

QUICK-CHANGE NEO™

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.

180kg payload model

Introducing the **NC-180!**

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

Detachment operation requires as little as 0.3 MPa air pressure!

The minimum detachment 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%.

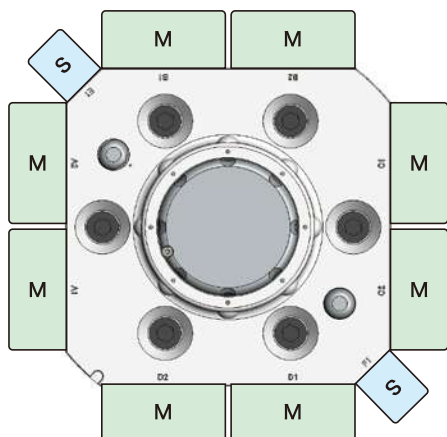
Principal specifications(Main body)

Payload capacity (kg)		90~180	
Positioning repeatability (mm)		±0.020	
Dynamic allowable bending moment (N-m)		2352	
Dynamic allowable torsional moment (N-m)		2352	
Detachment confirmation sensor (×: No; ○: Yes)		×	○
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%
Detachment 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!



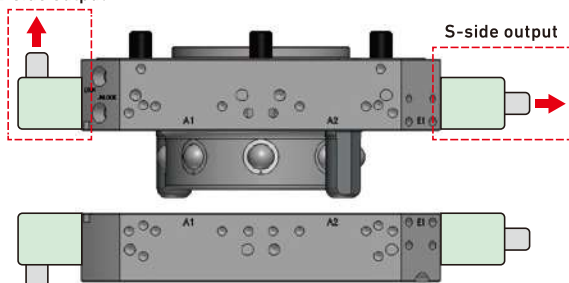
Modules can be installed at up to 10 locations

- M-size modules: Up to 8 locations (electrical and 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



■ Product model (master plate)

Model	—	Payload (kg)	Master/tool	—	Detachment confirmation sensor	Alignment fitting
NC		180	M		X	A
					N	B
					P	C

■ Product model (tool plate)

Model	—	Payload (kg)	Master/tool
NC		180	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	JMCR2116M-D	MAA-T	JMCR2116F-D
2A × 16 wires (L-side output, JM connector)	MAB-M	JMCR2116M-D	MAB-T	JMCR2116F-D
2A × 32 wires (L-side output, JM connector)	MAC-M	JMCR2116M-D JMCR2116MX-D	MAC-T	JMCR2116F-D JMCR2116FX-D
13A × 10 wires (S-side output, MS connector)	MAD-M	D/MS3101A18-1P	MAD-T	D/MS3101A18-1S
13A × 10 wires (L-side output, MS connector)	MAE-M	D/MS3101A18-1P	MAE-T	D/MS3101A18-1S

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



MAA-M



MAD-M



MAC-M

■ Air module



MNA-M

MNA-T



MNB-M

MNB-T

■ 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



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	

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BL AUTOTEC, Ltd.



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



BL website

Download CAD data and user manuals.



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