

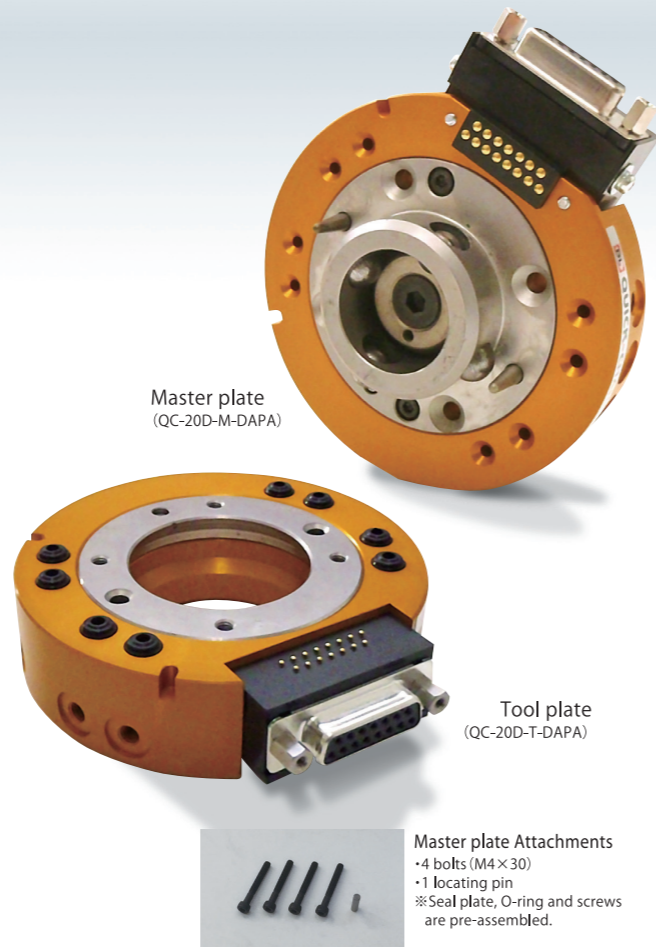
# QC-20D

## 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  
(QC-20D-M-DAPA)

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

Master plate Attachments  
 • 4 bolts (M4 × 30)  
 • 1 locating pin  
 ※ Seal plate, O-ring and screws are pre-assembled.

## Specifications

Main Body		
Load capacity (rated load)		196N (20kg)
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)
Coupling force (with air pressure of 0.49MPa) ※2		2,059N (210kgf)
Materials	Frame	Aluminum alloy
	Lock/unlock mechanism	Stainless steel
Overall dimension (when coupled)		φ90 × H45.4mm
Weight (Main body)	Master plate	515g
	Tool plate	355g
Self-separating mechanism		Ball-locking mechanism
Required air pressure		0.39~0.68MPa (4~7kgf/cm <sup>2</sup> )
Allowable temy perature and humidity ranges		0~50°C, 35~90% (Non-condensing)

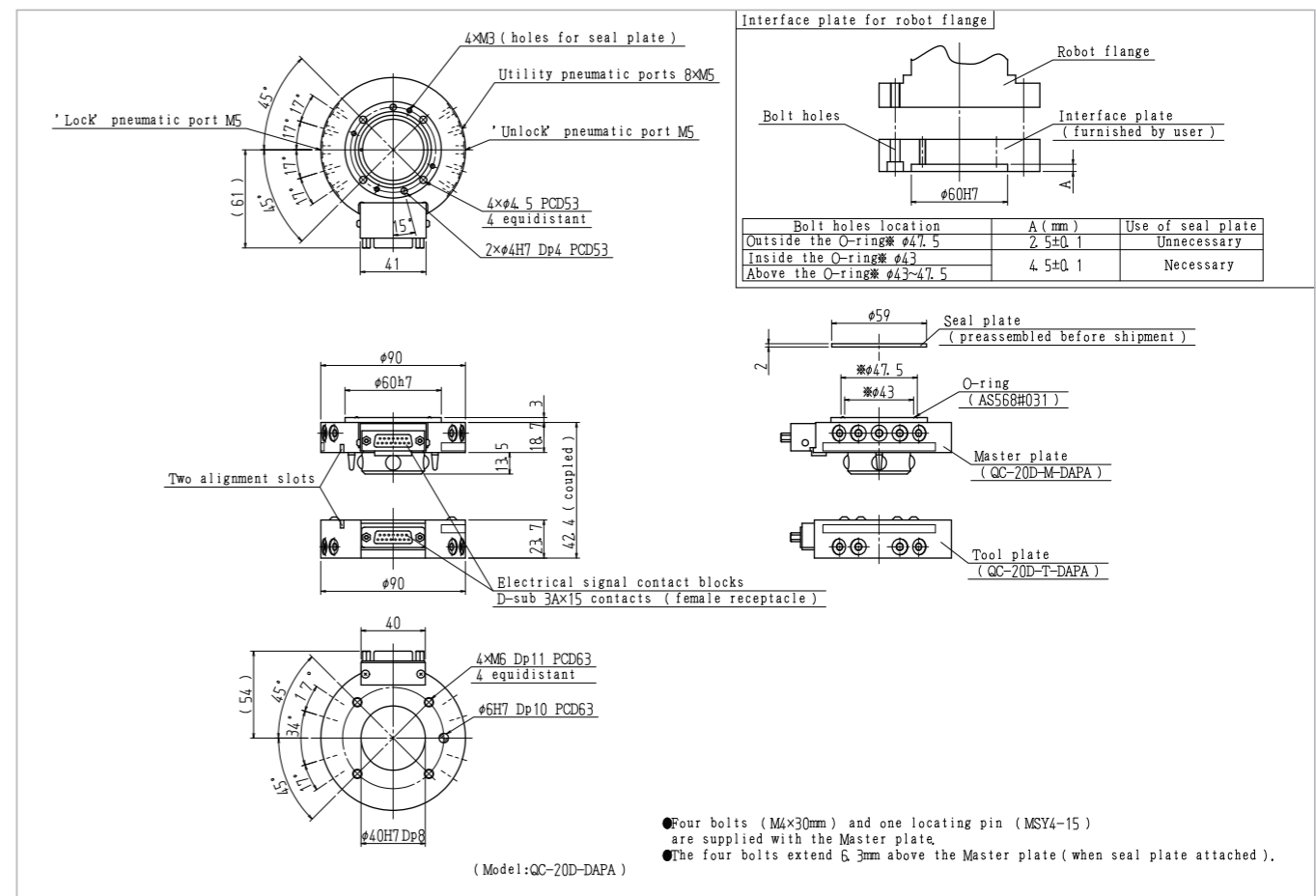
Types			
Utilities	DXPA	Electrical signals	None
		Pneumatic ports	M5 × 8
	DXPB	Electrical signals	None
		Pneumatic ports	M5 × 12
	DAPA	Electrical signals Max3A DC50V Probe contact	3A × 15 (D-sub connector) ※3
		Pneumatic ports	M5 × 8
	DAPB	Electrical signals Max3A DC50V Probe contact	3A × 15 (D-sub connector) ※3
		Pneumatic ports	M5 × 12
	DBPA	Electrical signals Max3A DC50V Probe contact	3A × 30 (D-sub connector) ※3
		Pneumatic ports	M5 × 8

## QC-20D Ordering Information

Master plate	<b>QC-20D</b>	<b>-M-</b>	(Type)															
Tool plate	<b>QC-20D</b>	<b>-T-</b>	(Type)															
			<table border="1"> <tr> <td>DXPA</td> <td>No electrical signal</td> <td>Pneumatic ports M5 × 8</td> </tr> <tr> <td>DXPB</td> <td>No electrical signal</td> <td>Pneumatic ports M5 × 12</td> </tr> <tr> <td>DAPA</td> <td>Electrical signals 3A × 15 ※3</td> <td>Pneumatic ports M5 × 8</td> </tr> <tr> <td>DAPB</td> <td>Electrical signals 3A × 15 ※3</td> <td>Pneumatic ports M5 × 12</td> </tr> <tr> <td>DBPA</td> <td>Electrical signals 3A × 30 ※3</td> <td>Pneumatic ports M5 × 8</td> </tr> </table>	DXPA	No electrical signal	Pneumatic ports M5 × 8	DXPB	No electrical signal	Pneumatic ports M5 × 12	DAPA	Electrical signals 3A × 15 ※3	Pneumatic ports M5 × 8	DAPB	Electrical signals 3A × 15 ※3	Pneumatic ports M5 × 12	DBPA	Electrical signals 3A × 30 ※3	Pneumatic ports M5 × 8
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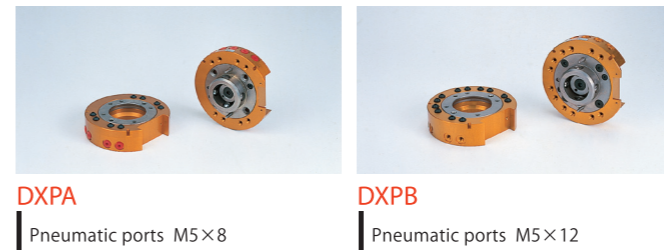
(Note) Please order D15N-M for the master side and model D15N-T for the tool side when ordering a contact block replacement.

## Main Body Dimensions



## Types

### No electrical signal



### Electrical signals



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

※1 Positional repeatability means the accuracy of position between the one master plate and the one tool plate(A) repeat coupled and uncoupled. It is not possible to apply this positional repeatability to different tool plate(B).  
 ※2 Coupling force is the force to achieve specified repeatability. Coupling will be maintained until unlock pressure is applied or device is damaged, contacts male screw plug M2.6) ※3. Please provide a 17JE-23150-02(D8A)-CG plug or its equivalent.(D-sub plugs are RoHS.)

Next-Generation Robots  
 ZEUS  
 GIGA  
 Automatic Tool Changer  
 1kg  
 5kg  
 10kg  
 20kg  
 40kg  
 60kg  
 70kg  
 100kg  
 150kg  
 220kg  
 300kg  
 Press Handling Specification  
 100kg  
 Spot-Welding Gun-Changer  
 300kg  
 Options  
 Wire-Saving module / Contact Block  
 Non-contact electric signal block  
 A mechanical safety valve prevents Tool plate drops  
 List  
 Product Overview  
 Rotary Joint  
 PN-ZERO Series  
 Wrist Compliance  
 ROCCORANCE LOAD/ACCUMULATOR  
 Coupler Joint  
 CJ2