

Single-mindedly engineered with Lightweight construction

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

Introducing the NC-090!

Minimized thickness for maximum slimness,
allowing direct mounting to an 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 tact 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%.

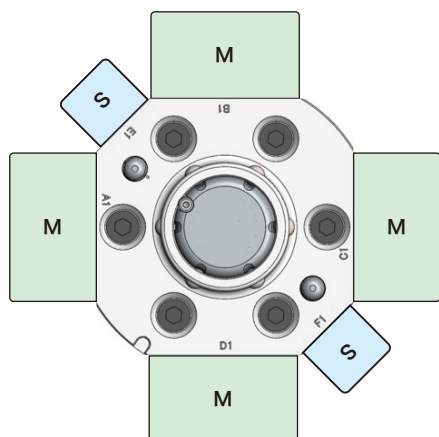
主な仕様(本体)

Payload capacity (kg)		40~90	
Positioning repeatability (mm)		±0.015	
Dynamic allowable bending moment (N-m)		830	
Dynamic allowable torsional moment (N-m)		830	
Detachment confirmation sensor (×: No; ○: Yes)		×	○
Outside diameter (mm)		□102	□102
Thickness (mm)	Master plate	28	38
	Tool plate	25	25
	Total	53	63
	Compared to Flex-70A	85.5%	64.6%

Product weight (kg)	Master plate	0.95	1.15
	Tool plate	0.45	0.45
	Total	1.4	1.6
	Compared to Flex-70A	45.2%	40.5%
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. 6: PCD80) *Choose your desired center fitting diameter.	

Flexible expandability

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



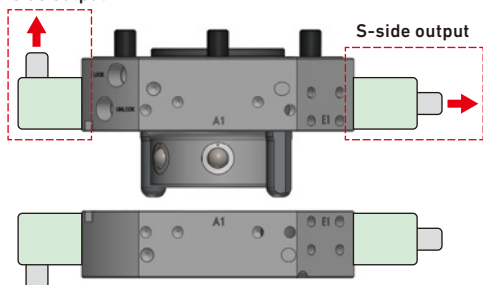
Modules can be installed at **up to 6 locations**

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

Please note that the **QUICK-CHANGE NEO™** 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

L-side output



MAA-M



MAD-M



MAC-M



MAF-M

■ Air module



MNA-M

MNA-T



MNB-M

MNB-T

■ Approach sensor



SVA-M

■ Product model (master plate)

Model	—	Payload (kg)	Master/tool	—	Detachment confirmation sensor	Alignment fitting
NC		090	M		X	A
					N	
					P	

■ Product model (tool plate)

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

X: No A: $\phi 50h7$
N: Yes (NPN) B: $\phi 63h7$
P: Yes (PNP) C: $\phi 80h7$

*Detachment confirmation sensor (M5 connector, 4-pin, A-coding, male)

■ Electrical module *Module size: M

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

*S-side output modules can be combined with L-side output modules.

■ Air module *Module size: M

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

■ 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	

BANDO BANDO GROUP

BL AUTOTEC, Ltd.



You can freely combine **QUICK-CHANGE NEO™** in CADENAS® and download the resulting CAD data.



Download CAD data and user manuals.



Follow our channel!