

QC-60D

Lock without touching

The Master plate can lock onto the Tool plate with a gap between them.

Superior fail-safe locking mechanism

BL's unique lock/unlock mechanism contains a mechanical fail-safe feature which does not allow the Master and Tool plates to uncouple if the air pressure is shut off.



Master plate Attachments
•6 bolts (M6×40)
•1 locating pin
※ Seal plate, O-ring and screws are pre-assembled.








Specifications

Main Body	
Load capacity (rated load)	588N(60kg)
Positinal repeatability	±0.015mm
Allowable dynamic moment	Bending direction (Tx, Ty) 392N·m (40kgf·m) Twisting direction (Tz) 588N·m (60kgf·m)
Coupling force (with air pressure of 0.49MPa)	6.570N(670kgf) ※1
Materials	Frame Aluminum alloy Lock/unlock mechanism Stainless steel
Overall dimension (when coupled)	φ130xH50mm
Weight (Main body)	Master plate 1,340g Tool plate 720g
Self-separating mechanism	Ball-locking mechanism
Required air pressure	0.39~0.68MPa(4~7kgf/cm ²)
Allowable temperature and humidity ranges	0~50°C, 35~90%(Non-condensing)

Main Body			
Utilities	Electrical signals	Max3A DC50V	3A×15 or none ※2
	Probe contact		
	Pneumatic ports		Rc1/8×8

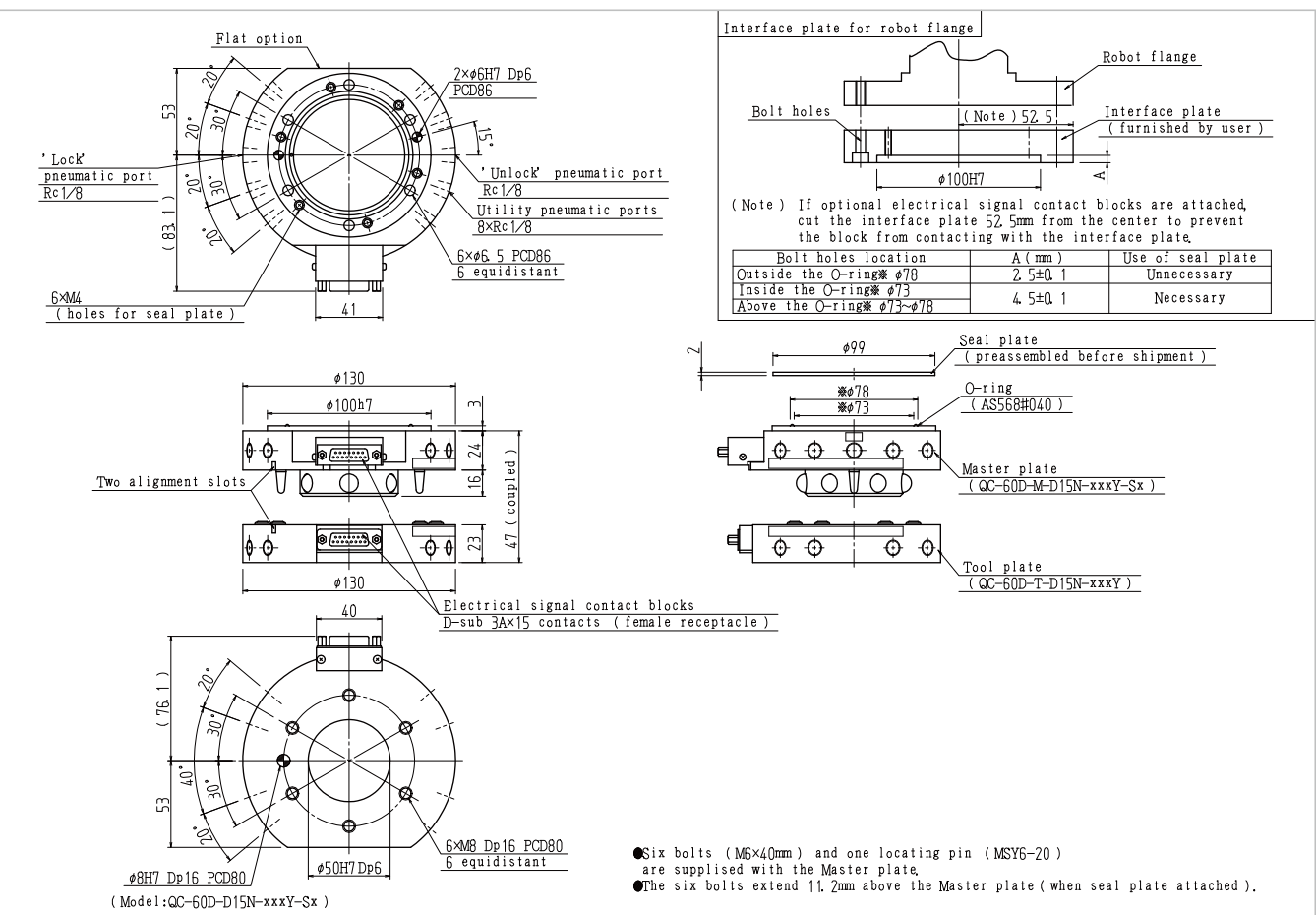
Options			
Utilities	D15Y	Electrical signals	3A×15 ※2
	J16Y	Electrical signals	5A×16 ※3 ※4
	M06Y	Electrical signals	13A×6 ※3 ※5
	M10Y	Electrical signals	13A×10 ※3 ※6
	B15NY	Electric signals	50mA×15
	B15PY	Max.50mA DC24V	WEB series connector ※3
		Non-contact system	In Zone 1
		(Please refer to page 41 for details.)	IP67
	B15DY	Electric signals	5mA×15
		Max.5mA DC12V	WEB series connector ※3
	P18Y	Pneumatic ports	Rc1/8×4
	P14Y	Pneumatic ports	Rc1/4×2
	Lock / unlock sensor ※7		Two built-in proximity switches

QC-60D Ordering Information

Master plate	QC-60D	-M-	(Option N) 	-	(Option Y) 	-	(Lock / unlock sensor) 
Tool plate	QC-60D	-T-	(Option N) 	-	(Option Y) 		
			DXXN No electrical signal		XXXXY No option		SX No lock/unlock sensor
			D15N Electrical signals 3A×15※2		D15Y Electrical signals 3A×15※2		SA Lock/unlock sensor A-Type (Customer processes the adaptor plate)
					J16Y Electrical signals 5A×16※3 ※4		
					M06Y Electrical signals 13A×6※3 ※5		
					M10Y Electrical signals 13A×10※3 ※6		
					B15NY Non-contact electric signal block Master side NPN output		
					B15PY Non-contact electric signal block Master side PNP output		
					B15DY Non-contact electric signal block Tool side		
					P18Y pneumatic ports Rc 1/8×4		
					P14Y pneumatic ports Rc 1/4×2		
							SB Lock/unlock sensor B-Type (BL Autotec processes the adaptor plate)

(Note) Electric signal contact block types for QC-60D are shown as follows.
(Type of electric signal contact block when the Master side is D15N-M: the tool side is D15N-T.).

Main Body Dimensions



Options

Electrical signal contact block

D15Y	J16Y	M06Y	M10Y
3A×15 D-sub 15 contacts (female receptacles)※2	5A×16 (JM connector)※3 ※4	13A×6 (MS connector)※3 ※5	13A×10 (MS connector)※3 ※6
※Plug side is DDK, 17 JE-23150-02 (D8A) -CG, or its equivalent.	Use JMR2116M-D for the J16Y Master side Use JMR2116F-D for the J16Y Tool side	Use D/MS3102A14S-6P for the M06Y Master side Use D/MS3102A14S-6S for the M06Y Tool side	Use D/MS3102A18-1P for the M10Y Master side Use D/MS3102A18-1S for the M10Y Tool side

Non-contact electric signal block



B15NY, B15PY (Master side only)
B15DY (Tool side only)

B15NY NPN output
B15PY PNP output
Receptacle connector: WEBR-2119S-D for B15NY and B15PY
Receptacle connector: WEBR-2116F-S for B15DY

Pneumatic ports



P18Y
P14Y

Rc 1/8×4
Rc 1/4×2

Lock/unlock sensor



SA, SB

Two built-in proximity switches verify piston position, thus reliably checking the lock and unlock status.

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

SA Type---The sensor plate can be used in place of an interface plate with modifications by the user
SB Type---The sensor plate can be used in place of an interface plate with modifications by BL Autotec, Ltd.
※When you order the lock/unlock sensor please provide us with a drawing of the robot flange.

※1 Coupling force is the force to achieve specified repeatability. Coupling will be maintained until unlock pressure is applied or the device is damaged. ※2 Plug connector is not included. Please prepare plug connector type 17JE-23150-02(D8A)-CG or compatible type. ※3 Plug connector is not included. Please prepare plug connector by customer. For connector, please see correspondence table on page 46. ※4 Allowable current is total 30.4A for connector. ※5 Allowable current is total 43.6A for connector. ※6 Allowable current is total 57.2A for connector. ※7 An option is available on the electric signal contact block (J16Y, M10Y) to connect the Lock/unlock proximity switch signal. Please contact us for additional information.