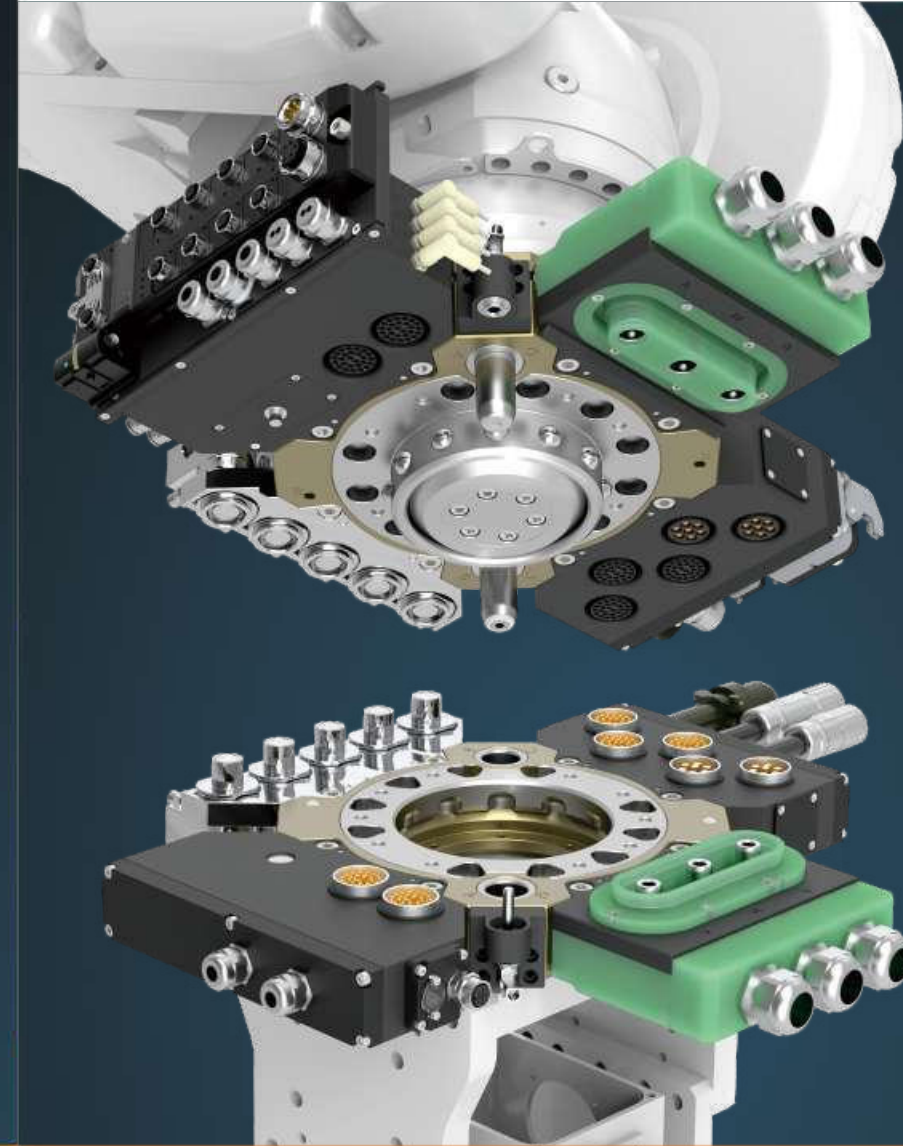


LH-TC
End-Of-Arm Tooling

Committed to becoming the best robot end-effector supplier



- ▶ Robotic tool changer
- ▶ Tool quick change device
- ▶ Utility Coupler

Brochure 2025
LH-TC·Robotic tool changers
Tool quick changer



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LH-TC

End-Of-Arm Tooling

High-technology enterprise
Listed in China stock exchange (Stock code 200649)



Handling



Grabbing



Assembly



Demonstration



Welding



Sorting



Palletizing



Deburring

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Company Profile

Zhengzhou Linghang Robot Co.,Ltd with trademark "LH-TC", mentioned as "Linghang" afterwards, was founded in year 2015, with registered capital RMB24.63millions, listed in Zhongyuan stock exchange Market(stock code 200649), is located in No.11 Building, Zhengtuo technology and Innovation park, Erqi industrial development zone, Zhengzhou city, Linghang owns a professional and independent R&D team and a modern intelligent production plant, is a national high-tech enterprise which integrated design, production, sales and service as a whole concept.





In China there are numbers of offices in South China, East China, Center China, Northeast China and Southwest China, and develops many agencies and dealers in Europe, North America, Southeast Asia, the products have been exported to more than 60 countries and regions.

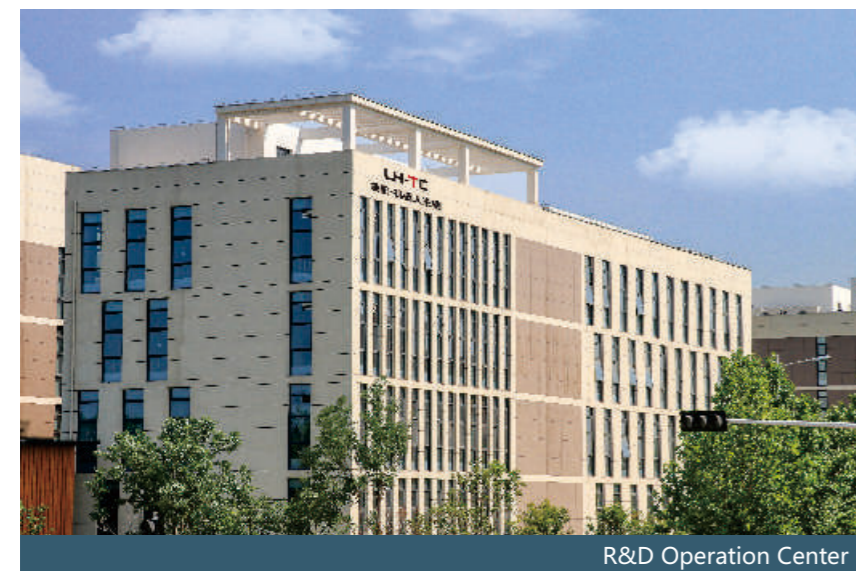
Linghang has been awarded honorary titles of "National high-tech Enterprise", "Henan Province science and technology enterprises", "Henan Province Specialized and Special New Enterprise".

Linghang has gained ISO9001 quality system certification, CE and SIL safety certifications, with more than 70 patents and 5 copyrights.

The main products are robot tool changers, spot welding tool changers, utility couplers, floating deburring tools, pneumatic grippers and energy coupling devices, provide unlimited flexible tool switching for robot applications, improve production efficiency and safety of industrial robots and cobots. These products are widely used in industrial sites such as automatic spot welding, automatic handling, assembly, deburring, palletizing, etc.



-  Company Vision: Committed to becoming the world's best supplier of robot terminal equipment.
-  Company mission: Keep the original intention of craftsmen, help Chinese intelligence manufacturing to release human labor
-  Company spirit: Innovation, Excellence, Efficiency, Concentration
-  Team Concept: Treat with sincerity, perform with truth



R&D Operation Center

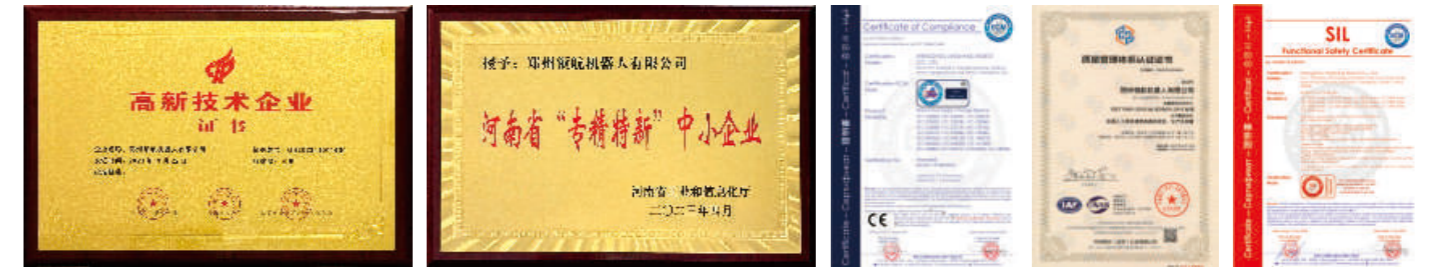
60+ exported countries and regions

70+ Patents

5+ Copyrights

Honor

Focus on R&D of robot end-of-arm tooling, improve production efficiency of manufacturing industry
ISO9001 Quality certification, CE and SIL safety certification, more than 70 patents.



Product

<h3>Robot Tool Changer</h3>  <ul style="list-style-type: none"> •The special materials and process combine with the inclined structure perfectly, ensure safety locking •Innovated redundancy signal transmission technology, ensure the transmission of data and signals more stable •Excellent fluid connection technology, ensure no leakage during millions operations. 	<h3>Pneumatic Gripper</h3>  <ul style="list-style-type: none"> •The perfect combination of multi-tooth guide rail and trapezoid structure, can bear larger moment and torque; •The unique coating process ensures the precision after ten millions operations; •Unique self-lubricating design, longer maintenance-free service time.
<h3>Floating Deburring Tools</h3>  <ul style="list-style-type: none"> •360-degree radial floating, suitable for deburring various workpieces; •1000-6000RPM electric spindle with replaceable cutter automatically, meet all kinds of process requirements; •Axial floating grinding tools: grind complex surfaces adaptively, adjust the work force precisely, compensate work force within $\pm 0.5N$ in any direction actively. 	<h3>Floating Position Compensate Device</h3>  <ul style="list-style-type: none"> •Support position compensation in X&Y, Z, X&Y&Z directions, correct the error in position or angle during assembly and loading precisely. •Ensure the operation is exact by locking the center point and position storing function. •ISO9409 interface to simplify assembled process.
<h3>Energy Connectors</h3>  <ul style="list-style-type: none"> •Modular medium and multi-module interfaces make combination more flexible; •With floating in X, Y, Z direction, eliminate docking errors; •Optional visible LED lights of locked and unlocked status. 	<h3>Energy Coupling Device</h3>  <ul style="list-style-type: none"> •Offer energy coupling between the main station and slave station, include power, data, I/O, pneumatic, liquid, ect. •Ultra-high plug life, high stability and reliability •With super current carrying capacity, can resist the strong impact of vibration.

Robot Tool Changer

LH-TC tool changer is a flexible device which can help single industrial robot match with more end-effectors, each robot side can match with more tool sides, increase robot production lines' flexibility and use of robots. Widely used in end-of-arm-tooling switching, such as spot welding guns, end-effectors, grippers, press guns, deburring removal tools, visible tools, Ultrasonic welding guns etc.



The product has passed ISO9001 certification, SIL safety certification EU CE certification



A full range of tool changer the payload from 5kg to 3000kg

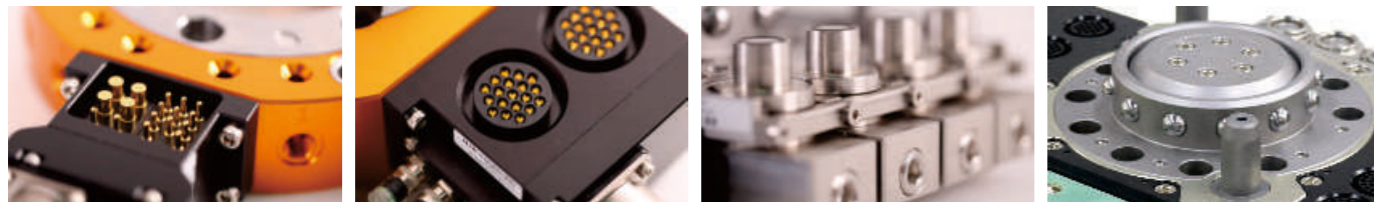


Provides a rich selection of modules for more usage scenarios and supports customization.



Air pressure loss self-locking function

技术亮点



Locking mechanism

Patent material and produce process connect with the special angle structure perfectly, make locking to be safe

Redundancy technology

Innovated RD connection technology, make the data and signal transmission more stable

Fluid Module

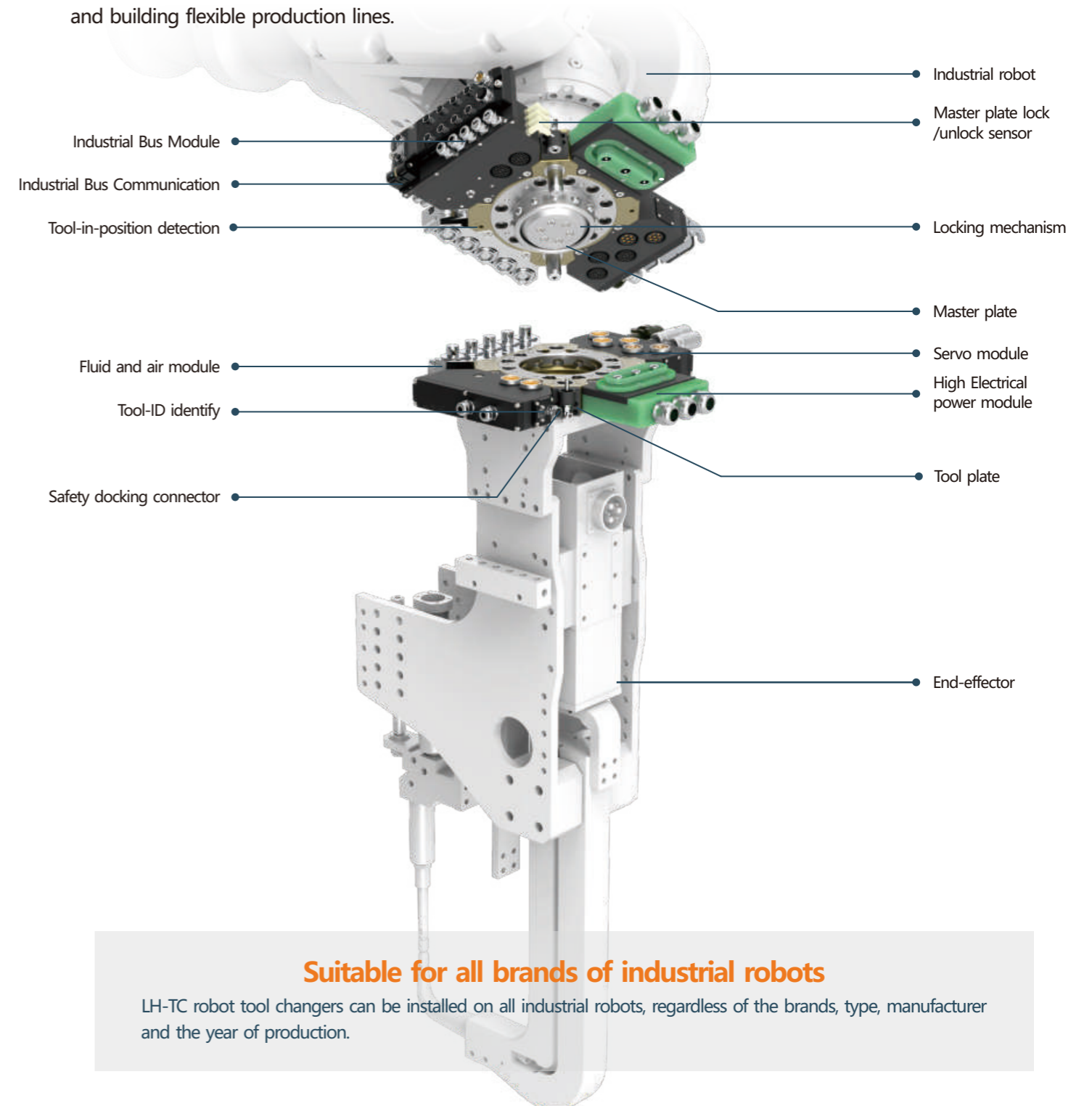
Excellent fluid connection technology realize millions operation without leak.

Safety docking

Unique patented technology of tool and bracket interlocking, when tool changer operate normally, the tool changer won't open even industrial robots output order mistakenly to solenoid valve module.

Welding Tool Changer

Applied in robot spot welding process, for material handling, welding and build-in transformer welding gun's automatically switch. By choosing build-in welding gun's components of power supply, cold water, air and electrical signals to distinguish the welding guns with different shapes, and then complete high efficiency switching between welding guns and operation manipulators, act as an important role in shortening switch time and building flexible production lines.



Suitable for all brands of industrial robots

LH-TC robot tool changers can be installed on all industrial robots, regardless of the brands, type, manufacturer and the year of production.

Model: LTC-0005A

- ▶ Recommended payload ≤ 5kg
- ▶ Locking force: 770N Allowable static moment: 13.2N·m Allowable static torque: 18N·m
- ▶ With 4 x M5 air ports, 1 available module interfaces
- ▶ Suitable for assembly, handling
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.



Specifications

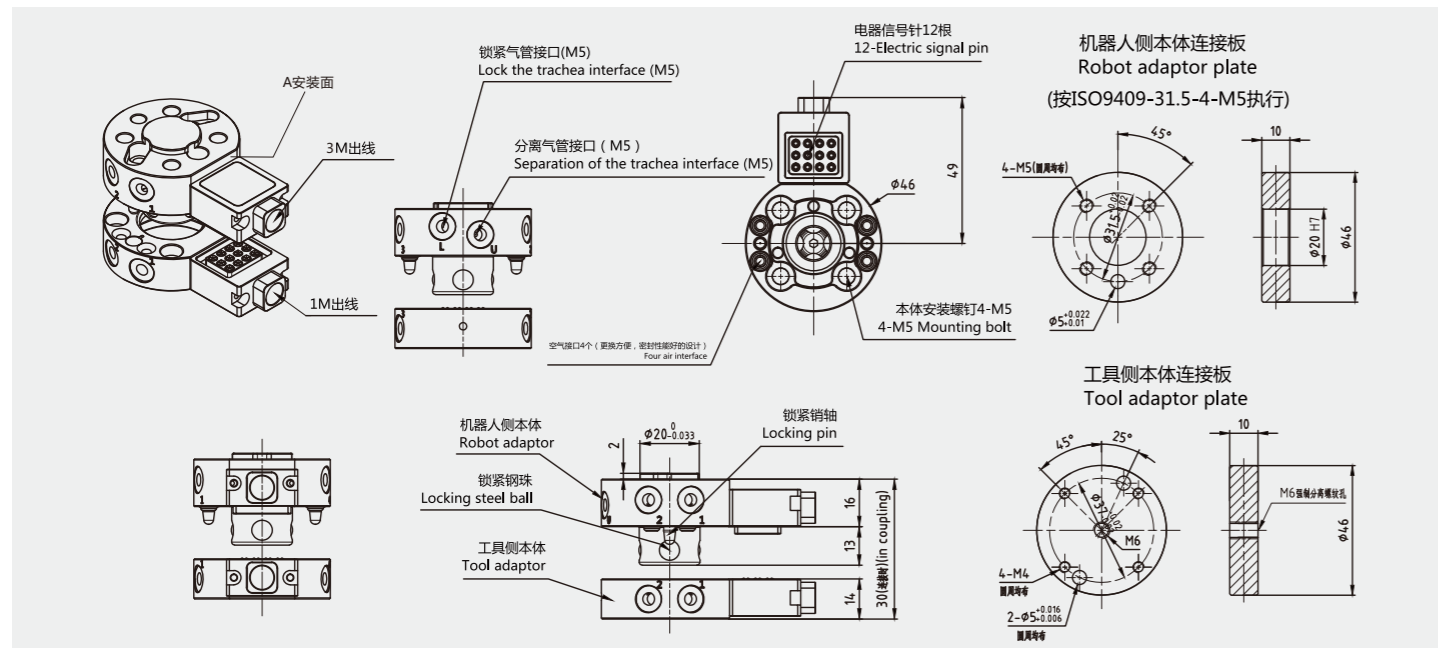
Model	Master plate	LTC-0005AM
	Tool plate	LTC-0005AT
Load	Payload capacity	5kg
	Locking force	770N
	Allowable static bending moment	13.2N·m
	Allowable static torque	18N·m
Size and precision	Dimension	Φ46mm
	Combined thickness	30mm
	Position repeatability	±0.015mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	0.11kg
	Tool side	0.04kg
Air connector	Pneumatic port	4 x M5
	Max pressure	0.8Mpa

Adapter module

Type	Photo	Model	Description	Interface No.	
Electrical module		Master side	LMO-S08AM	2A x 8pins with 3m cables in master side 1m cables in tool side	A
		Tool side	LMO-S08AT		
		Master side	LMO-S12AM	2A x 12pins with 3m cables in master side 1m cables in tool side	A
		Tool side	LMO-S12AT		

Dimensions



Model: LTC-0010E

- ▶ Recommended payload ≤ 10kg
- ▶ Locking force: 1193N Allowable static moment: 26.5N·m Allowable static torque: 35.7N·m
- ▶ With 4 x M5 air ports, 2 available module interfaces
- ▶ Suitable for assembly, handling
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

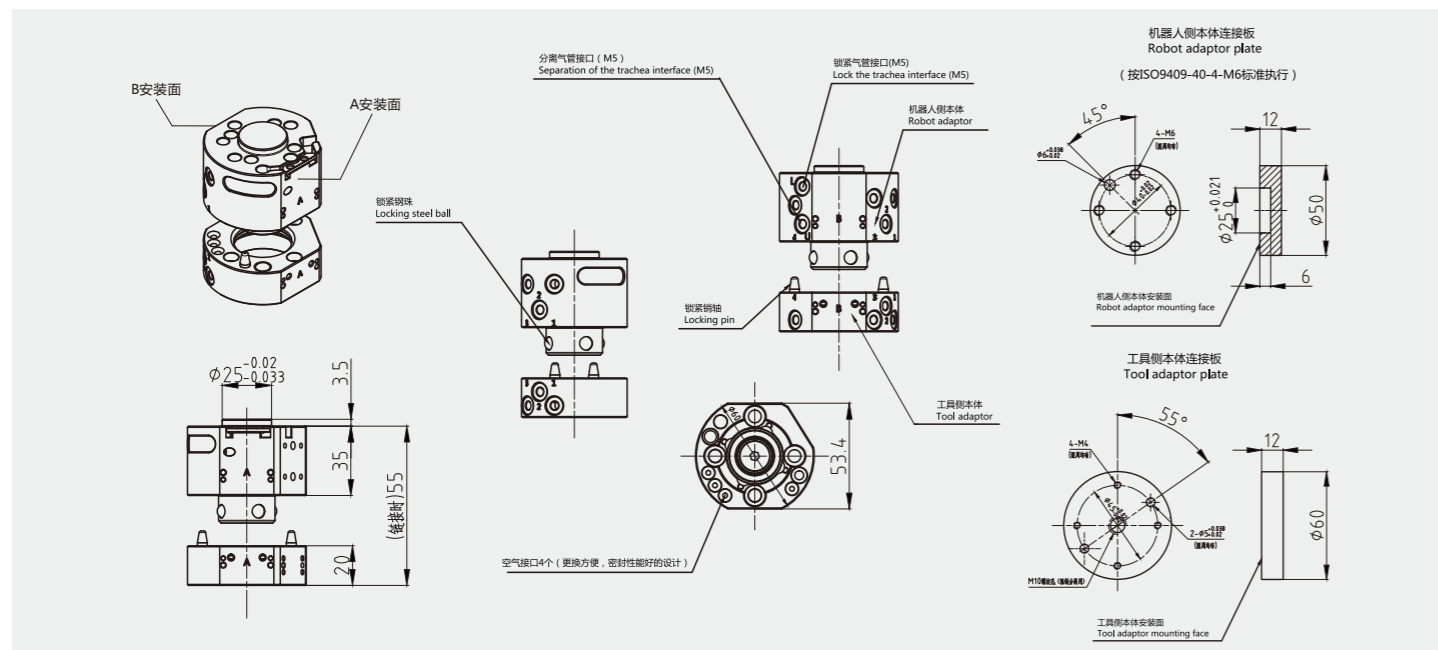


Specifications

Model	Master plate	LTC-0010EM
	Tool plate	LTC-0010ET
Load	Payload capacity	10kg
	Locking force	1193N
	Allowable static bending moment	26.5N·m
	Allowable static torque	35.7N·m
Size and precision	Dimension	Φ60mm
	Combined thickness	55mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	0.33kg
	Tool side	0.09kg
Air connector	Pneumatic port	4 x M5
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model		Description	Interface No.
Sensor		PNP	LMO-PL-01	Locking/Unlocking sensor and tool-in-position sensor 2m cables	A
		NPN	LMO-NL-01		
Electrical module		Master side	LMO-S08BM	2A x 8pins with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-S08BT		
		Master side	LMO-S14A-M	2A x 14pins with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-S14A-T		
		Master side	LMO-E04-M	10A x 4pins with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-E04-T		
		Master side	LMO-E04-S11-M	10A x 4pins, 2A x 11pins with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-E04-S11-T		
Industrial Bus module		Master side	LMO-S06-RJ45C-M	5A x 6pins RJ45 connector with 10m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-S06-RJ45C-T		
Servo module		Master side	LMO-SM20BM	12A x 4pins 10pins encoder with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-SM20BT		
High frequency module		Master side	LMO-U02DM	Signal channel 4A 1.4KV with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-U02DT		
		Master side	LMO-U04AM	Double channels 4A 1.4KV with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-U04AT		
Air&fluid module		Master side	LMO-GC04BM	4 x M5 Open air port	A, B
		Tool side	LMO-GC04BT		
		Master side	LMO-GC02BM	2 x PT1/8 Open air port	A, B
		Tool side	LMO-GC02BT		
		Master side	LMO-GC01EM	1 x PT1/4 Open air port	A, B
		Tool side	LMO-GC01ET		

Model: LTC-0010F

- ▶ Recommended payload ≤ 10kg
- ▶ Locking force: 1193N Allowable static moment: 26.5N-m Allowable static torque: 35.7N-m
- ▶ With 6 x M5 air ports, 2 available module interfaces
- ▶ Suitable for assembly, handling
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.

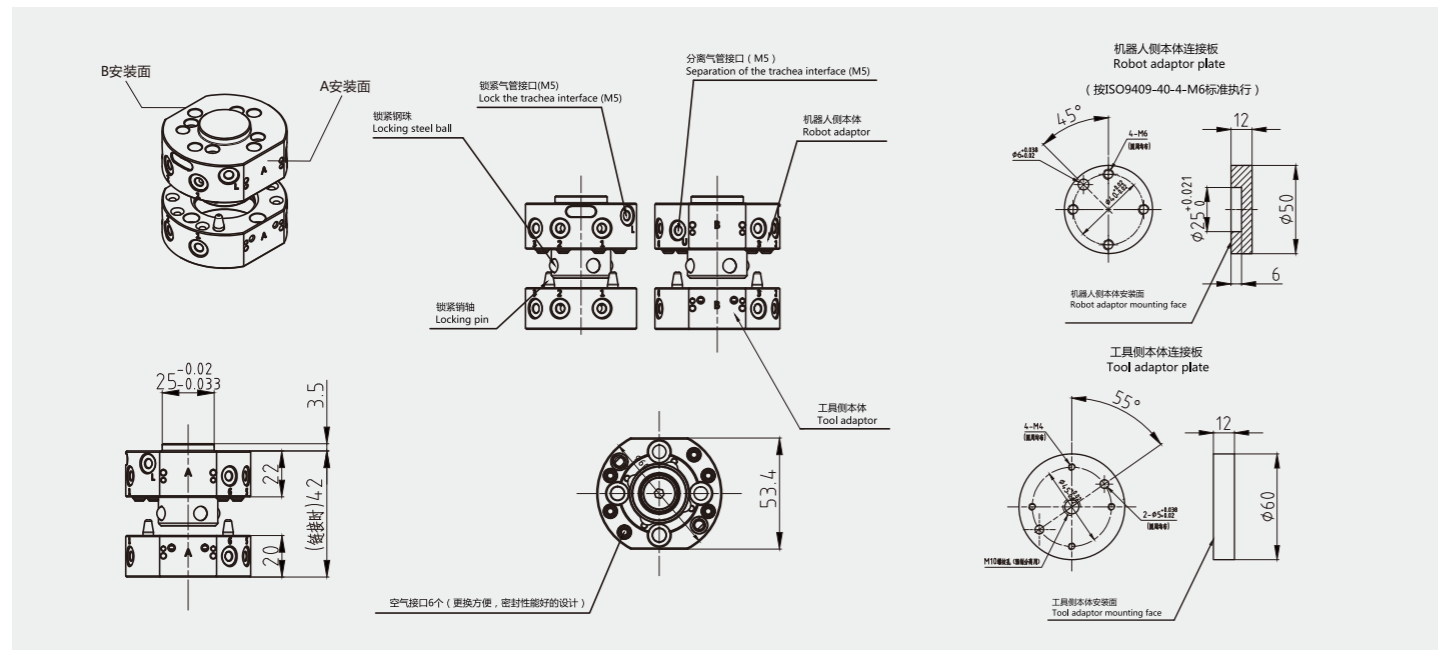


Specifications

Model	Master plate	LTC-0010FM
	Tool plate	LTC-0010FT
Load	Payload capacity	10kg
	Locking force	1193N
	Allowable static bending moment	26.5N-m
	Allowable static torque	35.7N-m
Size and precision	Dimension	Φ60mm
	Combined thickness	42mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	0.24kg
	Tool side	0.09kg
Air connector	Pneumatic port	6 x M5
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model		Description	Interface No.
Electrical module		Master side	LMO-S08BM	2A x 8pins with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-S08BT		
		Master side	LMO-S14A-M	2A x 14pins with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-S14A-T		
		Master side	LMO-E04-M	10A x 4pins with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-E04-T		
	Master side	LMO-E04-S11-M	10A x 4pins, 2A x 11pins with 5m cables in master side 1m cables in tool side	A, B	
	Tool side	LMO-E04-S11-T			
Industrial Bus module		Master side	LMO-S06-RJ45C-M	5A x 6pins RJ45 connector with 10m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-S06-RJ45C-T		
Servo module		Master side	LMO-SM20BM	12A x 4pins 10pins encoder with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-SM20BT		
High frequency module		Master side	LMO-U02DM	Signal channel 4A 1.4KV with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-U02DT		
		Master side	LMO-U04AM	Double channels 4A 1.4KV with 5m cables in master side 1m cables in tool side	A, B
		Tool side	LMO-U04AT		
Air&fluid module		Master side	LMO-GC04BM	4 x M5 Open air port	A, B
		Tool side	LMO-GC04BT		
		Master side	LMO-GC02BM	2 x PT1/8 Open air port	A, B
		Tool side	LMO-GC02BT		
		Master side	LMO-GC01EM	1 x PT1/4气路 Open air port	A, B
		Tool side	LMO-GC01ET		

Model: LTC-0020D

- ▶ Recommended payload ≤ 20kg
- ▶ Locking force: 2514N Allowable static moment: 58.6N·m Allowable static torque: 80N·m
- ▶ With 12 x M5 air ports, 4 available module interfaces
- ▶ Suitable for assembly, handling, Ultrasonic soldering
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

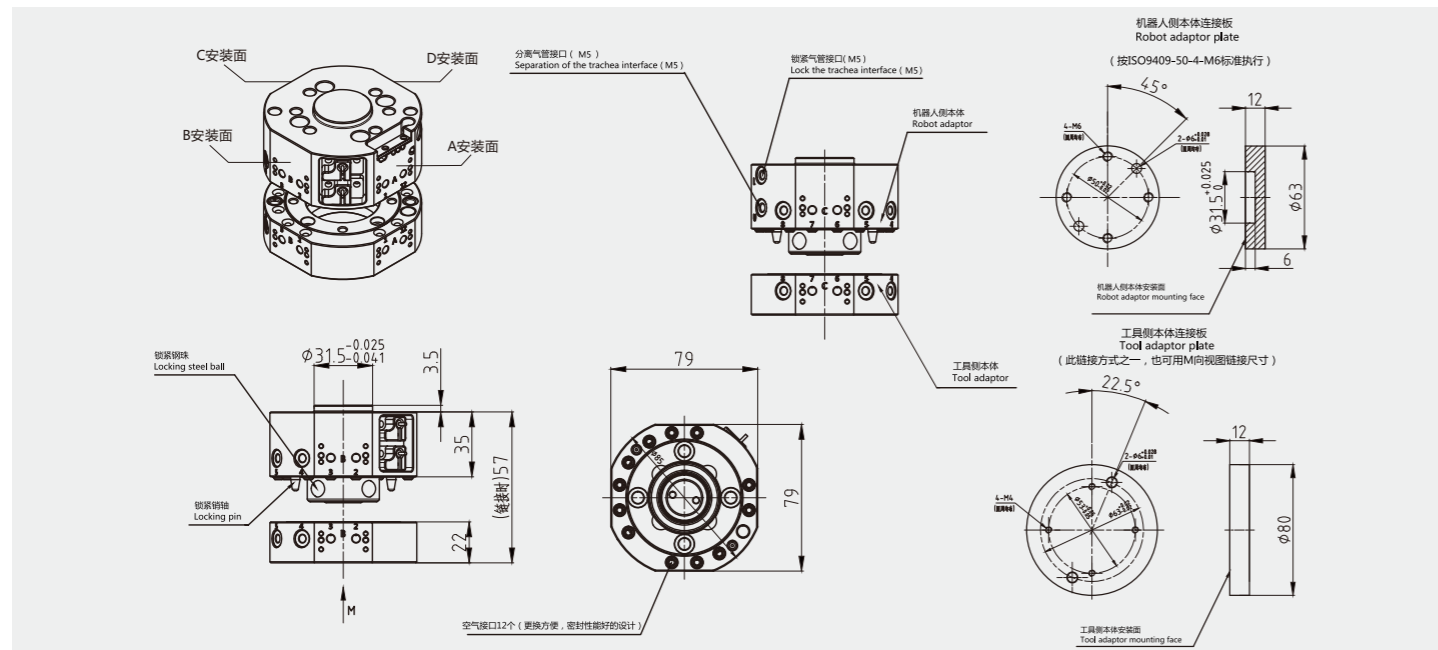


Specifications

Model	Master plate	LTC-0020DM
	Tool plate	LTC-0020DT
Load	Payload capacity	20kg
	Locking force	2514N
	Allowable static bending moment	58.6N·m
	Allowable static torque	80N·m
Size and precision	Dimension	Φ85mm
	Combined thickness	57mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	0.53kg
	Tool side	0.30kg
Air connector	Pneumatic port	12 x M5
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model		Description	Interface No.
Sensor		PNP	LMO-PL-01	Locking/Unlocking sensor and tool-in-position sensor 2m cables	A
		NPN	LMO-NL-01		
Electrical module		Master side	LMO-S08BM	2A x 8pins with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-S08BT		
		Master side	LMO-S14A-M	2A x 14pins with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-S14A-T		
		Master side	LMO-E04-M	10A x 4pins with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-E04-T		
		Master side	LMO-E04-S11-M	10A x 4pins, 2A x 11pins with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-E04-S11-T		
Industrial Bus module		Master side	LMO-S06-RJ45C-M	5A x 6pins RJ45 connector with 10m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-S06-RJ45C-T		
Servo module		Master side	LMO-SM20BM	12A x 4pins 10pins encoder with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-SM20BT		
High frequency module		Master side	LMO-U02DM	Signal channel 4A 1.4KV with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-U02DT		
		Master side	LMO-U04AM	Double channels 4A 1.4KV with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-U04AT		
Air&fluid module		Master side	LMO-GC04BM	4 x M5 Open air port	A, B C, D
		Tool side	LMO-GC04BT		
		Master side	LMO-GC02BM	2 x PT1/8 Open air port	A, B C, D
		Tool side	LMO-GC02BT		
		Master side	LMO-GC01EM	1 x PT1/4 Open air port	A, B C, D
		Tool side	LMO-GC01ET		

Model: LTC-0020E

- ▶ Recommended payload ≤ 20kg
- ▶ Locking force: 2514N Allowable static moment: 58.6N·m Allowable static torque: 80N·m
- ▶ With 12 x M5 air ports, 4 available module interfaces
- ▶ Suitable for assembly, handling, Ultrasonic soldering
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.

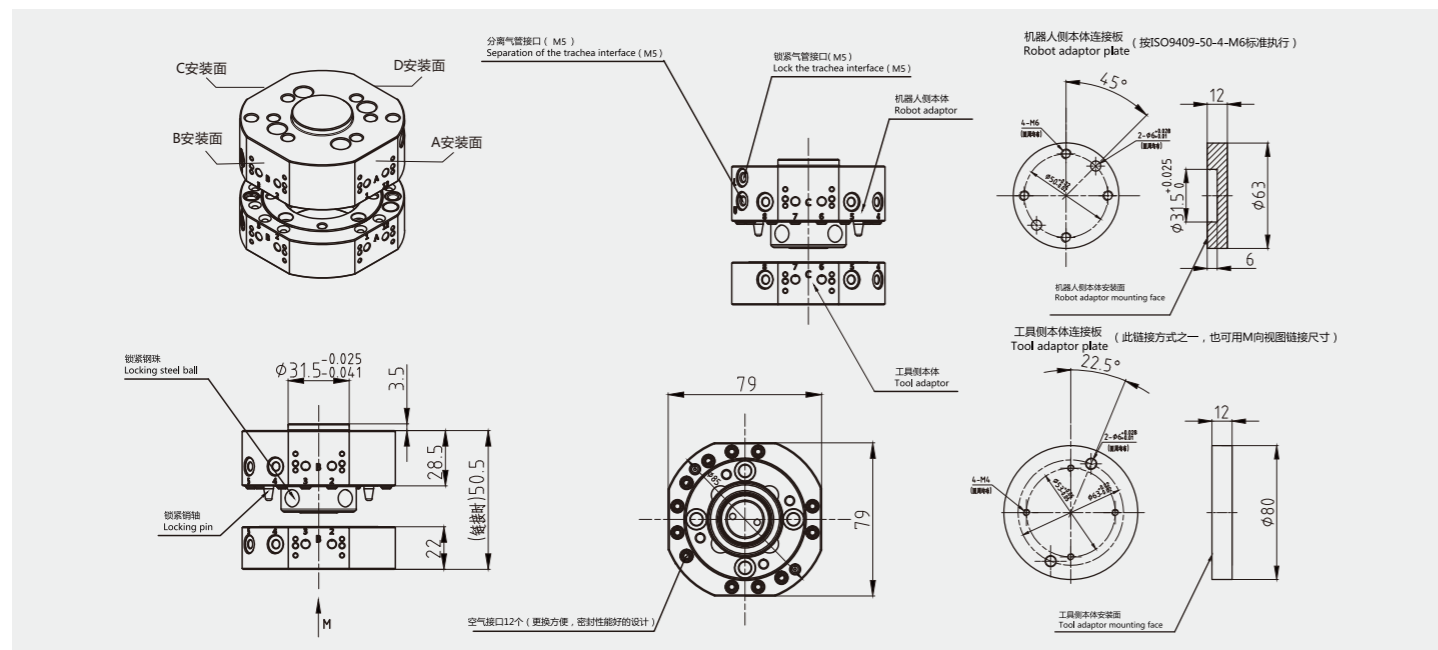


Specifications

Model	Master plate	LTC-0020EM
	Tool plate	LTC-0020ET
Load	Payload capacity	20kg
	Locking force	2514N
	Allowable static bending moment	58.6N·m
	Allowable static torque	80N·m
Size and precision	Dimension	Φ85mm
	Combined thickness	50.5mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	0.53kg
	Tool side	0.30kg
Air connector	Pneumatic port	12 x M5
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.	
Electrical module		Master side	LMO-S08BM	2A x 8pins with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-S08BT		
		Master side	LMO-S14A-M	2A x 14pins with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-S14A-T		
		Master side	LMO-E04-M	10A x 4pins with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-E04-T		
	Master side	LMO-E04-S11-M	10A x 4pins, 2A x 11pins with 5m cables in master side 1m cables in tool side	A, B C, D	
	Tool side	LMO-E04-S11-T			
Industrial Bus module		Master side	LMO-S06-RJ45C-M	5A x 6pins RJ45 connector with 10m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-S06-RJ45C-T		
Servo module		Master side	LMO-SM20BM	12A x 4pins 10pins encoder with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-SM20BT		
High frequency module		Master side	LMO-U02DM	Signal channel 4A 1.4KV with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-U02DT		
		Master side	LMO-U04AM	Double channels 4A 1.4KV with 5m cables in master side 1m cables in tool side	A, B C, D
		Tool side	LMO-U04AT		
Air&fluid module		Master side	LMO-GC04BM	4 x M5 Open air port	A, B C, D
		Tool side	LMO-GC04BT		
		Master side	LMO-GC02BM	2 x PT1/8 Open air port	A, B C, D
		Tool side	LMO-GC02BT		
		Master side	LMO-GC01EM	1 x PT1/4 Open air port	A, B C, D
		Tool side	LMO-GC01ET		

Model: LTC-0040A

- ▶ Recommended payload ≤ 40kg
- ▶ Locking force: 7497N Allowable static moment: 216N·m Allowable static torque: 228N·m
- ▶ With 8 x PT1/8 air ports, 2 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

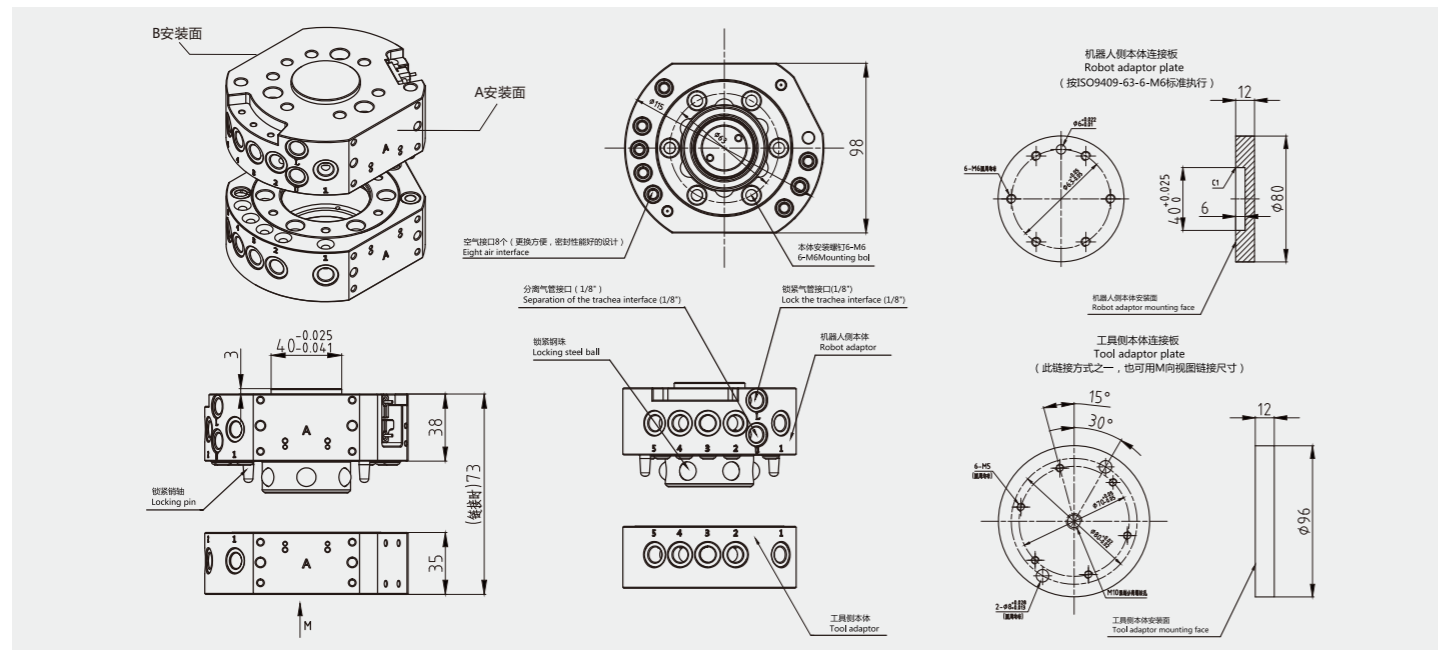


Specifications

Model	Master plate	LTC-0040AM
	Tool plate	LTC-0040AT
Load	Payload capacity	40kg
	Locking force	7497N
	Allowable static bending moment	216N·m
	Allowable static torque	228N·m
Size and precision	Dimension	Φ115mm
	Combined thickness	73mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	1.28kg
	Tool side	0.8kg
Air connector	Pneumatic port	8 x PT1/8
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P3-01	Locking/Unlocking sensor and tool-in-position sensor LED status visible	A
		NPN LMO-N3-01		
Electrical module		Master side LMO-E16-MS07A-AF01-M	5A x 7pins Tool-ID identify	A
		Tool side LMO-E16-MS07A-AF01-T		
		Master side LMO-E16-S15A-AF01-M	3A x 15pins Tool-ID identify	A
		Tool side LMO-E16-S15A-AF01-T		
		Master side LMO-E16-S22-AF01-M	3A x 22pins Tool-ID identify	A
		Tool side LMO-E16-S22-AF01-T		
		Master side LMO-E12-S19A-M	3A x 19pins	B
		Tool side LMO-E12-S19A-T		
		Master side LMO-E12-S26-M	3A x 26pins	B
		Tool side LMO-E12-S26-T		
		Master side LMO-E12-E06A-M	20A x 6pins	B
		Tool side LMO-E12-E06A-T		
	Master side LMO-E11-S05-BI01-AF01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A	
	Tool side LMO-E11-S05-BI01-AF01-T			
	Master side LMO-E11-BI01-AF01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A	
	Tool side LMO-E11-BI01-AF01-T			
	Master side LMO-E12-BI01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	B	
	Tool side LMO-E12-BI01-T			
	Master side LMO-E11-BI02-AF01-M	Devicenet Industrial Bus module M12 5pins Industrial bus interface	A	
	Tool side LMO-E11-BI02-AF01-T			
	Master side LMO-E11-BI03-AF01-M	CC-Link Industrial Bus module M12 4pins A-encoder Industrial bus interface	A	
	Tool side LMO-E11-BI03-AF01-T			

Type	Photo	Model	Description	Interface No.
		Master side LMO-E11-S07-BI03-AF01-M	CC-Link Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-E11-S07-BI03-AF01-T		
		Master side LMO-E12-BI05-M	Gigabit Ethernet Industrial Bus module M12 8pins X-encoder Industrial bus interface	B
		Tool side LMO-E12-BI05-T		
		Master side LMO-E12-BI15-M	Ethernet Industrial Bus module RJ45 connector	B
		Tool side LMO-E12-BI15-T		
		Master side LMO-E13-SM10B-M	4 x 12A power supply 2pins x 3A brake 10pins encoder signal	B
		Tool side LMO-E13-SM10B-T		
		Master side LMO-E14-U02A-M	5A 1.4KV Single channel HF module	B
		Tool side LMO-E14-U02A-T		
		Master side LMO-E13-U02A-U02A-M	5A 1.4KV Dual-channel HF module	B
		Tool side LMO-E13-U02A-U02A-T		
		Master side LMO-GC02AM	2 x PT3/8 Open air port	B
		Tool side LMO-GC02AT		
		Master side LMO-GC06AM	6 x PT1/8 Open air port	B
		Tool side LMO-GC06AT		
		Master side LMO-GC10AM	10 x PT1/8 Open air port	B
		Tool side LMO-GC10AT		
		Master side LMO-GS01AM	1 x PT3/8 Self-sealing air port	B
		Tool side LMO-GS01AT		
		Master side LMO-L01BM	1 x PT1/2 Self-sealing air port or water path	B
		Tool side LMO-L01BT		

Model: LTC-0070A

- ▶ Recommended payload ≤ 70kg
- ▶ Locking force: 9973N Allowable static moment: 328.5N·m Allowable static torque: 451N·m
- ▶ With 8 x PT1/8 air ports, 2 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

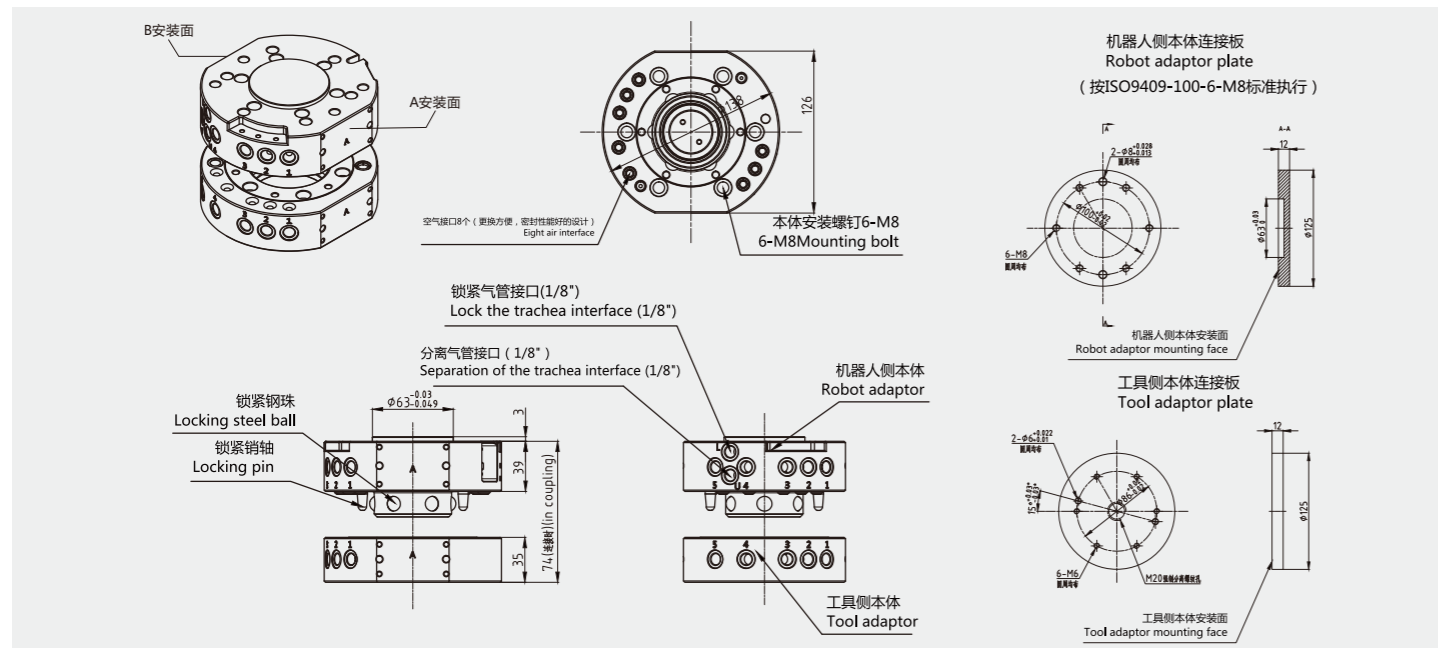


Specifications

Model	Master plate	LTC-0070AM
	Tool plate	LTC-0070AT
Load	Payload capacity	70kg
	Locking force	9973N
	Allowable static bending moment	328.5N·m
	Allowable static torque	451N·m
Size and precision	Dimension	Φ138mm
	Combined thickness	74mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	1.83kg
	Tool side	1.14kg
Air connector	Pneumatic port	8 x PT1/8
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P3-01	Locking/Unlocking sensor and tool-in-position sensor LED status visible	A
		NPN LMO-N3-01		
Electrical module		Master side LMO-E16-MS07A-AF01-M	5A x 7pins Tool-ID identify	A
		Tool side LMO-E16-MS07A-AF01-T		
		Master side LMO-E16-S15A-AF01-M	3A x 15pins Tool-ID identify	A
		Tool side LMO-E16-S15A-AF01-T		
		Master side LMO-E16-S22-AF01-M	3A x 22pins Tool-ID identify	A
		Tool side LMO-E16-S22-AF01-T		
		Master side LMO-E12-S19A-M	3A x 19pins	B
		Tool side LMO-E12-S19A-T		
		Master side LMO-E12-S26-M	3A x 26pins	B
		Tool side LMO-E12-S26-T		
		Master side LMO-E12-E06A-M	20A x 6pins	B
		Tool side LMO-E12-E06A-T		
	Master side LMO-E11-S05-BI01-AF01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A	
	Tool side LMO-E11-S05-BI01-AF01-T			
	Master side LMO-E11-BI01-AF01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A	
	Tool side LMO-E11-BI01-AF01-T			
	Master side LMO-E12-BI01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	B	
	Tool side LMO-E12-BI01-T			
	Master side LMO-E11-BI02-AF01-M	Devicenet Industrial Bus module M12 5pins Industrial bus interface	A	
	Tool side LMO-E11-BI02-AF01-T			
	Master side LMO-E11-BI03-AF01-M	CC-Link Industrial Bus module M12 4pins A-encoder Industrial bus interface	A	
	Tool side LMO-E11-BI03-AF01-T			

Type	Photo	Model	Description	Interface No.
Industrial Bus module		Master side LMO-E11-S07-BI03-AF01-M	CC-Link Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-E11-S07-BI03-AF01-T		
Industrial Bus module		Master side LMO-E12-BI05-M	Gigabit Ethernet Industrial Bus module M12 8pins X-encoder Industrial bus interface	B
		Tool side LMO-E12-BI05-T		
Industrial Bus module		Master side LMO-E12-BI15-M	Ethernet Industrial Bus module RJ45 connector	B
		Tool side LMO-E12-BI15-T		
Servo module		Master side LMO-E13-SM10B-M	4 x 12A power supply 2pins x 3A brake 10pins encoder signal	B
		Tool side LMO-E13-SM10B-T		
High frequency module		Master side LMO-E14-U02A-M	5A 1.4KV Single channel HF module	B
		Tool side LMO-E14-U02A-T		
High frequency module		Master side LMO-E13-U02A-U02A-M	5A 1.4KV Dual-channel HF module	B
		Tool side LMO-E13-U02A-U02A-T		
Air&fluid module		Master side LMO-GC02AM	2 x PT3/8 Open air port	B
		Tool side LMO-GC02AT		
Air&fluid module		Master side LMO-GC06AM	6 x PT1/8 Open air port	B
		Tool side LMO-GC06AT		
Air&fluid module		Master side LMO-GC10AM	10 x PT1/8 Open air port	B
		Tool side LMO-GC10AT		
Air&fluid module		Master side LMO-GS01AM	1 x PT3/8 Self-sealing air port	B
		Tool side LMO-GS01AT		
Air&fluid module		Master side LMO-GS03AM	3 x PT3/8 Self-sealing air port	B
		Tool side LMO-GS03AT		
Air&fluid module		Master side LMO-L01BM	1 x PT1/2 Self-sealing air port or water path	B
		Tool side LMO-L01BT		

Model: LTC-0070B

- ▶ Recommended payload ≤ 70kg
- ▶ Locking force: 9973N Allowable static moment: 328.5N·m Allowable static torque: 451N·m
- ▶ With 6 x PT1/8 air ports, 4 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

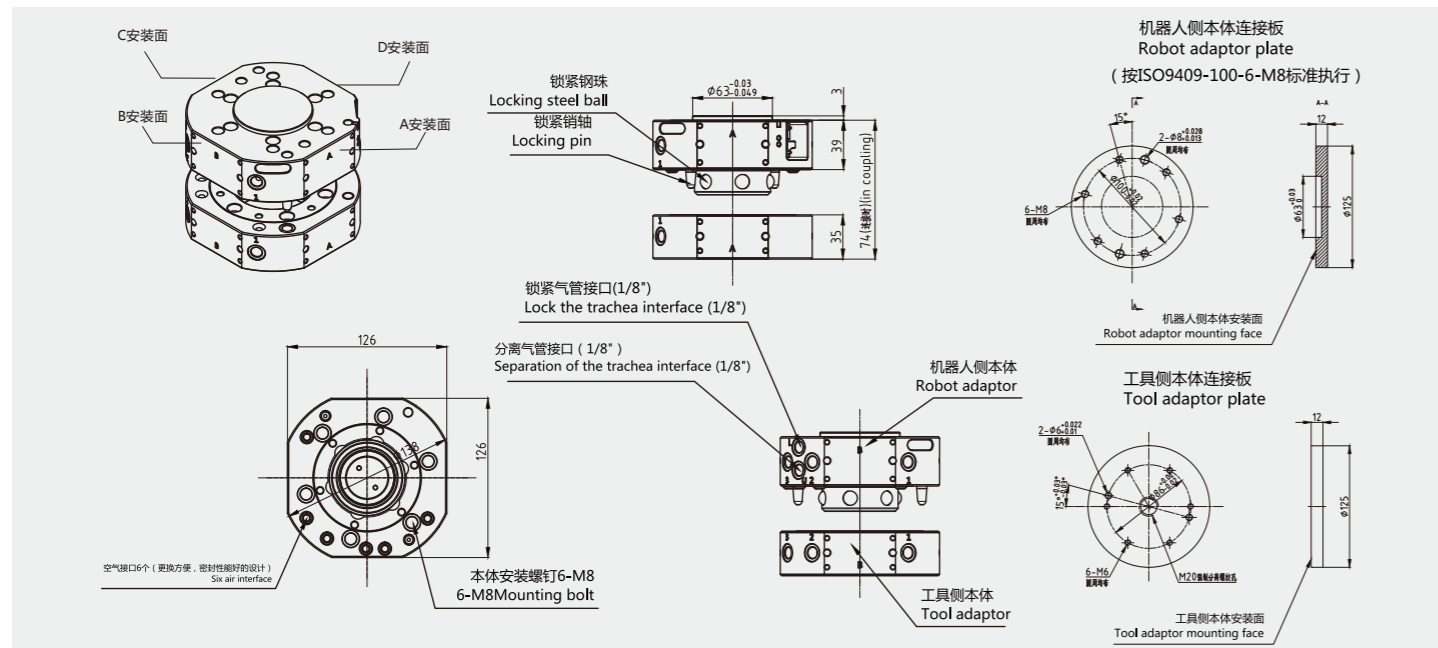


Specifications

Model	Master plate	LTC-0070BM
	Tool plate	LTC-0070BT
Load	Payload capacity	70kg
	Locking force	9973N
	Allowable static bending moment	328.5N·m
	Allowable static torque	451N·m
Size and precision	Dimension	Φ138mm
	Combined thickness	74mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	1.83kg
	Tool side	1.14kg
Air connector	Pneumatic port	6 x PT1/8
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P3-01	Locking/Unlocking sensor and tool-in-position sensor LED status visible	A
		NPN LMO-N3-01		
Electrical module		Master side LMO-E16-MS07A-AF01-M	5A x 7pins Tool-ID identify	A
		Tool side LMO-E16-MS07A-AF01-T		
Electrical module		Master side LMO-E16-S15A-AF01-M	3A x 15pins Tool-ID identify	A
		Tool side LMO-E16-S15A-AF01-T		
Electrical module		Master side LMO-E16-S22-AF01-M	3A x 22pins Tool-ID identify	A
		Tool side LMO-E16-S22-AF01-T		
Electrical module		Master side LMO-E12-S19A-M	3A x 19pins	B, C, D
		Tool side LMO-E12-S19A-T		
Electrical module		Master side LMO-E12-S26-M	3A x 26pins	B, C, D
		Tool side LMO-E12-S26-T		
Electrical module		Master side LMO-E12-E06A-M	20A x 6pins	B, C, D
		Tool side LMO-E12-E06A-T		
Industrial Bus module		Master side LMO-E11-S05-BI01-AF01-M	Ethernet, EtherNet/IP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A
		Tool side LMO-E11-S05-BI01-AF01-T		
Industrial Bus module		Master side LMO-E11-BI01-AF01-M	Ethernet, EtherNet/IP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A
		Tool side LMO-E11-BI01-AF01-T		
Industrial Bus module		Master side LMO-E12-BI01-M	Ethernet, EtherNet/IP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	B, C, D
		Tool side LMO-E12-BI01-T		
Industrial Bus module		Master side LMO-E11-BI02-AF01-M	Devicenet Industrial Bus module M12 5pins Industrial bus interface	A
		Tool side LMO-E11-BI02-AF01-T		
Industrial Bus module		Master side LMO-E11-BI03-AF01-M	CC-Link Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-E11-BI03-AF01-T		

Type	Photo	Model	Description	Interface No.
Industrial Bus module		Master side LMO-E11-S07-BI03-AF01-M	CC-Link Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-E11-S07-BI03-AF01-T		
Industrial Bus module		Master side LMO-E12-BI05-M	Gigabit Ethernet Industrial Bus module M12 8pins X-encoder Industrial bus interface	B, C, D
		Tool side LMO-E12-BI05-T		
Industrial Bus module		Master side LMO-E12-BI15-M	Ethernet Industrial Bus module RJ45 connector	B, C, D
		Tool side LMO-E12-BI15-T		
Servo module		Master side LMO-E13-SM10B-M	4 x 12A power supply 2pins x 3A brake 10pins encoder signal	B, C, D
		Tool side LMO-E13-SM10B-T		
High frequency module		Master side LMO-E14-U02A-M	5A 1.4KV Single channel HF module	B, C, D
		Tool side LMO-E14-U02A-T		
High frequency module		Master side LMO-E13-U02A-U02A-M	5A 1.4KV Dual-channel HF module	B, C, D
		Tool side LMO-E13-U02A-U02A-T		
Air&fluid module		Master side LMO-GC02AM	2 x PT3/8 Open air port	B, C, D
		Tool side LMO-GC02AT		
Air&fluid module		Master side LMO-GC06AM	6 x PT1/8 Open air port	B, C, D
		Tool side LMO-GC06AT		
Air&fluid module		Master side LMO-GC10AM	10 x PT1/8 Open air port	B, C, D
		Tool side LMO-GC10AT		
Air&fluid module		Master side LMO-GS01AM	1 x PT3/8 Self-sealing air port	B, C, D
		Tool side LMO-GS01AT		
Air&fluid module		Master side LMO-GS03AM	3 x PT3/8 Self-sealing air port	B, C, D
		Tool side LMO-GS03AT		
Air&fluid module		Master side LMO-L01BM	1 x PT1/2 Self-sealing air port or water path	B, C, D
		Tool side LMO-L01BT		

Model: LTC-0120C

- ▶ Recommended payload ≤ 120kg
- ▶ Locking force: 15407N Allowable static moment: 842N·m Allowable static torque: 1200N·m
- ▶ With 10 x PT1/8 air ports, 2 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

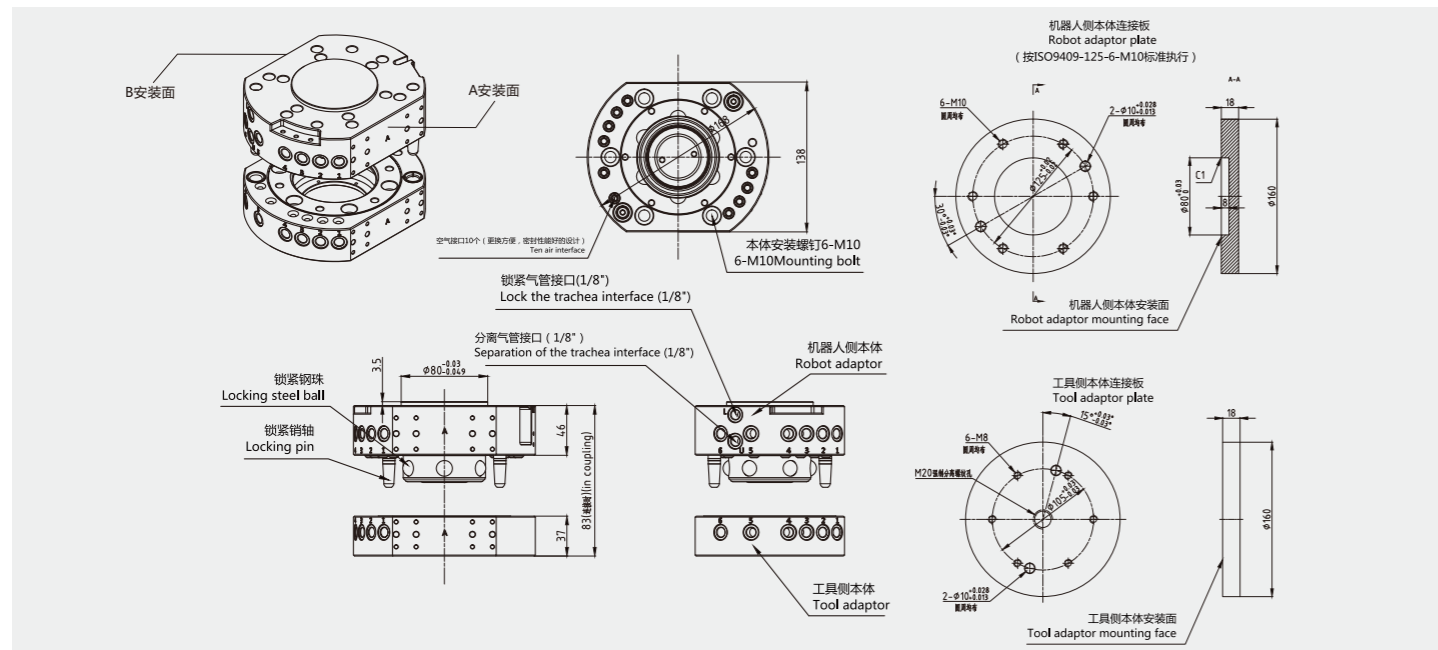


Specifications

Model	Master plate	LTC-0120CM
	Tool plate	LTC-0120CT
Load	Payload capacity	120kg
	Locking force	15407N
	Allowable static bending moment	842N·m
	Allowable static torque	1200N·m
Size and precision	Dimension	Φ168mm
	Combined thickness	83mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	2.28kg
	Tool side	1.58kg
Air connector	Pneumatic port	10 x PT1/8
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P3-01	Locking/Unlocking sensor and tool-in-position sensor LED status visible	A
		NPN LMO-N3-01		
Electrical module		Master side LMO-E16-MS07A-AF01-M	5A x 7pins Tool-ID identify	A
		Tool side LMO-E16-MS07A-AF01-T		
		Master side LMO-F21-MS15A-AF01-M	5A x 15pins Tool-ID identify	A
		Tool side LMO-F21-MS15A-AF01-T		
		Master side LMO-F21-S34A-AF01-M	5A x 34pins Tool-ID identify	A
		Tool side LMO-F21-S34A-AF01-T		
		Master side LMO-E12-S19A-M	3A x 19pins	B
		Tool side LMO-E12-S19A-T		
		Master side LMO-F22-S38A-M	3A x 38pins	B
		Tool side LMO-F22-S38A-T		
		Master side LMO-F21-E06A-S15-AF01-M	20A x 6pins 3A x 15pins Tool-ID identify	A
		Tool side LMO-F21-E06A-S15-AF01-T		
	Master side LMO-E12-E06A-M	20A x 16pins	B	
	Tool side LMO-E12-E06A-T			
	Master side LMO-F22-E06A-E06A-M	20A x 12pins	B	
	Tool side LMO-F22-E06A-E06A-T			
Industrial Bus module		Master side LMO-F21-S13-BI01-AF01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI01-AF01-T		
		Master side LMO-F21-S13-BI02-AF01-M	Devicenet Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI02-AF01-T		
		Master side LMO-E12-BI15-M	Ethernet Industrial Bus module RJ45 connector	B
		Tool side LMO-E12-BI15-T		

Type	Photo	Model	Description	Interface No.
Servo module		Master side LMO-F22-SM10C-M	20A x 4pins 2pins brake 8pins encoder signal	B
		Tool side LMO-F22-SM10C-T		
High frequency module		Master side LMO-E14-U02A-M	5A 1.4KV Single channel HF module	B
		Tool side LMO-E14-U02A-T		
		Master side LMO-E13-U02A-U02A-M	5A 1.4KV Dual-channel HF module	B
		Tool side LMO-E13-U02A-U02A-T		
Air&fluid module		Master side LMO-GC02AM	2 x PT3/8 Open air port	B
		Tool side LMO-GC02AT		
		Master side LMO-GC04AM	4 x PT3/8 Open air port	B
		Tool side LMO-GC04AT		
		Master side LMO-GC06AM	6 x PT1/8 Open air port	B
		Tool side LMO-GC06AT		
		Master side LMO-GC10AM	10 x PT1/8 Open air port	B
		Tool side LMO-GC10AT		
		Master side LMO-GS01AM	1 x PT3/8 Self-sealing air port	B
		Tool side LMO-GS01AT		
	Master side LMO-GS02BM	2 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS02BT			
	Master side LMO-GS04AM	4 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS04AT			
	Master side LMO-L01BM	1 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L01BT			
	Master side LMO-L02BM	2 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L02BT			

Model: LTC-0120D

- ▶ Recommended payload ≤ 120kg
- ▶ Locking force: 15407N Allowable static moment: 842N·m Allowable static torque: 1200N·m
- ▶ With 8 x PT1/8 air ports, 4 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

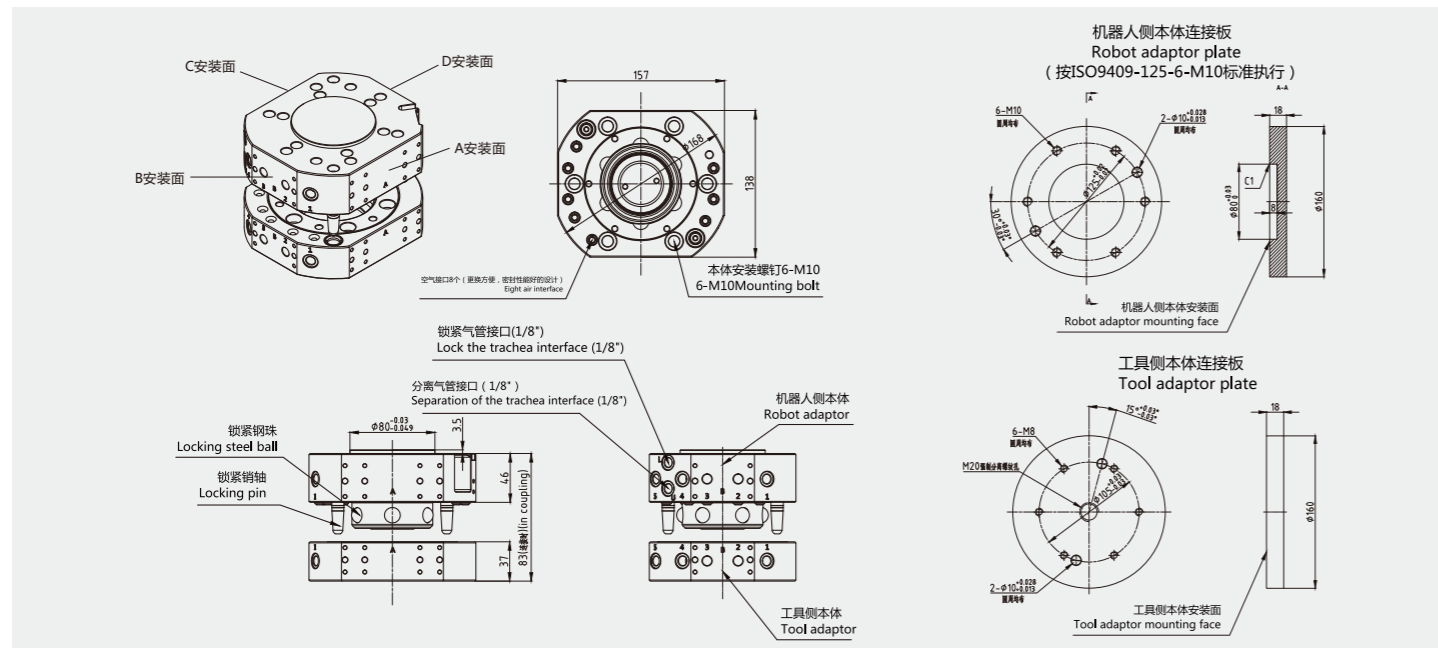


Specifications

Model	Master plate	LTC-0120DM
	Tool plate	LTC-0120DT
Load	Payload capacity	120kg
	Locking force	15407N
	Allowable static bending moment	842N·m
	Allowable static torque	1200N·m
Size and precision	Dimension	Φ168mm
	Combined thickness	83mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	2.28kg
	Tool side	1.58kg
Air connector	Pneumatic port	8 x PT1/8
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P3-01	Locking/Unlocking sensor and tool-in-position sensor LED status visible	A
		NPN LMO-N3-01		
Electrical module		Master side LMO-E16-MS07A-AF01-M	5A x 7pins Tool-ID identify	A
		Tool side LMO-E16-MS07A-AF01-T		
		Master side LMO-F21-MS15A-AF01-M	5A x 15pins Tool-ID identify	A
		Tool side LMO-F21-MS15A-AF01-T		
		Master side LMO-F21-S34A-AF01-M	5A x 34pins Tool-ID identify	A
		Tool side LMO-F21-S34A-AF01-T		
		Master side LMO-E12-S19A-M	3A x 19pins	B, C, D
		Tool side LMO-E12-S19A-T		
		Master side LMO-F22-S38A-M	3A x 38pins	B, C, D
		Tool side LMO-F22-S38A-T		
		Master side LMO-F21-E06A-S15-AF01-M	20A x 6pins 3A x 15pins Tool-ID identify	A
		Tool side LMO-F21-E06A-S15-AF01-T		
	Master side LMO-E12-E06A-M	20A x 6pins	B, C, D	
	Tool side LMO-E12-E06A-T			
	Master side LMO-F22-E06A-E06A-M	20A x 12pins	B, C, D	
	Tool side LMO-F22-E06A-E06A-T			
Industrial Bus module		Master side LMO-F21-S13-BI01-AF01-M	Ethernet, EtherNet/IP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI01-AF01-T		
		Master side LMO-F21-S13-BI02-AF01-M	Devicenet Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI02-AF01-T		
		Master side LMO-E12-BI15-M	Ethernet Industrial Bus module RJ45 connector	B, C, D
		Tool side LMO-E12-BI15-T		

Type	Photo	Model	Description	Interface No.
Servo module		Master side LMO-F22-SM10C-M	20A x 4pins 2pins brake 8pins encoder signal	B, C, D
		Tool side LMO-F22-SM10C-T		
High frequency module		Master side LMO-E14-U02A-M	5A 1.4KV Single channel HF module	B, C, D
		Tool side LMO-E14-U02A-T		
		Master side LMO-E13-U02A-U02A-M	5A 1.4KV Dual-channel HF module	B, C, D
		Tool side LMO-E13-U02A-U02A-T		
Air&fluid module		Master side LMO-GC02AM	2 x PT3/8 Open air port	B, C, D
		Tool side LMO-GC02AT		
		Master side LMO-GC04AM	4 x PT3/8 Open air port	B, C, D
		Tool side LMO-GC04AT		
		Master side LMO-GC06AM	6 x PT1/8 Open air port	B, C, D
		Tool side LMO-GC06AT		
		Master side LMO-GC10AM	10 x PT1/8 Open air port	B, C, D
		Tool side LMO-GC10AT		
		Master side LMO-GS01AM	1 x PT3/8 Self-sealing air port	B, C, D
		Tool side LMO-GS01AT		
		Master side LMO-GS02BM	2 x PT3/8 Self-sealing air port	B, C, D
		Tool side LMO-GS02BT		
	Master side LMO-GS04AM	4 x PT3/8 Self-sealing air port	B, C, D	
	Tool side LMO-GS04AT			
	Master side LMO-L01BM	1 x PT1/2 Self-sealing air port or water path	B, C, D	
	Tool side LMO-L01BT			
	Master side LMO-L02BM	2 x PT1/2 Self-sealing air port or water path	B, C, D	
	Tool side LMO-L02BT			

Model: LTC-0200D

- ▶ Recommended payload ≤ 230kg
- ▶ Locking force: 31458N Allowable static moment: 2260N·m Allowable static torque: 2245N·m
- ▶ With 9 x PT3/8 air ports, 2 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

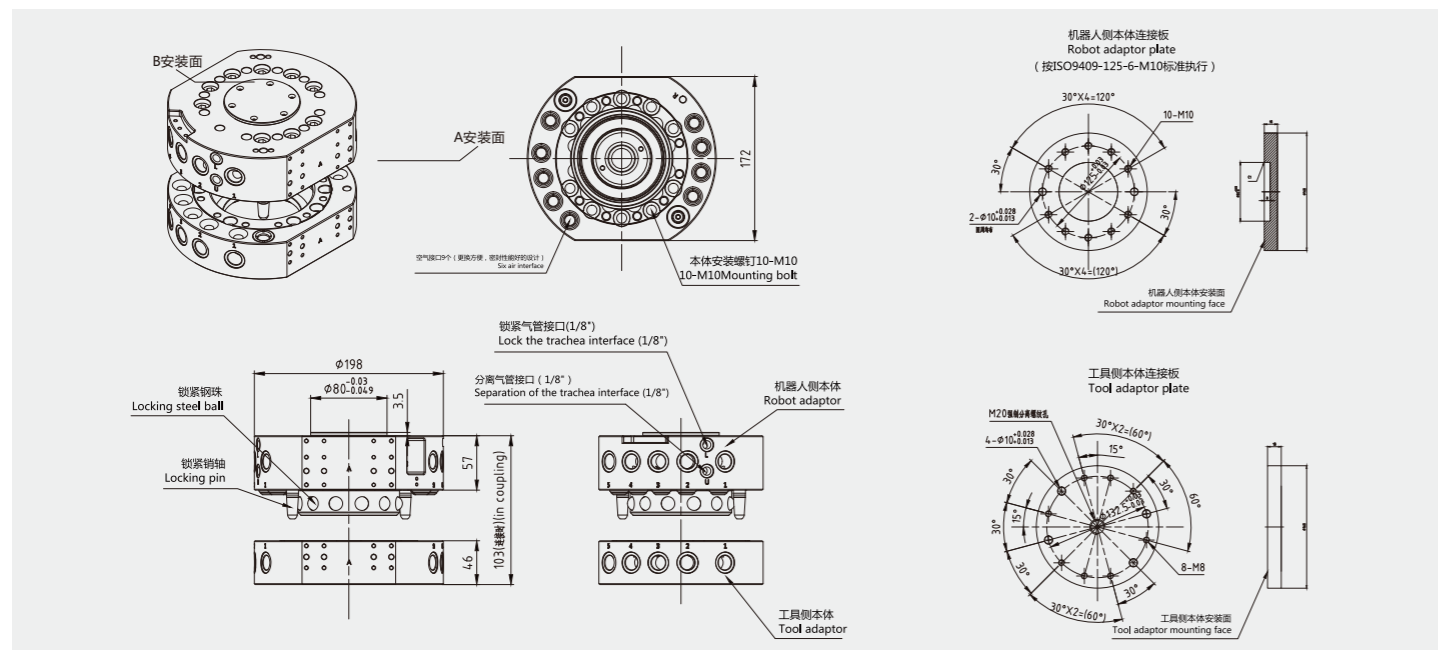


Specifications

Model	Master plate	LTC-0200DM
	Tool plate	LTC-0200DT
Load	Payload capacity	230kg
	Locking force	31458N
	Allowable static bending moment	2260N·m
	Allowable static torque	2245N·m
Size and precision	Dimension	Φ198mm
	Combined thickness	103mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0~60°C
	Humidity	0~95%
Weight	Master side	5.9kg
	Tool side	2.97kg
Air connector	Pneumatic port	9 x PT3/8
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P3-01	Locking/Unlocking sensor and tool-in-position sensor LED status visible	A
		NPN LMO-N3-01		
Electrical module		Master side LMO-E16-MS07A-AF01-M	5A x 7pins Tool-ID identify	A
		Tool side LMO-E16-MS07A-AF01-T		
		Master side LMO-F21-MS15A-AF01-M	5A x 15pins Tool-ID identify	A
		Tool side LMO-F21-MS15A-AF01-T		
		Master side LMO-F21-S34A-AF01-M	5A x 34pins Tool-ID identify	A
		Tool side LMO-F21-S34A-AF01-T		
		Master side LMO-E12-S19A-M	3A x 19pins	B
		Tool side LMO-E12-S19A-T		
		Master side LMO-F22-S38A-M	3A x 38pins	B
		Tool side LMO-F22-S38A-T		
		Master side LMO-F21-E06A-S15-AF01-M	20A x 6pins 3A x 15pins Tool-ID identify	A
		Tool side LMO-F21-E06A-S15-AF01-T		
	Master side LMO-E12-E06A-M	20A x 6pins	B	
	Tool side LMO-E12-E06A-T			
	Master side LMO-F22-E06A-E06A-M	20A x 12pins	B	
	Tool side LMO-F22-E06A-E06A-T			
Industrial Bus module		Master side LMO-F21-S13-BI01-AF01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI01-AF01-T		
		Master side LMO-F21-S13-BI02-AF01-M	Devicenet Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI02-AF01-T		
		Master side LMO-E12-BI15-M	Ethernet Industrial Bus module RJ45 connector	B
		Tool side LMO-E12-BI15-T		

Type	Photo	Model	Description	Interface No.
Servo module		Master side LMO-F22-SM10C-M	20A x 4pins 2pins brake 8pins encoder signal	B
		Tool side LMO-F22-SM10C-T		
High frequency module		Master side LMO-E14-U02A-M	5A 1.4KV Single channel HF module	B
		Tool side LMO-E14-U02A-T		
		Master side LMO-E13-U02A-U02A-M	5A 1.4KV Dual-channel HF module	B
		Tool side LMO-E13-U02A-U02A-T		
Air&fluid module		Master side LMO-GC02AM	2 x PT3/8 Open air port	B
		Tool side LMO-GC02AT		
		Master side LMO-GC04AM	4 x PT3/8 Open air port	B
		Tool side LMO-GC04AT		
		Master side LMO-GC06AM	6 x PT1/8 Open air port	B
		Tool side LMO-GC06AT		
		Master side LMO-GC10AM	10 x PT1/8 Open air port	B
		Tool side LMO-GC10AT		
		Master side LMO-GS01AM	1 x PT3/8 Self-sealing air port	B
		Tool side LMO-GS01AT		
	Master side LMO-GS02BM	2 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS02BT			
	Master side LMO-GS04AM	4 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS04AT			
	Master side LMO-L01BM	1 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L01BT			
	Master side LMO-L02BM	2 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L02BT			

Model: LTC-0200E

- ▶ Recommended payload ≤ 230kg
- ▶ Locking force: 31458N Allowable static moment: 2260N·m Allowable static torque: 2245N·m
- ▶ With 18 x PT1/8 air ports, 2 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

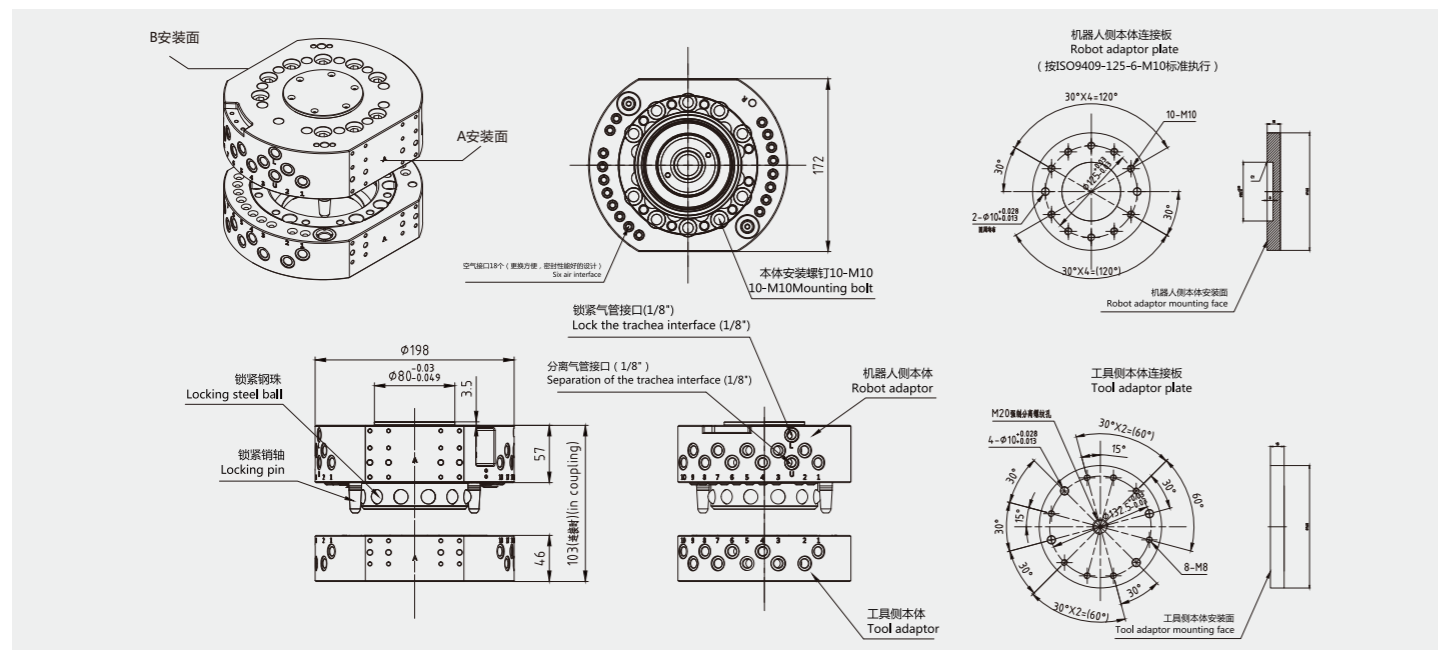


Specifications

Model	Master plate	LTC-0200EM
	Tool plate	LTC-0200ET
Load	Payload capacity	230kg
	Locking force	31458N
	Allowable static bending moment	2260N·m
	Allowable static torque	2245N·m
Size and precision	Dimension	Φ198mm
	Combined thickness	103mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	5.9kg
	Tool side	2.97kg
Air connector	Pneumatic port	18x PT1/8
	Max pressure	0.8Mpa

Dimensions



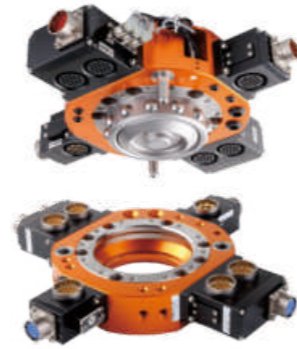
Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P3-01	Locking/Unlocking sensor and tool-in-position sensor LED status visible	A
		NPN LMO-N3-01		
Electrical module		Master side LMO-E16-MS07A-AF01-M	5A x 7pins Tool-ID identify	A
		Tool side LMO-E16-MS07A-AF01-T		
		Master side LMO-F21-MS15A-AF01-M	5A x 15pins Tool-ID identify	A
		Tool side LMO-F21-MS15A-AF01-T		
		Master side LMO-F21-S34A-AF01-M	5A x 34pins Tool-ID identify	A
		Tool side LMO-F21-S34A-AF01-T		
		Master side LMO-E12-S19A-M	3A x 19pins	B
		Tool side LMO-E12-S19A-T		
		Master side LMO-F22-S38A-M	3A x 38pins	B
		Tool side LMO-F22-S38A-T		
		Master side LMO-F21-E06A-S15-AF01-M	20A x 6pins 3A x 15pins Tool-ID identify	A
		Tool side LMO-F21-E06A-S15-AF01-T		
	Master side LMO-E12-E06A-M	20A x 6pins	B	
	Tool side LMO-E12-E06A-T			
	Master side LMO-F22-E06A-E06A-M	20A x 12pins	B	
	Tool side LMO-F22-E06A-E06A-T			
Industrial Bus module		Master side LMO-F21-S13-BI01-AF01-M	Ethernet, EtherNet/IP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI01-AF01-T		
		Master side LMO-F21-S13-BI02-AF01-M	Devicenet Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI02-AF01-T		
		Master side LMO-E12-BI15-M	Ethernet Industrial Bus module RJ45 connector	B
		Tool side LMO-E12-BI15-T		

Type	Photo	Model	Description	Interface No.
Servo module		Master side LMO-F22-SM10C-M	20A x 4pins 2pins brake 8pins encoder signal	B
		Tool side LMO-F22-SM10C-T		
High frequency module		Master side LMO-E14-U02A-M	5A 1.4KV Single channel HF module	B
		Tool side LMO-E14-U02A-T		
		Master side LMO-E13-U02A-U02A-M	5A 1.4KV Dual-channel HF module	B
		Tool side LMO-E13-U02A-U02A-T		
Air&fluid module		Master side LMO-GC02AM	2 x PT3/8 Open air port	B
		Tool side LMO-GC02AT		
		Master side LMO-GC04AM	4 x PT3/8 Open air port	B
		Tool side LMO-GC04AT		
		Master side LMO-GC06AM	6 x PT1/8 Open air port	B
		Tool side LMO-GC06AT		
		Master side LMO-GC10AM	10 x PT1/8 Open air port	B
		Tool side LMO-GC10AT		
		Master side LMO-GS01AM	1 x PT3/8 Self-sealing air port	B
		Tool side LMO-GS01AT		
	Master side LMO-GS02BM	2 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS02BT			
	Master side LMO-GS04AM	4 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS04AT			
	Master side LMO-L01BM	1 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L01BT			
	Master side LMO-L02BM	2 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L02BT			

Model: LTC-0200F

- ▶ Recommended payload ≤ 230kg
- ▶ Locking force: 31458N Allowable static moment: 2260N·m Allowable static torque: 2245N·m
- ▶ With 6 x PT1/8、2 x PT3/8 air ports, 4 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

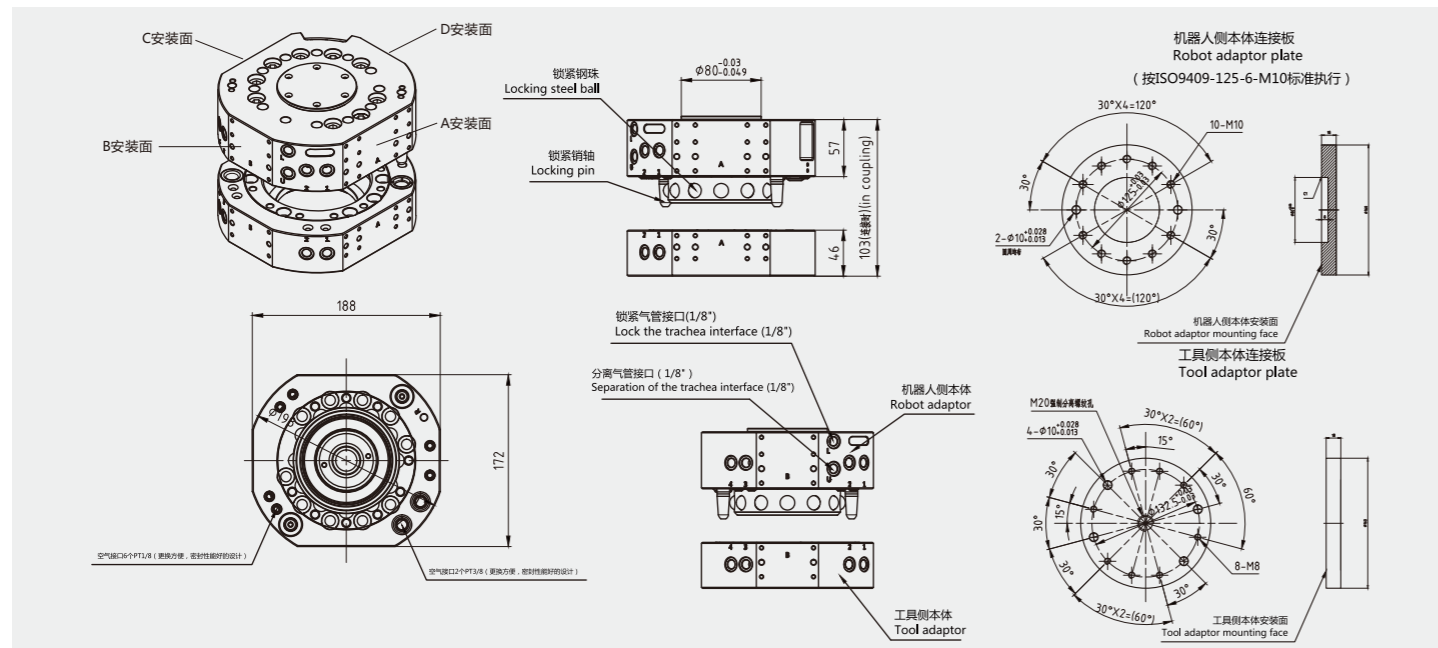


Specifications

Model	Master plate	LTC-0200FM
	Tool plate	LTC-0200FT
Load	Payload capacity	230kg
	Locking force	31458N
	Allowable static bending moment	2260N·m
	Allowable static torque	2245N·m
Size and precision	Dimension	Φ198mm
	Combined thickness	103mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	5.9kg
	Tool side	2.97kg
Air connector	Pneumatic port	6 x PT1/8 2xPT3/8
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P3-01	Locking/Unlocking sensor and tool-in-position sensor LED status visible	A
		NPN LMO-N3-01		
Electrical module		Master side LMO-E16-MS07A-AF01-M	5A x 7pins Tool-ID identify	A
		Tool side LMO-E16-MS07A-AF01-T		
		Master side LMO-F21-MS15A-AF01-M	5A x 15pins Tool-ID identify	A
		Tool side LMO-F21-MS15A-AF01-T		
		Master side LMO-F21-S34A-AF01-M	5A x 34pins Tool-ID identify	A
		Tool side LMO-F21-S34A-AF01-T		
		Master side LMO-E12-S19A-M	3A x 19pins	B
		Tool side LMO-E12-S19A-T		
		Master side LMO-F22-S38A-M	3A x 38pins	B
		Tool side LMO-F22-S38A-T		
		Master side LMO-F21-E06A-S15-AF01-M	20A x 6pins 3A x 15pins Tool-ID identify	A
		Tool side LMO-F21-E06A-S15-AF01-T		
	Master side LMO-E12-E06A-M	20A x 6pins	B	
	Tool side LMO-E12-E06A-T			
	Master side LMO-F22-E06A-E06A-M	20A x 12pins	B	
	Tool side LMO-F22-E06A-E06A-T			
Industrial Bus module		Master side LMO-F21-S13-BI01-AF01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI01-AF01-T		
		Master side LMO-F21-S13-BI02-AF01-M	Devicenet Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI02-AF01-T		
	Master side LMO-E12-BI15-M	Ethernet Industrial Bus module RJ45 connector	B	
	Tool side LMO-E12-BI15-T			

Type	Photo	Model	Description	Interface No.
Servo module		Master side LMO-F22-SM10C-M	20A x 4pins 2pins brake 8pins encoder signal	B
		Tool side LMO-F22-SM10C-T		
High frequency module		Master side LMO-E14-U02A-M	5A 1.4KV Single channel HF module	B
		Tool side LMO-E14-U02A-T		
		Master side LMO-E13-U02A-U02A-M	5A 1.4KV Dual-channel HF module	B
		Tool side LMO-E13-U02A-U02A-T		
Air&fluid module		Master side LMO-GC02AM	2 x PT3/8 Open air port	B
		Tool side LMO-GC02AT		
		Master side LMO-GC04AM	4 x PT3/8 Open air port	B
		Tool side LMO-GC04AT		
		Master side LMO-GC06AM	6 x PT1/8 Open air port	B
		Tool side LMO-GC06AT		
		Master side LMO-GC10AM	10 x PT1/8 Open air port	B
		Tool side LMO-GC10AT		
		Master side LMO-GS01AM	1 x PT3/8 Self-sealing air port	B
		Tool side LMO-GS01AT		
	Master side LMO-GS02BM	2 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS02BT			
	Master side LMO-GS04AM	4 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS04AT			
	Master side LMO-L01BM	1 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L01BT			
	Master side LMO-L02BM	2 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L02BT			

Model: LTC-0300G

- ▶ Recommended payload ≤ 300kg
- ▶ Locking force: 35421N Allowable static moment: 2767N·m Allowable static torque: 2526N·m
- ▶ With 10 x PT3/8 air ports, 2 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

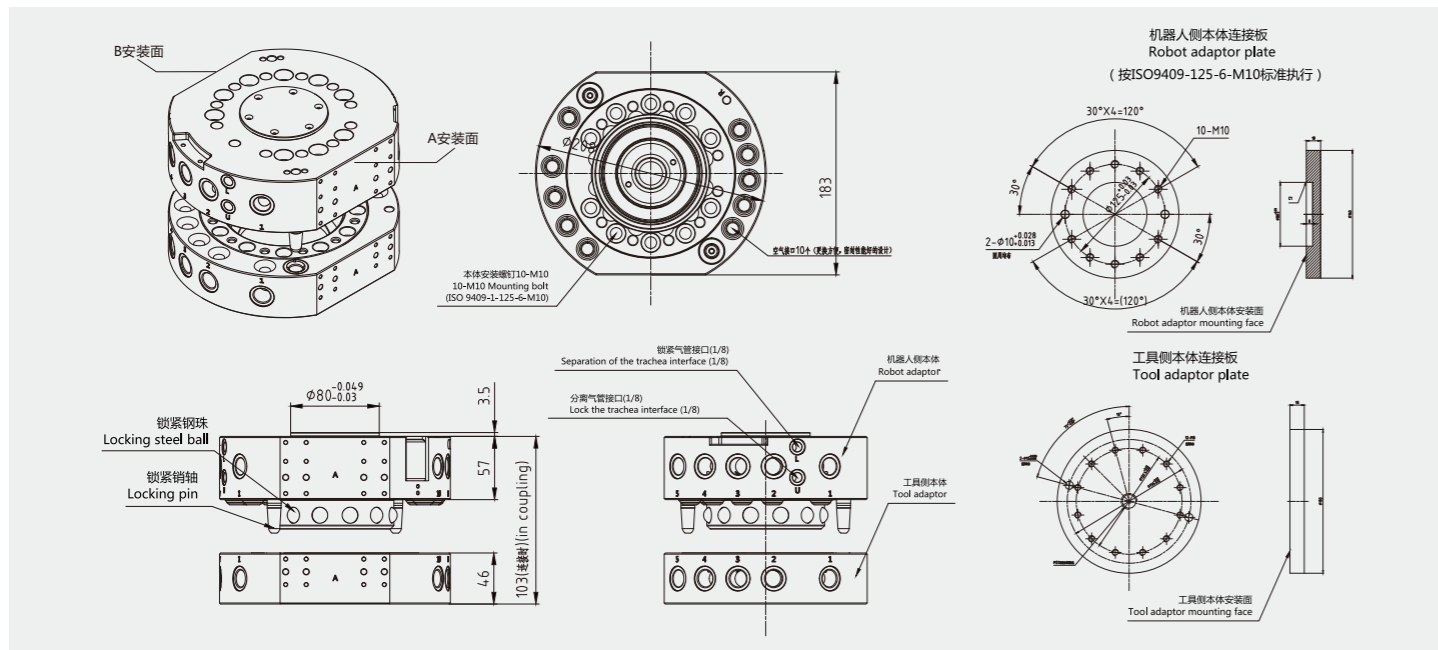


Specifications

Model	Master plate	LTC-0300GM
	Tool plate	LTC-0300GT
Load	Payload capacity	300kg
	Locking force	35421N
	Allowable static bending moment	2767N·m
	Allowable static torque	2526N·m
Size and precision	Dimension	Φ208mm
	Combined thickness	103mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0~60°C
	Humidity	0~95%
Weight	Master side	6.17kg
	Tool side	2.77kg
Air connector	Pneumatic port	10 x PT3/8
	Max pressure	0.8Mpa

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P3-01	Locking/Unlocking sensor and tool-in-position sensor LED status visible	A
		NPN LMO-N3-01		
Electrical module		Master side LMO-E16-MS07A-AF01-M	5A x 7pins Tool-ID identify	A
		Tool side LMO-E16-MS07A-AF01-T		
		Master side LMO-F21-MS15A-AF01-M	5A x 15pins Tool-ID identify	A
		Tool side LMO-F21-MS15A-AF01-T		
		Master side LMO-F21-S34A-AF01-M	5A x 34pins Tool-ID identify	A
		Tool side LMO-F21-S34A-AF01-T		
		Master side LMO-E12-S19A-M	3A x 19pins	B
		Tool side LMO-E12-S19A-T		
		Master side LMO-F22-S38A-M	3A x 38pins	B
		Tool side LMO-F22-S38A-T		
		Master side LMO-F21-E06A-S15-AF01-M	20A x 6pins 3A x 15pins Tool-ID identify	A
		Tool side LMO-F21-E06A-S15-AF01-T		
	Master side LMO-E12-E06A-M	20A x 6pins	B	
	Tool side LMO-E12-E06A-T			
	Master side LMO-F22-E06A-E06A-M	20A x 12pins	B	
	Tool side LMO-F22-E06A-E06A-T			
Industrial Bus module		Master side LMO-F21-S13-BI01-AF01-M	Ethernet, EtherNetIP, EtherCAT, Profinet Industrial Bus module M12 4pins D-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI01-AF01-T		
		Master side LMO-F21-S13-BI02-AF01-M	Devicenet Industrial Bus module M12 4pins A-encoder Industrial bus interface	A
		Tool side LMO-F21-S13-BI02-AF01-T		
		Master side LMO-E12-BI15-M	Ethernet Industrial Bus module RJ45 connector	B
		Tool side LMO-E12-BI15-T		

Type	Photo	Model	Description	Interface No.
Servo module		Master side LMO-F22-SM10C-M	20A x 4pins 2pins brake 8pins encoder signal	B
		Tool side LMO-F22-SM10C-T		
High frequency module		Master side LMO-E14-U02A-M	5A 1.4KV Single channel HF module	B
		Tool side LMO-E14-U02A-T		
		Master side LMO-E13-U02A-U02A-M	5A 1.4KV Dual-channel HF module	B
		Tool side LMO-E13-U02A-U02A-T		
Air&fluid module		Master side LMO-GC02AM	2 x PT3/8 Open air port	B
		Tool side LMO-GC02AT		
		Master side LMO-GC04AM	4 x PT3/8 Open air port	B
		Tool side LMO-GC04AT		
		Master side LMO-GC06AM	6 x PT1/8 Open air port	B
		Tool side LMO-GC06AT		
		Master side LMO-GC10AM	10 x PT1/8 Open air port	B
		Tool side LMO-GC10AT		
		Master side LMO-GS01AM	1 x PT3/8 Self-sealing air port	B
		Tool side LMO-GS01AT		
	Master side LMO-GS02BM	2 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS02BT			
	Master side LMO-GS04AM	4 x PT3/8 Self-sealing air port	B	
	Tool side LMO-GS04AT			
	Master side LMO-L01BM	1 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L01BT			
	Master side LMO-L02BM	2 x PT1/2 Self-sealing air port or water path	B	
	Tool side LMO-L02BT			

Model: LTC-0630F

- ▶ Recommended payload ≤ 650kg
- ▶ Locking force: 72930N Allowable static moment: 5000N·m Allowable static torque: 5000N·m
- ▶ 4 available module interfaces
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

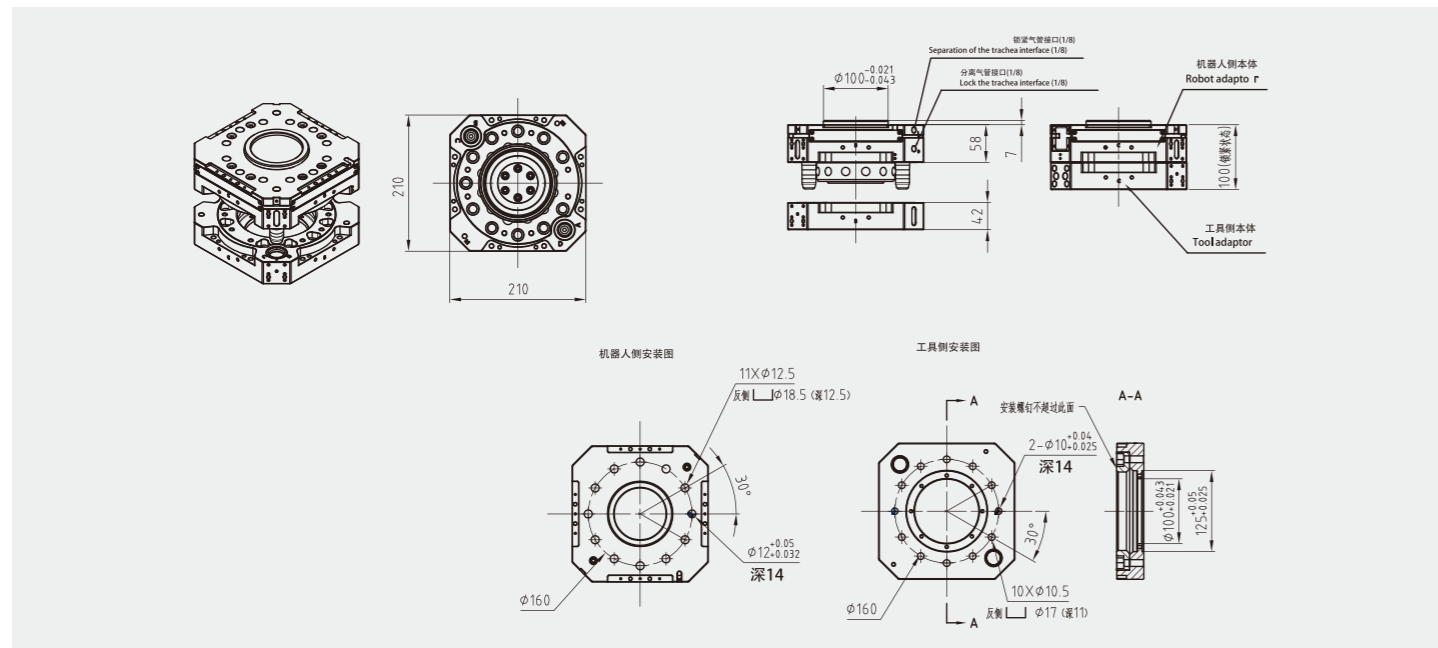


Specifications

Model	Master plate	LTC-0630FM
	Tool plate	LTC-0630FT
Load	Payload capacity	650kg
	Locking force	72930N
	Allowable static bending moment	5000N·m
	Allowable static torque	5000N·m
Size and precision	Dimension	210*210mm
	Combined thickness	100mm
	Position repeatability	0.015mm
Air pressure for working		0.4~0.8Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	10.6kg
	Tool side	4.35kg

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-P4-01	Locking/Unlocking sensor	A
		NPN LMO-N4-01		
Industrial Bus module		Master side LMO-C28-BM01-AF03-M	7/8-5Pins electrical power male connector, M12-4Pins D-code female connector	A
		Tool side LMO-C28-BM01-AF03-T	7/8-5Pins electrical power female connector, M12-4Pins D-code female connector, 1.5m cable, safety docking interface, integrated tool-ID.	
		Tool side LMO-C28-BM00-AF03-T	Safety docking interface, integrated tool-ID.	A
		Master side LMO-C28-S01A-BI01-SN02-AF03-M	7/8-5Pins electrical power male connector, M12-4Pins D-code female connector, 25D male connector.	
		Tool side LMO-C28-S01A-BI01-SN00-AF03-T	7/8-5Pins electrical power female connector, M12-4Pins D-code female connector, 25D male connector, safety docking interface, integrated tool-ID.	
Tool side LMO-C28-S01A-BI00-SN02-AF03-T	25D female connector, safety docking interface, integrated tool-ID.	A		
High Electrical power module		Master side LMO-E03KM	3 core 150A cold-press terminal	D
		Tool side LMO-E03KT		
		Master side LMO-E03FM	3 core 150A with high currency connector	D
		Tool side LMO-E03FT		
		Master side LMO-E03QM	3 core 400A cold-press terminal	D
		Tool side LMO-E03QT		
Master side LMO-E01F-M	1 core 400A cold-press terminal	D		
Tool side LMO-E01F-T				
Servo spot welding module		Master side LMO-C33-SM04C-MS14-M	Fanuc Servo Module, 20-17P Servo connector, 20-29P Servo connector, 20-27P signals connector.	C
		Tool side LMO-C33-SM04C-MS14-T	Fanuc Servo Module, 20-17S Servo connector, 20-29S Servo connector, 20-27S signals connector.	
		Master side LMO-C33-SM01C-MS10-M	ABB Servo Module, 10B (8+12+25) pins connector	C
		Tool side LMO-C33-SM01C-MS10-T	ABB Servo Module, 10B (8+12+25) pins connector	
Master side LMO-C33-SM02C-MS14-M	KUKA Servo Module, M23-6Pins electrical power male connector, M23-12Pins male Servo connector, 20-27P signals connector.	C		
Tool side LMO-C33-SM02C-MS14-T	KUKA Servo Module, M23-6Pins electrical power female connector, M23-12Pins female Servo connector, 20-27S signals connector.			
Master side LMO-C33-SM03C-MS09-M	YASKAWA Servo Module, 20-15P Servo connector, 20-29P Servo connector, 22-19P signals connector.	C		
Tool side LMO-C33-SM03C-MS09-T	YASKAWA Servo Module, 20-15S Servo connector, 20-29S Servo connector, 22-19S signals connector.			

Type	Photo	Model	Description	Interface No.
Air&fluid module		/ LMO-L03N-03-Q	PT1/2, optional 1-3 ports	B
		/ LMO-L05F-05-Q	PT1/2, optional 1-5 ports	B
Welding guns&SPR module		Master side LMO-C53B-SM22-MS12-SM02C-MS14-M	Welding guns ↓ SPR	B, C, D
		Tool side LMO-C53B-SM02C-MS14-T		
		Tool side LMO-C53B-SM22-MS12-T		
SPR FDS module		Master side LMO-C53B-SM22-MS12-SM02C-BI01-M	SPR ↓ FDS	B, C, D
		Tool side LMO-C53B-SM22-MS12-T		
		Tool side LMO-C53B-SM02C-BI01-T		
Grounding module		Master side LMO-630F-PE-M	Used for shielding and grounding protection, 75A/55VAC	A
		Tool side LMO-630F-PE-T		
Nail module		Master side LMO-GD01M	Stud interface for SPR or FDS installation, customized.	B, C, D
		Tool side LMO-GD01T		
Solenoid Valve Module		Master side LMO-SOL-A6-S12-C	Integrated double solenoid valves, the air pressure detection is included.	A
Safety docking components		Tool side LMO-DS01-C	Plunger type.	A
		Tool side LMO-DS01-A	Insert type.	A
Hydraulic Module		Master side LMO-YL02A-M	16MPa *2	B, C, D
		Tool side LMO-YL02A-T	16MPa *2	B, C, D
		Master side LMO-YL02B-M	25MPa *2	B, C, D
		Tool side LMO-YL02B-T	25MPa *2	B, C, D

Model: LTC-1300A

- ▶ Recommended payload ≤ 1300kg
- ▶ Locking force: 106263N Allowable static moment: 6830N·m Allowable static torque: 6920N·m
- ▶ 6 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

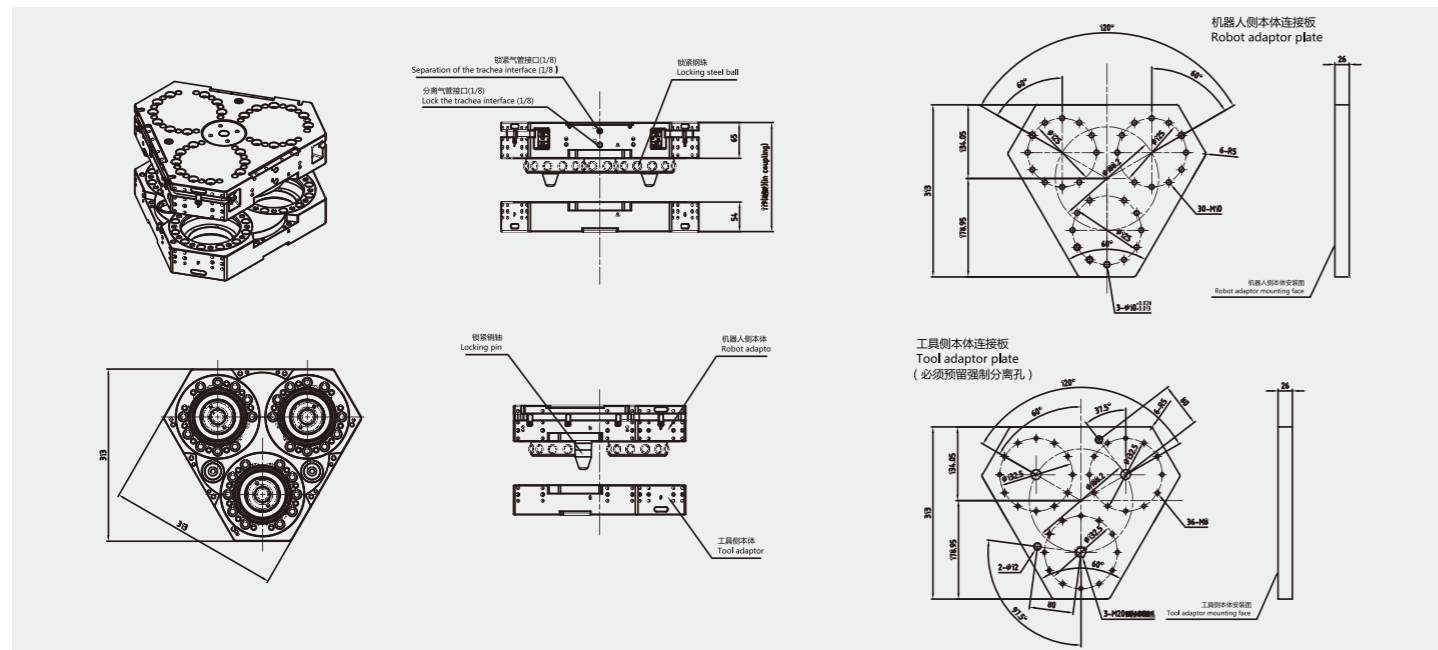


Specifications

Model	Master plate	LTC-1300AM
	Tool plate	LTC-1300AT
Load	Payload capacity	1300kg
	Locking force	106263N
	Allowable static bending moment	6830N·m
	Allowable static torque	6920N·m
Size and precision	Dimension	triangle 313mm
	Combined thickness	119mm
	Position repeatability	±0.02mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	19kg
	Tool side	9.5kg

Dimensions



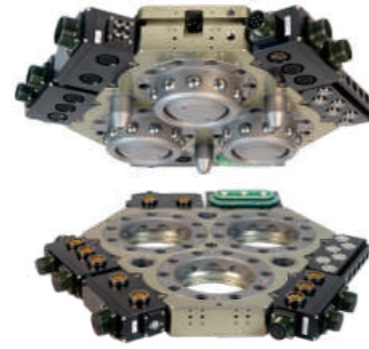
Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-PS-1300	Locking/Unlocking sensor	A
		NPN LMO-NS-01		
Signal module		Master side LMO-C22-MS20-AF03-M	5A x 20pins Tool-ID identify Safety docking Integrated solenoid valve	A
		Tool side LMO-C22-MS20-AF03-T		
		Master side LMO-C21-MS15-AF01-M	5A x 15pins Tool-ID identify	A
		Tool side LMO-C21-MS15-AF01-T		
Master side LMO-C21-MS22-AF01-M	5A x 22pins Tool-ID identify	A		
Tool side LMO-C21-MS22-AF01-T				
Master side LMO-C21-S34-AF01-M	3A x 34pins Tool-ID identify	A		
Tool side LMO-C21-S34-AF01-T				
High Electrical power module		Master side LMO-E03KM	3 core 150A cold-press terminal	B, C
		Tool side LMO-E03KT		
		Master side LMO-E03FM	3 core 150A with high currency connector	B, C
		Tool side LMO-E03FT		
		Master side LMO-E03QM	3 core 400A cold-press terminal	B, C
		Tool side LMO-E03QT		
Master side LMO-E01BM	1 core 150A cold-press terminal	B, C		
Tool side LMO-E01BT				
Servo module		Master side LMO-C31-SM03C-M	Single servo module	B, C
		Tool side LMO-C31-SM03C-T		
Servo module		Master side LMO-C41-SM03C-SM03C-M	Dual servo module	B, C
		Tool side LMO-C41-SM03C-SM03C-T		
Servo spot welding module		Master side LMO-C33-SM04C-MS14-M	Fanuc Servo module	B, C
		Tool side LMO-C33-SM04C-MS14-T		

Type	Photo	Model	Description	Interface No.
Servo spot welding module		Master side LMO-C33-SM01C-MS10-M	ABB Servo module	B, C
		Tool side LMO-C33-SM01C-MS10-T		
		Master side LMO-C33-SM02C-MS14-M	KUKA Servo module	B, C
		Tool side LMO-C33-SM02C-MS14-T		
Air&fluid module		Master side LMO-L04A-04-M	4 x PT1/2 Self-sealing air port or water path	B, C
		Tool side LMO-L04A-04-T		
		Master side LMO-L05A-05-M	5 x PT1/2 Self-sealing air port or water path	B, C
		Tool side LMO-L05A-05-T		
Hydraulic module		Master side LMO-GC11AM	11 x 1/4 Open air port	B, C
		Tool side LMO-GC11AT		
		Master side LMO-GS02BM	2 x PT3/8 Self-sealing air port	B, C
		Tool side LMO-GS02BT		
Vacuum module		Master side LMO-GS04AM	4 x PT3/8 Self-sealing air port	B, C
		Tool side LMO-GS04AT		
Safety docking component s		Master side LMO-GS06AM	6 x 3/8 Self-sealing air port	B, C
		Tool side LMO-GS06AT		
Hydraulic module		Master side LMO-YL04CM	1-in 1-out 2channels G1/2	B, C
		Tool side LMO-YL04CT		
Vacuum module		Master side LMO-GZK020AM	1channel with size 2inch	A, B, C
		Tool side LMO-GZK020AT		
Safety docking component s		Tool side LMO-DS01-A	Safety docking components	A

Model: LTC-3000A

- ▶ Recommended payload ≤ 3000kg
- ▶ Locking force: 130200N Allowable static moment: 13600N·m Allowable static torque: 13000N·m
- ▶ 6 available module interfaces
- ▶ Suitable for handling, palletizing, welding, polishing, deburring
- ▶ Air pressure lost self locking function, the master plate and tool plate won't be separated even the air pressure in master plate lost accidentally.
- ▶ Master plate with locking/unlocking sensor and tool-in-position sensor

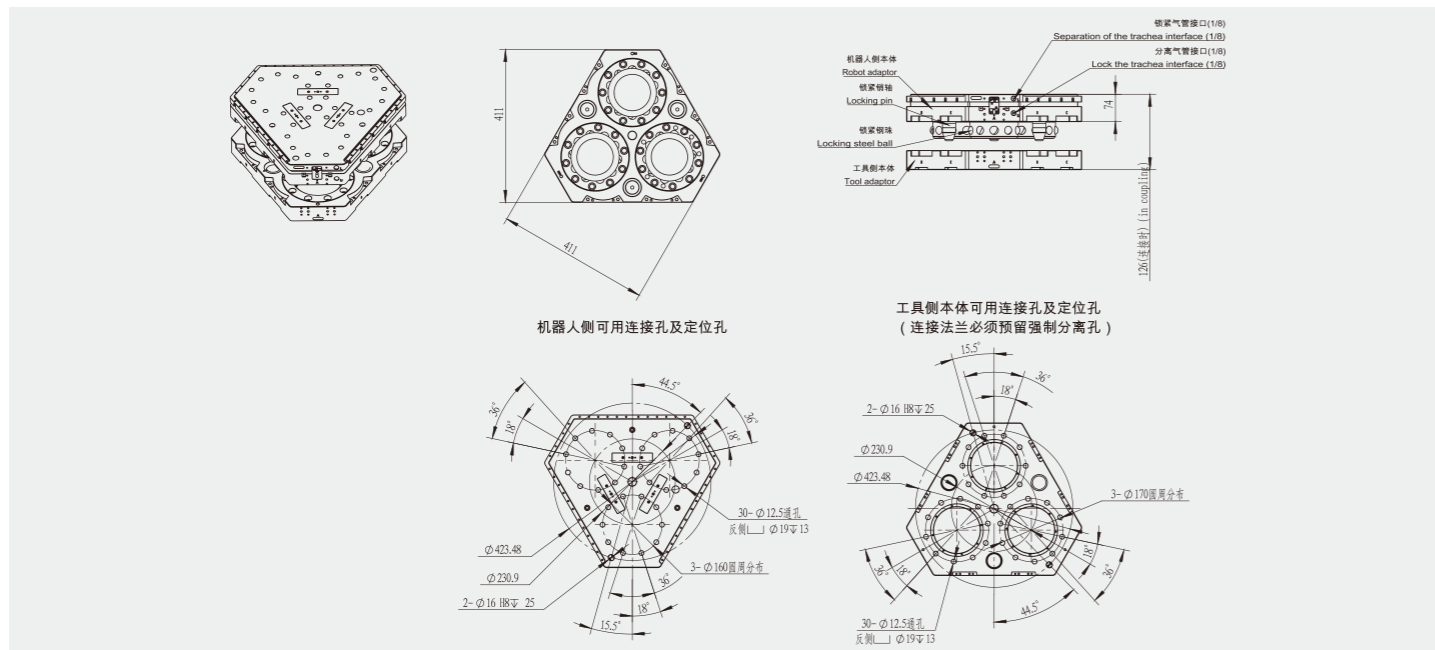


Specifications

Model	Master plate	LTC-3000AM
	Tool plate	LTC-3000AT
Load	Payload capacity	3000kg
	Locking force	130200N
	Allowable static bending moment	13600N·m
	Allowable static torque	13000N·m
Size and precision	Dimension	triangle 411mm
	Combined thickness	126mm
	Position repeatability	±0.03mm
Air pressure for working		0.4~0.7Mpa

Material	Main body	Aluminum alloy
	Locking mechanism	Alloy steel
Locking mechanism		Locking steel ball
Work environment	Temperature	0-60°C
	Humidity	0-95%
Weight	Master side	39kg
	Tool side	19kg

Dimensions



Adapter module

Type	Photo	Model	Description	Interface No.
Sensor		PNP LMO-PS-3000	Locking/Unlocking sensor	A
		NPN LMO-NS-3000		
信号模块		Master side LMO-C21-MS15-AF01-M	5A x 15pins Tool-ID identify	A
		Tool side LMO-C21-MS15-AF01-T		
		Master side LMO-C21-MS22-AF01-M	5A x 22pins Tool-ID identify	A
		Tool side LMO-C21-MS22-AF01-T		
		Master side LMO-C21-S34-AF01-M	3A x 34pins Tool-ID identify	A
		Tool side LMO-C21-S34-AF01-T		
High Electrical power module		Master side LMO-E03KM	3 core 150A cold-press terminal	B, C
		Tool side LMO-E03KT		
		Master side LMO-E03FM	3 core 150A with high currency connector	B, C
		Tool side LMO-E03FT		
		Master side LMO-E03QM	3 core 400A cold-press terminal	B, C
		Tool side LMO-E03QT		
	Master side LMO-E01BM	1 core 150A cold-press terminal	B, C	
	Tool side LMO-E01BT			
Servo module		Master side LMO-C31-SM03C-M	Single servo module	B, C
		Tool side LMO-C31-SM03C-T		
Servo module		Master side LMO-C41-SM03C-SM03C-M	Dual servo module	B, C
		Tool side LMO-C41-SM03C-SM03C-T		
Servo spot welding module		Master side LMO-C33-SM04C-MS14-M	Fanuc Servo module	B, C
		Tool side LMO-C33-SM04C-MS14-T		

Type	Photo	Model	Description	Interface No.
Servo spot welding module		Master side LMO-C33-SM01C-MS10-M	ABB Servo module	B, C
		Tool side LMO-C33-SM01C-MS10-T		
		Master side LMO-C33-SM02C-MS14-M	KUKA Servo module	B, C
		Tool side LMO-C33-SM02C-MS14-T		
Air&fluid module		Master side LMO-L04A-04-M	4 x PT1/2 Self-sealing air port or water path	B, C
		Tool side LMO-L04A-04-T		
		Master side LMO-L05A-05-M	5 x PT1/2 Self-sealing air port or water path	B, C
		Tool side LMO-L05A-05-T		
Hydraulic module		Master side LMO-GC11AM	11 x 1/4 Open air port	B, C
		Tool side LMO-GC11AT		
Vacuum module		Master side LMO-GS06AM	6 x 3/8 Self-sealing air port	B, C
		Tool side LMO-GS06AT		
Safety docking components		Master side LMO-YL04CM	1-in 1-out 2channels G1/2	B, C
		Tool side LMO-YL04CT		
Safety docking components		Master side LMO-GZK020AM	1channel with size 2inch	A, B, C
		Tool side LMO-GZK020AT		
Safety docking components		Master side LMO-DS01-A	Safety docking components	A
		Tool side LMO-DS01-A		

Tool Changer Locking Mechanism principle

Locked State

The air enters the inside of the tool changer through locking air inlet, pushes the piston move and then presses steel balls out of CAM and clamps the locking seat.



Release State

The air enters the inside of the tool changer through unlocking air inlet, pushes the piston move and the steel balls returned.



Gas Loss Protection

When the air pressure lost accidentally, the steel balls move from locking platform to insurance platform and kept there, with the additional force of spring then ensure tool plate won't be separated.

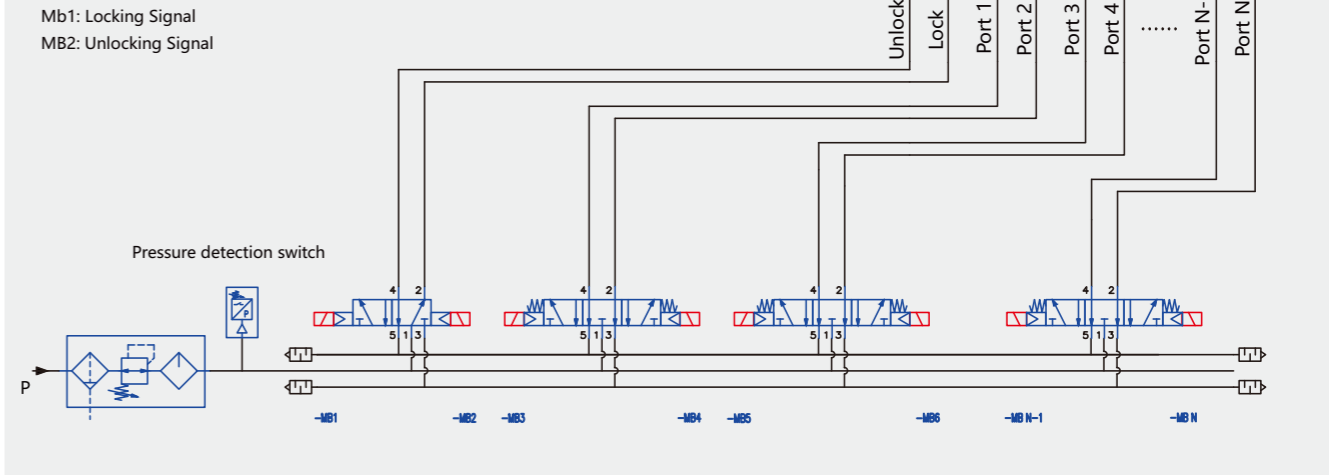


Recommended Gas Connection Diagram

1. Single solenoid valve control circuit diagram:

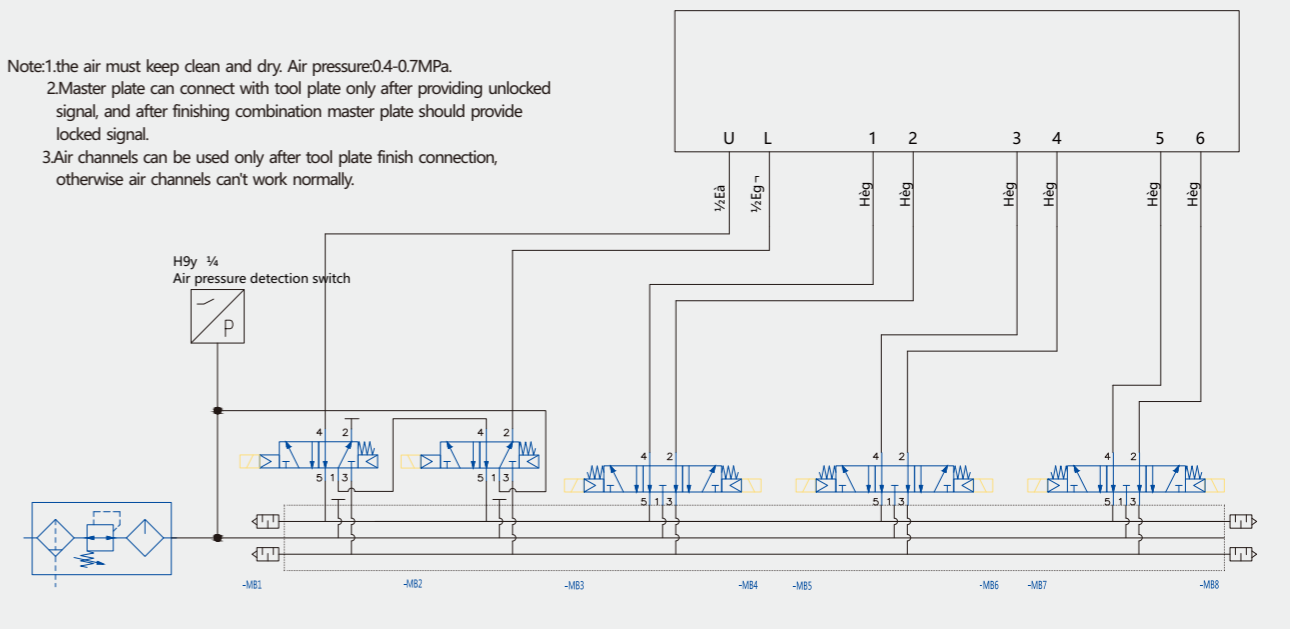
Warning

1. The pneumatic air should be clean and dry, pressure ranging from: 0.4-0.7Mpa.
2. The master plate can only connect the tool plate after provide unlocking signal and provide locking signal after connecting.
3. Pneumatic air ports could start work only after locking with tool plate, otherwise could not start work.



2. Double solenoid valve control circuit diagram (safer control way):

- Note: 1. the air must keep clean and dry. Air pressure: 0.4-0.7MPa.
2. Master plate can connect with tool plate only after providing unlocked signal, and after finishing combination master plate should provide locked signal.
3. Air channels can be used only after tool plate finish connection, otherwise air channels can't work normally.



Utility Coupler

Utility coupler can provide energy docking between the main station and the slave station, and pass through energy media such as electrical power, air, fluid, communication, etc. The Fixed station with a unique flexible mechanical device, which can compensate the position errors and mechanism errors during the docking process. The main application is for automotive manufacturing, to provide electrical power, air, signals to equipment or trolley during the quick docking of trolley, equipment and molds.

- Provide energy docking between the main station and the slave station, such as electrical power, signal, I/O etc.
- Modular design of media unit, more flexible collocation
- With X, Y, Z direction floating performance, eliminate docking errors
- Optional servo motor driven or cylinder driven

Model: LT-F41

- ▶ Compact design with light weight
- ▶ Realize quick docking of energy media such as electric current, communication, etc.
- ▶ Optional driven way: servo motor or cylinder
- ▶ Compensation available:
Compliance(X&Y-Axis): ±4mm
Compliance(Z-Axis): +2mm
Rotational Compliance: ±3°
Required Coupling Force: ≥1526N



Model	Product description
LT-F41-SM10C-MS09-M	Fixed station 20A*4Pins electrical current 2A*2Pins brake signal 2A*8pins encoder signal 9pins I/O RD technology
LT-F41-SM10C-MS09-T	Movable station 20A*4Pins electrical current 2A*2Pins brake signal 2A*8pins encoder signal 9pins I/O RD technology

Model: LT-F31

- ▶ Realize quick docking of energy media such as electric current, communication, etc.
- ▶ With 2*PT3/8 self-sealed pneumatic ports
- ▶ Optional driven way: servo motor or cylinder
- ▶ Support Ethernet, EtherNetIP, EtherCAT, Profinet, Devicenet, Profibus, CC-Link, Gigabit Ethernet
- ▶ Compensation available:
Compliance(X&Y-Axis): ±4mm
Compliance(Z-Axis): +2mm
Rotational Compliance: ±3°
Required Coupling Force: ≥1526N



Model	Product description
LT-F31-BI11-M	Fixed station Interface 7/8, 5Pins 9A Bus power supply, M12-4Pins D-encoder Bus interface 2 channels self-sealed air port
LT-F31-BI11-T	Movable station Interface 7/8, 5Pins 9A Bus power supply, M12-4Pins D-encoder Bus interface 2 channels self-sealed air port
LT-F31-MS19-M	Fixed station 5A*19Pins electrical signal with RD technology 2 channels self-sealed air port
LT-F31-MS19-T	Movable station 5A*19Pins electrical signal with RD technology 2 channels self-sealed air port
LT-F31-E06A-E06A-M	Fixed station 20A*12Pins electrical current 2 channels PT3/8 self-sealed air port
LT-F31-E06A-E06A-T	Movable station 20A*12Pins electrical current 2 channels PT3/8 self-sealed air port

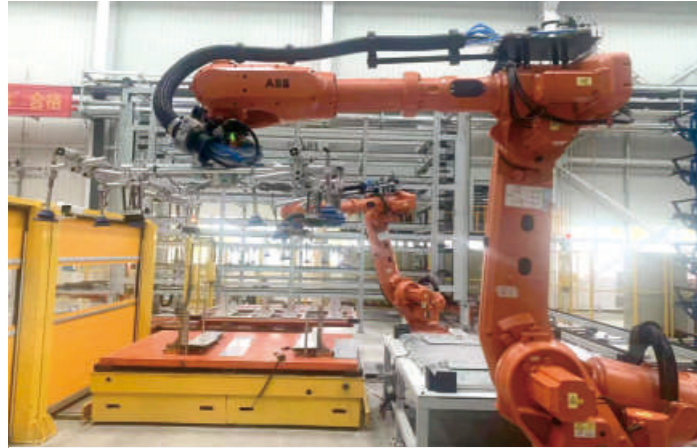
Model: LT-F31C

- ▶ Realize quick docking of energy media such as electric current, communication, etc.
- ▶ Optional 1 to 4 channels PT1/2 air port or water port
- ▶ Optional driven way: servo motor or cylinder
- ▶ Compensation available:
Compliance(X&Y-Axis): ±4mm
Compliance(Z-Axis): +2mm
Rotational Compliance: ±3°
Required Coupling Force: ≥1526N



型号	产品描述
LT-F31C-E03DM	Fixed station 150A*3cores electrical power supply
LT-F31C-E03DT	Movable station 150A*3cores electrical power supply
LT-F31C-E12A-MS26-M	Fixed station 20A*12Pins electrical current, 5A*26Pins electrical signal with RD technology
LT-F31C-E12A-MS26-T	Movable station 20A*12Pins electrical current, 5A*26Pins electrical signal with RD technology
LT-F31C-MS38-L04-M	Fixed station 5A*38Pins electrical signal with RD technology 4 fluid channels
LT-F31C-MS38-L04-T	Movable station 5A*38Pins electrical signal with RD technology 4 fluid channels
LT-F31C-MS64-L04-M	Fixed station 5A*64Pins electrical signal with RD technology 4 fluid channels
LT-F31C-MS64-L04-T	Movable station 5A*64Pins electrical signal with RD technology 4 fluid channels

Industry Case



welding shop loading and unloading



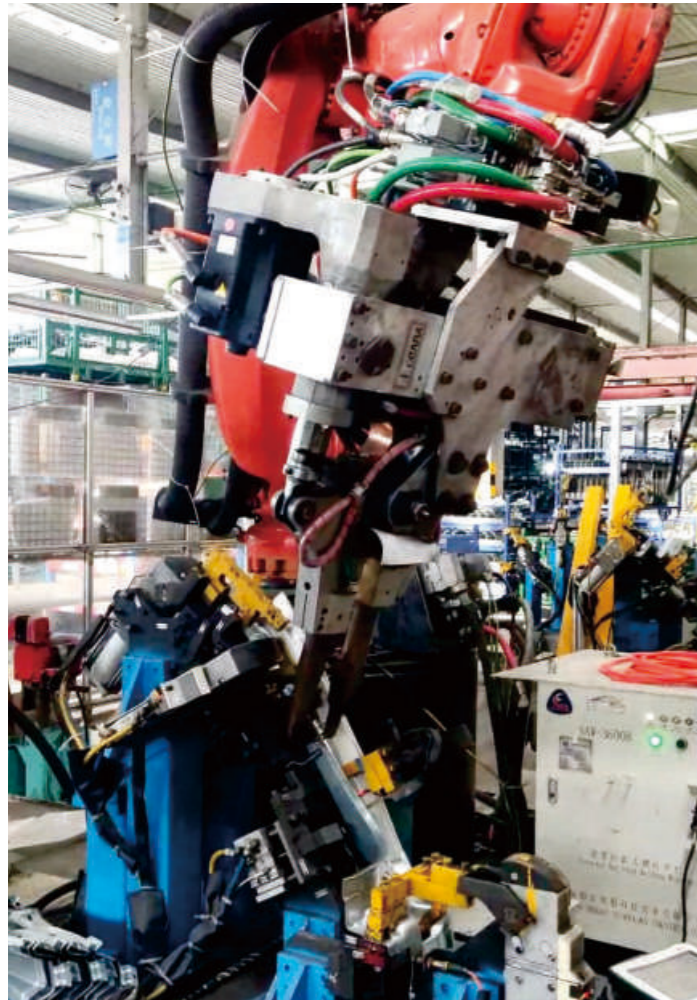
Floor welding line



Auto spare parts welding



Closures welding



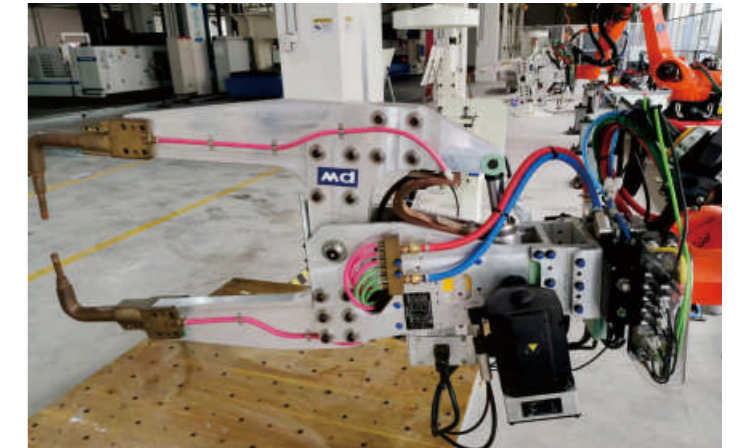
Fender plate welding



Body welding main line



Center console bracket spot welding



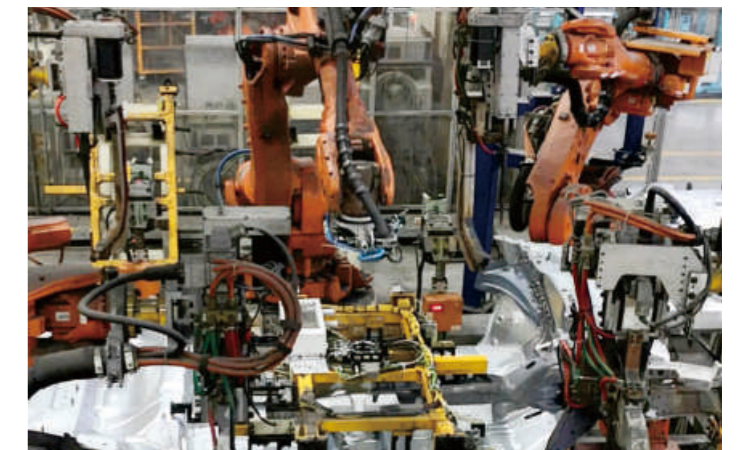
Aluminum spot welding



TOX Application



Energy connection between master and slave stations



Floor welding line



Bumper production process



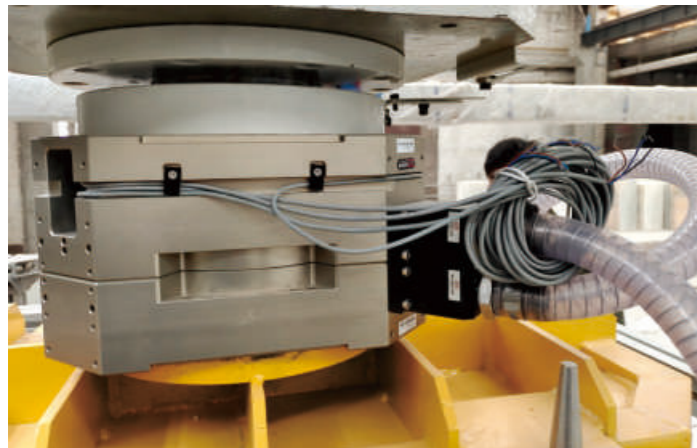
Grinding workstation



Mining equipment loading and unloading



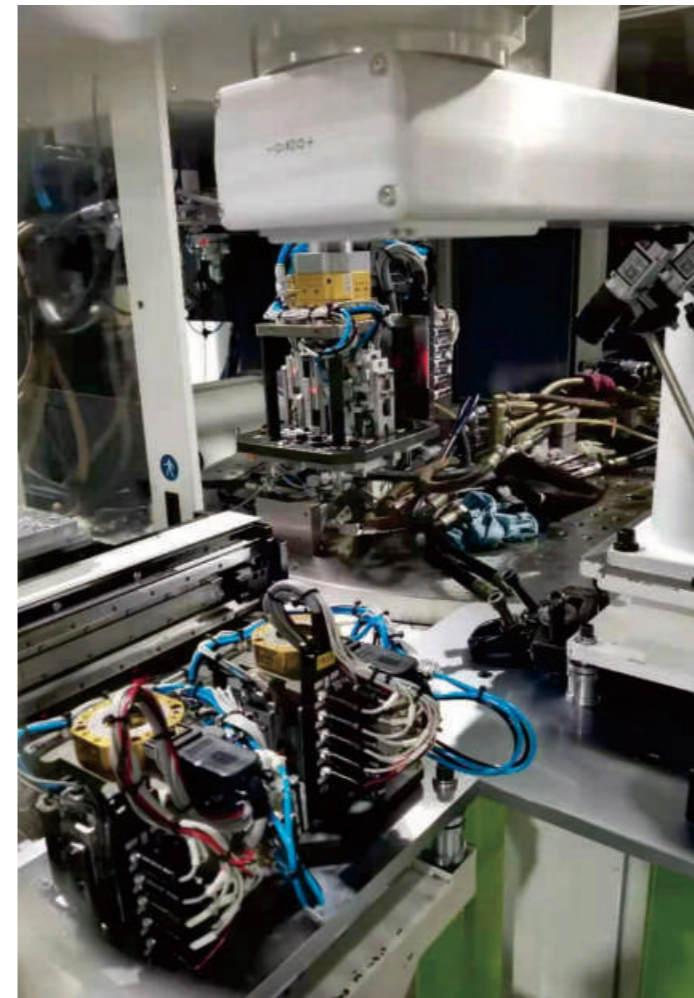
Refractory materials handling



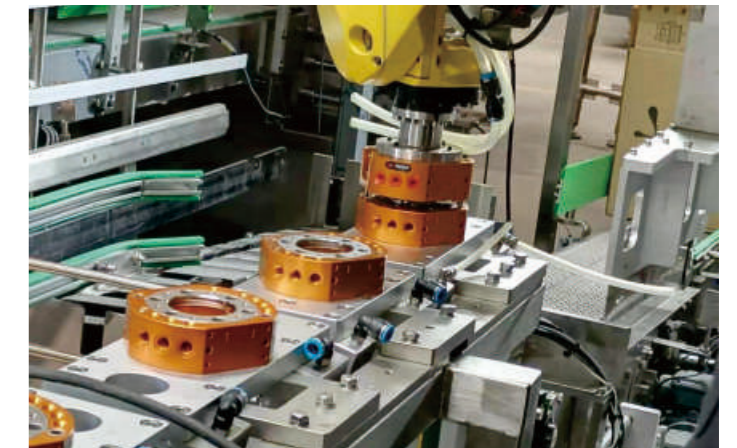
Vacuum handling



Electronic industry clamping



Automotive electronic loading and unloading



Daily chemical product line



Hybrid engine production line



Concrete pump truck assembly line



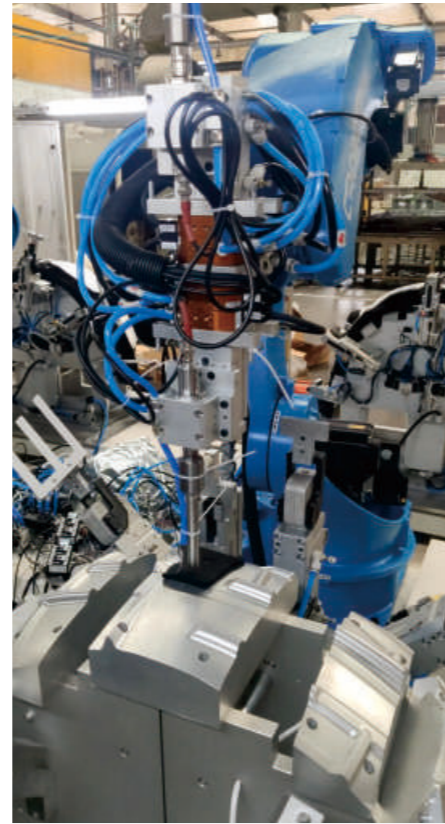
visual identity



Mobile phone production line



Glass Thermoforming Forging



Ultrasonic welding



Motor housing cleaning

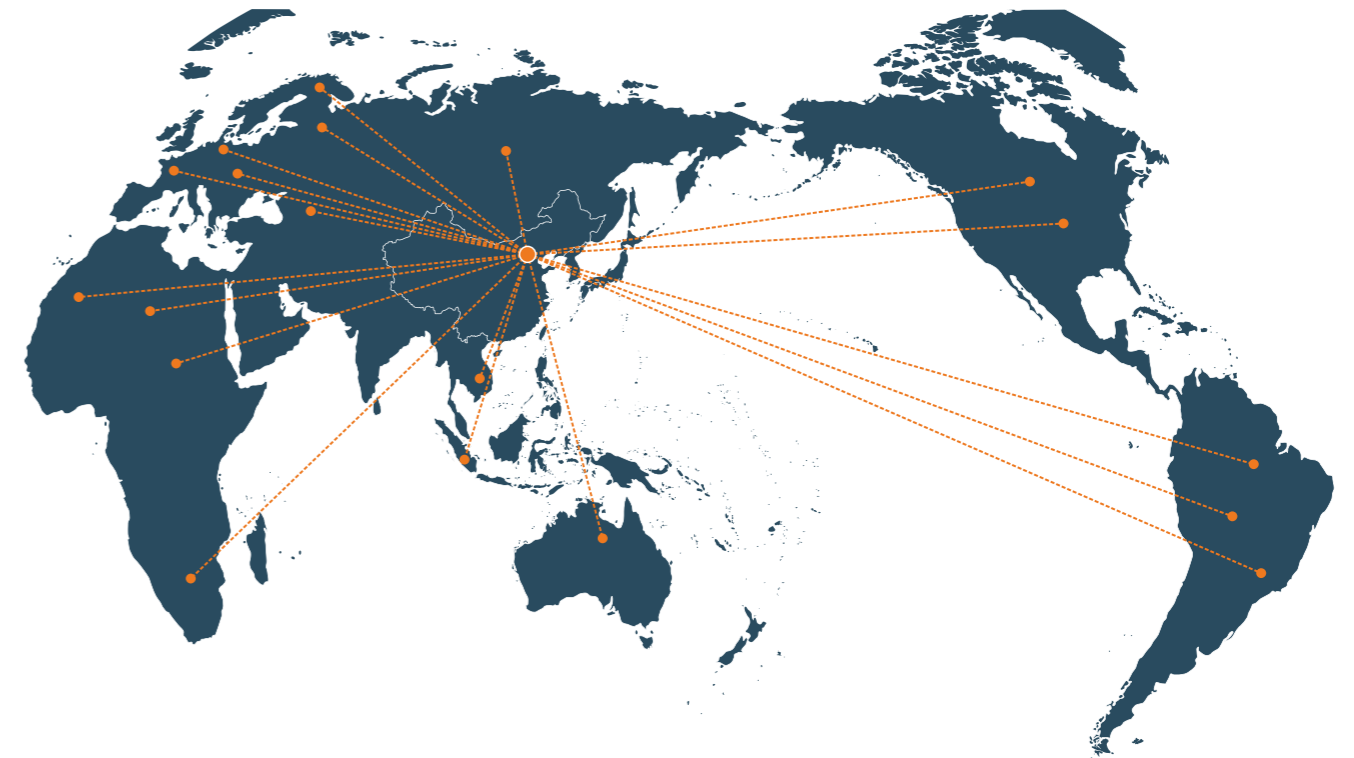


Elevator production line



Bolt inspection workstation

Service Network



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