DH-ROBOTICS

Servo-Electric Grippers

EN-2022.03

DH ROBOTICS

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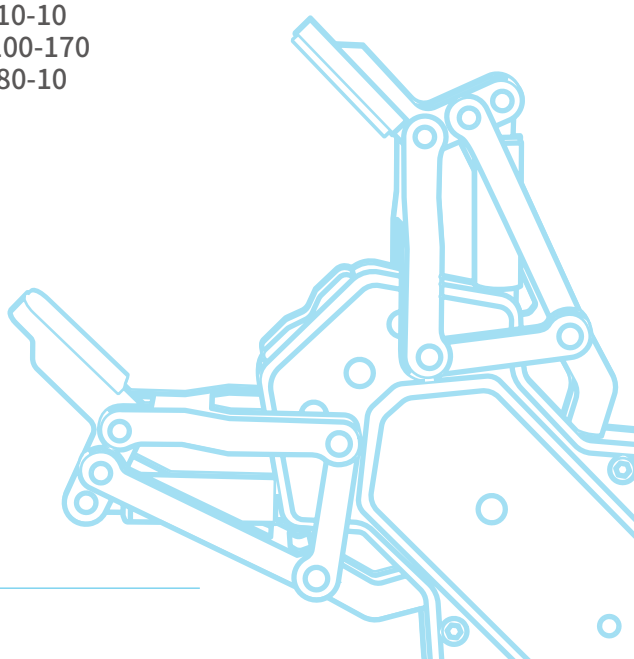


Our Support System

R&D System

New Technology

Innovation

R&D

Engineering Management

Sales Network

Projects Assessment

Training

Quality Supervision

After-sales Service

Manufacturing

Quality System

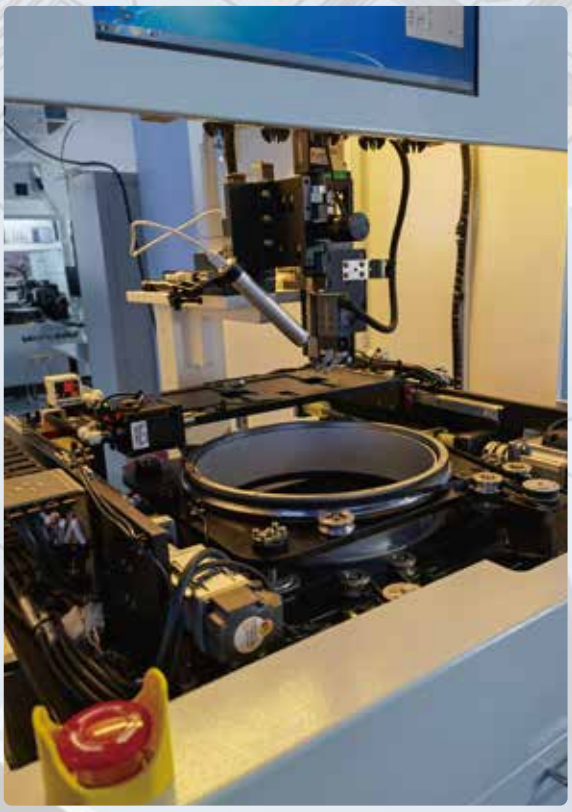
Stock Management

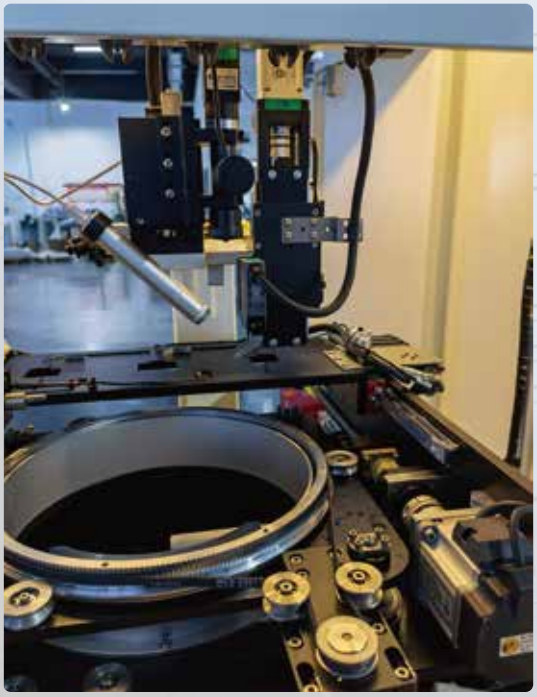
Supply Management

Manufacturing

Applications - Electronics

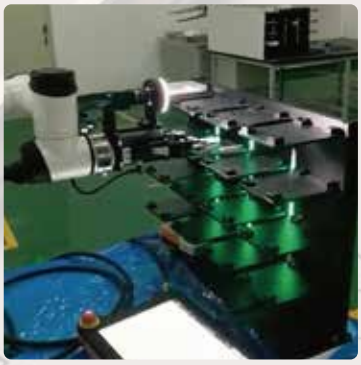


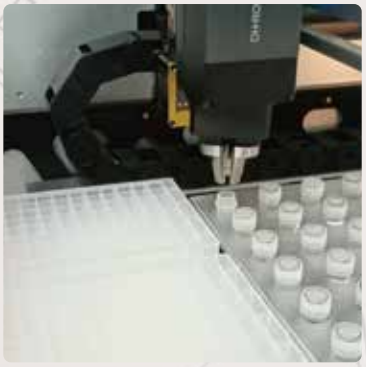






Applications – Medical Automation

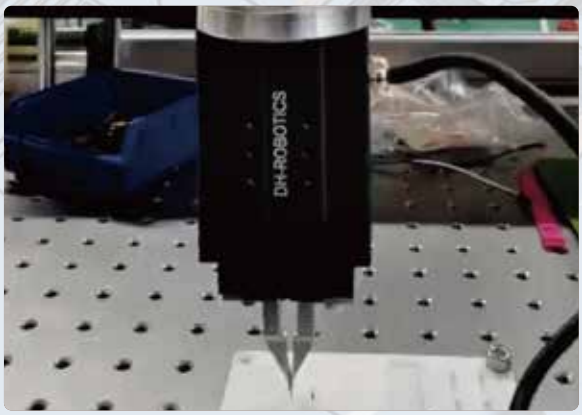




More Applications

PGE-8-14 Automatic Application

One collabotative robot with two electric grippers to complete the loading and unloading.



PGE-8-14 Electronics

Handling and positioning of very small workpieces.

RGI-35-14 Medical Automation

The automatic sub-cup processing system, through ABB' s Scara robotic arm and DH-Robotics electric gripper, can automatically complete the operation of sample tube opening, scanning, information entry, pipetting, turning plate, and closing lid.

RGI-35-14 Medical Automation

Double-channel scan code to read the information, and unscrew the tube cover. Participate in automatic cup sharing process.

More Applications

PGC-50-35 Automation

Two PGC-50-35 grippers were applied with UR robot to pick& place the work-pieces on production line.

AG-160-95 Automotive

AG-160-95 electric gripper was applied with a collaborative robot to complete the clamping and assembly of needle roller bearings.

PGC-140-50 Robot New Retail

The PGC-140-50 was applied with DOOSAN robot to complete a show in CHANEL stores located in 20 countries to celebrate the 100th anniversary of CHANEL No. 5 perfume.

AG-160-95 Machining

The AG-160-95 electric gripper was applied with AGV and COBOT to complete machine tool loading and unloading and machine tool equipment management.

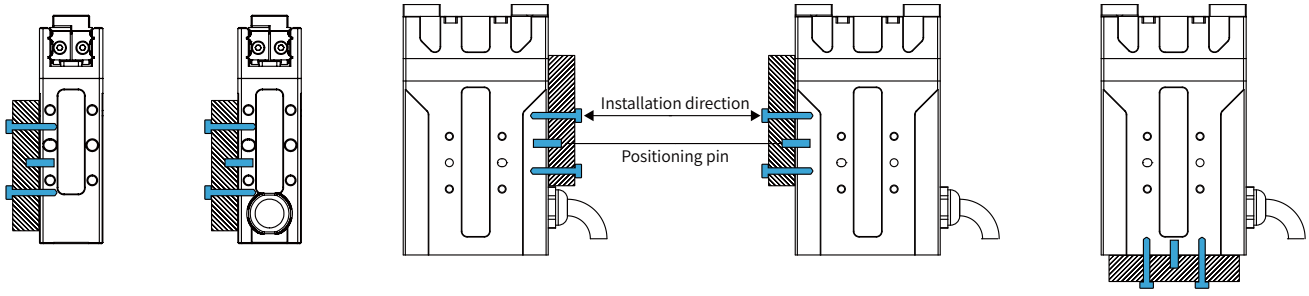
PGE Series
Slim-type Electric Parallel Gripper

PGE-2-12 PGE-15-10
PGE-5-26 PGE-15-26
PGE-8-14 PGE-50-26

The PGE series is an industrial slim-type electric parallel gripper. With its precise force control, compact size and highly working speed, it has become a ‘Hot sell product’ in the field of industrial electric gripper.

Installation

1. Front and rear installation: use front and rear screw holes for installation
2. Side installation: use side screw holes for installation
3. Bottom installation : use bottom screw holes for installation



Product Features

● Small Size | Flexible Installation

The thinnest size is 18 mm with compact structure, supports at least five flexible installation methods to meet the needs of clamping tasks & saves design space.

● High Working Speed

The fastest opening and closing time can reach 0.2 s / 0.2 s, which can meet the high-speed and stable clamping requirements of the production line.

● Precise Force Control

With special driver design and driving algorithm compensation, the gripping force is continuously adjustable, and the force repeat-ability could reach 0.1 N.

* For more information, please contact our sales.

Application

For scenarios requiring force control or flexibility, such as assembly, sorting and loading and unloading in semiconductor, 3C electronics, medical automation and other industries.

PGE-2-12

Slim-type Electric Parallel Gripper

Parameters

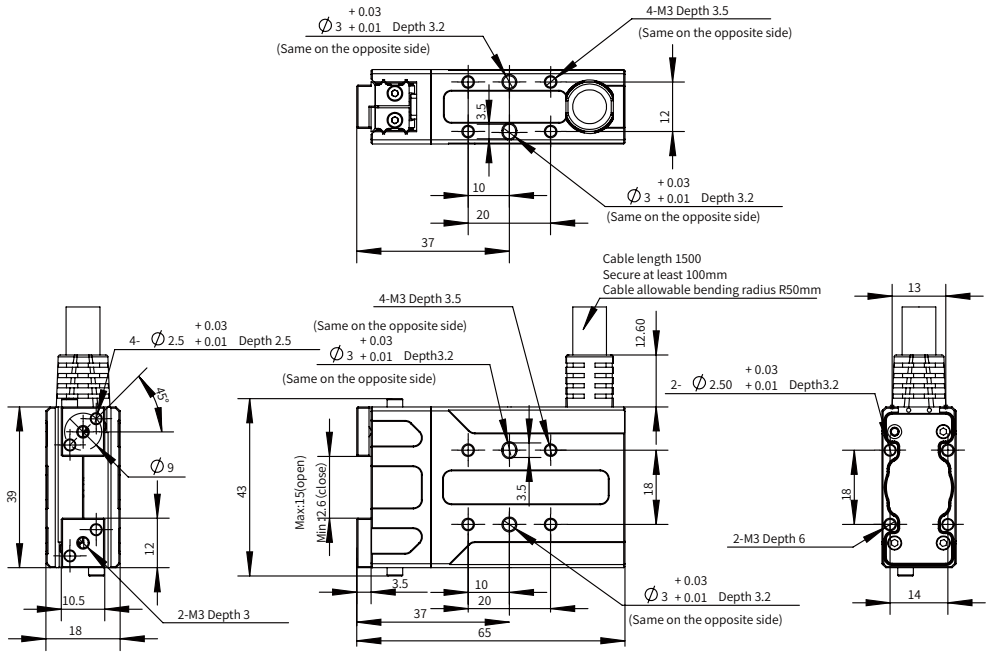
Product Parameter	
Gripping force (per jaw)	0.8~2 N
Stroke	12 mm
Recommended workpiece weight *	0.05 kg
Opening/Closing time	0.2 s/0.2 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.15 kg
Driving method	Rack and pinion + Cross roller guide
Size	65 mm x 39 mm x 18 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.2 A
Peak current	0.5 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
○	●	●	●	●	○

Vertical Maximum Force	
Fz:	35 N
Allowable Moment	
Mx:	0.2 N·m
My:	0.17 N·m
Mz:	0.2 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



PGE-5-26

Slim-type Electric Parallel Gripper

Parameters

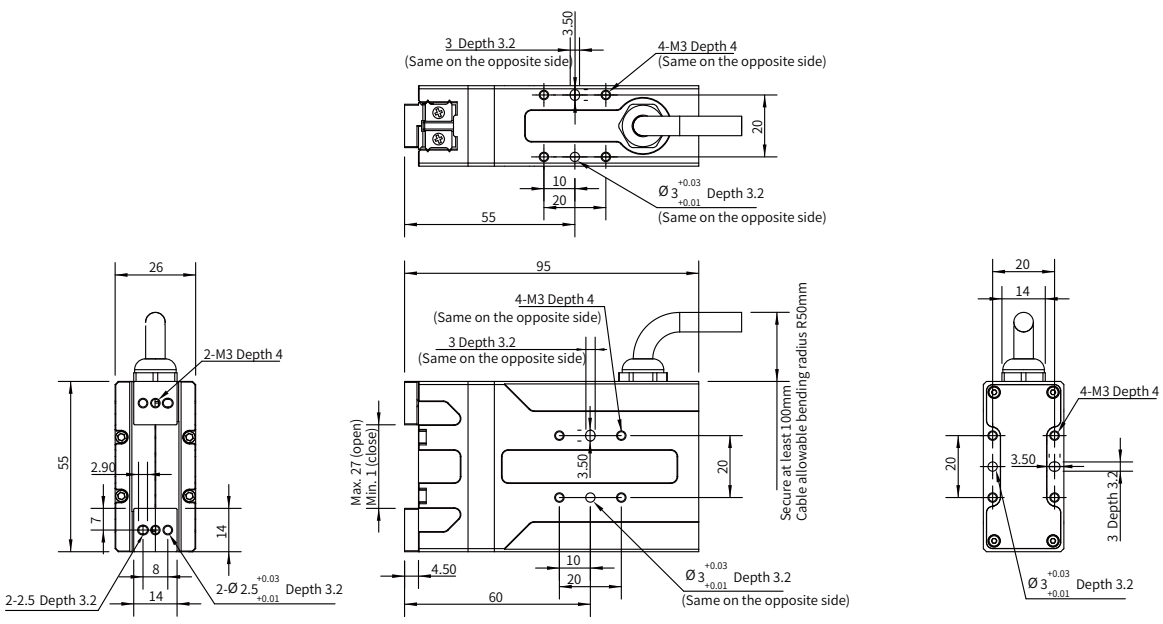
Product Parameter	
Gripping force (per jaw)	0.8~5 N
Stroke	26 mm
Recommended workpiece weight *	0.1 kg
Opening/Closing time	0.2 s/0.2 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.4 kg
Driving method	Rack and pinion + Cross roller guide
Size	95 mm x 55 mm x 26 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	0.7 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●○

Vertical Maximum Force	
Fz:	50 N
Allowable Moment	
Mx:	0.3 N·m
My:	0.25 N·m
Mz:	0.3 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



This drawing is for the gripper without the brake, please kindly note. If need the the drawing for the gripper with brake, please contact our sales.

PGE-8-14

Slim-type Electric Parallel Gripper

Parameters

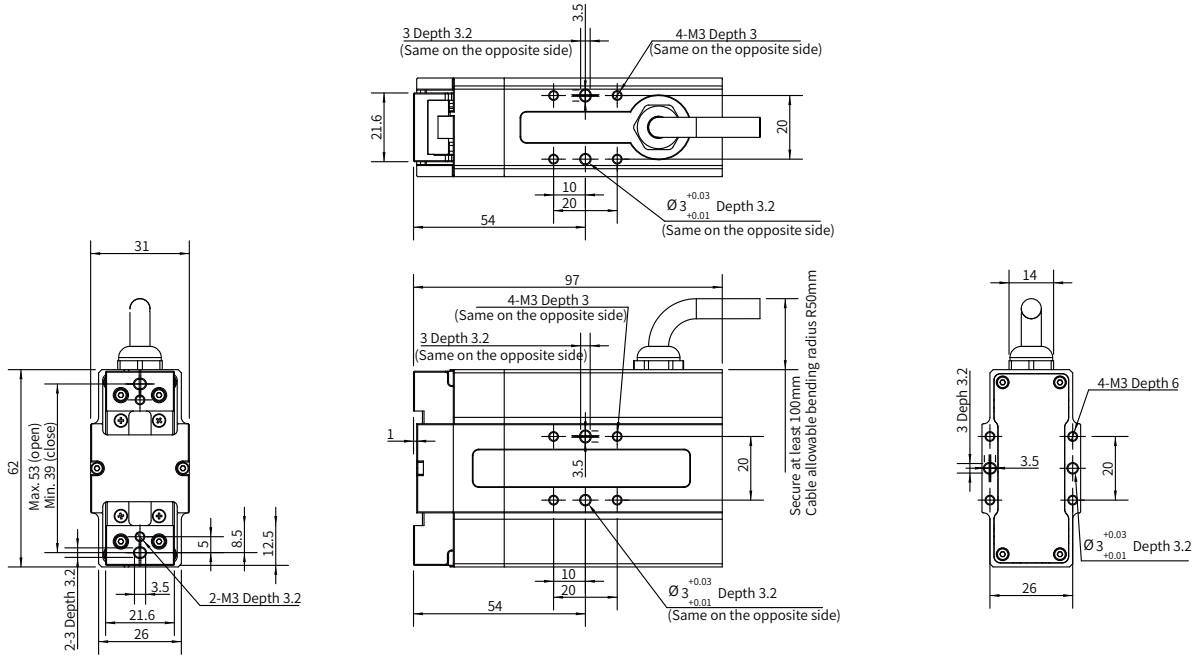
Product Parameter	
Gripping force (per jaw)	2~8 N
Stroke	14 mm
Recommended workpiece weight *	0.1 kg
Opening/Closing time	0.2 s/0.2 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.4 kg
Driving method	Rack and pinion + Liner guide
Size	97 mm x 62 mm x 31 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	0.7 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	○

Vertical Maximum Force	
Fz:	90 N
Allowable Moment	
Mx:	0.55 N·m
My:	0.45 N·m
Mz:	0.55 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



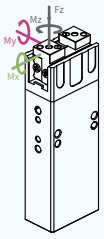
PGE-15-10

Slim-type Electric Parallel Gripper

Parameters

Product Parameter	
Gripping force (per jaw)	6~15 N
Stroke	10 mm
Recommended workpiece weight *	0.25 kg
Opening/Closing time	0.25 s/0.25 s
Repeat accuracy (position)	± 0.01 mm
Noise emission	< 60 dB
Weight	0.155 kg
Driving method	Precise planetary gears + Rack and pinion
Size	89 mm x 30 mm x 18 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.1 A
Peak current	0.22 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

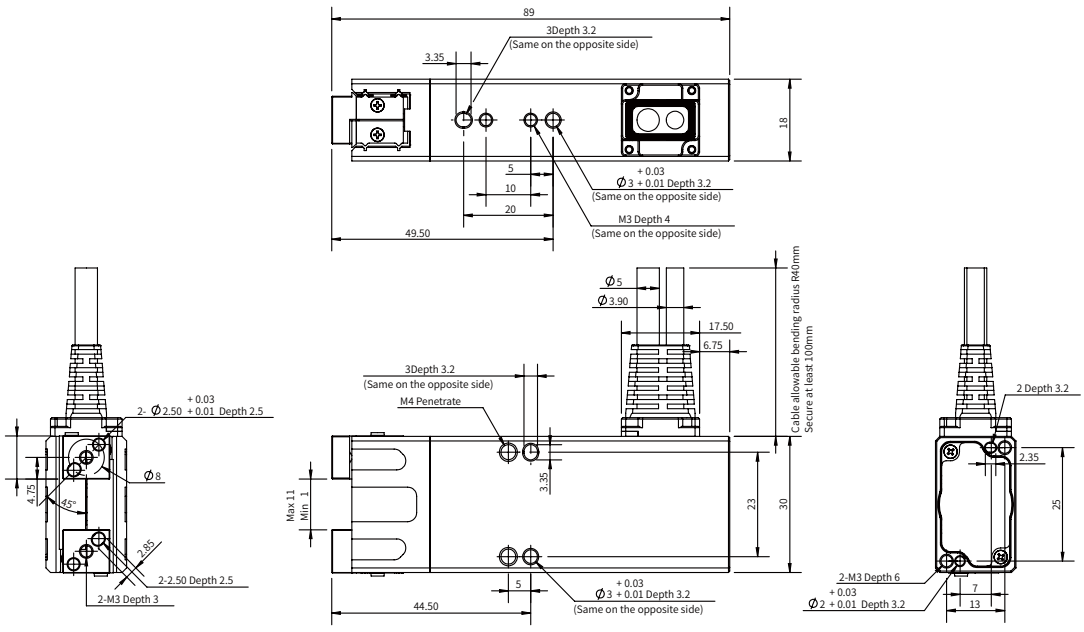
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
○	●	●	●	●	○



Vertical Maximum Force	
Fz:	35 N
Allowable Moment	
Mx:	0.45 N·m
My:	0.4 N·m
Mz:	0.45 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



PGE-15-26

Slim-type Electric Parallel Gripper

Parameters

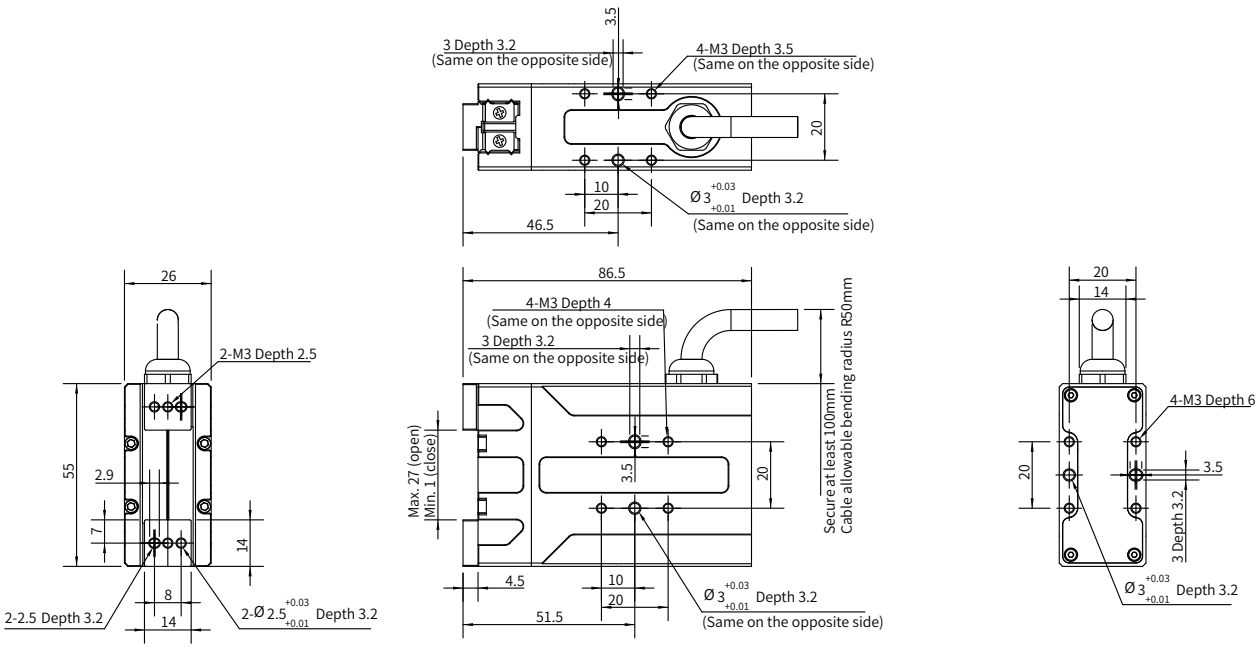
Product Parameter	
Gripping force (per jaw)	6~15 N
Stroke	26 mm
Recommended workpiece weight *	0.25 kg
Opening/Closing time	0.4 s/0.4 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.33 kg
Driving method	Precise planetary gears + Rack and pinion
Size	86.5 mm x 55 mm x 26 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.25 A
Peak current	0.5 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●○

Vertical Maximum Force	
Fz:	70 N
Allowable Moment	
Mx:	0.9 N·m
My:	0.75 N·m
Mz:	0.9 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



This drawing is for the gripper without the brake, please kindly note. If need the the drawing for the gripper with brake, please contact our sales.

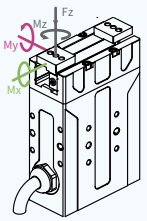
PGE-50-26

Slim-type Electric Parallel Gripper

Parameters

Product Parameter	
Gripping force (per jaw)	15~50 N
Stroke	26 mm
Recommended workpiece weight *	1 kg
Opening/Closing time	0.3 s/0.3 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.4 kg
Driving method	Precise planetary gears + Rack and pinion
Size	97 mm x 55 mm x 29 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.25 A
Peak current	0.5 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

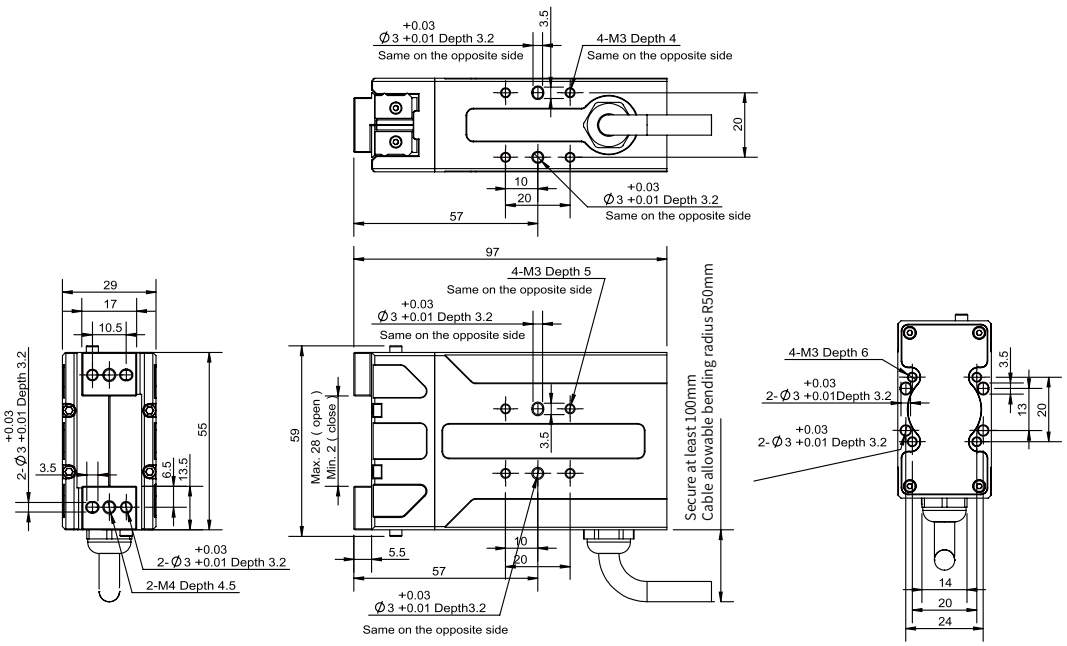
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●○



Vertical Maximum Force	
Fz:	150 N
Allowable Moment	
Mx:	2.5 N·m
My:	2 N·m
Mz:	3 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



This drawing is for the gripper without the brake, please kindly note. If need the the drawing for the gripper with brake, please contact our sales.

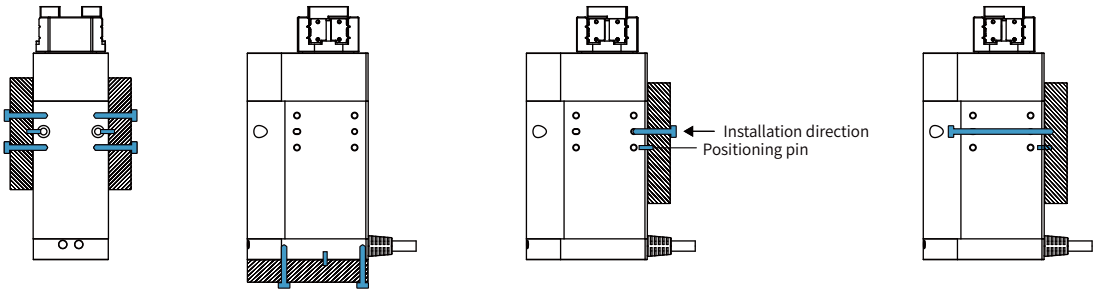
RGI Series
Electric Rotary Gripper

RGI-35-14 RGI-100-14
RGI-35-30 RGI-100-30

RGI series is the first fully self-developed infinite rotating gripper with a compact and precise structure on the market. It is widely applied in medical automation industry to grip and rotate the test tubes as well as other industries like electronics and New energy industry.

Installation

1. Side installation: use side screw holes for installation
2. Bottom installation: use bottom screw holes for installation
3. Front installation: Install with front screw holes



Product Features

● Gripping & Infinite Rotation

The unique structural design in the industry can realize the simultaneous griping and infinite rotation on one electric gripper, and solve the winding problem in non-standard design and rotation.

● Compact | Double Servo System

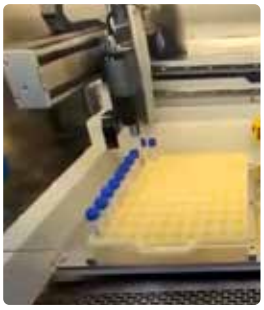
Dual servo systems are creatively integrated in a thin machine body, which is compact in design and can be adapted to many industrial scenes.

● High Repeat Accuracy

The repeatability accuracy of rotation reaches ±0.02 degree, and the repeatability accuracy of position reaches ±0.02 mm. Through precise force control and position control, the RGI gripper can more stably complete the grasping and rotating tasks.

Application

Medical automation reagents, blood samples, nucleic acids and other sample processing scenarios such as opening and closing covers, scanning code detection, etc.; 3C electronics, packaging automation, new energy industry positioning assembly, deviation correction and other scenarios.



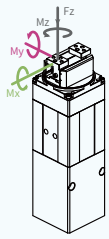
RGI-35-14

Electric Rotary Gripper

Parameters

Product Parameter	
Gripping force (per jaw)	10~35 N
Stroke	14 mm
Rated torque	0.25 N·m
Peak torque	0.4 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *	0.7 kg
Max. rotation speed	1500 deg/s
Repeat accuracy (swiveling)	± 0.02 deg
Repeat accuracy (position)	± 0.02 mm
Opening/Closing time	0.3 s/0.3 s
Weight	1.0 kg
Size	178 mm x 50 mm x 50 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	1.1 A
Peak current	2 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

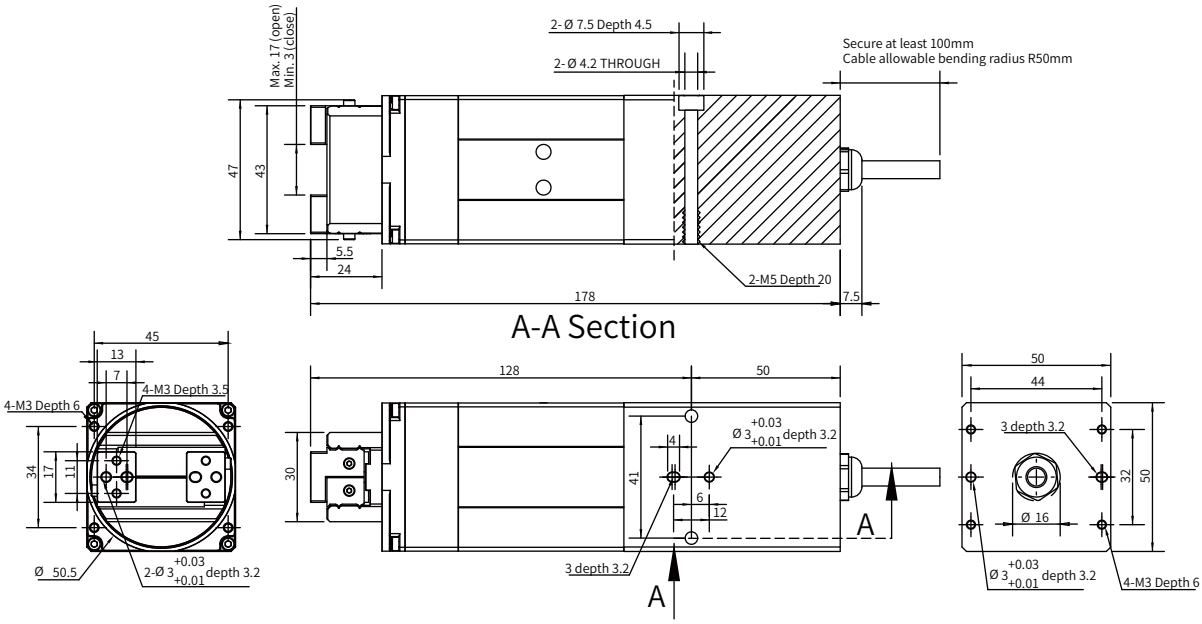
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	○



Vertical Maximum Force	
Fz:	150 N
Allowable Moment	
Mx:	2 N·m
My:	1.5 N·m
Mz:	2.5 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



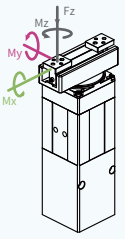
RGI-35-30

Electric Rotary Gripper

Parameters

Product Parameter	
Gripping force (per jaw)	10~35 N
Stroke	30 mm
Rated torque	0.25 N·m
Peak torque	0.4 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *	0.7 kg
Max. rotation speed	1500 deg/s
Repeat accuracy (swiveling)	± 0.02 deg
Repeat accuracy (position)	± 0.02 mm
Opening/Closing time	0.3 s/0.3 s
Weight	1.2 kg
Size	178 mm x 50 mm x 50 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	1.1 A
Peak current	2 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	○

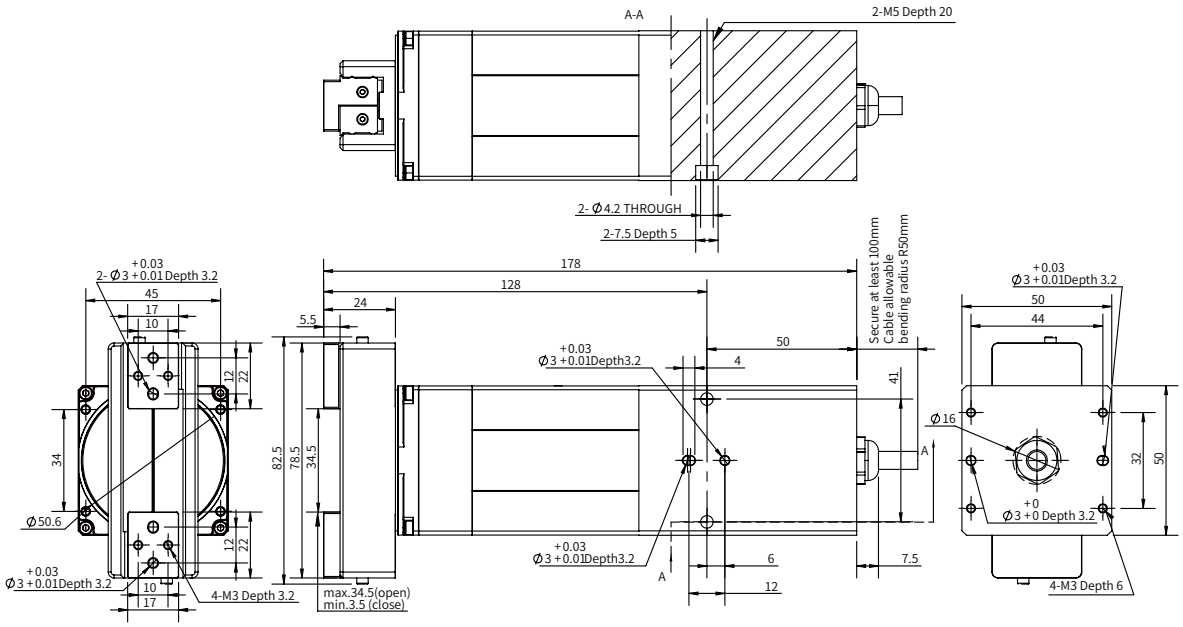


Vertical Maximum Force	
Fz:	150 N

Allowable Moment	
Mx:	2 N·m
My:	1.5 N·m
Mz:	2.5 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



RGI-100-14

Electric Rotary Gripper

Parameters

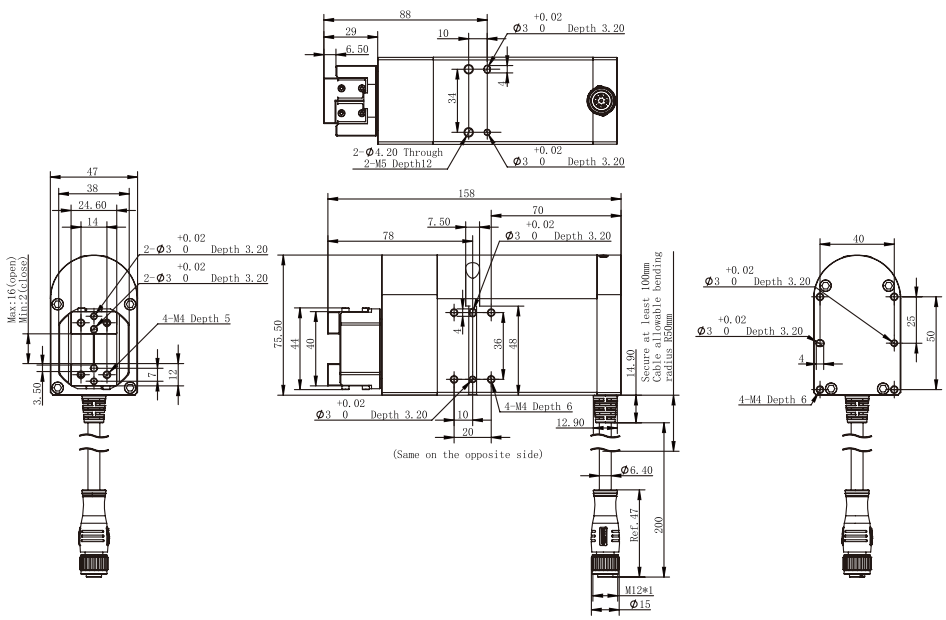
Product Parameter	
Gripping force (per jaw)	30~100 N
Stroke	14 mm
Rated torque	0.5 N·m
Peak torque	1.5 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *	1.5 kg
Max. rotation speed	1080 deg/s
Repeat accuracy (swiveling)	± 0.02 deg
Repeat accuracy (position)	± 0.02 mm
Opening/Closing time	0.8 s/0.8 s
Weight	1.28 kg
Size	158 mm x 75.5 mm x 47 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	1 A
Peak current	3 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	○

Vertical Maximum Force	
Fz:	150 N
Allowable Moment	
Mx:	2.5 N·m
My:	3 N·m
Mz:	4 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



RGI-100-30

Electric Rotary Gripper

Parameters

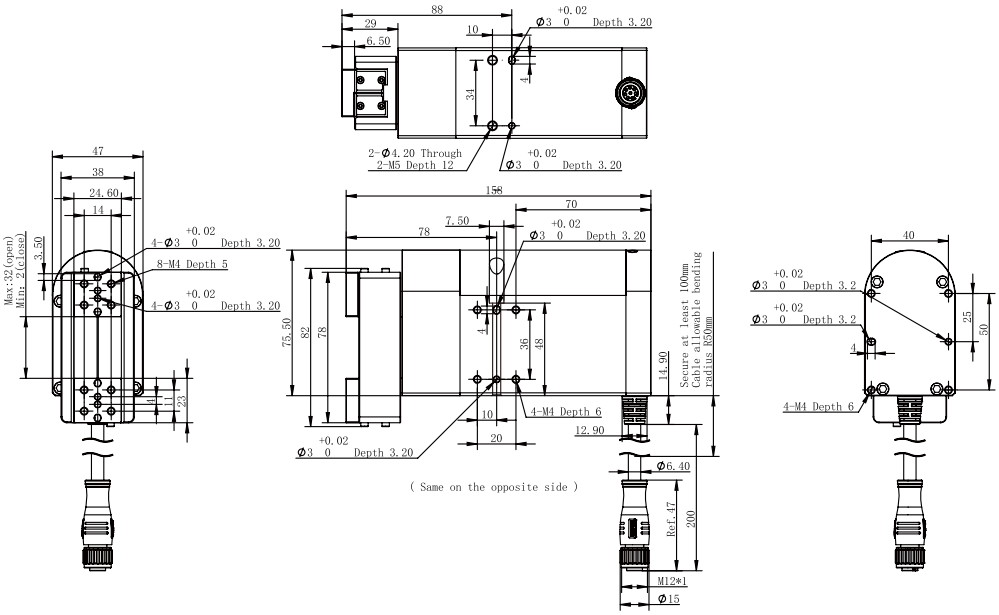
Product Parameter	
Gripping force (per jaw)	30~100 N
Stroke	30 mm
Rated torque	0.5 N·m
Peak torque	1.5 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *	1.5 kg
Max. rotation speed	1080 deg/s
Repeat accuracy (swiveling)	± 0.02 deg
Repeat accuracy (position)	± 0.02 mm
Opening/Closing time	0.8 s/0.8 s
Weight	1.5 kg
Size	158 mm x 75.5 mm x 47 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	1 A
Peak current	3 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	○

Vertical Maximum Force	
Fz:	150 N
Allowable Moment	
Mx:	2.5 N·m
My:	3 N·m
Mz:	4 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



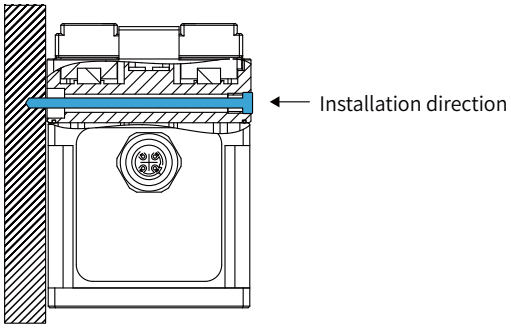
PGI Series
Electric Parallel Gripper

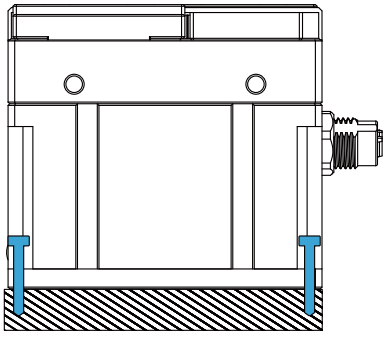
PGI-140-80

Based on the industrial requirements of ‘long stroke, high load, and high protection level’, DH-Robotics independently developed the PGI series of industrial electric parallel gripper. The PGI series is widely used in various industrial scenarios with positive feedback.

Installation

1. Front and rear installation: use front and rear screw holes for installation
2. Bottom installation: use bottom screw holes for installation





Product Features

● Long Stroke

Long stroke reach to 80 mm. With the customization fingertips, it can stably grasp the medium and large objects below 3kg and suitable for lots of industrial scenes.

● High Protection Level

The protection level of PGI-140-80 reaches to IP54, which is able to work under harsh environment with dust and liquid splash.

● High Load

The maximum single-sided gripping force of PGI-140-80 is 140 N, and the maximum recommended load is 3 kg, which can meet more diverse gripping needs.

Application

In industrial scenarios, it is used for gripping, handling and assembly of heavy workpieces. Mostly used in new energy, auto parts, machining, 3C electronics and other industries.

PGI-140-80

Electric Parallel Gripper

Parameters

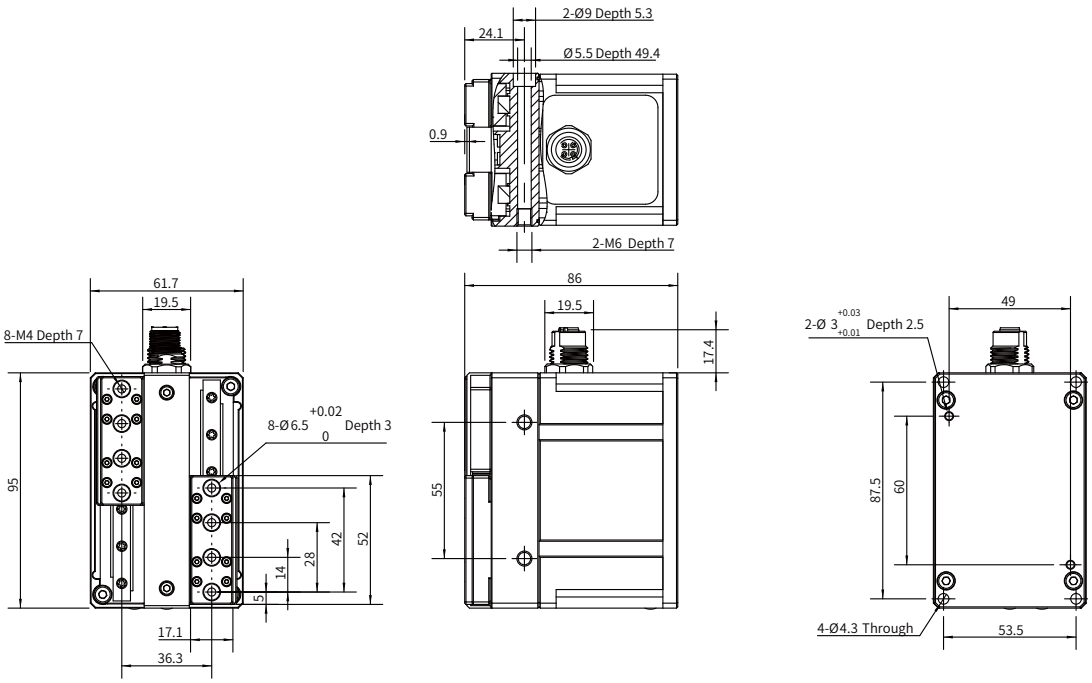
Product Parameter	
Gripping force (per jaw)	40~140 N
Stroke	80 mm
Recommended workpiece weight *	3 kg
Opening/Closing time	0.7 s/0.7 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1 kg (exclude fingers)
Driving method	Precise planetary gears + Rack and pinion
Size	95 mm x 67.1 mm x 86 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.5 A
Peak current	1.2 A
IP class	IP 54
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●○

Vertical Maximum Force	
Fz:	300 N
Allowable Moment	
Mx:	7 N·m
My:	7 N·m
Mz:	7 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



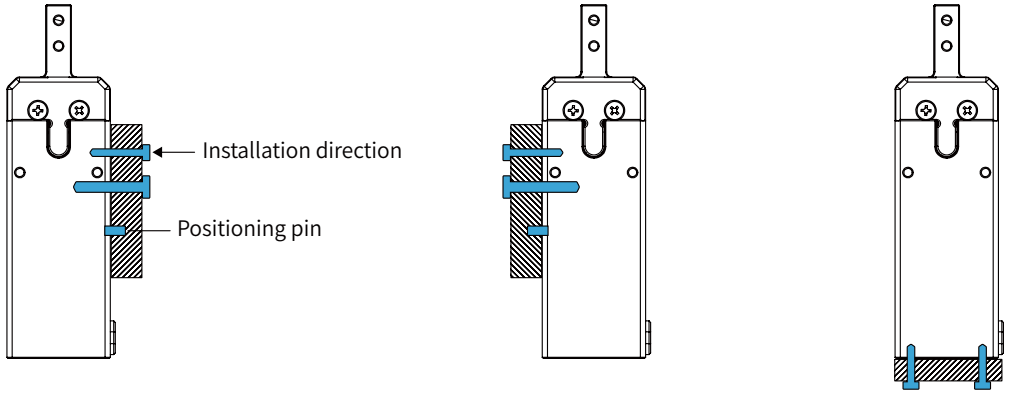
PGS Series
Miniature Electro-Magnetic Gripper

PGS-5-5

The PGS series is a miniature electro-magnetic gripper with high working frequency. Based on a split design, the PGS series could be applied in space-limited environment with the ultimate compact size and simple configuration.

Installation

1. Front and rear installation: use front and rear screw holes for installation
2. Bottom installation: use bottom screw holes for installation



Product Features

● Small Size

Compact size with 20×26 mm, it can be deployed in a relatively small environment.

● High Frequency

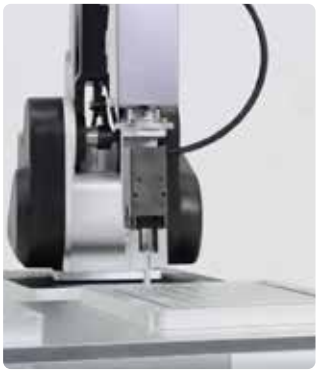
The opening/closing time could reach 0.03s to meet the needs of fast grasping.

● Easy to Use

The configuration is simple with the Digital I/O communication protocol.

Application

High-frequency fast capture, detection, adjustment and other scenarios in 3C electronics, medical automation, semiconductor and other industries .



PGS-5-5

Miniature Electro-Magnetic Gripper

Parameters

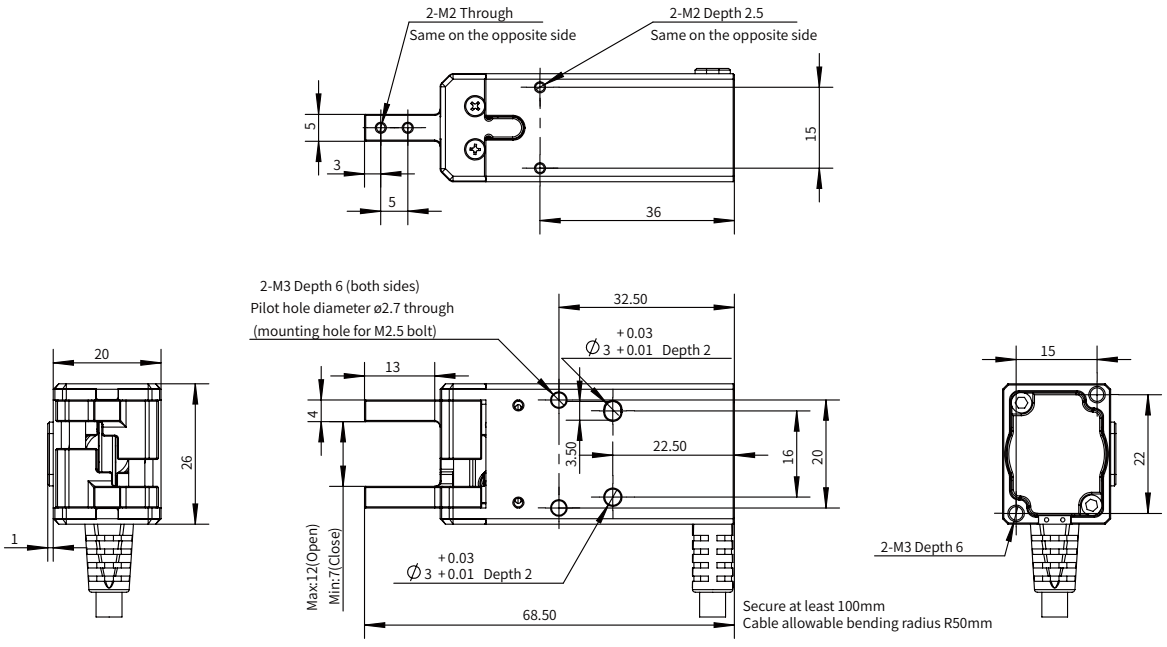
Product Parameter	
Gripping force (per jaw)	3.5~5 N
Stroke	5 mm
Recommended workpiece weight *	0.05 kg
Opening/Closing time	0.03 s/0.03 s
Repeat accuracy (position)	± 0.01 mm
Noise emission	< 50 dB
Weight	0.2 kg
Driving method	Wedge cam
Size	68.5 mm x 26 mm x 20 mm
Working Environment	
Communication interface	Digital I/O
Rated voltage	24 V DC ± 10%
Rated current	0.1 A
Peak current	3 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
○	○	○	○	●	●

Vertical Maximum Force	
Fz:	150 N
Allowable Moment	
Mx:	0.62 N·m
My:	0.62 N·m
Mz:	0.62 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



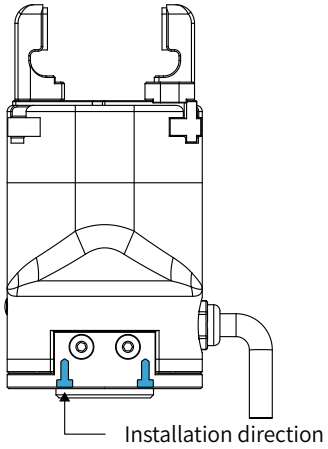
PGC Series
Electric Collaborative Parallel Gripper

PGC-50-35
PGC-140-50
PGC-300-60

DH-Robotics PGC series of collaborative parallel electric grippers is an electric gripper mainly used in cooperative manipulators. It has the advantages of high protection level, plug and play, large load and so on. The PGC series combines precision force control and industrial aesthetics. In 2021, it won two industrial design awards, the Red Dot Award and the IF Award.

Installation

1. Bottom installation: use bottom screw holes for installation



Product Features

● High Protection Level

The protection level of PGC series is up to IP67, so the PGC series is able to work under harsh conditions such as machine tending environment.

● Plug & Play

PGC series supports plug & play with most collaborative robot brands on the market which is easier to control and program.

● High Load

The gripping force of the PGC series could reach 300 N, and the maximum load can reach 6 kg, which can meet more diverse gripping needs.

Application

With collaborative robots, it can complete a series of complex processes including gripping, handling, and assembly in scenarios such as medical automation, 3C electronics, new energy, and new robot retail.

PGC-50-35

Electric Collaborative Parallel Gripper

Parameters

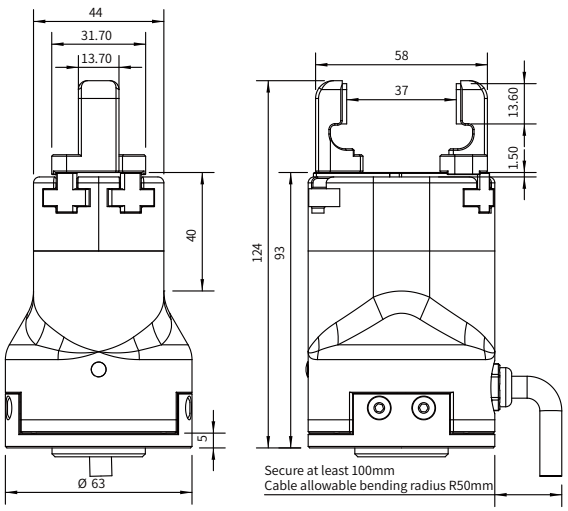
Product Parameter	
Gripping force (per jaw)	15~50 N
Stroke	35 mm
Recommended workpiece weight *	1 kg
Opening/Closing time	0.7 s/0.7 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	0.5 kg
Driving method	Precise planetary gears + Rack and pinion
Size	124 mm x 63 mm x 63 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.25 A
Peak current	0.5 A
IP class	IP 54
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

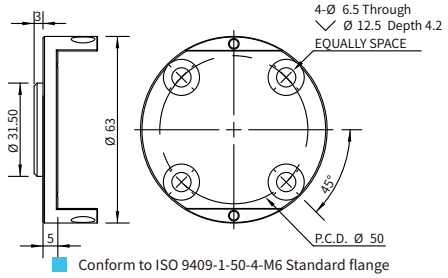
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism
●	●	●	●	●	●	○

Vertical Maximum Force	
Fz:	150 N
Allowable Moment	
Mx:	2.5 N·m
My:	2 N·m
Mz:	3 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

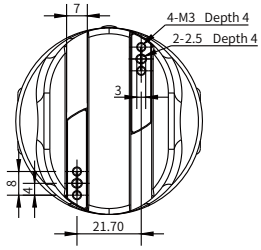
Technical Drawings



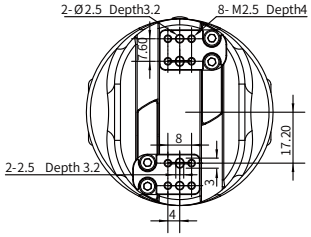


Conform to ISO 9409-1-50-4-M6 Standard flange

*If you need to customize the flange, it is recommended to design according to the robot installation hole position, or contact us



Rail mounting holes



Custom finger mounting size

*If you need to customize the finger, it is recommended to design according to the size of the finger mounting plate, or contact us

PGC-140-50

Electric Collaborative Parallel Gripper

Parameters

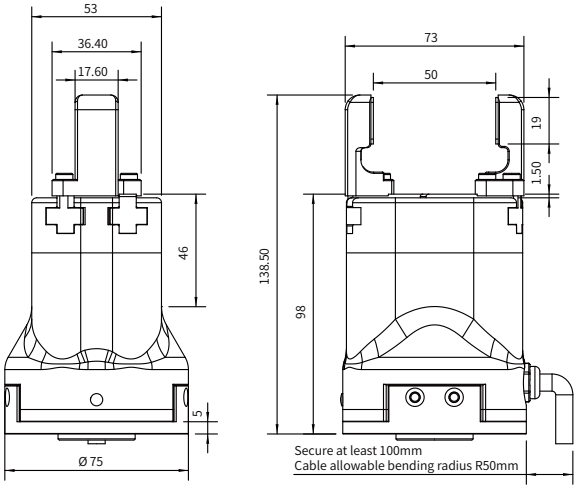
Product Parameter	
Gripping force (per jaw)	40~140 N
Stroke	50 mm
Recommended workpiece weight *	3 kg
Opening/Closing time	0.6 s/0.6 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1 kg
Driving method	Precise planetary gears + Rack and pinion
Size	138.5 mm x 75 mm x 75 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	1 A
IP class	IP 67
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

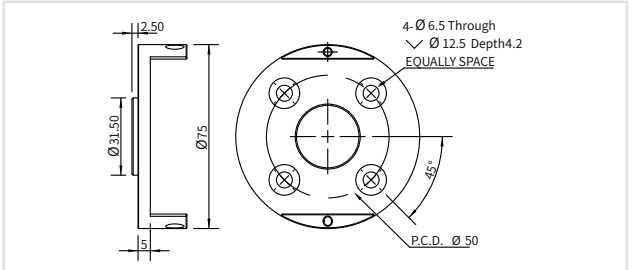
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism
●	●	●	●	●	●	●○

Vertical Maximum Force	
Fz:	300 N
Allowable Moment	
Mx:	7 N·m
My:	7 N·m
Mz:	7 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

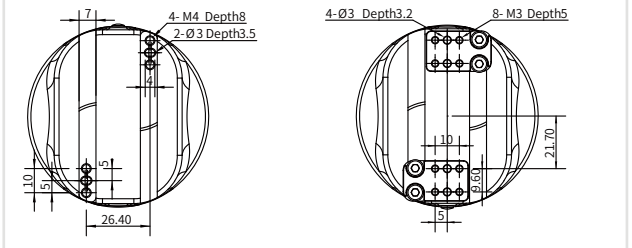
Technical Drawings





Conform to ISO 9409-1-50-4-M6 Standard flange

If you need to customize the flange, it is recommended to design according to the robot installation hole position, or contact us



Rail mounting holes

Custom finger mounting size

*If you need to customize the finger, it is recommended to design according to the size of the finger mounting plate, or contact us

PGC-300-60

Electric Collaborative Parallel Gripper

Parameters

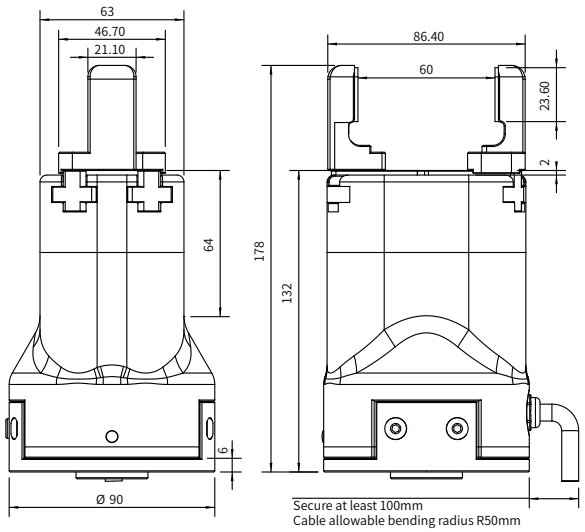
Product Parameter	
Gripping force (per jaw)	40~300 N
Stroke	60 mm
Recommended workpiece weight *	6 kg
Opening/Closing time	0.8 s/0.8 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1.5 kg
Driving method	Precise planetary gears + Rack and pinion
Size	178 mm x 90 mm x 90 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	2 A
IP class	IP 67
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

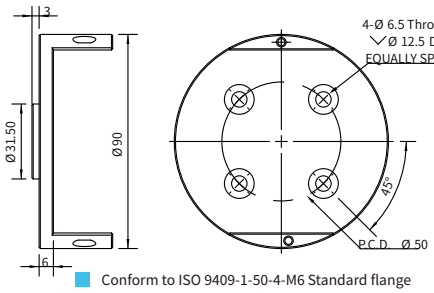
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism
●	●	●	●	●	●	●○

Vertical Maximum Force	
Fz:	600 N
Allowable Moment	
Mx:	15 N·m
My:	15 N·m
Mz:	15 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

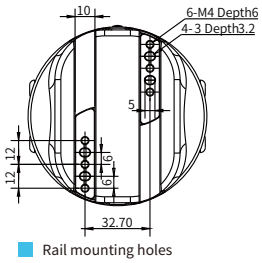
Technical Drawings



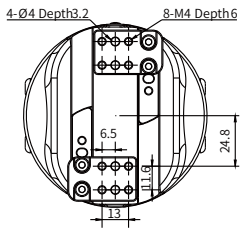


Conform to ISO 9409-1-50-4-M6 Standard flange

*If you need to customize the flange, it is recommended to design according to the robot installation hole position, or contact us



Rail mounting holes



Custom finger mounting size

*If you need to customize the finger, it is recommended to design according to the size of the finger mounting plate, or contact us

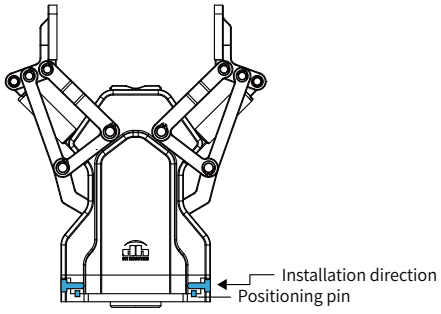
AG Series
Electric Adaptive Gripper

AG-160-95
AG-105-145
DH-3

The AG series is a linkage-type adaptive electric gripper which is independently developed by DH-Robotics. With Plug& Play software many and exquisite structural design , AG series is a perfect solution to be applied with collabrative robots to grip work-pieces with different shapes in different industries.

Installation

1. Bottom installation: use bottom screw holes for installation



Product Features

● Envelope Adaptive Capture

The gripper linkage mechanism supports envelope adaptive grasping, which is more stable to grip round, spherical or special-shaped objects.

● Plug & Play

It supports plug & play with most collaborative robot brands on the market which is easier to control and program.

● Long Stroke

The biggest stroke of the AG series is up to 145 mm. One gripper can meet the grasping needs of objects of different sizes with good compatibility.

Application

Cooperate with collaborative robot or industrial robot to complete material handling, loading and unloading, assembly, testing, sorting and other tasks in auto parts, automation equipment, new energy and other industries.

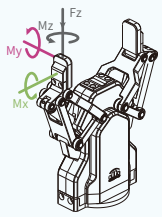
AG-160-95

Electric Adaptive Gripper

Parameters

Product Parameter	
Gripping force (per jaw)	45~160 N
Stroke	95 mm
Recommended workpiece weight *	3 kg
Opening/Closing time	0.7 s/0.7 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1 kg
Driving method	Screw drive + Linkage system
Size	184.6 mm x 162.3 mm x 67 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.8 A
Peak current	1.5 A
IP class	IP 54
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

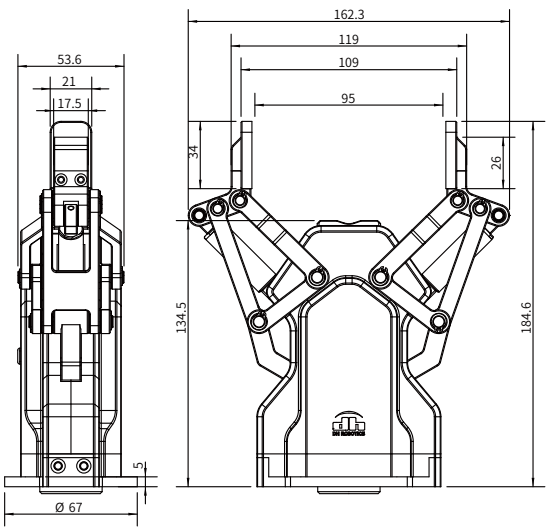
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism
●	●	●	●	●	●	●

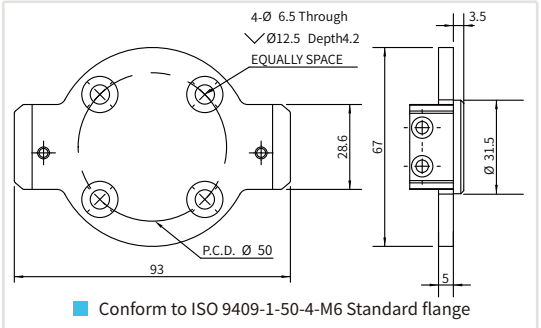


Vertical Maximum Force	
Fz:	300 N
Allowable Moment	
Mx:	4.75 N·m
My:	4.75 N·m
Mz:	4.75 N·m

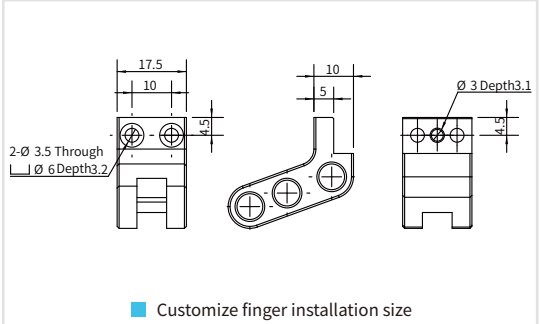
*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings





■ Conform to ISO 9409-1-50-4-M6 Standard flange



■ Customize finger installation size

AG-105-145

Electric Adaptive Gripper

Parameters

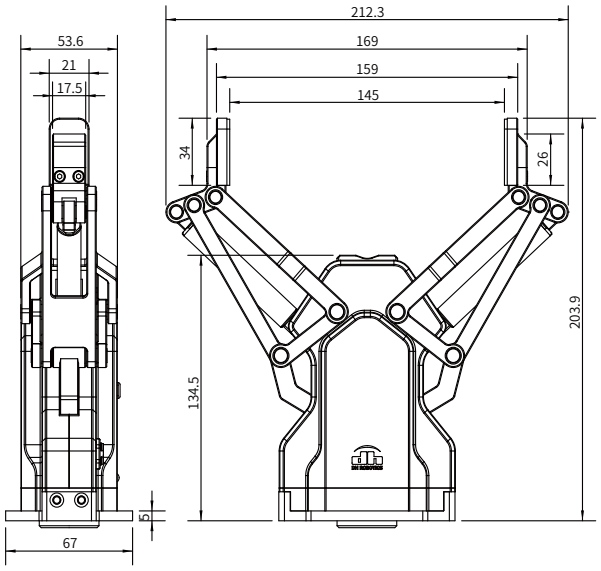
Product Parameter	
Gripping force (per jaw)	35~105 N
Stroke	145 mm
Recommended workpiece weight *	2 kg
Opening/Closing time	0.7 s/0.7 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1.3 kg
Driving method	Screw drive + Linkage system
Size	203.9 mm x 212.3 mm x 67 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.8 A
Peak current	1.5 A
IP class	IP 54
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

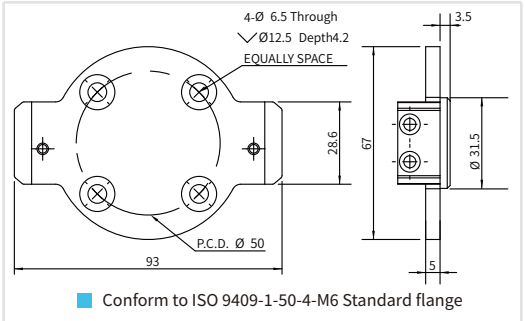
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism
●	●	●	●	●	●	●

Vertical Maximum Force	
Fz:	300 N
Allowable Moment	
Mx:	1.95 N·m
My:	1.95 N·m
Mz:	1.95 N·m

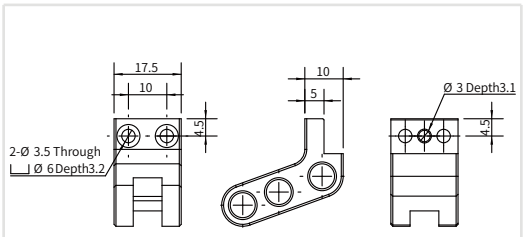
*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings





■ Conform to ISO 9409-1-50-4-M6 Standard flange



■ Customize finger installation size

DH-3

Electric Adaptive Gripper

Parameters

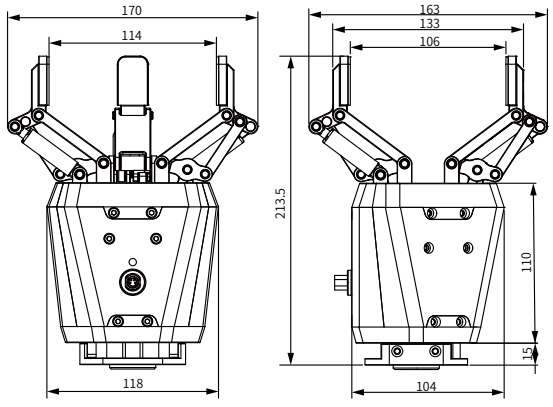
Product Parameter	
Gripping force (per jaw)	10~65 N
Stroke	106 mm (parallel) 122 mm (centric)
Recommended workpiece weight *	1.8 kg
Opening/Closing time	0.7 s/0.7 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1.68 kg
Driving method	Screw nut + gear drive + linkage mechanism
Size	213.5 mm x 170 mm x 118 mm
Working Environment	
Communication interface	Standard: TCP/IP, USB2.0, CAN2.0A Optional: EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.5 A
Peak current	1 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

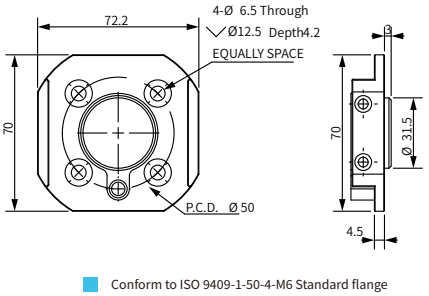
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism
●	●	●	●	●	●	●

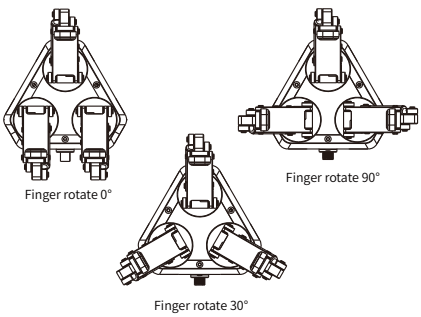
Vertical Maximum Force	
Fz:	150 N
Allowable Moment	
Mx:	2.5 N·m
My:	2 N·m
Mz:	3 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings







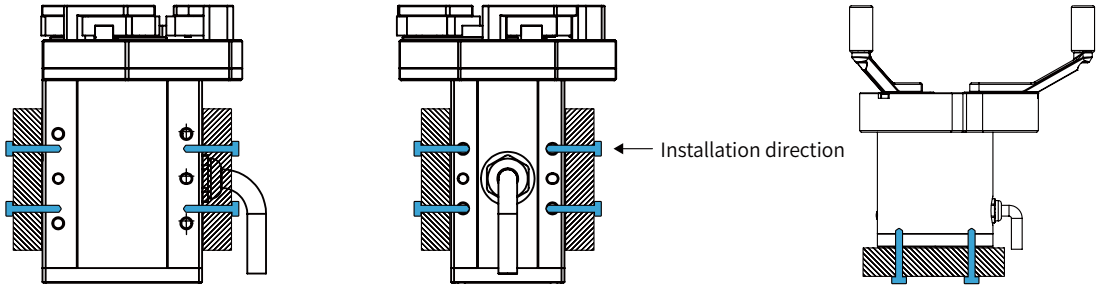
CG Series
Electric Centric Gripper

CGE-10-10
CGI-100-170
CGC-80-10

The CG series is a three-finger centric gripper independently developed by DH-Robotics. The three-finger gripping method can better cope with the grasping task of cylindrical workpieces. The CG series is available in a variety of models for a variety of scenarios, stroke and end devices.

Installation

1. Front and rear installation: use front and rear screw holes for installation
2. Side installation: use side screw holes for installation
3. Bottom installation: use bottom screw holes for installation



Product Features

● High Performance

Realize high-precision centering and grasping, the process structure meets the requirements of high rigidity, and the energy density exceeds that of similar products

● Long Lifetime

Continuous and stable work above 10 millions times without maintenance.

●Overload Protection

The high-performance servo motor can provide instantaneous overload protection

Application

Accurate and stable grasping of cylindrical workpieces in the fields of auto parts, automation equipment, precision machining and assembly, etc.

CGE-10-10

Electric Centric Gripper

Parameters

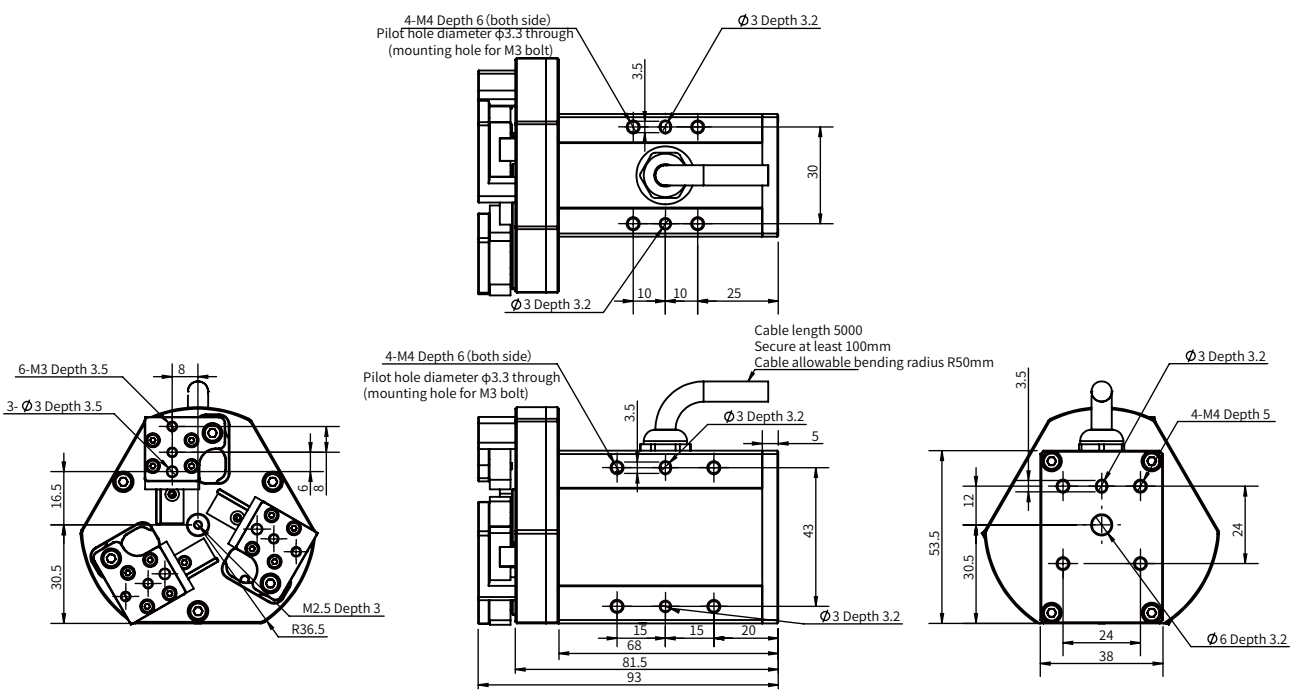
Product Parameter	
Gripping force (per jaw)	3~10 N
Stroke (per jaw)	10 mm
Recommended workpiece weight *	0.1 kg
Opening/Closing time	0.3 s/0.3 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 40 dB
Weight	0.43 kg
Driving method	Precise planetary gears + Rack and pinion
Size	94 mm x 53.5 mm x 38 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.3 A
Peak current	0.6 A
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	○

Vertical Maximum Force	
Fz:	150 N
Allowable Moment	
Mx:	0.62 N·m
My:	0.62 N·m
Mz:	0.62 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



CGI-100-170

Electric Centric Gripper

Parameters

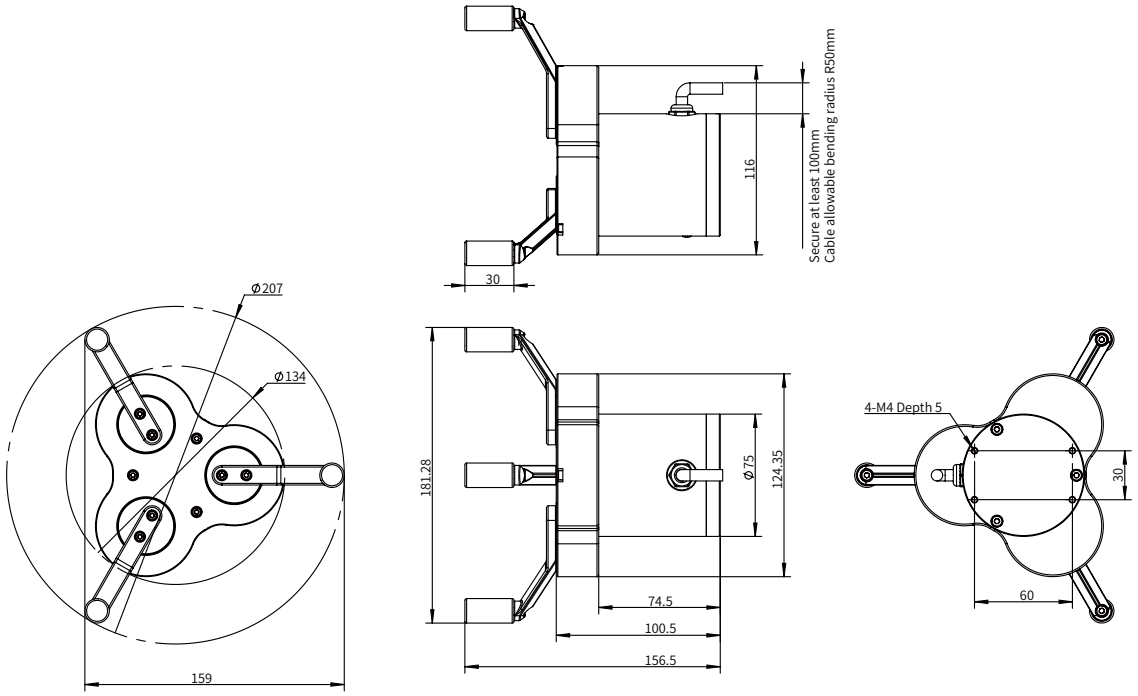
Product Parameter	
Gripping force (per jaw)	30~100 N
Recommended workpiece diameter (inward)	ϕ40~ϕ170 mm
Recommended workpiece weight *	1.5 kg
Opening/Closing time	0.5 s/0.5 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1.5 kg
Driving method	Precise planetary gears + Rack and pinion
Size	156.5 mm x 124.35 mm x 116 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	1 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●○

This type of gripper is recommended to use the standard finger.
If you need to replace it in the application, please contact us for confirmation.

*It depends on the shape of the grasping object, the material and friction of the contact surface,
and the acceleration of the motion, If you have any questions, please contact us.

Technical Drawings



CGC-80-10

Electric Collaborative Centric Gripper

Parameters

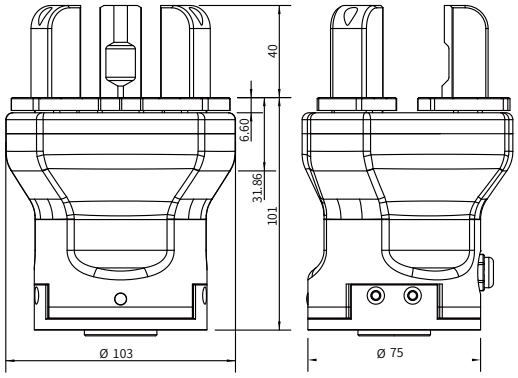
Product Parameter	
Gripping force (per jaw)	20~80 N
Stroke (per jaw)	10 mm
Recommended workpiece weight *	1.5 kg
Opening/Closing time	0.2 s/0.2 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1.5 kg
Driving method	Precise planetary gears + Rack and pinion
Size	141 mm x 103 mm x 75 mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Rated voltage	24 V DC ± 10%
Rated current	0.3 A
Peak current	1 A
IP class	IP 67
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

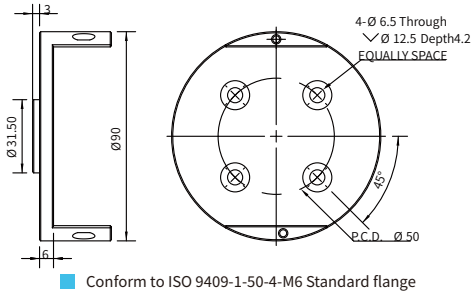
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism
●	●	●	●	●	●	●○

Vertical Maximum Force	
Fz:	200 N
Allowable Moment	
Mx:	2.5 N·m
My:	2 N·m
Mz:	3 N·m

*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, If you have any questions, please contact us.

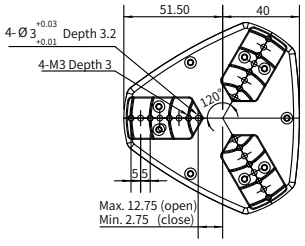
Technical Drawings





■ Conform to ISO 9409-1-50-4-M6 Standard flange

If you need to customize the flange, it is recommended to design according to the robot installation hole position, or contact us



■ Customize finger installation size

Short Wire Correspondence Table

Our gripper can directly connect to the end interface of each brand of collaborative robot through a short wire.

Wire No	Support electric gripper models	UR	Dobot	Aubo	Jaka	Elite	TM	Doosan	Elephant	SINSUN	ROKAE	Han's robot
Wa	Small current electric gripper (Peak current≤1A)	CB/E series	V							V		
Wb	High current electric claw (Peak current>1A)	E series										
Wc	Small current electric gripper (Peak current≤1A)			V								
Wd	Small current electric gripper (Peak current≤1A)								V			
We	In common (Support large and small current electric gripper)							A series				
Wf	In common (Support large and small current electric gripper)							M/H series				
Wg	Small current electric gripper (Peak current≤1A)				V							
Wh	Small current electric gripper (Peak current≤1A)						V					
Wi	Small current electric gripper (Peak current≤1A)										V	
Wj	In common (Support large and small current electric gripper)					V						
Wk	In common (Support large and small current electric gripper)											V

Quick Selection Reference

According to the following five conditions, you can quickly and initially select the matching gripper model; or you can also consult sales for detailed understanding and selection.

Condition 1
Application

- ☐ Collaborative robot
  - ○ Load
  - ○ Peak current
- ☐ Industrial robot
- ☐ Automation module

Condition 2
Workpiece weight

- ☐ Workpiece shape
- ☐ Workpiece material
- ☐ Friction
- ☐ …

Condition 3
Gripping stroke

- ☐ Workpiece size
- ☐ Parallel / centric
- ☐ Outer clip, inner support
- ☐ Fingertip design
- ☐ …

Condition 4
Feature selection

- ☐ Rotary
- ☐ Self-locking
- ☐ Envelope grab
- ☐ …

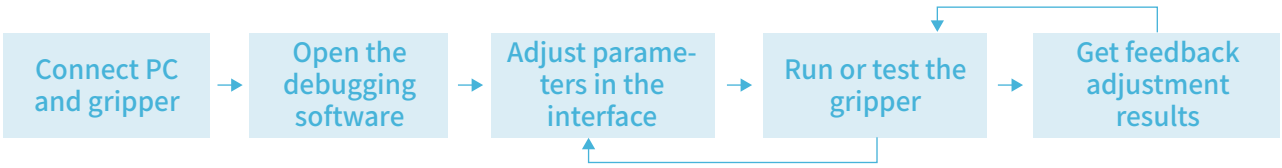
Condition 5
Environmental requirements

- ☐ IP class
- ☐ Temperature conditions
- ☐ …

Host Computer Debugging Software (PC Side)

User-Friendly

The host computer debugging software was self-developed by DH-Robotics, it can help customers easily and quickly complete various function parameters adjustments, testing and initialization setting on the PC side. At the meaning time, various status information is provided in real time, which can save a lot of production line setup time and reduce the difficulty of operation and maintenance for on-site engineers.



Parameters Adjustable

- gripping force
- fingertip position
- gripping speed
- rotation angle*
- rotation speed*
- rotation force(torque force)*

Real-Time Feedback

- four gripping states
  ① movement status
  ② in place
  ③ clamp state
  ④ dropped state
- location versus time graph
- clamping current as a fuction of time

Example: DH-Robotics PC software

* Please consult sales person for specific applicable models

Honors and Certificates – Some of Our Certificates

1

2

3

4

5

6

7

1. CE Certificate
2. IP Class Certificate
3. RoHS Certificate
4. EMC Certificate
5. FCC Certificate
6. Low Temperature Test Report
7. Intellectual Property Management System Certification

Our Customers

More than 500 customers around the world are using DH-Robotics products
The number of customers continues to grow rapidly...

Our Eco-Partners

DH-Robotics is a high-quality partner of global collaborative robots


AUBO


ELITE


TECHMAN


HAN’S


DOOSAN


FANUC


HANWHA

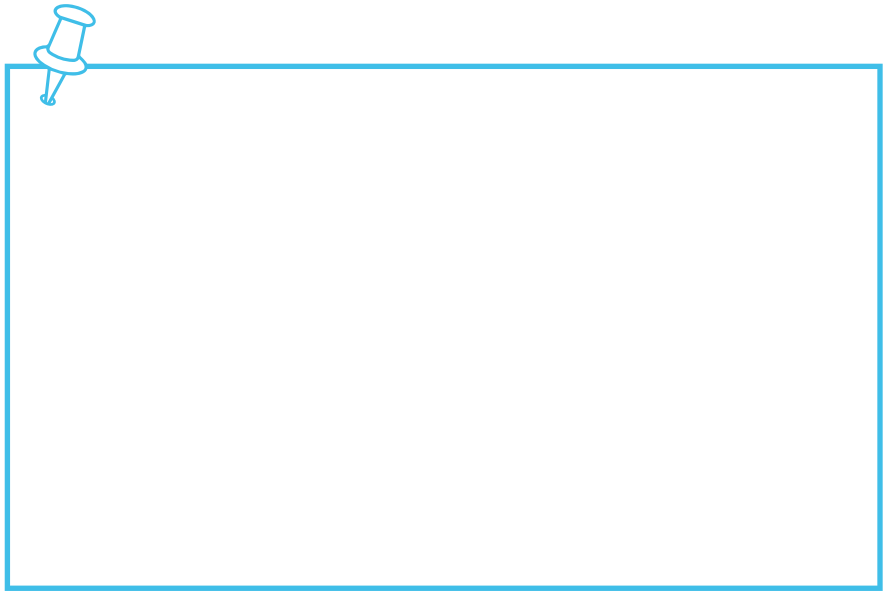

JAKA


SIASUN


DOBOT


UR


Industrial Robots



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