Without insulation plate, inlay φ125
IN16 Without insulation plate, inlay φ160 (Master Plate side only)

VE With solenoid valve for lock/unlock #
VN Without solenoid valve for lock/unlock
*When you add solenoid valve, usable electric signal(Built-in) are limited upto 18.

Tool plate

GIGA -T-



[Servo module]
SE Servo power 20A×6
Electric signal 5A×17
SEY Servo power 20A×6
Electric signal 5A×17
Connector for motor has 7pins
SEP Servo power 20A×6
Electric signal 5A×17
37probe contacts is added in servo module
LC Cover for A and B side (always use the cover when the modules are not in use)

[Pneumatic port]
P38 Pneumatic Rc3/8×4
LC Cover for A and B side (always use the cover when the modules are not in use)

[Primary current module]
WP 200A(usage: 25%) 600V
Sequence 100A(600V)×3
Thermo signal: 5A(200V)×3 (WP: receptacle type WS: seal connector type)
SC Cover for C and D side (always use the cover when the modules are not in use)

[Pneumatic port]
P18 Pneumatic Rc1/8×4
P3W Pneumatic Rc3/8×2
SC Cover for C and D side (always use the cover when the modules are not in use)

[Other]
E51 500A×1
GL Attachment module
LC Cover for A and B side (always use the cover when the modules are not in use)

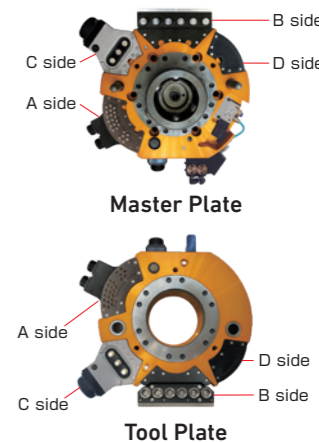
[Servo module]
SE Servo power 20A×6
Electric signal 5A×17
SEY Servo power 20A×6
Electric signal 5A×17
Connector for motor has 7pins
SEP Servo power 20A×6
Electric signal 5A×17
37probe contacts is added in servo module
LC Cover for A and B side (always use the cover when the modules are not in use)

[Pneumatic port]
P38 Pneumatic Rc3/8×4
LC Cover for A and B side (always use the cover when the modules are not in use)

[Electric signal module]
J J16A module 5A×16
R 5A×16 (without connector) for Tool Plate
M 13A×10 (insertion contact)
MW 13A×10 Resistance to dust and water
BN Remote sensor 15 NPN output for Master Plate
BP Remote sensor 15 PNP output for Master Plate
BD Remote sensor 15 Sensor input for Tool Plate
SC Cover for C and D side (always use the cover when the modules are not in use)

[Other]
E51 500A×1
GL Attachment module
LC Cover for A and B side (always use the cover when the modules are not in use)

Installing position



Please contact BL Autotec, Ltd. for detailed information on the options.

- The electric connector and plugs are user-provided. Please contact BL Autotec, Ltd. for detailed information on the modules.
- Please contact BL Autotec, Ltd. for special conditions and specific applications. Please refer to the Installation & Maintenance Manual when using.
- The contents of this catalog are subject to change without notice. Check with BL Autotec for updated catalog content if your catalog was issued more than one year ago.
- This catalog is note be reproduced, in whole or in part, without the express permission of BL Autotec.

The configuration and specifications for this series are subject to change.

Please contact BL Autotec, Ltd. for detailed information on the options.

- The electric connector and plugs are user-provided. Please contact BL Autotec, Ltd. for detailed information on the modules.
- Please contact BL Autotec, Ltd. for special conditions and specific applications. Please refer to the Installation & Maintenance Manual when using.

The configuration and specifications for this series are subject to change.

*1 Positional repeatability refers to the repeatability achieved when repeatedly locking and unlocking tool plate (A) to specific master plate.

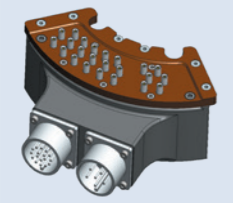
It does not indicate the repeatability between tool plate (A) and tool plate (B) when locking and unlocking different tool plates.

*2 Coupling force means force which assures repeatability. Coupling itself is kept by unlocking with air supply or it's broken.


ZEUS · GIGA Module

■ Examples of optional modules (A or B side)

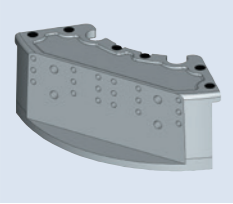
Master plate side



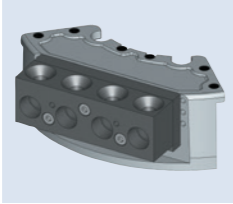
Servo module
SEAM / SEBM



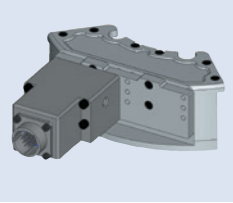
Fluid module
FL6AM / FL6BM



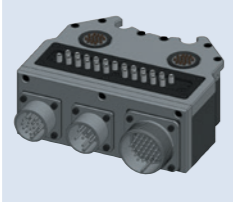
Attachment module for adding QUICK CHANGE options onto A·B-side
GLAM / GLBM



Pneumatic port
P38AM / P38BM



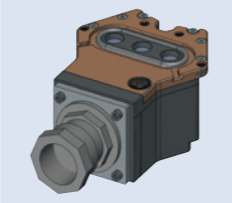
Electric signal module
BPAM / BPBM
BNAM / BNBM



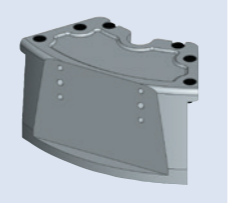
Servo module
SEPAM / SEPBM

■ Examples of optional module (C or D side)

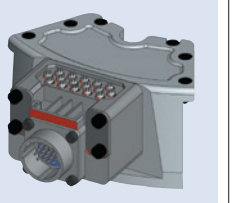
Master plate side



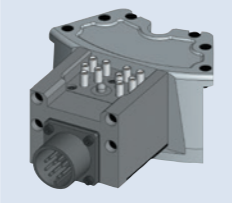
Primary current module
WSCM / WSDM



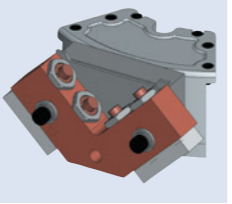
Attachment module for adding QUICK CHANGE options onto C·D-side
GSCM / GSDM



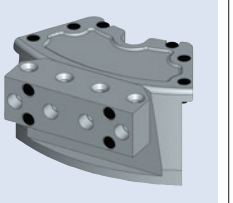
Electric signal module
JCM / JDM



Electric signal module
M10CM / M10DM

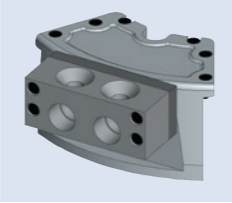


Ground contact module
E51CM / E51DM

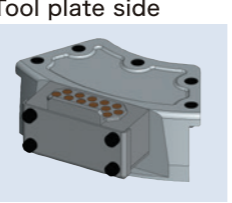


Pneumatic port
P18CM / P18DM

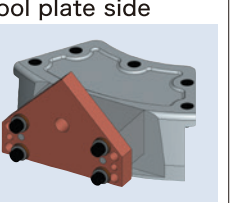
Tool plate side



Pneumatic port
P3WCM / P3WDM



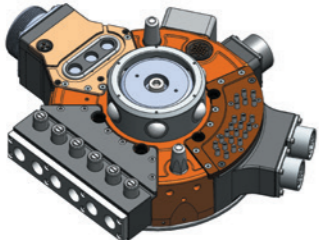
Electric signal module
RCT / RDT



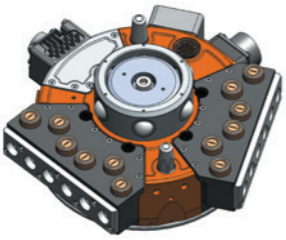
Ground contact module
E51CT / E51DT

*Please refer to the below table below for details of optional modules.

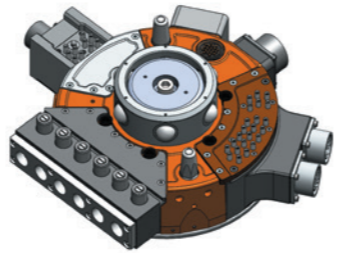
ZEUS Application Lineup



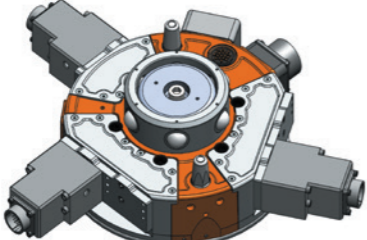
1 Model for spot welding gun exchange.



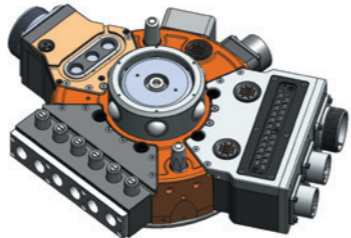
2 Model for exchanging jig hands for material handling.



3 Model for exchanging hands or jigs on actuated servo motors.



4 Model for high humidity or wet environments. (Remote sensor water-proof IP68 is used for electric signal module)




5 Model for exchanging spot welding guns and servo hand.

At the site of FA, it is becoming popular to adapt various network systems in order to reduce wiring. Networks at factories are hierarchically (configurationally) classified by place and information transmission in the network. Our Wire-Saving Module / Contact Block is compliant with networks of several standardized serial data communications and, thus, effective for reducing wiring at factories. We have prepared connectors conforming to several standardized serial data communications.


Contact Blocks for QUICK-CHANGE® / QUICK-CHANGE ZEUS® / QUICK-CHANGE GIGA®

■ Examples of optional modules

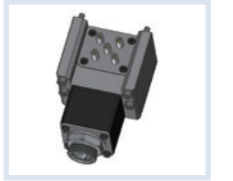
Master plate side



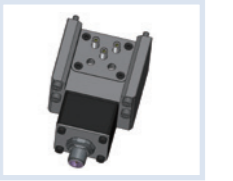
DeviceNet with M12 connector type
C1M




CC-Link connector type
C2M




DeviceNet with UN connector type
C3M




PROFIBUS connector type
C4M



Ethernetconnector type
C5M



Powered M12 connector type
C6M



Powered UN connector type
C7M

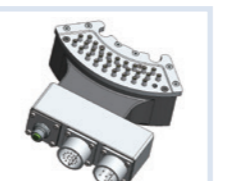
Contact Blocks for QUICK-CHANGE® / QUICK-CHANGE ZEUS® / QUICK-CHANGE GIGA®

■ Examples of optional modules (A or B side)


Integrated type



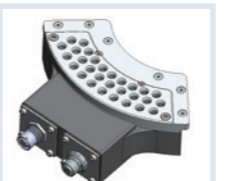
KUKA standard connector type
C1KAM/C1KBM




Ethernet connector type
C5SAM/C5SBM



DeviceNet with M12 connector type
C1EAM/C1KBM



KUKA standard connector type
C16KAT/C16KBT



Ethernet connector type
C5SAT/C5SBT

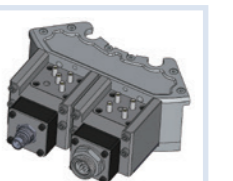


CC-Link connector type
C2EAT/C2EBT


Combined type



DeviceNet with UN connector type
C7C3AM/C7C3BM



CC-Link & Powered UN connector type
C2C7AM/C2C7BM



PROFIBUS connector & Powered M12 connector type
C6C4AT/C6C4BT



Ethernet & Powered M12 connector type
C5C6AT/C5C6BT



DeviceNet with M12 connector type
C1XAM/C1XBM



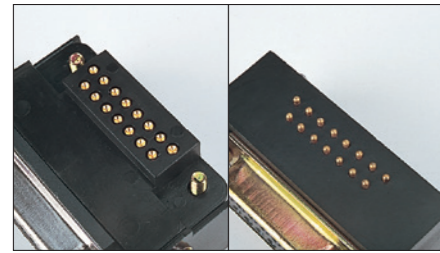
PROFIBUS connector type
C4XAT/C4XBT

Conforming to several standardized serial data communications

DeviceNet	Using dedicated thin cable conforming to DeviceNet standard. We have mini-connectors and micro-connectors available.
CC-Link	Using a dedicated Ver. 1.10 compatible CC-Link cable that is a twisted three-core cable with shield. We have M12 Micro type four-contact A-coding connectors available.
PROFIBUS	Using PROFIBUS DP type-A cable that is twisted wiring with shield. We have M12 Micro type four-contact B-coding connectors available.
Industrial Ethernet	We have category 5e equivalent cable with two pairs of shield is used and M12 Micro type four-contact D-coding connectors available. These connectors conform to EtherNet/IP, EtherCAT, PROFINET.

Electrical signal contact type

Electrical signal contact probe type



Master side Tool side



Master side Tool side

Electrical signal insertion contact type



Master side Tool side

Electrical signal contact blocks

Contact block for Light-5A



H10A
3 A x 10 (solder terminal)



H20A
3 A x 20 (solder terminal)



H30A
3 A x 30 (solder terminal)



H10L
3 A x 10 (with 1m lead wire)



H20L
3 A x 20 (with 1m lead wire)

Contact block for QC-10C



K10A
3 A x 10 (solder terminal)



K20A
3 A x 20 (solder terminal)



K10L
3 A x 10 (with 1m lead wire)



K20L
3 A x 20 (with 1m lead wire)

Contact block for QC-10C

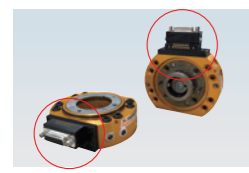


CT8
1.5 A x 10

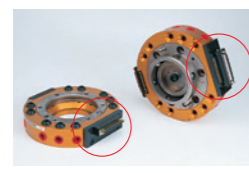


CT16
1.5 A x 16

Contact block for Flex R-25 to Flex-300A



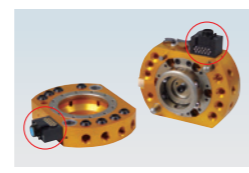
D15
3 A x 15
<D-sub connector (female)>



D37
3 A x 37
D-sub connector with
37 contact (female receptacle)



J16
5 A x 16 (JM connector)



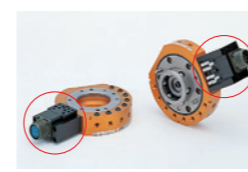
L16 (for Master only)
5 A x 16
(JM connector)



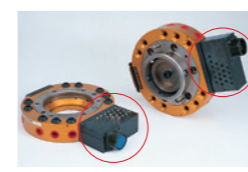
A16
With approach sensor
5 A x 16 (JM connector)

Electrical signal contact blocks

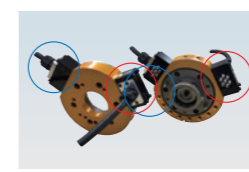
Contact block for Flex R-25 to Flex-300A



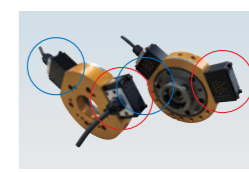
M10
13 A x 10 (MS connector)



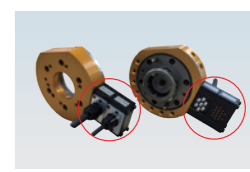
M19
13 A x 19
(MS connector)



MC06L
MC06S
Electrical signal
13 A x 6, with
500 mm shielded cable

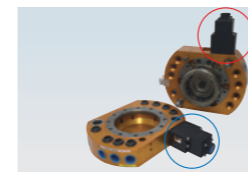


JC14L
JC14S
Electrical signal
2A x 14, with
500 mm shielded cable

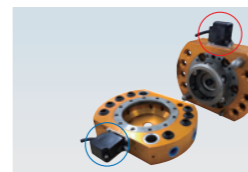


MC06JC14L
Electrical signal
13 A x 6 and 2 A x 14, with
500 mm shielded cable

Non-contact electrical signal block



B15NB, B15PB (for Master only)
B15DB (for Tool only)
B15NB NPN output
B15PB PNP output
For B15NB and B15PB,
WEBR-2119MS-D is used.
For B15DB, WEBR-2116FS-D is used.



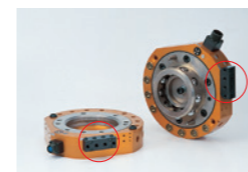
R12NB, R12PB (for Master only)
R12DB (for Tool only)
B12NB NPN output
B12PB PNP output
R12NB NPN output (RS12E-422N-PU-02 manufactured by B&PLUS)
R12PB PNP output (RS12E-422P-PU-02 manufactured by B&PLUS)
R12DB (RS12T-422-PU-01 manufactured by B & PLUS)



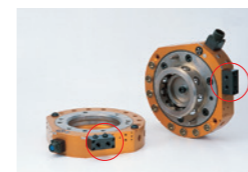
E50
Ground 500 A x 1

Ground

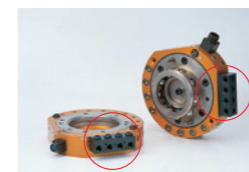
Pneumatic port



P18
Rc1/8 x 4



P14
Rc1/4 x 2



P38
Rc3/8 x 4



P3W
Rc3/8 x 2

Lock / Unlock sensor



SA,SB

Two proximity sensors are built in to check the position of the piston to confirm coupling/uncoupling.

SA Type.....

Customers can perform additional machining on it to use it also as a robot mounting plate.

SB Type.....

This is a type processed to allow mounting on a robot. *Please provide us with the robot flange shape drawing when ordering.

For more information on options, please contact us.

**Tool Change on Servo Equipment?
It's Simpler Than You Think!!**

Designed to reduce the unique noise issues found in servo equipment.

Smaller electrical contact block for power and resolver.

NEW

MC06 Electrical contact block for power (motor)
(13A×6 contacts with 1 shield wire)

Yes, servo nut runners are changeable!

JC14 Electrical contact block for signal
(2A × 14 contacts with 1 shield wire)

Interested?
Contact BL Autotec & ESTIC - we're here to help!

Of course, for Spindle & Deburring tools available!

Introducing a Compact Electrical Contact Block from BL Autotec
- Perfect for Servo Equipment Tool Changes!

Can also replace servo nut runner!

Definitely worth checking for those who want to change servo equipment tools!!

BL Autotec has released a small-size contact block that supports uncoupling (tool change) of servo devices. This is a new offering for customers who are considering automation of assembly process.

Small-size contact block for motor and encoder

◆MC06 for motor power◆
Capable of conducting power signals of rated current 13A×6 (one shielded line)

◆JC14 for various signal transmission◆
Supports real-time communication of encoder and other signals of 2A×14 (one shielded line)

Can also be used for replacing deburring and spindle devices!!

*Measures have been taken to reduce noise specific to servo equipment

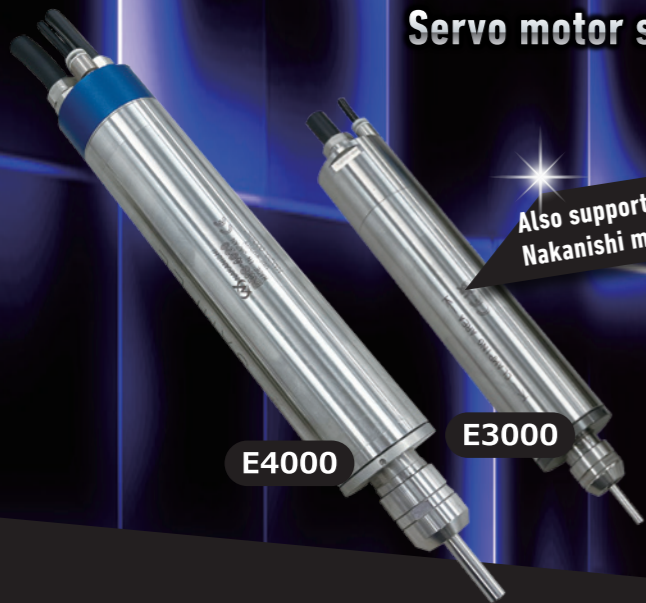
Please contact BL Autotec or DAI-ICHI DENTSU LTD. for inquiries!

Replacement of high-precision deburring tools is possible!!

Contributes to adding multifunctionality to deburring robots!

Servo motor spindles, etc.

Also supports tool change for Nakanishi motor spindles!!



E4000

E3000



Installation example

Contact block for motor power and signals

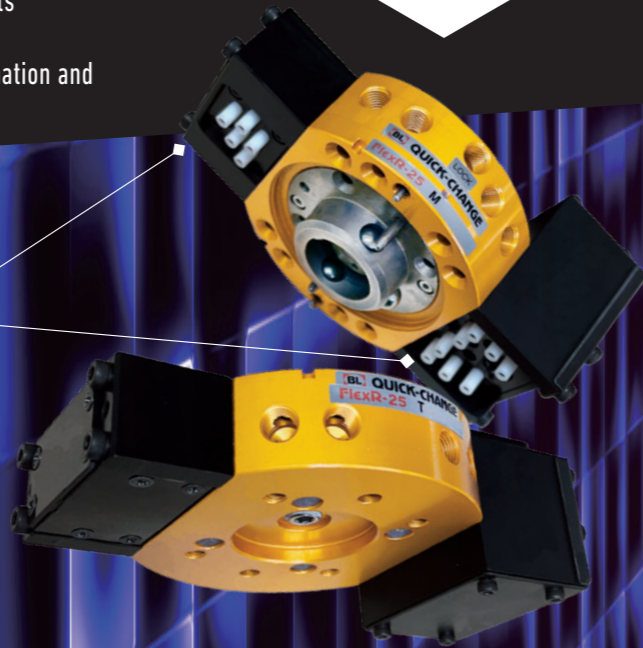
Custom products

BL Autotec has released a small-size contact block that supports uncoupling (tool change) of servo devices. This is a new offering for customers who are considering automation and multifunctional operation of deburring process by robots.

◆ Custom specification :
For NAKANISHI E4000 spindle◆
Capable of conducting motor power of rated current 13A×5

◆ Custom specification :
For NAKANISHI E3000 spindle◆
Capable of conducting motor signal of rated current 2A×8

*Measures have been taken to reduce noise specific to servo equipment



Please contact BL Autotec or NAKANISHI INC. for inquiries!

