

QC-10B

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
• 4 bolts (M3×25)
• 1 locating pin
※ Seal plate, O-ring and screws are pre-assembled.

Specifications

Main Body		
Load capacity (rated load)		98N (10kg)
Positional repeatability ※1		±0.01mm
Allowable dynamic moment	Bending direction (Tx, Ty)	49N·m (500kgf・cm)
	Twisting direction (Tz)	68.6N·m (700kgf・cm)
Coupling force (with air pressure of 0.49MPa) ※2		970.8N (99kgf)
Materials	Master plate	Stainless steel
	Tool plate	Aluminum alloy (The lock/unlock mechanism is stainless steel.)
Overall dimension (when coupled)		φ50×H38.5mm
Weight (Main body)	Master plate	245g
	Tool plate	85g
Self-separating mechanism		Ball-locking mechanism
Required air pressure		0.39~0.68MPa (4~7kgf/cm²)
Allowable temprature and humidity ranges		0~50℃, 35~90% (Non-condensing)
Utilities	Pneumatic ports	M5×6

Options			
Utilities	K10A	Electrical signals Max3A DC50V Probe contact	3A×10 (solder terminal)
	K20A		3A×20 (solder terminal)
	K10L		3A×10 (with 1m lead wires)
	K20L		3A×20 (with 1m lead wires)

QC-10B Ordering Information

Master plate

QC-10B

-M-

(Option)

Tool plate

QC-10B

-T-

(Option)

XXXX

No electrical signal

K10A

Electrical signals 3A×10

(solder terminal)

K20A

Electrical signals 3A×20

(solder terminal)

K10L

Electrical signals 3A×10

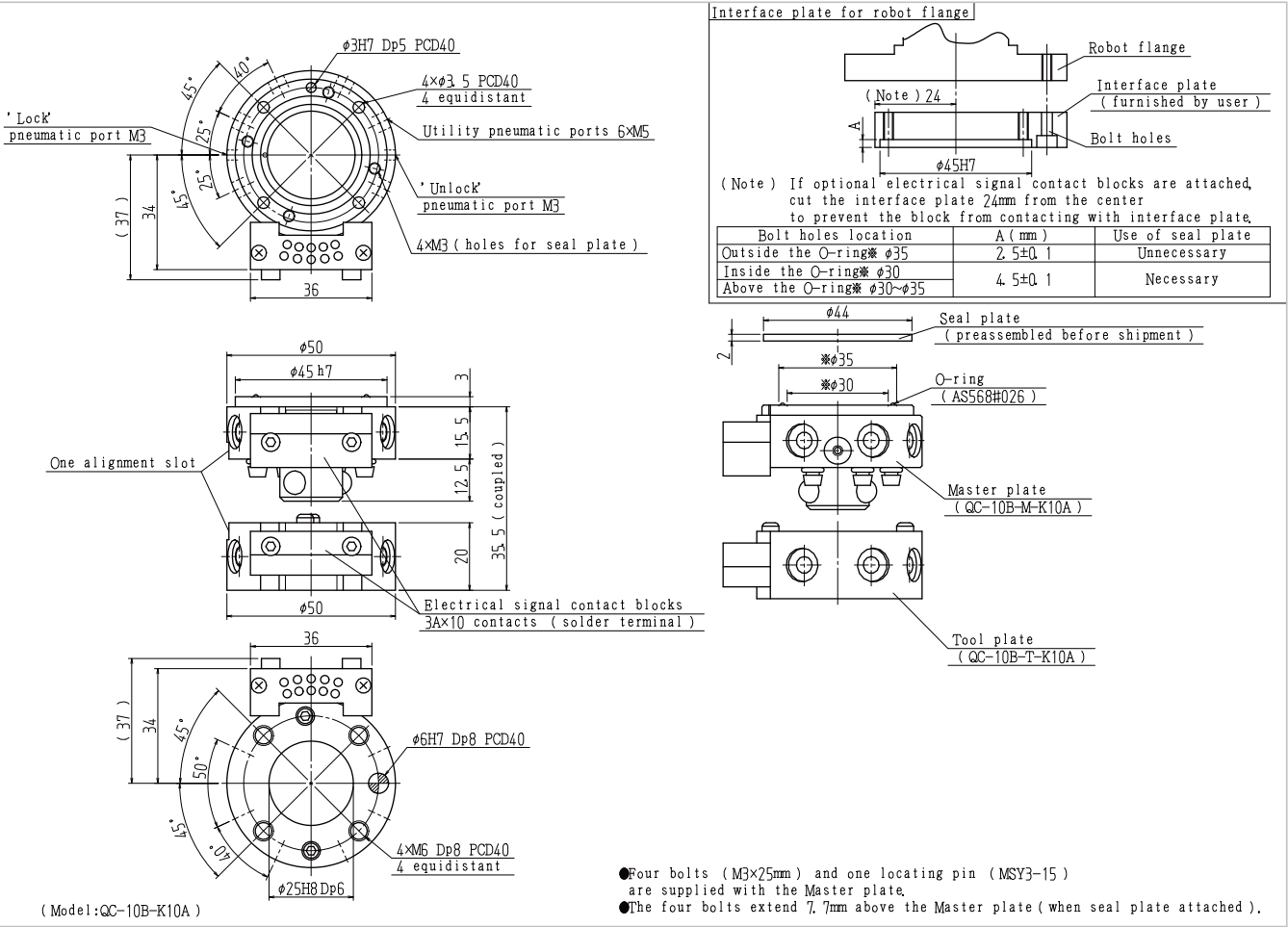
(with 1m lead wires)

K20L

Electrical signals 3A×20

(with 1m lead wires)

Main Body Dimensions



Options

Electrical signal contact block



K10A
3A×10 (solder terminal)



K20A
3A×20 (solder terminal)



K10L
3A×10 (with 1m lead wires)



K20L
3A×20 (with 1m lead wires)

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

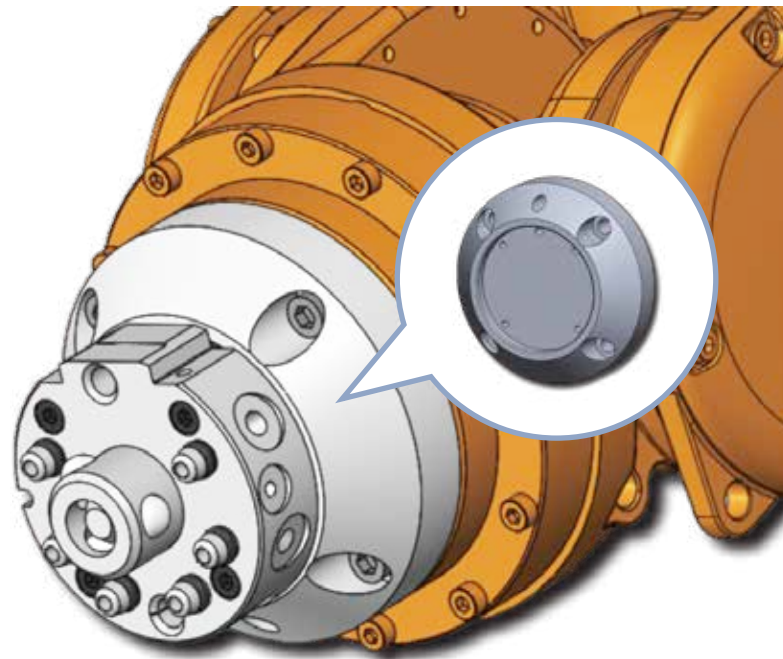
※1 Positional repeatability means the accuracy of position between the one master plate and the one tool plate(A) repeat coupled and uncoupled. It is not possible to apply this positional repeatability to different tool plate(B). ※2 Coupling force is the force to achieve specified repeatability. Coupling will be maintained until unlock pressure is applied or device is damaged.

NEW!

Robot Interface Plate for **QC-10B**

Easy to install!

Useful for simple design!



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



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

QC-10B Main body Specifications

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Positional repeatability ※1	±0.01mm
Allowable dynamic moment	Bending direction (Tx, Ty) 49N·m (500kgf·cm) Twisting direction (Tz) 68.6N·m (700kgf·cm)
Coupling force (with air pressure of 0.49MPa) ※2	970.8N (99kgf)
Materials	Master plate: Stainless steel Tool plate: Aluminum alloy (The lock/unlock mechanism is stainless steel.)
Overall dimension (when coupled)	φ50×H38.5mm
Weight	Master plate: 245g Tool plate: 85g
Self-separating mechanism	Ball-locking mechanism
Required air pressure	0.39~0.68MPa (4~7kgf/cm²)
Allowable temperature and humidity ranges	0~50°C, 35~90% (Non-condensing)
Utilities	Pneumatic ports: M5×6

Line up

AP101



AP102



AP103



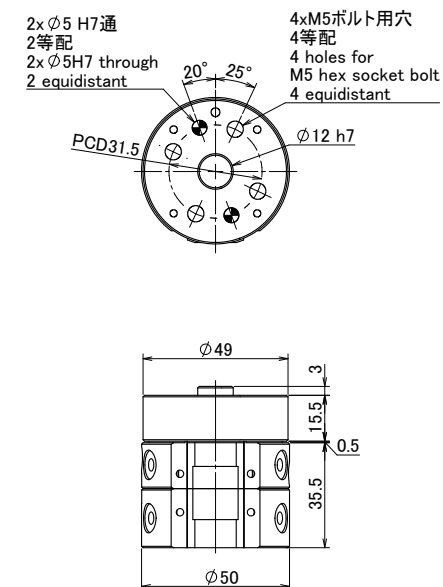
AP104



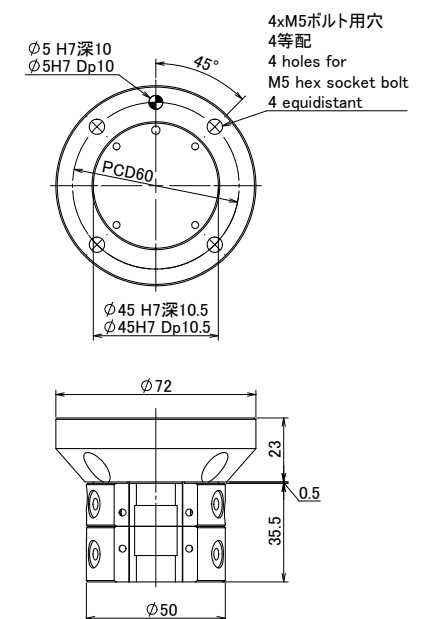
Robot Interface Plate Specifications

Type	AP101	AP102	AP103	AP104
PCD	31.5	60	56	31.5
Bolt size	M5	M5	M4	M5
Hole for locating pin	2×φ5H7	φ5H7	2×φ4H7	φ5H7
Boss size	φ12h7	φ45H7	φ62H7	φ20h7
Boss Height or Depth	Height 3mm	Depth 10.5mm	Depth 8mm	Height 3mm
Accessories (Bolts and pin)	M5×10 (4 pcs) MSY5-15 (1 pc)	M5×15 (4 pcs) MSY5-15 (1 pc)	M5×10 (4 pcs) MSY4-15 (1 pc)	M5×10 (7 pcs) MSY5-15 (1 pc)
Weight (Including bolts and pins)	71g	68g	130g	79g (Bolts 7pcs) 68g (Bolts 7pcs)

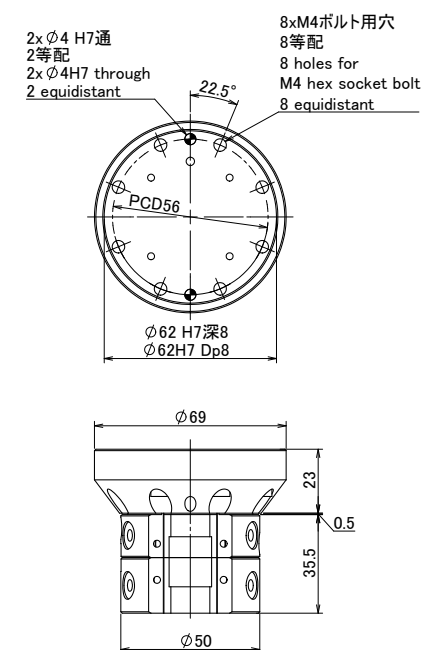
AP101



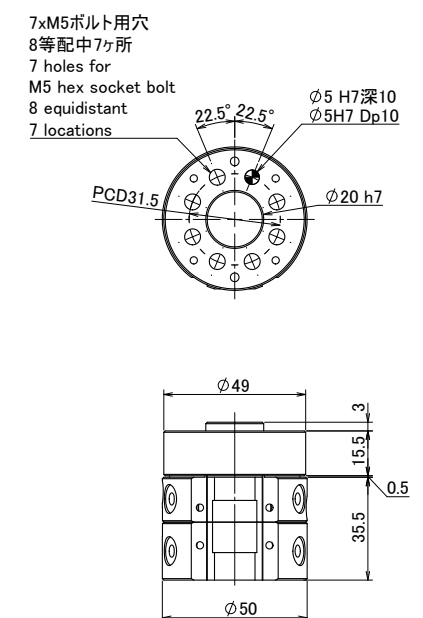
AP102



AP103



AP104



※On installing AP101,102, and 103: on robots and AP104 on master plate, all 4 plates are invertible by 180°