LH-TC

领航·机器人末端

LINGHANG
COMPLETE PRODUCT RANGE

Reliability · Safety · Efficiency · Excellence



ZHENGZHOU LINGHANG ROBOT CO., LTD.

Company profile

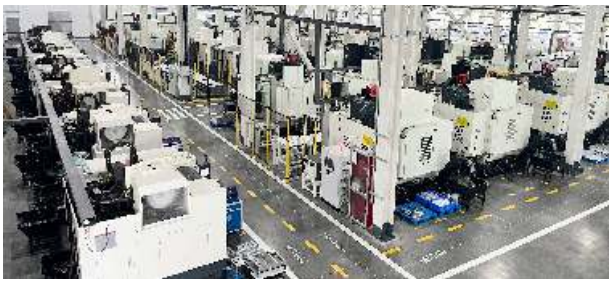
Founded in 2015, Zhengzhou Linghang Robot Co., Ltd. has registered capital of CNY 25,371,366 and is listed on the Zhonggujiao platform (equity code: 200649). The company is based in Building 11, Zhengtou Science and Technology Innovation Park, Erqi Economic and Technological Development Zone, Zhengzhou. With its own professional R&D team and a modern, intelligent manufacturing facility, it is a nationally recognised high-tech enterprise integrating independent development, manufacturing, sales and services.

The company has offices in southern, eastern, central, northeastern and southwestern China, as well as subsidiaries or offices in Europe, North America and Southeast Asia. Its products have been exported to more than 60 countries.

Linghang has received National High-Tech Enterprise and Henan Science and Technology Enterprise recognition, as well as Henan's designation for specialised, sophisticated, distinctive and innovative enterprises. Certifications include ISO 9001 quality management, EU CE safety, TÜV Rheinland functional safety and SIL safety certification. The company holds more than 70 patents and 5 software copyright registrations.

Its main products include robotic tool changers, grippers and force-controlled floating grinding systems. They enable flexible tool changes as often as needed to improve the productivity and safety of industrial robots. Applications include automated spot welding, material handling, assembly, grinding and palletising.

- Vision: to become the world's best supplier of robot end-of-arm tooling.
- Mission: to advance intelligent industrial manufacturing through continuous innovation and make work easier.
- Values: innovation, excellence, efficiency and focus.
- Team philosophy: treat people with sincerity and take a practical approach to work.





Linghang end-of-arm tooling manufacturing facility, Zhengzhou

60+ export markets worldwide

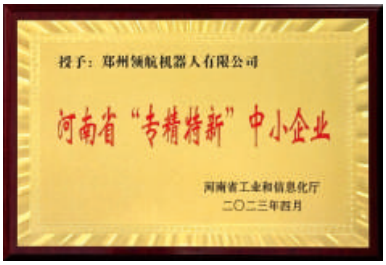
70+ technical patents

5+ software copyright registrations

Certifications and recognition

Focused on end-of-arm tooling R&D to improve manufacturing productivity. ISO 9001 quality management, EU CE safety, TÜV Rheinland functional safety and SIL safety certification; more than 70 patents.











Linghang product range

Tool changers



Tool changers
Special materials technology and an inclined locking geometry ensure secure locking. Innovative RD connection technology provides stable signal transmission. LT fluid connection technology delivers one million leak-free connection cycles.

Utility couplers
A modular design with multiple mounting faces allows flexible configurations. Floating compensation in X, Y and Z corrects docking errors. Wireless coupling is also available for contactless, wear-free transmission and lower maintenance costs.

Grippers



Pneumatic grippers
Robust construction, precise gripping and long maintenance-free service life.
Finger quick-change devices
Fast, tool-free finger changes; precise fitting and broad compatibility.
Floating compensation units
Flexible multidirectional error compensation and stable operation under heavy loads.
Rotary cylinders
Compact design, high torque and precise positioning for efficient rotation.
Anti-twist units
Free rotation without tangling; stable pneumatic, electrical and signal transmission throughout.

Force-controlled floating grinding



Radial force-controlled grinding
360° radial compliance for deburring complex workpieces. Electric spindles with interchangeable tools, running at 1000-60000 rpm, meet a wide range of process requirements. Position repeatability of 1 µm provides precise compensation for workpiece deviations.

Axial force-controlled grinding
Adaptive grinding of complex convex and concave surfaces maintains contact for consistent results. The constant-force actuator automatically detects its orientation and compensates the output force, with compensation accuracy within ±0.5 N.

Linghang tool changers

Linghang tool changers enable a single industrial robot to use multiple tools or different types of end-of-arm tooling. One robot-side unit can connect to several tool-side units, increasing production-line flexibility and robot utilisation. Applications include rapid changes of spot-welding guns, end pickers, grippers, punching units, lasers, deburring tools, vision devices and ultrasonic welding guns.

ISO 9001 certification
SIL safety and EU CE certification
TÜV functional safety certification

Complete tool changer range
Payload options: 5-3000 kg

For a wide range of applications

Extensive module options; customisation available

Self-locking if air pressure is lost

Technical highlights






Locking mechanism
Patented materials technology and a specially inclined locking geometry work together to ensure secure locking.

Redundancy
Innovative RD connection technology delivers exceptionally stable data and signal transmission.

Fluid modules
LT fluid connection technology enables one million leak-free connection cycles.

Safe docking
The patented tool-stand interlock prevents the tool changer from opening during normal operation, even if the industrial robot mistakenly sends an open command to the solenoid valve module.



Model: LTC-0005A

- Recommended payload: ≤5 kg
- Locking force: 770 N
- Allowable static bending moment: 13.2 N·m
- Allowable static torque: 18 N·m
- Built-in pneumatic ports: 4 × M5; 1 module mounting face.



Model: LTC-0010E

- Recommended payload: ≤10 kg
- Locking force: 1193 N
- Allowable static bending moment: 26.5 N·m
- Allowable static torque: 35.7 N·m
- Built-in pneumatic ports: 4 × M5; 2 module mounting faces.
- Optional locked/unlocked sensing and tool presence detection.



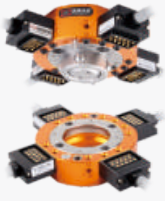
Model: LTC-0010F

- Recommended payload: ≤10 kg
- Locking force: 1193 N
- Allowable static bending moment: 26.5 N·m
- Allowable static torque: 35.7 N·m
- Built-in pneumatic ports: 6 × M5; 2 module mounting faces.



Model: LTC-0020D

- Recommended payload: ≤20 kg
- Locking force: 2514 N
- Allowable static bending moment: 58.6 N·m
- Allowable static torque: 80 N·m
- Built-in pneumatic ports: 12 × M5; 4 module mounting faces.
- Optional locked/unlocked sensing and tool presence detection.



Model: LTC-0020E

- Recommended payload: ≤20 kg
- Locking force: 2514 N
- Allowable static bending moment: 58.6 N·m
- Allowable static torque: 80 N·m
- Built-in pneumatic ports: 12 × M5; 4 module mounting faces.



Model: LTC-0040A

- Recommended payload: ≤40 kg
- Locking force: 7497 N
- Allowable static bending moment: 216 N·m
- Allowable static torque: 228 N·m
- Built-in pneumatic ports: 8 × PT1/8; 2 module mounting faces.
- Optional locked/unlocked sensing and tool presence detection.



Model: LTC-0070A

- Recommended payload: ≤70 kg
- Locking force: 9973 N
- Allowable static bending moment: 328.5 N·m
- Allowable static torque: 451 N·m
- Built-in pneumatic ports: 8 × PT1/8; 2 module mounting faces.
- Optional locked/unlocked sensing and tool presence detection.



Model: LTC-0070B

- Recommended payload: ≤70 kg
- Locking force: 9973 N
- Allowable static bending moment: 328.5 N·m
- Allowable static torque: 451 N·m
- Built-in pneumatic ports: 6 × PT1/8; 4 module mounting faces.
- Optional locked/unlocked sensing and tool presence detection.



Model: LTC-0120C

- Recommended payload: ≤120 kg
- Locking force: 15407 N
- Allowable static bending moment: 842 N·m
- Allowable static torque: 1200 N·m
- Built-in pneumatic ports: 10 × PT1/8; 2 module mounting faces.
- Optional locked/unlocked sensing and tool presence detection.



Model: LTC-0120D

- Recommended payload: ≤120 kg
- Locking force: 15407 N
- Allowable static bending moment: 842 N·m
- Allowable static torque: 1200 N·m
- Built-in pneumatic ports: 8 × PT1/8; 4 module mounting faces.
- Optional locked/unlocked sensing and tool presence detection.



Model: LTC-0200D

- Recommended payload: ≤230 kg
- Locking force: 31458 N
- Allowable static bending moment: 2260 N·m
- Allowable static torque: 2245 N·m
- Built-in pneumatic ports: 9 × PT3/8; 2 module mounting faces.
- Optional locked/unlocked sensing and tool presence detection.



Model: LTC-0200E

- Recommended payload: ≤230 kg
- Locking force: 31458 N
- Allowable static bending moment: 2260 N·m
- Allowable static torque: 2245 N·m
- Built-in pneumatic ports: 18 × PT1/8; 2 module mounting faces.
- Optional locked/unlocked sensing and tool presence detection.



Model: LTC-0200F

• Recommended payload: ≤230 kg
• Locking force: 31458 N
• Allowable static bending moment: 2260 N·m
• Allowable static torque: 2245 N·m
• Built-in pneumatic ports: 6 × PT1/8 and 2 × PT3/8;
4 module mounting faces.
• Optional locked/unlocked sensing and tool presence detection.



Model: LTC-0300G

• Recommended payload: ≤300 kg
• Locking force: 35421 N
• Allowable static bending moment: 2767 N·m
• Allowable static torque: 2526 N·m
• Built-in pneumatic ports: 10 × PT3/8; 2 module mounting faces.
• Optional locked/unlocked sensing and tool presence detection.



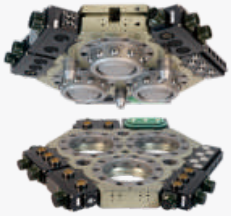
Model: LTC-0630F

• Recommended payload: ≤650 kg
• Locking force: 72930 N
• Allowable static bending moment: 5000 N·m
• Allowable static torque: 5000 N·m
• 4 module mounting faces.
• Optional locked/unlocked sensing and tool presence detection.



Model: LTC-1300A

• Recommended payload: ≤1300 kg
• Locking force: 106263 N
• Allowable static bending moment: 6830 N·m
• Allowable static torque: 6920 N·m
• 6 module mounting faces.
• Optional locked/unlocked sensing and tool presence detection.



Model: LTC-3000A

• Recommended payload: ≤3000 kg
• Locking force: 130200 N
• Allowable static bending moment: 13600 N·m
• Allowable static torque: 13000 N·m
• 6 module mounting faces.
• Optional locked/unlocked sensing and tool presence detection.

Linghang gripping technology

These compressed-air-powered actuators clamp or grip workpieces, replacing manual gripping tasks. They handle items of different shapes, sizes, weights and materials. The combination of gripping force and stroke improves production-process stability.

- Linghang technology: powerful mechanical grippers
- Reinforced structure for greater load capacity
- Multi-tooth guide profile for reliable gripping
- Multiple sensor positions for flexible opening and closing detection
- Self-lubricating design for longer maintenance-free operation
- More than 400 configurations for added functionality



LH-TC · Two-finger parallel grippers



Model: LT-TG2-40 series

• Stroke per finger: 2.5 mm
• Closing force: 153 N-210 N
• Recommended workpiece weight: 0.76 kg
• Max. finger length: 54 mm-58 mm
• Max. finger weight: 0.1 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-TG2-50 series

• Stroke per finger: 4 mm/2 mm
• Closing force: 192 N-533 N
• Recommended workpiece weight: 0.95 kg-1.9 kg
• Max. finger length: 64 mm-72 mm
• Max. finger weight: 0.18 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-TG2-64 series

• Stroke per finger: 6 mm/3 mm
• Closing force: 295 N-770 N
• Recommended workpiece weight: 1.45 kg-2.95 kg
• Max. finger length: 80 mm-90 mm
• Max. finger weight: 0.35 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-PG2-80 series

• Stroke per finger: 8 mm/4 mm
• Closing force: 440 N-1180 N
• Recommended workpiece weight: 2.2 kg-4.3 kg
• Max. finger length: 100 mm-110 mm
• Max. finger weight: 0.6 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-PG2-100 series

• Stroke per finger: 10 mm/5 mm
• Closing force: 710 N-1920 N
• Recommended workpiece weight: 3.5 kg-7.1 kg
• Max. finger length: 125 mm-145 mm
• Max. finger weight: 1.1 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-PG2-125 series

• Stroke per finger: 13 mm/6.5 mm
• Closing force: 1160 N-3170 N
• Recommended workpiece weight: 5.8 kg-11.7 kg
• Max. finger length: 160 mm-180 mm
• Max. finger weight: 2.1 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-PG2-160 series

• Stroke per finger: 16 mm/8 mm
• Closing force: 1785 N-4500 N
• Recommended workpiece weight: 8.5 kg-17 kg
• Max. finger length: 200 mm-220 mm
• Max. finger weight: 3.5 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-PG2-200 series

• Stroke per finger: 25 mm/14 mm
• Closing force: 2960 N-6640 N
• Recommended workpiece weight: 14.5 kg-25 kg
• Max. finger length: 200 mm-280 mm
• Max. finger weight: 6.5 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-PG2-240 series

• Stroke per finger: 30 mm/17 mm
• Closing force: 4300 N-9290 N
• Recommended workpiece weight: 21.5 kg-37 kg
• Max. finger length: 240 mm-320 mm
• Max. finger weight: 8.5 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-PG2-300 series

• Stroke per finger: 35 mm/20 mm
• Closing force: 5780 N-12330 N
• Recommended workpiece weight: 29 kg-49.5 kg
• Max. finger length: 250 mm-350 mm
• Max. finger weight: 11.5 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.



Model: LT-PG2-380 series

• Stroke per finger: 45 mm/26 mm
• Closing force: 9630 N-23750 N
• Recommended workpiece weight: 48 kg-82.5 kg
• Max. finger length: 300 mm-400 mm
• Max. finger weight: 17 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.

LH-TC · Three-finger centric grippers



Model: LT-TG3-40 series

• Stroke per finger: 2.5 mm
• Closing force: 250 N-350 N
• Recommended workpiece weight: 1.25 kg
• Max. finger length: 45 mm-50 mm
• Max. finger weight: 0.1 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



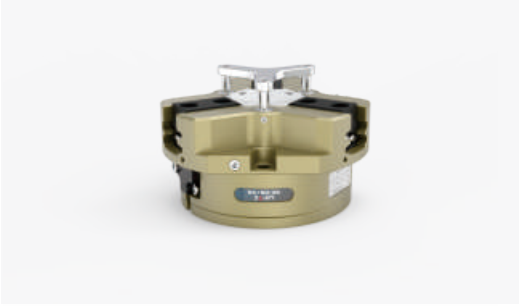
Model: LT-TG3-50 series

• Stroke per finger: 4 mm
• Closing force: 430 N-555 N
• Recommended workpiece weight: 2.1 kg
• Max. finger length: 58 mm-64 mm
• Max. finger weight: 0.18 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



Model: LT-TG3-64 series

• Stroke per finger: 6 mm
• Closing force: 700 N-900 N
• Recommended workpiece weight: 3.5 kg
• Max. finger length: 72 mm-80 mm
• Max. finger weight: 0.35 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



Model: LT-PG3-80 series

• Stroke per finger: 8 mm/4 mm
• Closing force: 1090 N-2860 N
• Recommended workpiece weight: 5.4 kg-10.5 kg
• Max. finger length: 100 mm-110 mm
• Max. finger weight: 0.6 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



Model: LT-PG3-100 series

• Stroke per finger: 10 mm/5 mm
• Closing force: 2050 N-5570 N
• Recommended workpiece weight: 10 kg-20 kg
• Max. finger length: 125 mm-145 mm
• Max. finger weight: 1.1 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



Model: LT-PG3-125 series

• Stroke per finger: 13 mm/6.5 mm
• Closing force: 3240 N-8820 N
• Recommended workpiece weight: 16 kg-32 kg
• Max. finger length: 160 mm-180 mm
• Max. finger weight: 2.1 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



Model: LT-PG3-160 series

• Stroke per finger: 16 mm/8 mm
• Closing force: 5970 N-15030 N
• Recommended workpiece weight: 29.5 kg-57 kg
• Max. finger length: 200 mm-220 mm
• Max. finger weight: 3.5 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



Model: LT-PG3-200 series

• Stroke per finger: 25 mm/14 mm
• Closing force: 8200 N-17320 N
• Recommended workpiece weight: 41 kg-63 kg
• Max. finger length: 200 mm-280 mm
• Max. finger weight: 6.5 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



Model: LT-PG3-240 series

• Stroke per finger: 30 mm/17 mm
• Closing force: 11860 N-27590 N
• Recommended workpiece weight: 59 kg-101 kg
• Max. finger length: 200 mm-300 mm
• Max. finger weight: 8.5 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



Model: LT-PG3-300 series

• Stroke per finger: 35 mm/20 mm
• Closing force: 15950 N-43910 N
• Recommended workpiece weight: 79 kg-137 kg
• Max. finger length: 200 mm-250 mm
• Max. finger weight: 11.5 kg
• Options: standard, spring-assisted force-retention, dust-protected, high-temperature variants, ejector plate assembly, etc.



Model: LT-PG3-380 series

• Stroke per finger: 45 mm/26 mm
• Closing force: 29040 N-65900 N
• Recommended workpiece weight: 145 kg-249 kg
• Max. finger length: 200 mm-250 mm
• Max. finger weight: 13.5 kg
• Options: standard, spring-assisted force-retention, dust-protected and high-temperature variants, etc.

Optional components



LT-JQC-50SK series

Gripper finger quick-change system:
LT-JQC-50SKB / LT-JQC-50SKB-P
Weight (excluding locating pins): 0.025 kg / 0.03 kg
Max. permissible torque: 13 N·m
Max. permissible force, Fx: 345 N
Finger locating pin: LT-JQC-50SKA
Weight (2 per set): 0.005 kg
Material: 42CrMo

LT-JQC-64SK series

Gripper finger quick-change system:
LT-JQC-64SKB / LT-JQC-64SKB-P
Weight (excluding locating pins): 0.04 kg / 0.045 kg
Max. permissible torque: 28 N·m
Max. permissible force, Fx: 505 N
Finger locating pin: LT-JQC-64SKA
Weight (2 per set): 0.011 kg
Material: 42CrMo

LT-JQC-80SK series

Gripper finger quick-change system:
LT-JQC-80SKB / LT-JQC-80SKB-P
Weight (excluding locating pins): 0.08 kg /0.07 kg
Max. permissible torque: 62 N·m
Max. permissible force, Fx: 1070 N
Finger locating pin: LT-JQC-80SKA
Weight (2 per set): 0.022 kg
Material: 42CrMo

LT-JQC-100SK series

Gripper finger quick-change system:
LT-JQC-100SKB / LT-JQC-100SKB-P
Weight (excluding locating pins): 0.13 kg
Max. permissible torque: 104 N·m
Max. permissible force, Fx: 1950 N
Finger locating pin: LT-JQC-100SKA
Weight (2 per set): 0.05 kg
Material: 42CrMo

LT-JQC-125SK series

Gripper finger quick-change system:
LT-JQC-125SKB / LT-JQC-125SKB-P
Weight (excluding locating pins): 0.22 kg / 0.21 kg
Max. permissible torque: 220 N·m
Max. permissible force, Fx: 2810 N
Finger locating pin: LT-JQC-125SKA
Weight (2 per set): 0.1 kg
Material: 42CrMo

LT-JQC-160SK series

Gripper finger quick-change system:
LT-JQC-160SKB / LT-JQC-160SKB-P
Weight (excluding locating pins): 0.44 kg / 0.43 kg
Max. permissible torque: 305 N·m
Max. permissible force, Fx: 5350 N
Finger locating pin: LT-JQC-160SKA
Weight (2 per set): 0.15 kg
Material: 42CrMo

LT-JQC-200-P

Gripper finger quick-change system:
LT-JQC-200B-P
Weight (excluding locating pins): 0.77 kg
Max. permissible torque: 510 N·m
Max. permissible force, Fx: 6110 N
Finger locating pin: LT-JQC-200A-P
Weight (2 per set): 0.32 kg
Material: 42CrMo

LT-JQC-240-P

Gripper finger quick-change system:
LT-JQC-240B-P
Weight (excluding locating pins): 1.35 kg
Max. permissible torque: 880 N·m
Max. permissible force, Fx: 9330 N
Finger locating pin: LT-JQC-240A-P
Weight (2 per set): 0.62 kg
Material: 42CrMo

LT-JQC-300-P

Gripper finger quick-change system:
LT-JQC-300B-P
Weight (excluding locating pins): 1.8 kg
Max. permissible torque: 1220 N·m
Max. permissible force, Fx: 12420 N
Finger locating pin: LT-JQC-300A-P
Weight (2 per set): 0.79 kg
Material: 42CrMo

Linghang floating compensation units

Linghang floating compensation units improve machining accuracy and process reliability, particularly when handling workpieces that are sensitive to deformation. Floating compensation accommodates workpiece position errors while maintaining stable, sustained clamping force. This extends maintenance intervals, reduces maintenance costs and improves overall machining efficiency.

Versatile operation
Precisely compensates for positional or angular offsets during assembly and loading.

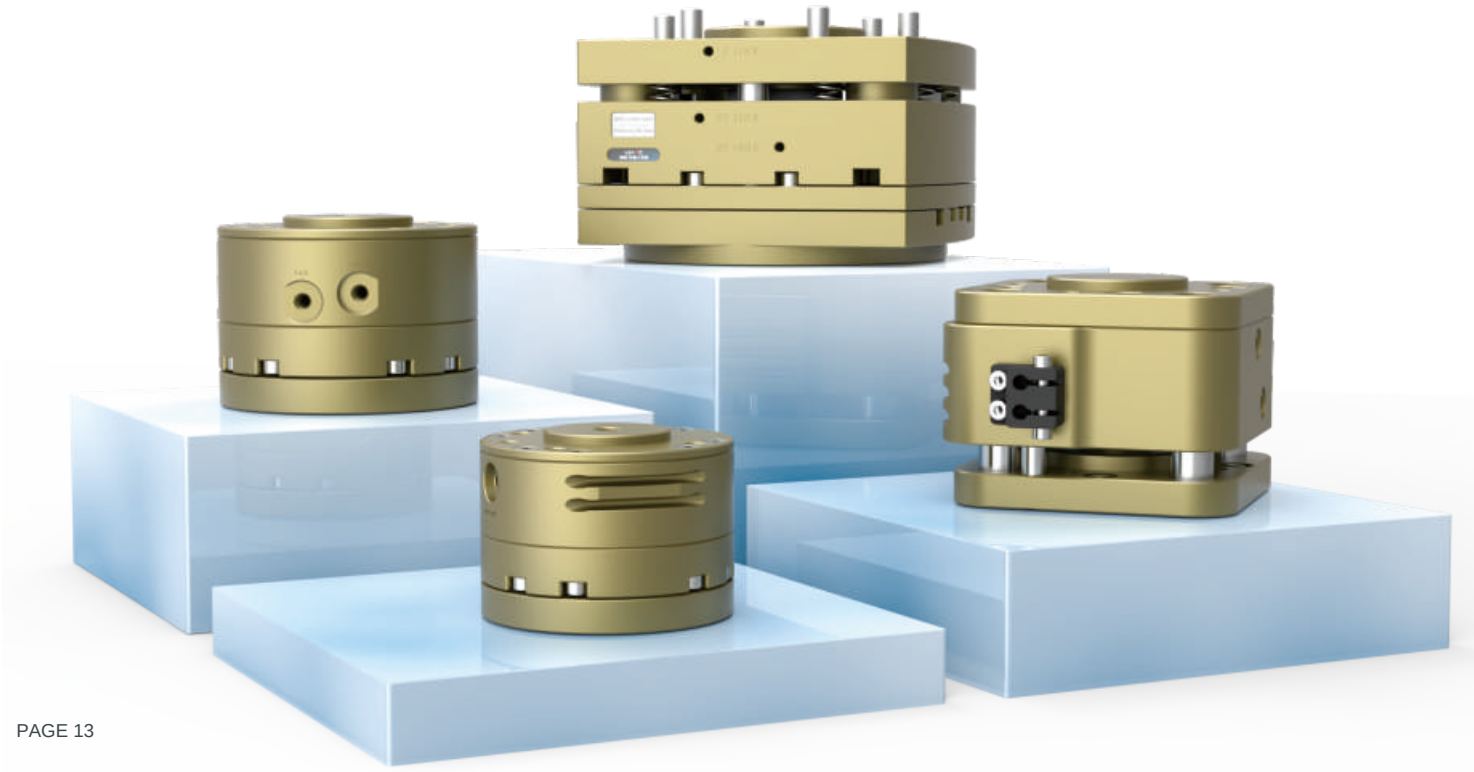
Multidirectional compensation
XYZ, XY and Z compensation for broad and flexible application.

Precise control
Centre-position locking and position memory ensure accurate operation.

Easy installation
The ISO 9409 interface simplifies assembly.

Stable and durable
Robust materials and construction extend equipment service life.

High level of integration
Supports seamless integration with the robot control system.



Floating compensation unit - XY direction



Model	LT-COMP-50XY	LT-COMP-63XY	LT-COMP-80XY
XY compensation	±2.5mm	±3mm	±4mm
Rotation angle	±12°	±12°	±16°
Rec. vertical handling mass	6kg	9kg	15kg
Rec. horizontal handling mass	4kg	6kg	10kg
Rec. mass with position memory	1.5kg	1.8kg	4kg
Positioning piston locking force	240N	380N	610N
Max. load force when locked	130N	200N	310N
Position memory piston force	145N	240N	590N
Max. radial force with position memory	40N	70N	175N
Max. torque with position memory	1.2N.m	1.7N.m	4N.m
Air pressure (min./rated/max.)	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa
Repeatability	0.1mm	0.1mm	0.1mm
Robot-side interface	ISO 9409-1-50-4-M6	ISO 9409-1-63-4-M6	ISO 9409-1-80-6-M8
Weight	0.45kg	0.82kg	1.43kg
Ambient temperature (min./max.)	+5/+60℃	+5/+60℃	+5/+60℃
Overall dimensions	Φ65×48mm	Φ80×55mm	Φ100×62mm

Floating compensation unit - Z direction



Model	LT-COMP-50Z-1/ LT-COMP-50Z-2	LT-COMP-63Z-1/ LT-COMP-63Z-2	LT-COMP-80Z-1/ LT-COMP-80Z-2
Z compensation	8mm	8mm	10mm
Recommended handling mass	5kg	9kg	12kg
Locking force, retracted, at 0.6 MPa	280N / 260N	630N / 590N	1160N / 1140N
Locking force, extended, at 0.6 MPa	510N / 530N	900N / 920N	1500N / 1520N
Minimum spring force	20N / 40N	40N / 60N	70N / 90N
Maximum spring force	40N / 60N	60N / 100N	100N / 120N
Air pressure (min./max.)	0.3/0.6MPa	0.3/0.6MPa	0.3/0.6MPa
Repeatability	0.02mm	0.02mm	0.02mm
Robot-side interface	ISO 9409-1-50-4-M6	ISO 9409-1-63-4-M6	ISO 9409-1-80-6-M8
Weight	0.6kg	1kg	1.7kg
Ambient temperature (min./max.)	+5/+60℃	+5/+60℃	+5/+60℃
Overall dimensions	64×64×53mm	80×80×59.5mm	105×105×65mm

Floating compensation unit - XYZ direction



Model	LT-COMP-100XYZ series	LT-COMP-125XYZ series
XY compensation range	±4mm	±7mm
Z compensation range	10mm	12mm
Vertical handling mass	9kg	18kg
Horizontal handling mass	5.5kg	11kg
XY locking force	633N	1224N
Z locking force (including spring force)	871N	1584N
Position memory piston radial force	152N	205N
Air pressure (min./rated/max.)	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa
Operating ambient temperature	+5/+60℃	+5/+60℃
Repeatability	0.1mm	0.1mm
Flange interface	ISO 9409-1-100-6-M8	ISO 9409-1-125-6-M10

Note: XY-only or Z-only versions are available.

Model	LT-COMP-160XYZ series	LT-COMP-200XYZ series
XY compensation range	±10mm	±12mm
Z compensation range	14mm	14mm
Vertical handling mass	60kg	160kg
Horizontal handling mass	40kg	100kg
XY locking force	1847N	2787N
Z locking force (including spring force)	2080N	3176N
Position memory piston radial force	463N	575N
Air pressure (min./rated/max.)	0.3/0.6/0.8MPa	0.3/0.6/0.8MPa
Operating ambient temperature	+5/+60℃	+5/+60℃
Repeatability	0.1mm	0.1mm
Flange interface	ISO 9409-1-160-6-M10	ISO 9409-1-200-6-M12

Note: XY-only or Z-only versions are available.

Force-controlled grinding and deburring tools

Linghang force-controlled grinding and deburring tools provide an efficient, compliant solution for automated deburring. A powerful electric motor quickly removes burrs, parting lines and flash from a wide range of materials. Suitable for multiple operations on cast iron, steel, aluminium alloy and plastic components. During operation, the compliant mechanism and tool follow irregular workpiece contours, compensating for workpiece and positioning errors to prevent damage to the tool and workpiece.

- Compliant contact with adjustable speed
- 360° radial compliance and axial compliance
- Wear-resistant contact parts; protection against dust and air leakage
- Lightweight aluminium alloy construction
- Built-in steel ball contacts reduce friction and extend tool life
- Interchangeable industrial grinding heads for specific deburring tasks

Radial compliance series



Model: LT-FRC030B-3060J

- Max. speed: 60000 rpm
- Max. torque: 9 cN·m; power: 350 W
- Compliance force: 7 N~30 N
- Axial compliance travel: 7 mm
- Radial compliance: 360°; angle (X, Y): ±5°
- Automatic tool change; shank diameter: 0.5 mm~6.35 mm

Model: LT-FRC030B-3030T-J

- Max. speed: 30000 rpm
- Max. torque: 18 cN·m; power: 350 W
- Compliance force: 7 N~30 N
- Axial compliance travel: 7 mm
- Radial compliance: 360°; angle (X, Y): ±5°
- Automatic tool change; shank diameter: 0.5 mm~6.35 mm



Model: LT-FR030B-3060J

- Max. speed: 60000 rpm
- Max. torque: 9 cN·m
- Power: 350 W
- Compliance force: 7 N~30 N
- Axial compliance travel: 5 mm
- Radial compliance: 360°; angle (X, Y): ±5°

Model: LT-FR030B-3030T-J

- Max. speed: 30000 rpm
- Max. torque: 18 cN·m
- Power: 350 W
- Compliance force: 7 N~30 N
- Axial compliance travel: 5 mm
- Radial compliance: 360°; angle (X, Y): ±5°



Model: LT-FR020A-20-S6000

- Max. speed: 60000 rpm
- Max. torque: 9 cN·m
- Power: 250 W
- Compliance force: 3 N~14 N
- Axial compliance travel: 4 mm
- Radial compliance: 360°; angle (X, Y): ±5°



Model: LT-FR040B-S4040

- Max. speed: 20000 rpm
- Spindle torque: 60 cN·m
- Power: 400 W
- Compliance force: 7 N~29 N
- Axial compliance travel: 6.5 mm
- Radial compliance: 360°; angle (X, Y): ±5°



Model: LT-6000

- Max. speed: 36000 rpm
- Max. torque: 2.8 N·m
- Power: 6 kW
- Compliance force: 96 N~203.8 N
- Axial compliance travel: 10 mm
- Radial compliance: 360°; angle (X, Y): ±4°

Axial compliance series



Model: LTC-AF100C-L

- Controllable orientation range: 360°
- Compliance force: 10-100 N
- Force control accuracy: ±0.5 N
- Payload: 3.5 kg; stroke: 30 mm
- Unit weight: 3.35 kg
- Response time: 40 ms



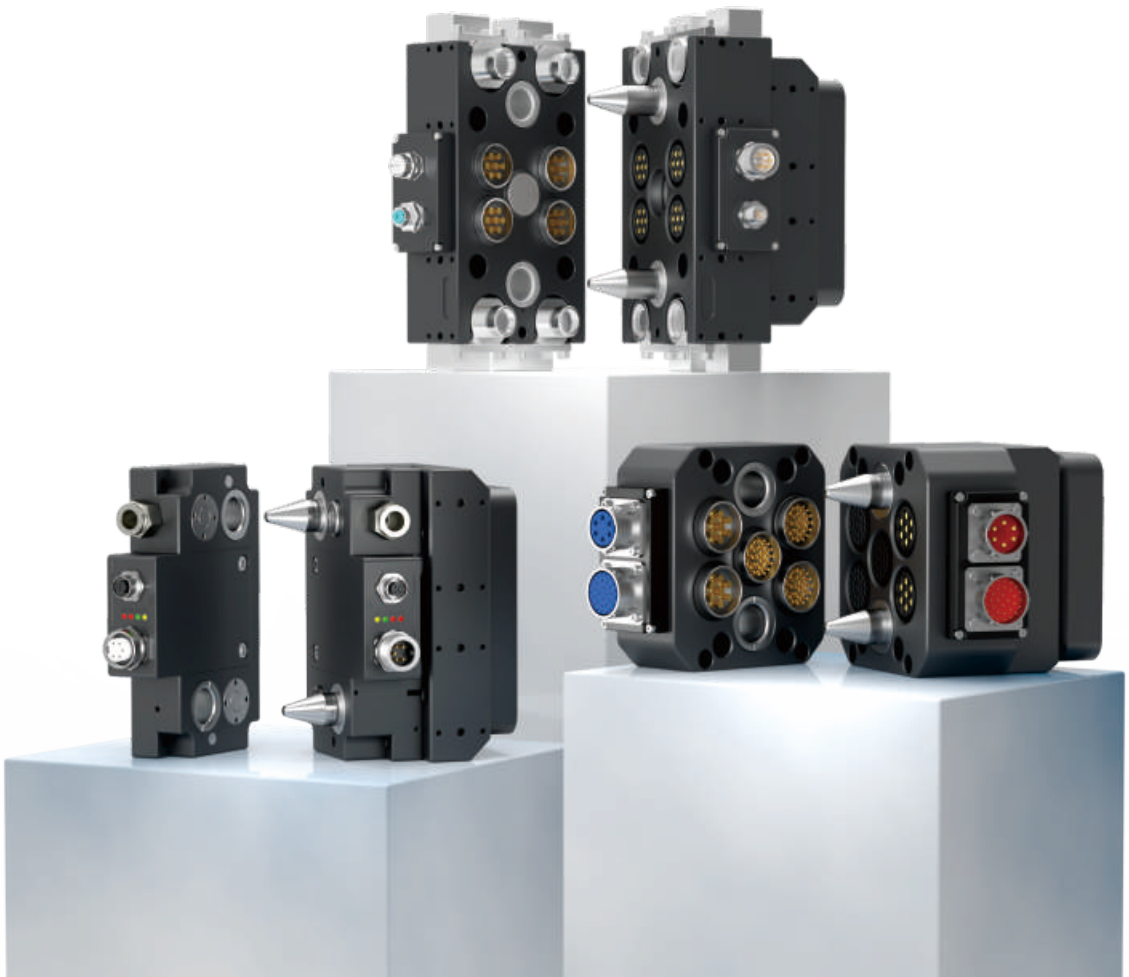
Model: LT-AF300B

- Controllable orientation range: 360°
- Compliance force: 10-300 N
- Force control accuracy: ±1 N
- Payload: 12 kg; stroke: 35 mm
- Unit weight: 5.85 kg
- Response time: 40 ms

Utility couplers

Linghang utility couplers connect utilities between master and slave stations, transferring electrical power, gases, liquids and communication signals. The fixed side features a special compliant mechanism that compensates for positioning and mechanical errors during coupling. Primarily used in automotive manufacturing, they rapidly supply power, compressed air and signals to equipment or trolleys when trolleys, fixtures or dies are changed.

- Power, data and I/O transfer between master and slave stations
- Modular utility units for flexible configurations
- For industrial Ethernet communication applications
- Floating compensation in X, Y and Z to correct coupling misalignment
- Optional servo motor or pneumatic cylinder drive
- For industrial wireless power applications



Utility couplers



Model: LT-F31

- Quick connection of gas, power and communication
- 2 integrated PT3/8 self-sealing pneumatic channels
- Optional servo motor or pneumatic cylinder drive
- Supported protocols: Ethernet, EtherNetIP, EtherCAT, PROFINET, DEVICENET, PROFIBUS, CC-LINK, Gigabit Ethernet
- Compensation: X and Y: ±4 mm; Z: 2 mm; angle: ±3°
- Required coupling force: ≥1526 N



Model: LT-F31C

- Quick connection of gas, liquid, power and communication
- Optional 1~4 PT1/2 water/air channels
- Optional servo motor or pneumatic cylinder drive
- Supported protocols: Ethernet, EtherNetIP, EtherCAT, PROFINET, DEVICENET, PROFIBUS, CC-LINK, Gigabit Ethernet
- Compensation: X and Y: ±4 mm; Z: 2 mm; angle: ±3°
- Required coupling force: ≥1526 N



Model: LT-F41

- Quick connection of power and communication
- Lightweight, compact design
- Optional servo motor or pneumatic cylinder drive
- Supported protocols: Ethernet, EtherNetIP, EtherCAT, PROFINET, DEVICENET, PROFIBUS, CC-LINK, Gigabit Ethernet
- Compensation: X and Y: ±4 mm; Z: 2 mm; angle: ±3°
- Required coupling force: ≥1526 N

Wireless utility coupler



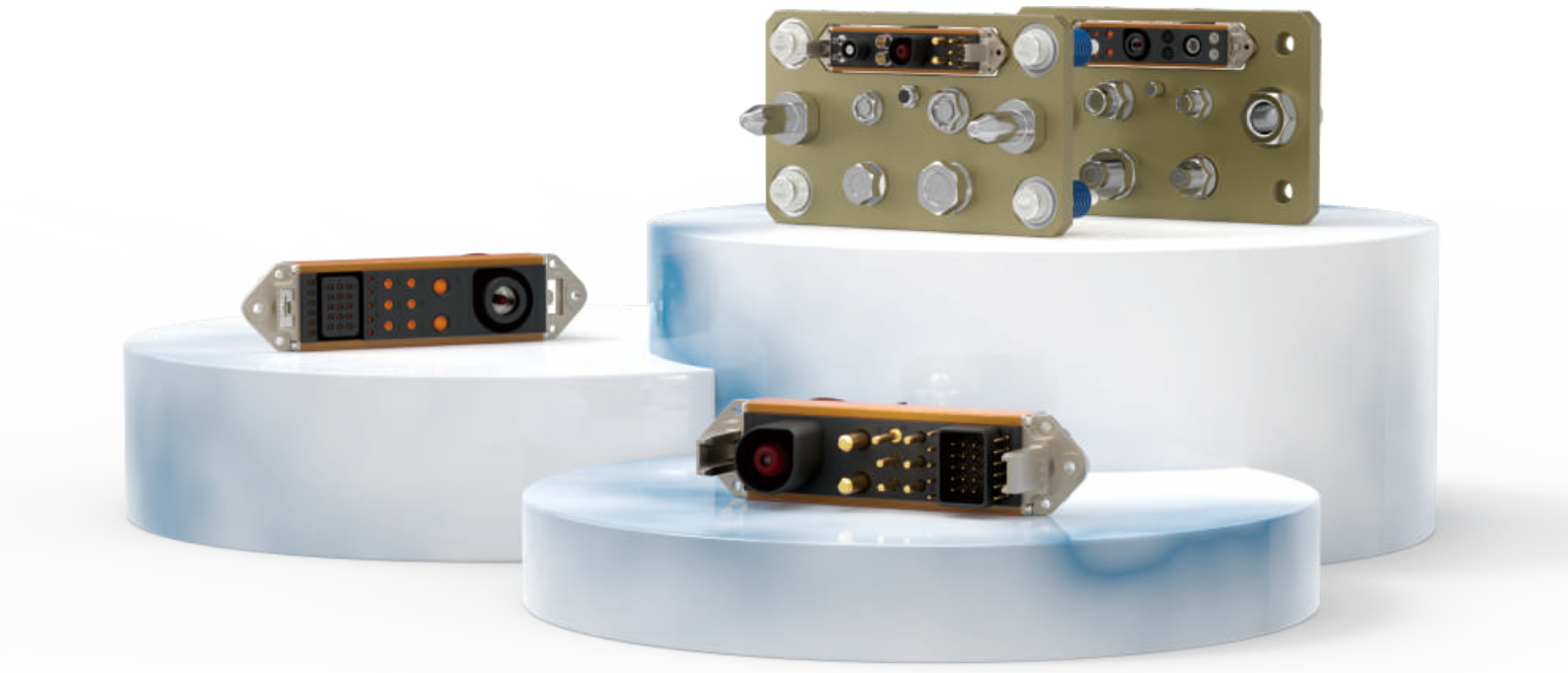
Model: LT-F31G-EP01-SE

- Quick connection of gas, power and communication
- 2 integrated PT3/8 self-sealing pneumatic channels
- Supports Profinet, EtherNet/IP, EtherCAT, Modbus/TCP and other Ethernet protocols
- Compensation: X and Y: ±4 mm; Z: 2 mm; angle: ±3°
- Required coupling force: ≥1526 N

Modular connector system

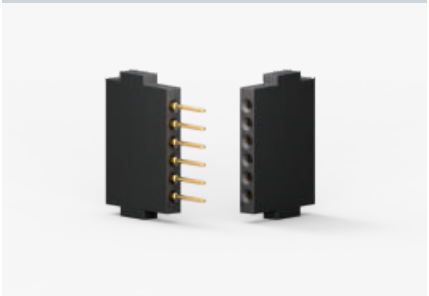
The Linghang modular connector system integrates power (up to 750 A), signals, data, gases and liquids in a high-density connection panel. High current capacity and reliability enable simultaneous connection of multiple utilities for robots, experimental equipment and test benches, electric vehicle battery, motor and electronic control testing, and railway energy storage systems. The system maintains stable connections under vibration and shock.

- Gold- or silver-plated contact pins support a service life of more than 100,000 mating cycles.
- Floating compensation automatically accommodates ±4 mm installation errors and improves resistance to vibration and shock.
- The modular design allows any combination of power, Gigabit Ethernet, I/O signal, water, air, hydraulic and coolant interfaces. All utilities connect in a single mating operation.
- Module positions can be reconfigured quickly and easily; parts are easy to remove and replace.
- Custom solutions are available to meet customer requirements.

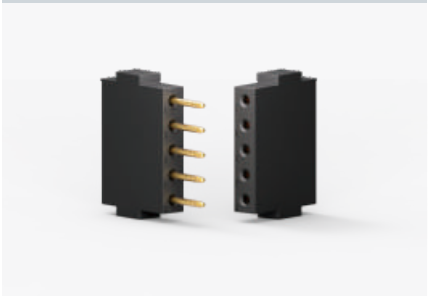


Optional components

Φ1.0 signal module



Φ1.5 signal module



Φ3 power module



Φ6 power module



Φ8 power module



Φ12 power module



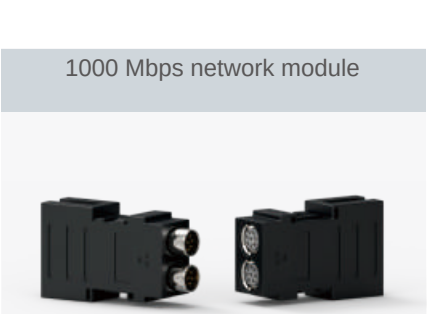
750 A power module



Φ3 two-channel pneumatic module, self-sealing on one side



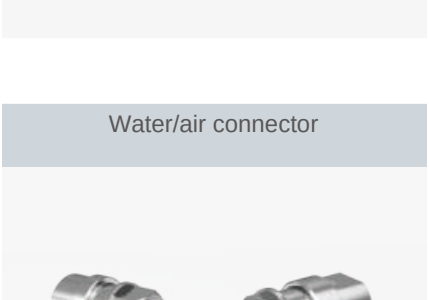
1000 Mbps network module



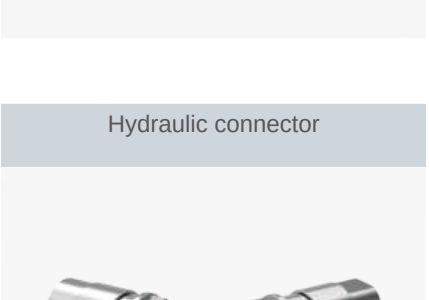
LT-FEC frame



Water/air connector



Hydraulic connector



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