DH-ROBOTICS

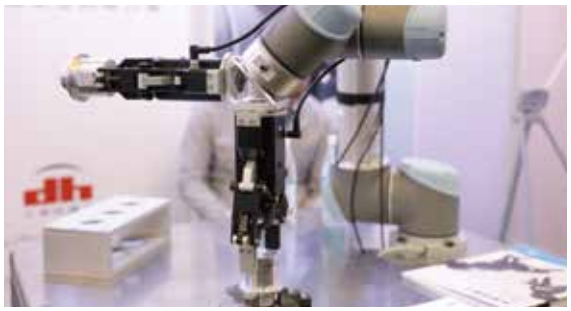
Servo-Electric Grippers

EN-2023.11

DH-ROBOTICS

DH-Robotics is a high-tech company which focus on providing core components for industrial intelligent manufacturing scenarios. Based on the self-developed precision force control direct drive technology, we provide customers in various industries around the world with diversified electric grippers and precision motion products to reduce production costs, improve production efficiency, and achieve intelligent manufacturing.

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

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Heavy-Load Long-Stroke Electric Parallel Gripper

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Miniature Electro-magnetic Gripper

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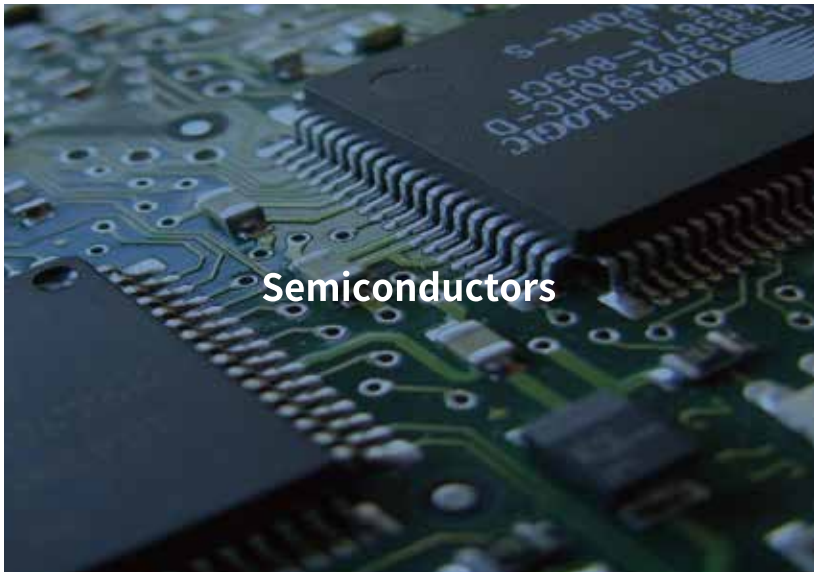
Electric Collaborative Parallel Gripper

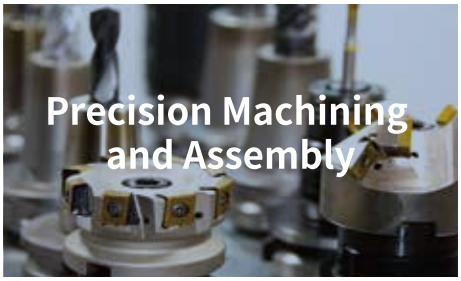
AG Series
Electric Adaptive Gripper

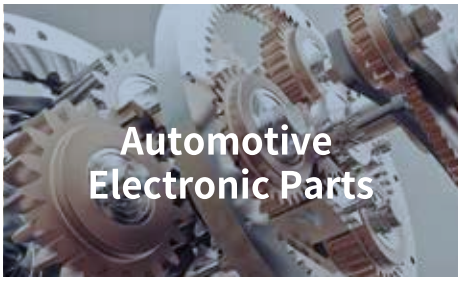
CG Series
Electric Centric Gripper

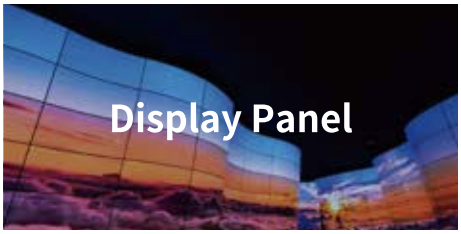
Applications in Cutting-edge Industries

More solutions and applications, please visit **www.dh-robotics.com**









Application cases

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.

PGE-15-26 Medical Automation

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

Application cases

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.

Short wire correspondence table

Our gripper can directly connect to the end interface of each brand of collaborative robot through a short wire.
(The serial number represent the short wire type.)

Support electric gripper models	UR CB Series	UR E Series	Elite CS Series	SIASUN	Hanwha A Series	ROKAE CR Series	DOBOT CR Series	DOBOT Nova Series	Aubo	Elephant	Jaka	ECHMAN	ROKAE SR Series	ROKAE ER Series	DOBOT MG400	UR E Series	Doosan A Series	Doosan M Series	Elite EC Series	Han' s Robot	Neuromeka	FAIRINO	Hanwha HCR	UF xArm
Small current electric gripper (Peak current≤0.6A)	01																							
Small current electric gripper (Peak current<1.5A)		01	01	01	01				02	03	04	05	06	06	07									
High current electric claw (Peak current>1.5A)																08								
In common (Support large and small current electric gripper)						01	01	01									09	10	11	12	13	14	15	16

DH-Robotics' Gripper and Cylinder Communication Protocol Conversion Box

The communication within DH-Robotics' Servo Gripper and Servo Electric Cylinder defaults to Modbus RTU (RS485) and a small number of I/O. If customers choose other communication protocols, they will need to use the communication protocol conversion box.
The following communication protocol conversion boxes are available for selection:

	Communication Protocol Conversion Box Name	Ordering Model
	EtherCAT 1-1	FG-M2E-B1-1
	EtherCAT 1-4	FG-M2E-B1-4
	EtherCAT转 I/O 1-More	Please contact our technical staff confirm the specific parameters

	Communication Protocol Conversion Box Name	Ordering Model
	TCP/IP 1-1	FG-M2T-B1-1-YBT
	PROFINET 1-2	FG-M2P2-B1-2-HJ
	PROFINET 1-11	FG-M2P-B1-11-9

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
- ☐ ...

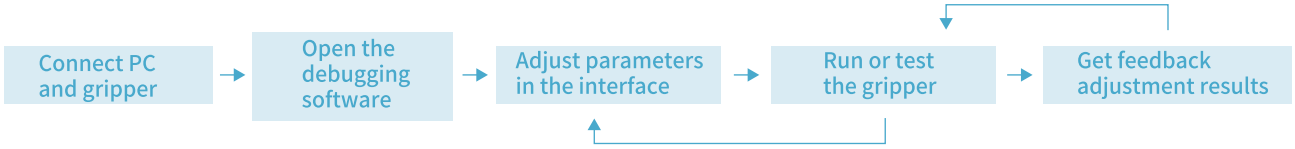
Condition 5
Environmental requirements

- ☐ 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
  ①movement status
  ②in place
  ③clamp 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

Products Brief Parameters

PGE Series
Slim-type Electric Parallel Gripper

Precision force control | Small Size | Fast Response

All-in-one Design | Adjustable Parameters | Intelligent Feedback | Replaceable Fingertip | Self-locking Mechanism


PGE-2-12 PGE-5-26 PGE-8-14


PGE-15-10 PGE-15-26 PGE-50-26 PGE-100-26

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
PGE-2-12	0.8~2	0.05	12	0.15	IP40
PGE-5-26	0.8~5	0.1	26	0.3	IP40
PGE-8-14	2~8	0.1	14	0.3	IP40
PGE-15-10	6~15	0.25	10	0.3	IP40
PGE-15-26	6~15	0.25	26	0.5	IP40
PGE-50-26	15~50	1	26	0.45	IP40
PGE-50-40	15~50	1	40	0.45	IP40
PGE-100-26	30~100	2	26	0.5	IP40

PGSE Series
Slim-type Electric Parallel Gripper

Small Size | Fast Response

All-in-one Design | Replaceable Fingertip


PGE-15-7

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
PGSE-15-7	6~15	0.25	7	0.15	IP40

RGI Series
Electric Rotary Gripper

Infinite Rotation | Dual Servo System | Compact Type

All-in-one Design | Adjustable Parameters | Intelligent Feedback | Replaceable Fingertip


RGIC-35-12


RGIC-100-35


RGI-100-14


RGI-100-22


RGI-100-30

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
RGIC-35-12	13~35	0.5	12	0.6	IP40
RGIC-100-35	40~100	1	35	0.9	IP40
RGI-100-14	30~100	1.5	14	0.6	IP40
RGI-100-22	30~100	1.5	22	0.65	IP40
RGI-100-30	30~100	1.5	30	0.7	IP40

RGD Series
Electric Direct Drive Rotaty Gripper

Zero Backlash | Infinite Rotation | Precise Positioning

All-in-one Design | Adjustable Parameters | Intelligent Feedback | Replaceable Fingertip | Self-locking Mechanism


RGD-5-14


RGD-5-30


RGD-35-14


RGD-35-30

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
RGD-5-14	2~5.5	0.05	14	0.5	IP40
RGD-5-30	2~5.5	0.05	30	0.5	IP40
RGD-35-14	10~35	0.35	14	0.5	IP40
RGD-35-30	10~35	0.35	30	0.7	IP40

PGI Series
Electric Parallel Gripper

High Load | High Protection Grade | Long Stroke

All-in-one Design | Adjustable Parameters | Intelligent Feedback | Replaceable Fingertip | Self-locking Mechanism

PGI-140-80

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
PGI-140-80	40~140	3	80	1.1	IP54

PGHL Series
Heavy-Load Long-Stroke Electric Parallel Gripper

High Load | High Protection Grade | Long Stroke

All-in-one Design | Adjustable Parameters | Intelligent Feedback | Replaceable Fingertip | Self-locking Mechanism

PGHL-400-80

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
PGHL-400-80	140~400	8	80	1.0/1.1	IP40

PGS Series
Miniature Electro-magnetic Gripper

Small Size | High Frequency | Easy Operation

Replaceable Fingertip | Self-locking Mechanism

PGS-5-5

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
PGS-5-5	3~5.5	0.05	5	0.03	IP40

PGC Series
Electric Collaborative Parallel Gripper

Plug and Play | High Protection Grade | High Load

All-in-one Design | Adjustable Parameters | Intelligent Feedback | Replaceable Fingertip | Self-locking Mechanism

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

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
PGC-50-35	15~50	1	37	0.7	IP54
PGC-140-50	40~140	3	50	0.6	IP67
PGC-300-60	80~300	6	60	0.8	IP67

AG Series
Electric Adaptive Gripper

Plug and Play | Envelope Adaptive Gripping | Long Stroke

All-in-one Design | Adjustable Parameters | Intelligent Feedback | Replaceable Fingertip | Self-locking Mechanism

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

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
AG-160-95	45~160	3	95	0.9	IP54
AG-105-145	35~105	2	145	0.9	IP54
DH-3	10~65	1.8	106(parallel)/122(centric)	0.7	IP40

CG Series
Electric Centric Gripper

Centric Gripping

All-in-one Design | Adjustable Parameters | Intelligent Feedback | Replaceable Fingertip | Self-locking Mechanism

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

	Gripping Force (N)	Recommended workpiece weight(kg)	Stroke (mm)	Opening/closing time(s)	IP Class
CGE-10-10	3~10	0.1	10 (Single jaw)	0.3	
CGI-100-170	30~100	1.5	ϕ40~ϕ170 (Inward work-piece diameter)	0.5	IP40
CGC-80-10	20~80	1.5	10 (Single jaw)	0.2	IP67

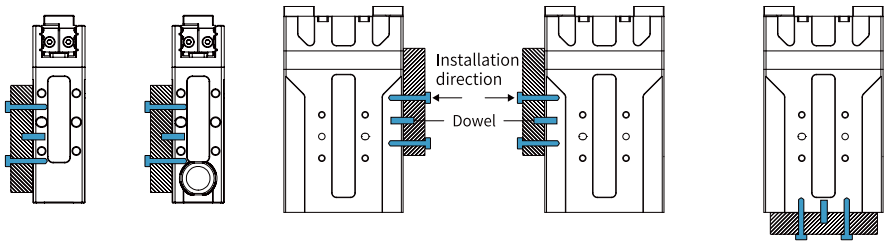
PGE Series
Slim-type Electric Parallel Gripper

PGE-2-12
PGE-5-26
PGE-8-14
PGE-15-10
PGE-15-26
PGE-50-26
PGE-50-40
PGE-100-26

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 installation: use front screw holes for installation
2. Rear installation: use rear screw holes for installation
3. Right installation: use right screw holes for installation
4. Left installation: use left screw holes for installation
5. 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 0.15 s / 0.15 s, which can meet the high-speed and stable clamping requirements of the production line.

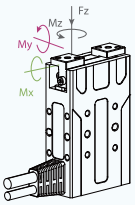
● Precise Force Control

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

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



Static Vertical Allowable Load

Fz	35 N

Allowable Loading Moment

Mx	0.2 N·m
My	0.17 N·m
Mz	0.2 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

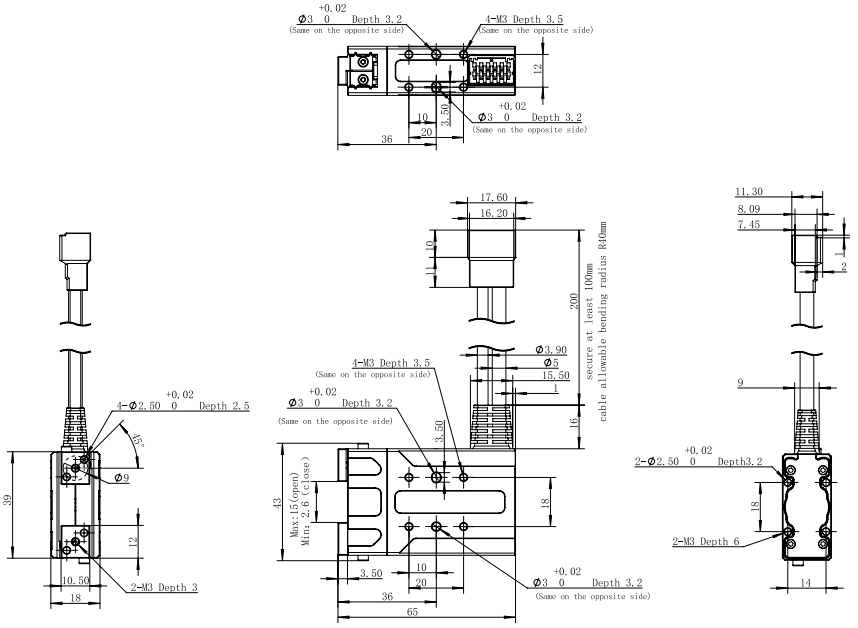
Parameters

Product Parameter	
Gripping force (per jaw)	0.8~2 N
Stroke	12 mm
Recommended workpiece weight *①	0.05 kg
Opening/closing time	0.15 s/0.15 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.15 kg
Driving method	Rack and pinion + Cross roller guide
Size	Gripper Size:65 mm x 39 mm x 18 mm Controller Size:78 mm x 52.4 mm x 27.2 mm

Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
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

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
×	●	●	●	●	×

Technical Drawings



PGE-5-26

Static Vertical Allowable Load

Fz	50 N

Allowable Loading Moment

Mx	0.3 N·m
My	0.25 N·m
Mz	0.3 N·m

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*② Use optional communication, need external communication conversion box, please consult the sales staff for details

Parameters

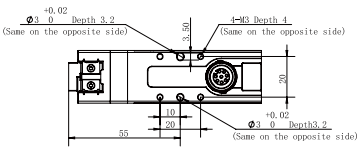
Product Parameter	
Gripping force (per jaw)	0.8~5 N
Stroke	26 mm
Recommended workpiece weight *①	0.1 kg
Opening/closing time	0.3 s/0.3 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.4 kg
Driving method	Rack and pinion + Cross roller guide
Size	95 mm x 55 mm x 26 mm(without brake) 113.5 mm x 55 mm x 30 mm(with brake)

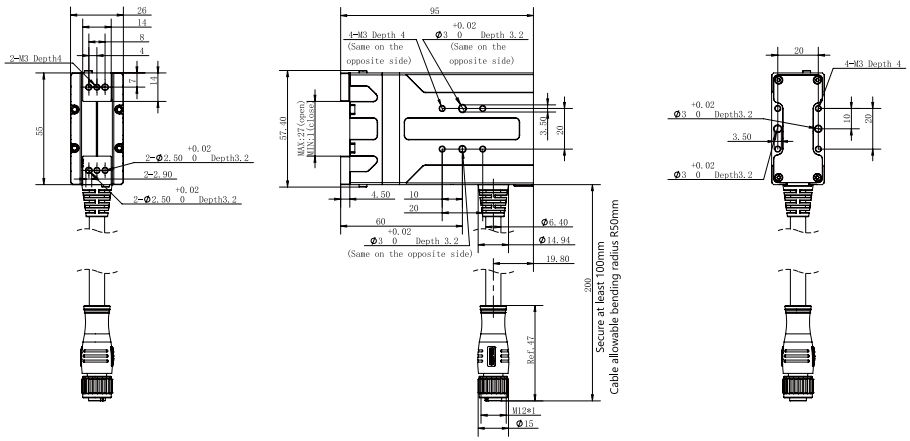
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	0.7 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●×

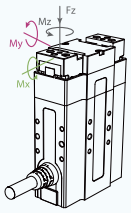
Technical Drawings

This drawing is for the gripper without the brake. If you need the drawing for the gripper with the brake, please download it from our official website or contact our sales.





PGE-8-14



Static Vertical Allowable Load

Fz	90 N

Allowable Loading Moment

Mx	0.55 N·m
My	0.45 N·m
Mz	0.55 N·m

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*② Use optional communication, need external communication conversion box, please consult the sales staff for details

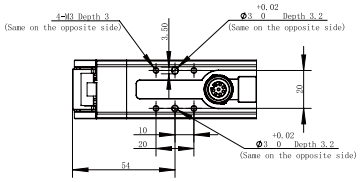
Parameters

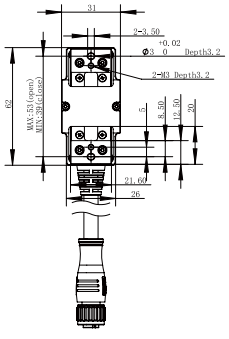
Product Parameter	
Gripping force (per jaw)	2~8 N
Stroke	14 mm
Recommended workpiece weight *①	0.1 kg
Opening/closing time	0.3 s/0.3 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.4 kg
Driving method	Rack and pinion + Cross roller guide
Size	97 mm x 62 mm x 31 mm

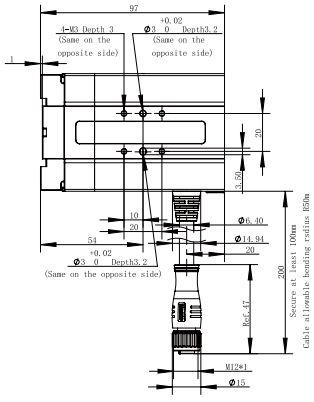
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	0.7 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

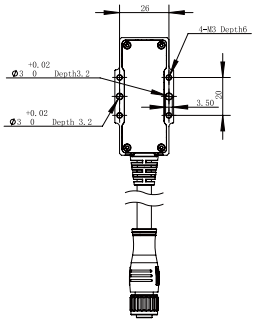
Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	×

Technical Drawings

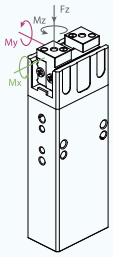








PGE-15-10



Static Vertical Allowable Load

Fz	35 N

Allowable Loading Moment

Mx	0.45 N·m
My	0.4 N·m
Mz	0.45 N·m

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*② Use optional communication, need external communication conversion box, please consult the sales staff for details

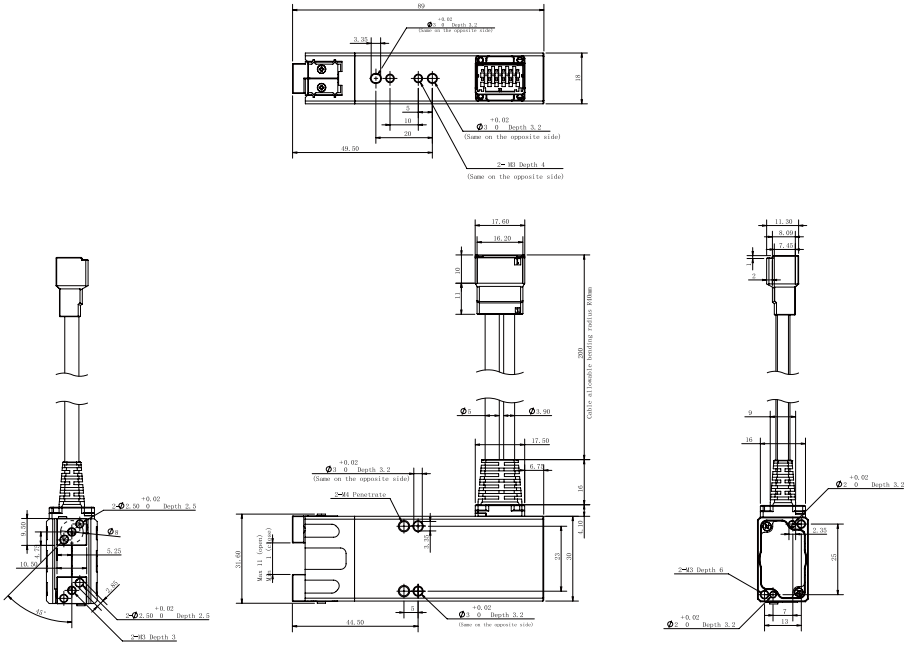
Parameters

Product Parameter	
Gripping force (per jaw)	6~15 N
Stroke	10 mm
Recommended workpiece weight *①	0.25 kg
Opening/closing time	0.3 s/0.3 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 60 dB
Weight	0.155 kg
Driving method	Precise planetary gears + Rack and pinion
Size	Gripper Size:89 mm x 30 mm x 18 mm Controller Size:78 mm x 52.4 mm x 27.2 mm

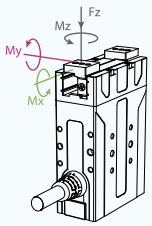
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.1 A
Peak current	0.22 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
×	●	●	●	●	×

Technical Drawings



PGE-15-26



Static Vertical Allowable Load

Fz	70 N

Allowable Loading Moment

Mx	0.9 N·m
My	0.75 N·m
Mz	0.9 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

Parameters

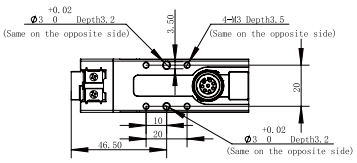
Product Parameter	
Gripping force (per jaw)	6~15 N
Stroke	26 mm
Recommended workpiece weight *①	0.25 kg
Opening/closing time	0.5 s/0.5 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.33 kg
Driving method	Precise planetary gears + Rack and pinion
Size	86.5 mm x 55 mm x 26 mm(without brake) 107.5 mm x 55 mm x 26 mm(with brake)

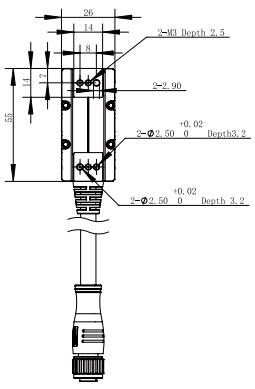
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.25 A
Peak current	0.5 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

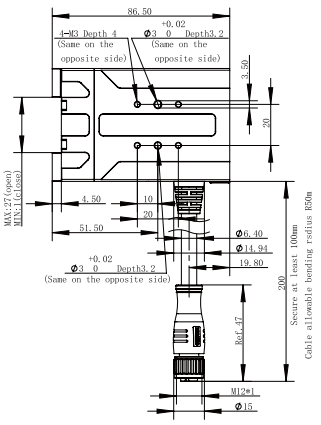
Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●×

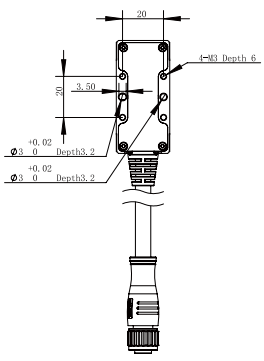
Technical Drawings

This drawing is for the gripper without the brake. If you need the drawing for the gripper with the brake, please download it from our official website or contact our sales.

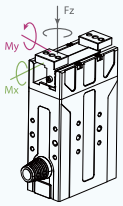








PGE-50-26



Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2.5 N·m
My	2 N·m
Mz	3 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

Parameters

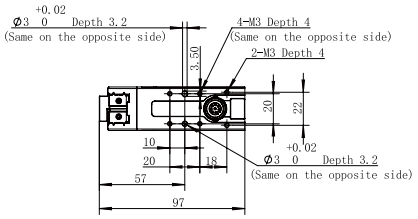
Product Parameter	
Gripping force (per jaw)	15~50 N
Stroke	26 mm
Recommended workpiece weight *①	1 kg
Opening/closing time	0.45 s/0.45 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.4 kg
Driving method	Precise planetary gears + Rack and pinion
Size	97 mm x 55 mm x 29 mm(without brake) 118 mm x 55 mm x 29 mm(with brake)

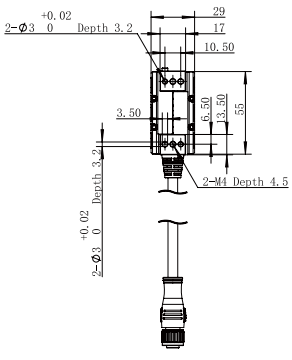
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.25 A
Peak current	0.5 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

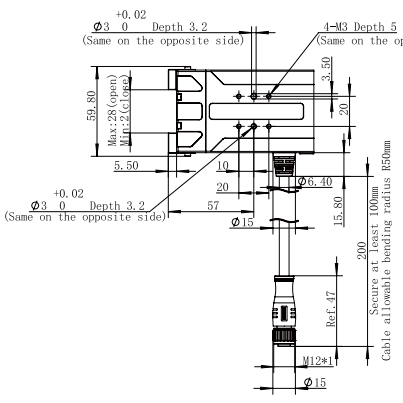
Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●×

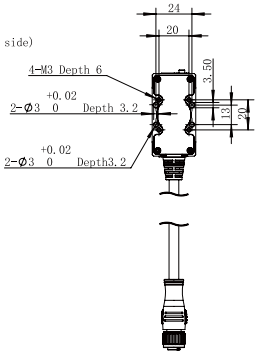
Technical Drawings

This drawing is for the gripper without the brake. If you need the drawing for the gripper with the brake, please download it from our official website or contact our sales.

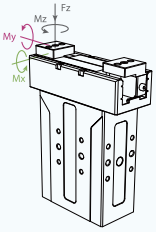








PGE-50-40



Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2.5 N·m
My	2 N·m
Mz	3 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

Parameters

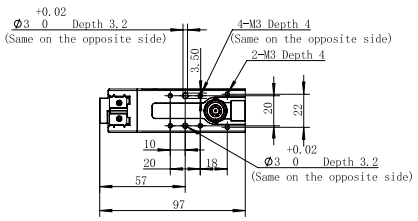
Product Parameter	
Gripping force (per jaw)	15~50 N
Stroke	40 mm
Recommended workpiece weight *①	1 kg
Opening/closing time	0.6 s/0.6 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 40 dB
Weight	0.51 kg
Driving method	Precise planetary gears + Rack and pinion
Size	97 mm x 78 mm x 29 mm(without brake) 118 mm x 78 mm x 29 mm(with brake)

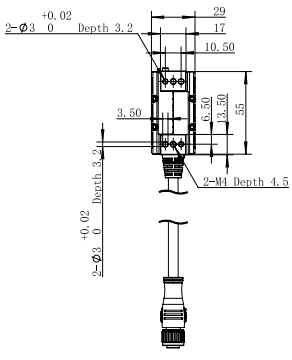
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.25 A
Peak current	0.5 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

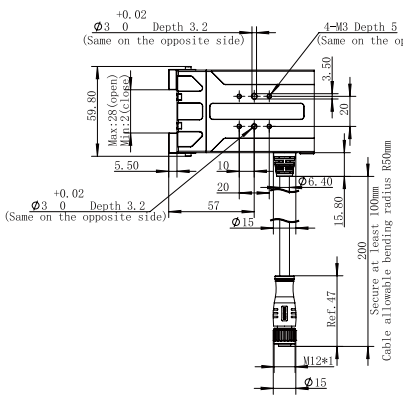
Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●×

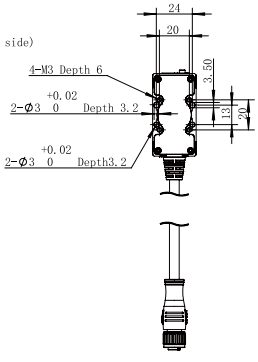
Technical Drawings

This drawing is for the gripper without the brake. If you need the drawing for the gripper with the brake, please download it from our official website or contact our sales.

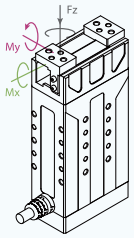








PGE-100-26



Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2.5 N·m
My	3 N·m
Mz	4 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

Parameters

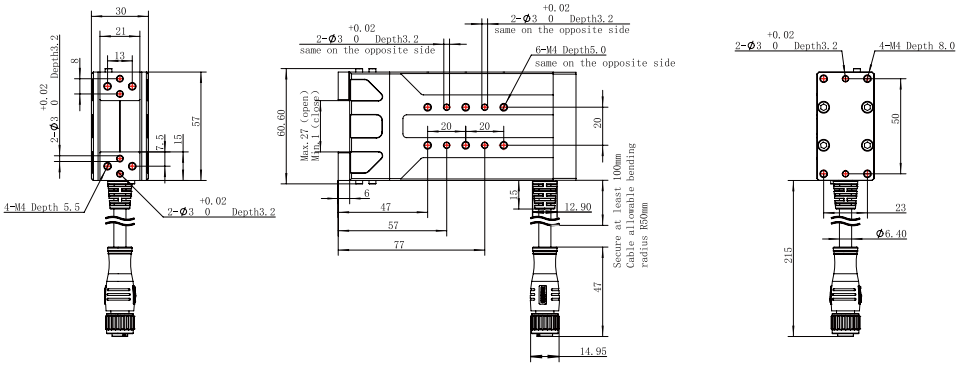
Product Parameter	
Gripping force (per jaw)	30~100 N
Stroke	26 mm
Recommended workpiece weight *①	2 kg
	0.5 s/0.5 s
Repeat accuracy (position)	± 0.02 mm
Noise emission	< 60 dB
Weight	0.55 kg
Driving method	Precise planetary gears + Rack and pinion
Size	125 mm x 57 mm x 30 mm

Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.3 A
Peak current	1.2 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	×

Technical Drawings

This drawing is for the gripper without the brake. If you need the drawing for the gripper with the brake, please download it from our official website or contact our sales.



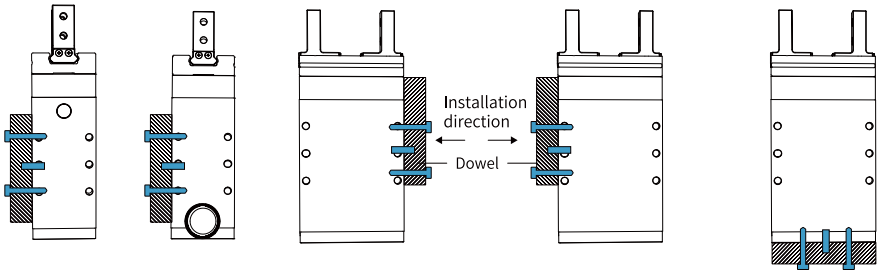
PGSE Series
Slim-type Electric Parallel Gripper

PGSE-15-7

The PGSE Industrial Parallel Gripper is a miniature electric gripper specifically designed to meet the demand for quick grasping in narrow and compact installation spaces in industrial settings.

Installation

1. Front installation: use front screw holes for installation
2. Rear installation: use rear screw holes for installation
3. Right installation: use right screw holes for installation
4. Left installation: use left screw holes for installation
5. Bottom installation : use bottom screw holes for installation



Product Features

● Ultimate Slimness

The PGSE gripper features a compact and intricate design, with dimensions of only 85.6 x 38 x 23.2 mm (length x width x height), making it extremely slim and compact.

● High-Speed Response

The PGSE gripper offers rapid opening and closing times, with a minimum response time of as fast as 0.15 seconds for both opening and closing actions. This allows for quick grasping cycles, meeting the high-speed gripping requirements of production lines.

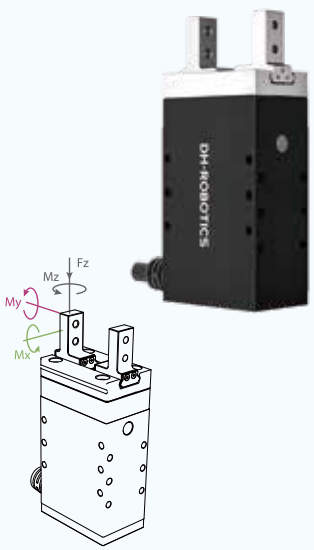
● Flexible Installation

The gripper body of the PGSE model provides multiple mounting options, allowing for versatile installation in compact spaces. Coupled with its compact size, it facilitates easy installation in tight spaces.

Application

The PGSE gripper is suitable for compact production environments, such as the semiconductor and 3C electronics industries, where it can be utilized for gripping, sorting, loading, and unloading of small-sized components.

PGSE-15-7



Static Vertical Allowable Load

Fz	70 N

Allowable Loading Moment

Mx	0.9 N·m
My	0.75 N·m
Mz	0.9 N·m

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*② Use optional communication, need external communication conversion box, please consult the sales staff for details

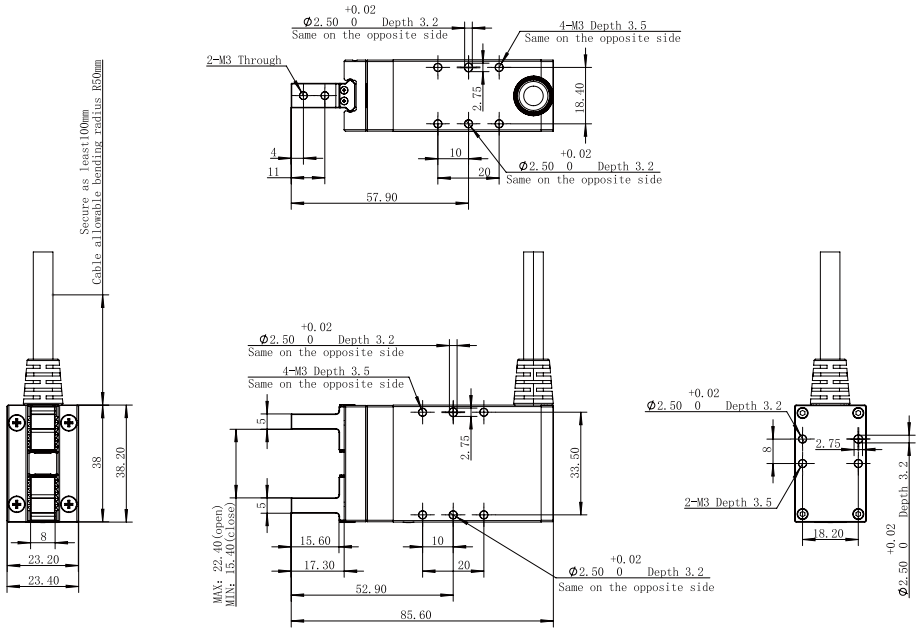
Parameters

Product Parameter	
Gripping force (per jaw)	6~15 N
Stroke	7 mm
Recommended workpiece weight *①	0.25 kg
Opening/closing time	0.15 s/0.15 s
Noise emission	< 60 dB
Weight	0.15 kg
Driving method	Precise planetary gears + Rack and pinion
Size	85.6 mm x 38 mm x 23.2 mm

Working Environment	
Communication interface	Modbus RTU (RS485)、Digital I/O*②
Rated voltage	24 V DC ± 10%
Rated current	0.15 A
Peak current	0.8 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	×	×	×	×

Technical Drawings



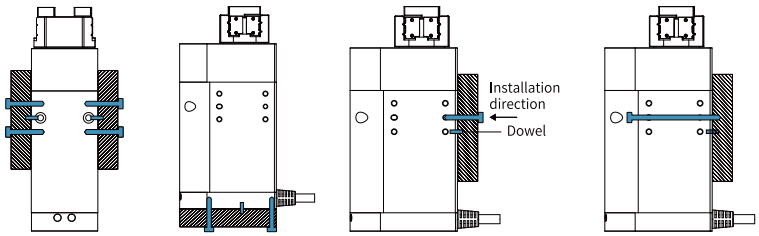
RGI Series
Electric Rotary Gripper

RGIC-35-12 RGI-100-14
RGIC-100-35 RGI-100-22
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. Rear installation: use rear screw holes for installation
4. Front installation: Install with front screw holes



Product Feature

● Gripping & Infinite Rotation

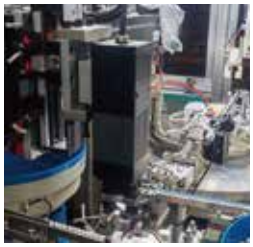
The unique structural design in the industry can realize the simultaneous griping and infinite rotation on one electric gripper, and solve the winding problem in non-standard design and rotation.

● 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 Gripping Force and Torque

The maximum single-sided gripping force is 100N, and the maximum torque is 1.5N·m. Though 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, scaning code detection, etc.;
RGI-100 series comes standard with fingertips and can be adapted to 10 mix 1 and 20 mix 1 size tubes to meet the needs of large-scale nucleic acid sampling.

RGIC-35-12

Static Vertical Allowable Load

Fz	100 N

Allowable Loading Moment

Mx	1.5 N·m
My	1.1 N·m
Mz	2.1 N·m

*① 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.

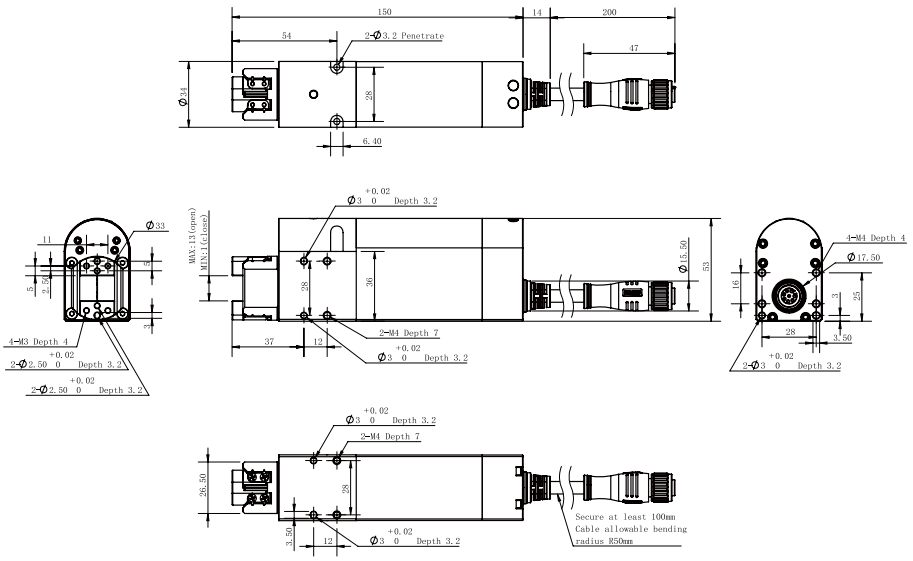
*② Use optional communication, need external communication conversion box, please consult the sales staff for details

Parameters

Product Parameter	
Gripping force (per jaw)	13~35 N
Stroke	12 mm
Rated torque	0.2 N·m
Peak torque	0.5 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *①	0.5 kg
Max. rotation speed	2160 °/s
Repeat accuracy (swiveling)	± 0.05 °
Repeat accuracy (position)	± 0.02 mm
Opening/closing time	0.6 s/0.6 s
Weight	0.64 kg
Size	150 mm x 53 mm x 34 mm Rotaty Diameter:33mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT* ②
Rated voltage	24 V DC ± 10%
Rated current	1.7 A
Peak current	2.5 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism
●	●	●	●	●	●	×

Technical Drawings



RGIC-100-35

Static Vertical Allowable Load

Fz	200 N

Allowable Loading Moment

Mx	3 N·m
My	3 N·m
Mz	2.5 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

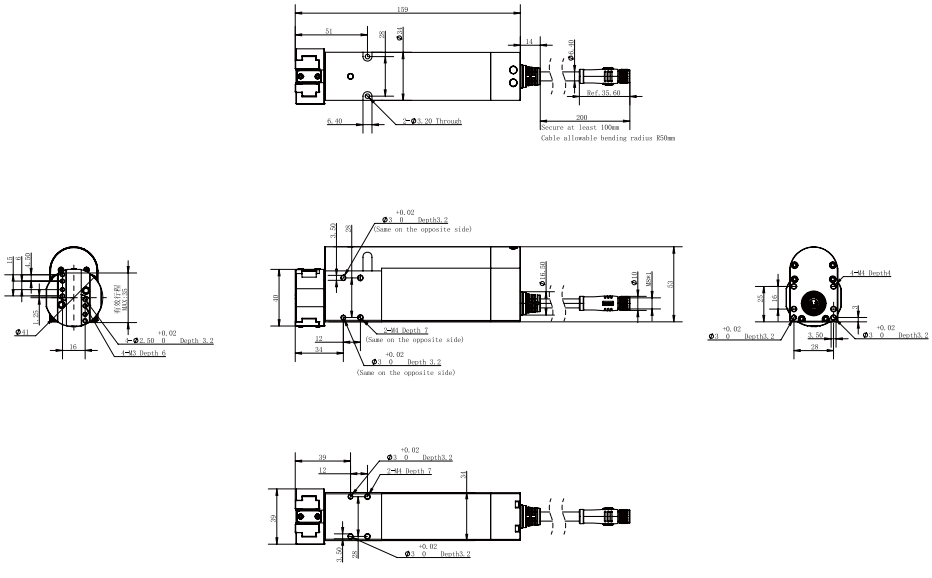
Parameters

Product Parameter	
Gripping force (per jaw)	40~100 N
Stroke	35 mm
Rated torque	0.35 N·m
Peak torque	1.5 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *①	1 kg
Max. rotation speed	1400 °/s
Repeat accuracy (position)	± 0.02 mm
Opening/closing time	0.9 s/0.9 s
Weight	0.65 kg
Size	159 mm x 53 mm x 34 mm Rotaty Diameter:41mm

Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT* ②
Rated voltage	24 V DC ± 10%
Rated current	2.0 A
Peak current	5.0 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism
●	●	●	●	●	●	×

Technical Drawings



RGI-100-14

Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2.5 N·m
My	3 N·m
Mz	4 N·m

*① 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.

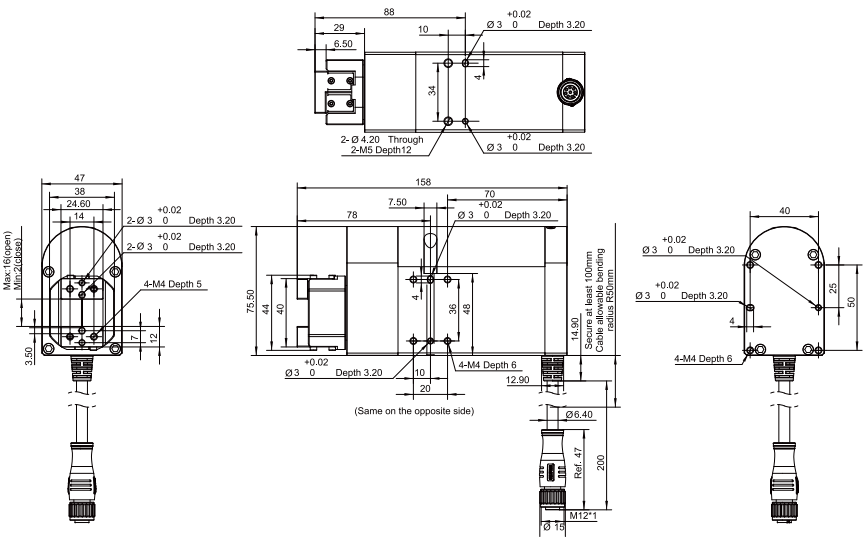
*② Use optional communication, need external communication conversion box, please consult the sales staff for details

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	1.5 kg
Max. rotation speed	2160 °/s
Repeat accuracy (swiveling)	± 0.05 °
Repeat accuracy (position)	± 0.02 mm
Opening/closing time	0.6 s/0.6 s
Weight	1.28 kg
Size	158 mm x 75.5 mm x 47 mm Rotaty Diameter:47.1mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	1.0 A
Peak current	4.0 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism
●	●	●	●	●	●	×

Technical Drawings



RGI-100-22

Static Vertical Allowable Load

Fz	200 N

Allowable Loading Moment

Mx	3.5 N·m
My	4 N·m
Mz	5.5 N·m

*① 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.

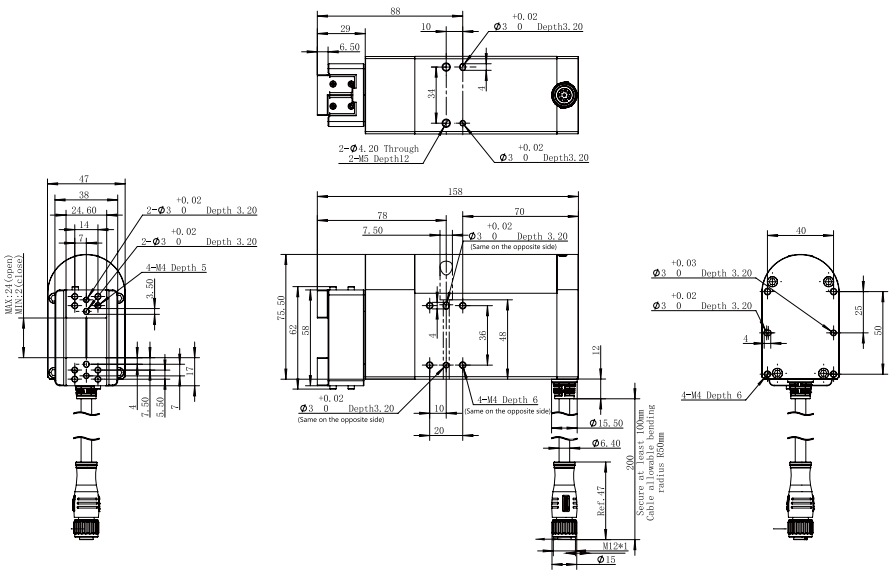
*② Use optional communication, need external communication conversion box, please consult the sales staff for details

Parameters

Product Parameter	
Gripping force (per jaw)	30~100 N
Stroke	22 mm
Rated torque	0.5 N·m
Peak torque	1.5 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *①	1.5 kg
Max. rotation speed	2160 °/s
Repeat accuracy (swiveling)	± 0.05 °
Repeat accuracy (position)	± 0.02 mm
Opening/closing time	0.65 s/0.65 s
Weight	1.4 kg
Size	158 mm x 75.5 mm x 47 mm Rotaty Diameter:67.1mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	1.0 A
Peak current	4.0 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism
●	●	●	●	●	●	×

Technical Drawings



RGI-100-30

Static Vertical Allowable Load

Fz	250 N

Allowable Loading Moment

Mx	4.5 N·m
My	5 N·m
Mz	7 N·m

*① 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.

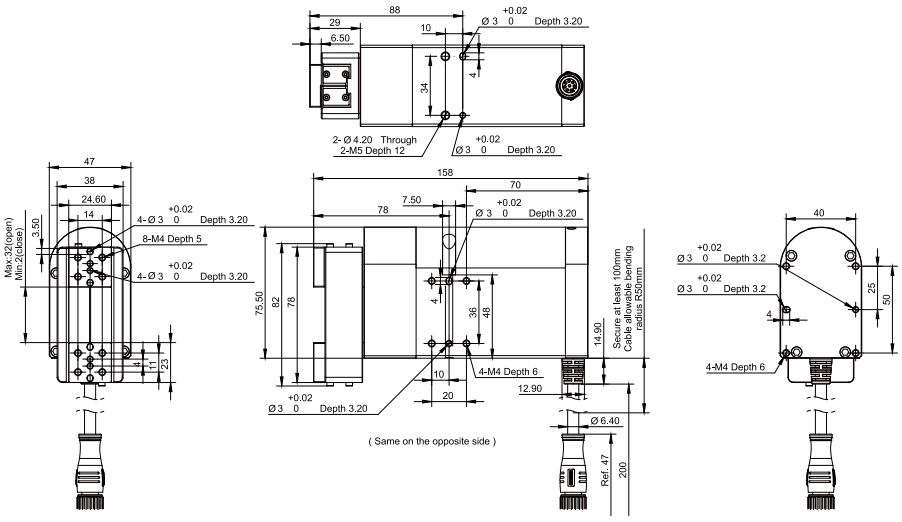
*② Use optional communication, need external communication conversion box, please consult the sales staff for details

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	1.5 kg
Max. rotation speed	2160 °/s
Repeat accuracy (swiveling)	± 0.05 °
Repeat accuracy (position)	± 0.02 mm
Opening/closing time	0.7 s/0.7 s
Weight	1.5 kg
Size	158 mm x 75.5 mm x 47 mm Rotaty Diameter:84.8mm
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	1.0 A
Peak current	4.0 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism
●	●	●	●	●	●	×

Technical Drawings



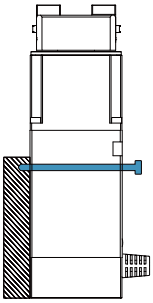
RGD Series
Electric Direct Drive Rotaty Gripper

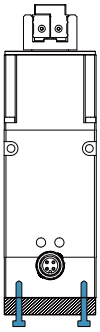
RGD-5-14 RGD-35-14
RGD-5-30 RGD-35-30

The RGD direct-drive electric rotary gripper of DH-Robotics adopts a direct-drive backlash-free rotation module to improve the rotary accuracy, and thus is perfectly suited for high-precision manufacturing applications.

Installation

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





Product Features

● Zero Rotary Backlash High Repeatability

The RGD series adopts direct-drive rotary motors to realize zero rotary backlash and a rotary resolution of up to 0.01°, which applies to rotary positioning scenarios in semiconductor production.

● High Dynamic Response High-speed Stability

The precision direct-drive technology, coupled with DH-Robotics' excellent drive control, realizes perfect control of gripping and rotation. The rotation speed is up to 1500° per second.

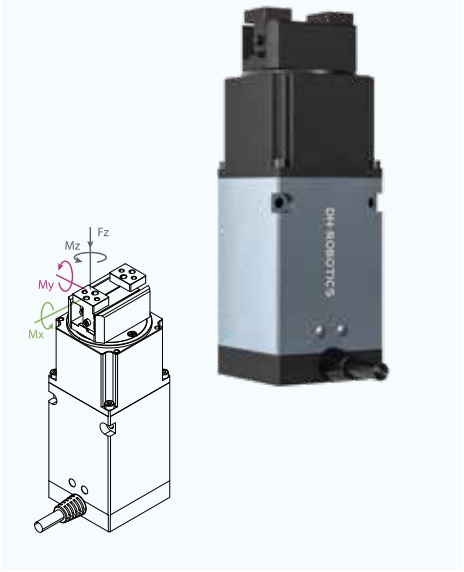
● All-in-one Design Power-off Protection

The gripper adopts the design of integrating the dual servo system of gripping and rotation with the drive control module, which is smaller and more compact, and applies to more scenarios. Brakes are optional to meet the requirements of various applications.

Application

With the direct-drive technology, the RGD gripper can provide greatly improved rotary accuracy, which can be used in scenarios such as the high-precision positioning assembly, transport, and deflection correction of 3C electronics and semiconductors.

RGD-5-14



Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2 N·m
My	1.5 N·m
Mz	2.5 N·m

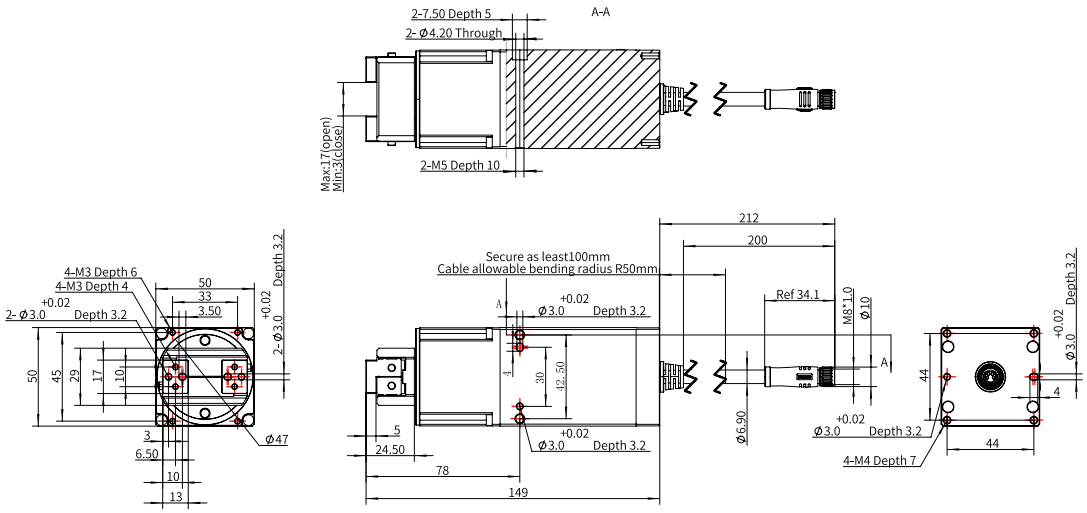
a. The peak torque can be increased to a maximum of 0.5 N·m. For specific details, please consult with technical support personnel.
b. The gripping force on objects depends on factors such as the shape of the object, the material and friction of the contact surface, and the acceleration of movement. The displacement of the center of gravity of the grasped object can also affect the load. If you have any questions, please contact us.
c. When using the optional communication protocol, an external communication box is required. For details, you can consult with our sales representatives.
d. It is recommended to power the device with a power supply that matches the peak current. In cases where the power supply is insufficient, there is a possibility of unintentional triggering of the brake.

Parameters

Product Parameter		
Gripping force (per jaw)		2-5.5 N
Stroke		14 mm
Rated torque		0.1 N·m
Peak torque *①		0.25 N·m
Rotary range		Infinite Rotating
Recommended workpiece weight *②		0.05 kg
Max. rotation speed		1500 °/s
Rotary backlash		Zero backlash
Repeat accuracy (swiveling)		± 0.1 °
Repeat accuracy (position)		± 0.02 mm
Opening/closing time		0.5 s/0.5 s
Weight	0.86 kg(without brake)	0.88 kg(with brake)
Size		149 mm x 50 mm x 50 mm Rotaty Diameter:48.7mm
Working Environment		
Communication interface		Modbus RTU (RS485)
Rated voltage		24 V DC ± 10%
Rated current		1.2 A
Peak current		2.5 A
IP class		IP 40
Recommended environment		0~40°C, under 85% RH
Certification		CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism
●	●	●	●	●	●	●×

Technical Drawings



RGD-5-30

Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2 N·m
My	1.5 N·m
Mz	2.5 N·m

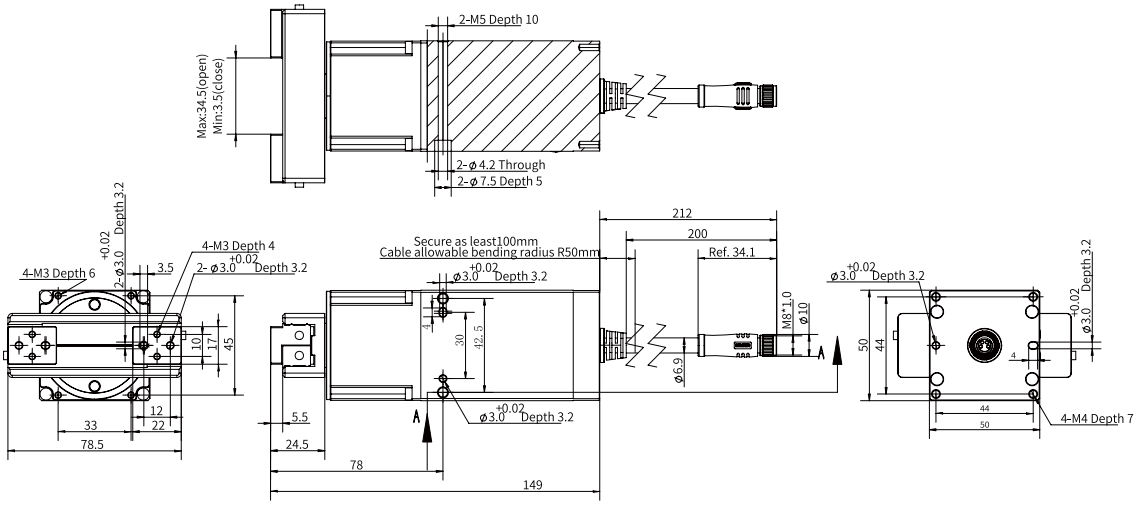
a. The peak torque can be increased to a maximum of 0.5 N·m. For specific details, please consult with technical support personnel.
b. The gripping force on objects depends on factors such as the shape of the object, the material and friction of the contact surface, and the acceleration of movement. The displacement of the center of gravity of the grasped object can also affect the load. If you have any questions, please contact us.
c. When using the optional communication protocol, an external communication box is required. For details, you can consult with our sales representatives.
d. It is recommended to power the device with a power supply that matches the peak current. In cases where the power supply is insufficient, there is a possibility of unintentional triggering of the brake.

Parameters

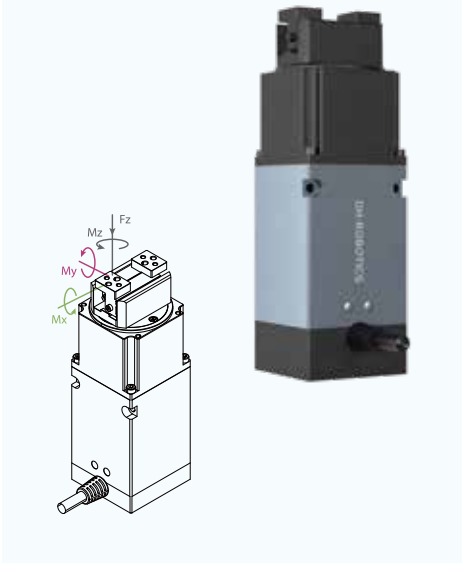
Product Parameter		
Gripping force (per jaw)		2-5.5 N
Stroke		30 mm
Rated torque		0.1 N·m
Peak torque *①		0.25 N·m
Rotary range		Infinite Rotating
Recommended workpiece weight *②		0.05 kg
Max. rotation speed		1500 °/s
Rotary backlash		Zero backlash
Repeat accuracy (swiveling)		± 0.1 °
Repeat accuracy (position)		± 0.02 mm
Opening/closing time		0.5 s/0.5 s
Weight	1 kg(without brake)	1.02 kg(with brake)
Size		149 mm x 50 mm x 50 mm Rotaty Diameter:83.6mm
Working Environment		
Communication interface		Modbus RTU (RS485)
Rated voltage		24 V DC ± 10%
Rated current		1.2 A
Peak current		2.5 A
IP class		IP 40
Recommended environment		0~40°C, under 85% RH
Certification		CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism
●	●	●	●	●	●	●×

Technical Drawings



RGD-35-14



Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2 N·m
My	1.5 N·m
Mz	2.5 N·m

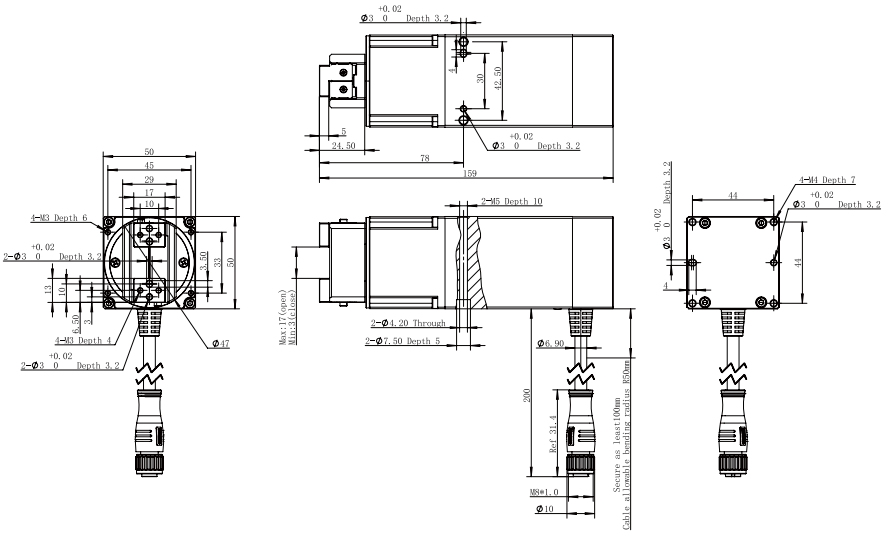
a. The peak torque can be increased to a maximum of 0.5 N·m. For specific details, please consult with technical support personnel.
b. The gripping force on objects depends on factors such as the shape of the object, the material and friction of the contact surface, and the acceleration of movement. The displacement of the center of gravity of the grasped object can also affect the load. If you have any questions, please contact us.
c. When using the optional communication protocol, an external communication box is required. For details, you can consult with our sales representatives.
d. It is recommended to power the device with a power supply that matches the peak current. In cases where the power supply is insufficient, there is a possibility of unintentional triggering of the brake.

Parameters

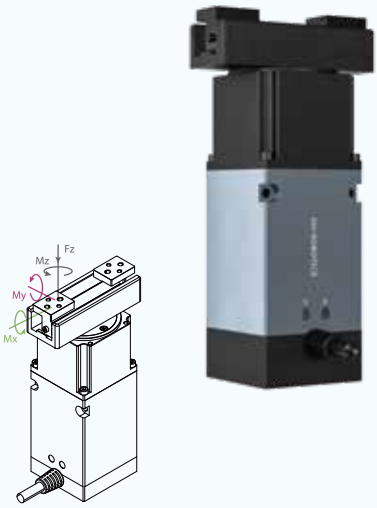
Product Parameter		
Gripping force (per jaw)		10-35 N
Stroke		14 mm
Rated torque		0.1 N·m
Peak torque *①		0.25 N·m
Rotary range		Infinite Rotating
Recommended workpiece weight *②		0.35 kg
Max. rotation speed		1500 °/s
Rotary backlash		Zero backlash
Repeat accuracy (swiveling)		± 0.1 °
Repeat accuracy (position)		± 0.02 mm
Opening/closing time		0.5 s/0.5 s
Weight	0.86 kg(without brake)	0.88 kg(with brake)
Size		159 mm x 50 mm x 50 mm Rotaty Diameter:48.7mm
Working Environment		
Communication interface		Modbus RTU (RS485)
Rated voltage		24 V DC ± 10%
Rated current		1.2 A
Peak current		2.5 A
IP class		IP 40
Recommended environment		0~40°C, under 85% RH
Certification		CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism
●	●	●	●	●	●	●×

Technical Drawings



RGD-35-30



Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2 N·m
My	1.5 N·m
Mz	2.5 N·m

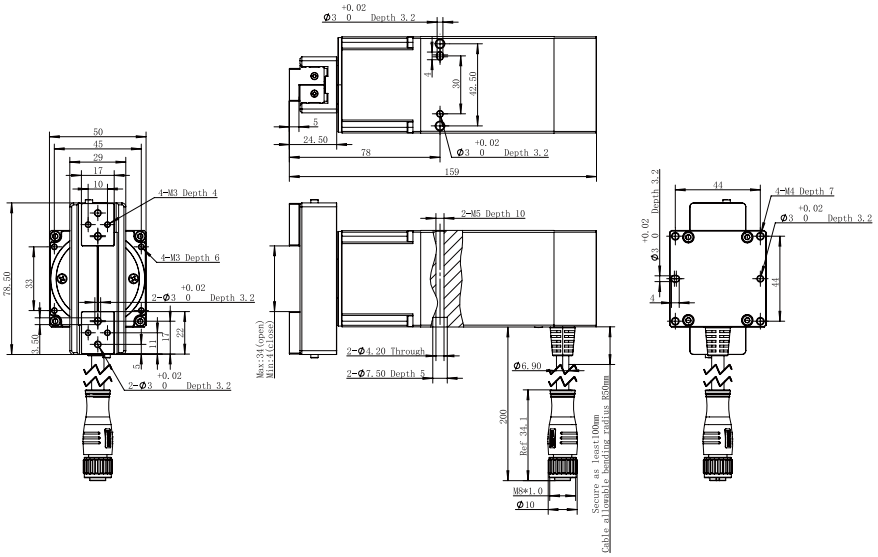
a. The peak torque can be increased to a maximum of 0.5 N·m. For specific details, please consult with technical support personnel.
b. The gripping force on objects depends on factors such as the shape of the object, the material and friction of the contact surface, and the acceleration of movement. The displacement of the center of gravity of the grasped object can also affect the load. If you have any questions, please contact us.
c. When using the optional communication protocol, an external communication box is required. For details, you can consult with our sales representatives.
d. It is recommended to power the device with a power supply that matches the peak current. In cases where the power supply is insufficient, there is a possibility of unintentional triggering of the brake.

Parameters

Product Parameter		
Gripping force (per jaw)		10-35 N
Stroke		30 mm
Rated torque		0.1 N·m
Peak torque *①		0.25 N·m
Rotary range		Infinite Rotating
Recommended workpiece weight *②		0.35 kg
Max. rotation speed		1500 °/s
Rotary backlash		Zero backlash
Repeat accuracy (swiveling)		± 0.1 °
Repeat accuracy (position)		± 0.02 mm
Opening/closing time		0.7 s/0.7 s
Weight	1 kg(without brake)	1.02 kg(with brake)
Size		159 mm x 50 mm x 50 mm Rotaty Diameter:83.6mm
Working Environment		
Communication interface		Modbus RTU (RS485)
Rated voltage		24 V DC ± 10%
Rated current		1.2 A
Peak current		2.5 A
IP class		IP 40
Recommended environment		0~40°C, under 85% RH
Certification		CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism
●	●	●	●	●	●	●×

Technical Drawings



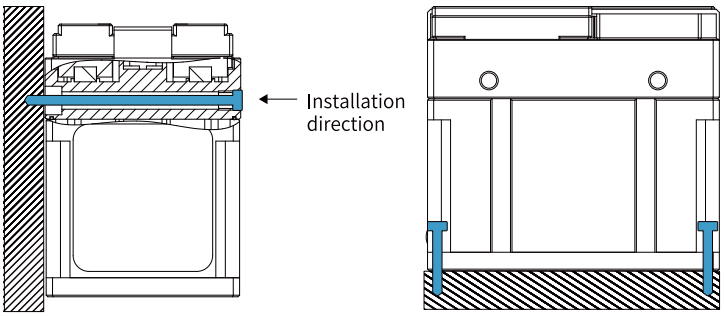
PGI Series
Electric Parallel Gripper

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

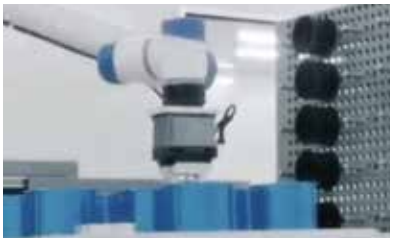
Long stroke reach to 80 mm. With the customization fingertips, it can stably grasp the medium and large objects below 3kg and suitable for lots of industrial scenes.

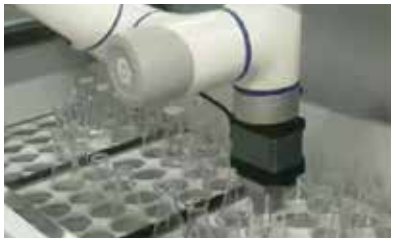
●High Protection Level

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.

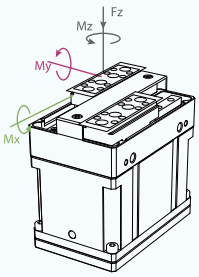




Application

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



Static Vertical Allowable Load

Fz	300 N

Allowable Loading Moment

Mx	7 N·m
My	7 N·m
Mz	7 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

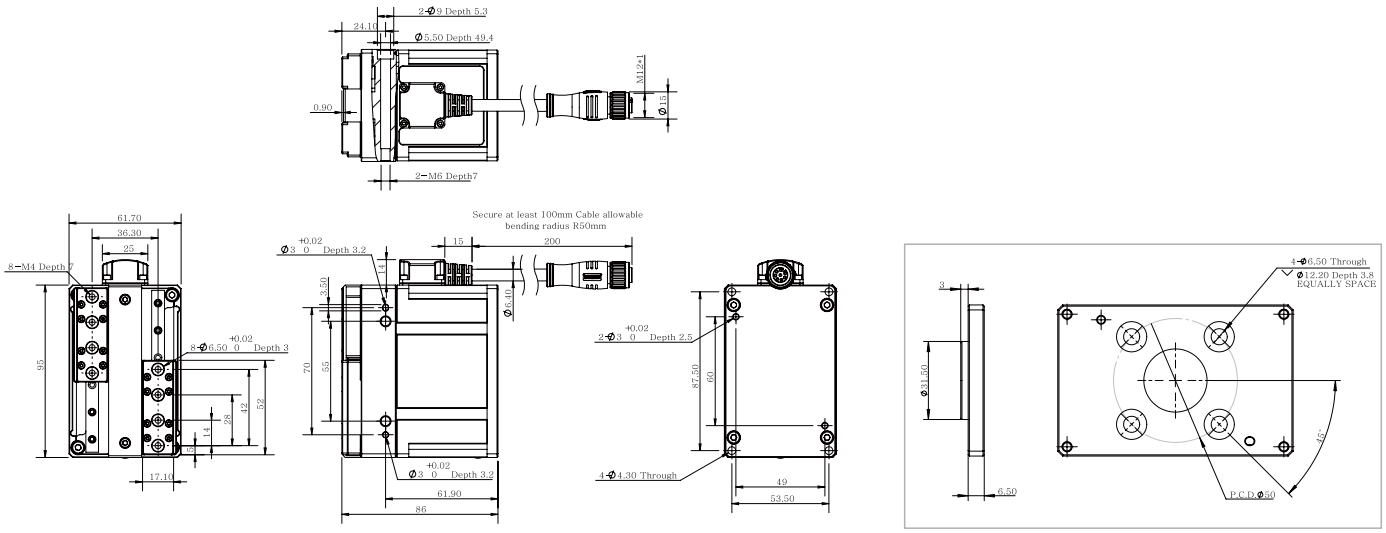
Parameters

Product Parameter	
Gripping force (per jaw)	40~140 N
Stroke	80 mm
Recommended workpiece weight *①	3 kg
Opening/closing time	1.1 s/1.1 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 *②
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

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

Technical Drawings



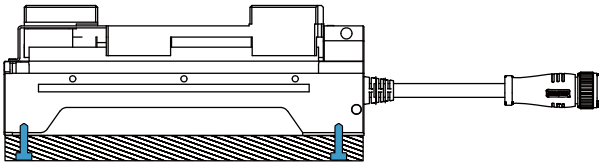
PGHL Series
Heavy-Load Long-Stroke Electric Parallel Gripper

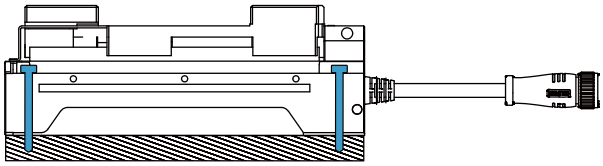
PGHL-400-80

PGHL series is an industrial flat electric gripper developed and produced by DH-Robotics. With its compact design, heavy load and high force control accuracy, it can be applied to heavier load clamping requirements and more application scenarios.

Installation

Bottom installation: use bottom screw holes for installation





Product Features

● Flat Electric Gripper High Energy density

PGHL-400-80 industrial flat electric gripper, the structure of which is delicate and meticulous. The length, width and height dimensions is only 194 × 73 × 70mm. This model can provide large clamping force and fast clamping beat, coming with mechanical self-locking mechanism, challenge the limit of large load and thin size.

● High Force Control Accurancy

The force repeatability is ±40N(±10%). Far better than ordinary products in the market by ±10%~±20% of force control accuracy.

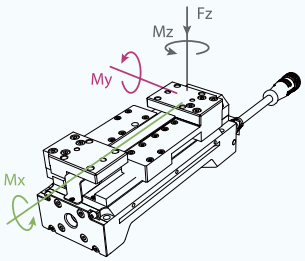
● Quick Response Intelligent planning speed

Opening/closing time up to 1.0s/1.1s, with speed control optimization and mechanical self-locking mechanism function, it can meet fast and stable gripping needs of the production line

Application

Applied in industrial production of large weight and large volume workpieces gripping and handling, such as lithium batteries in the new energy industry package gripping, large machined parts in automobile assembly production in automotive assembly.

PGHL-400-80



Static Vertical Allowable Load

Fz	1000 N

Allowable Loading Moment

Mx	50 N·m
My	50 N·m
Mz	15 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

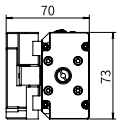
Parameters

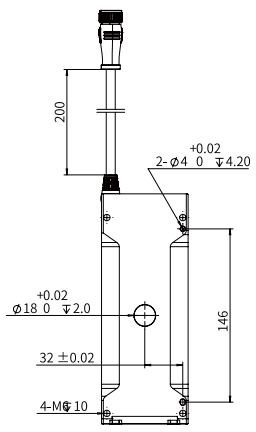
Product Parameter	
Gripping force (per jaw)	140～400 N
Stroke	80 mm
Recommended workpiece weight *①	8 kg
Opening/closing time	1.0 s/ 1.1 s
Repeat accuracy (position)	± 0.02 mm
Weight	2.2 kg
Driving method	Precise planetary gears + Tshaped lead screw+Rack and pinion
Size	194 mm x 73 mm x 70 mm

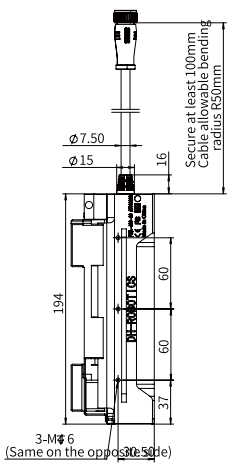
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	DC 24 V ± 10%
Rated current	1.0 A
Peak current	3.0 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE、FCC、RoHS

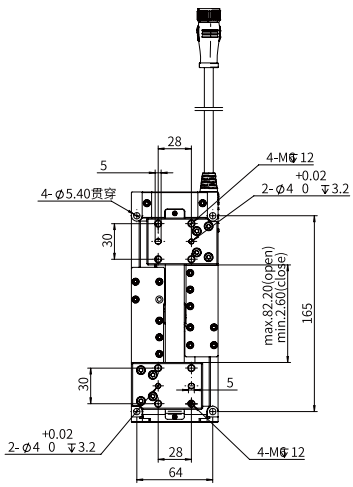
Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●

Technical Drawings









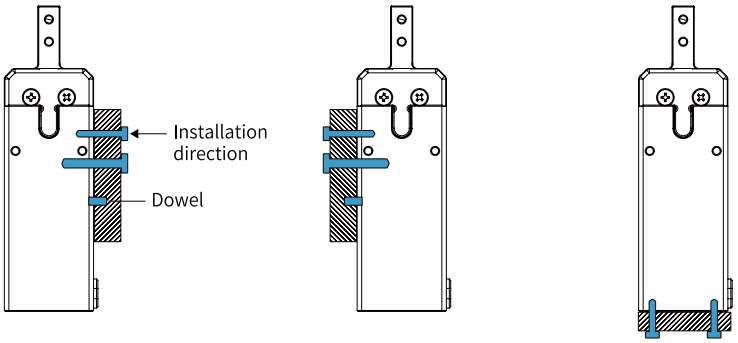
PGS Series
Miniature Electro-magnetic Gripper

PGS-5-5

The PGS series is a miniature electromagnetic 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

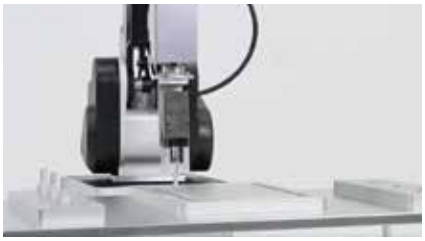
Compact size with 20×26 mm, it can be deployed in a relatively small environment.

● High Frequency

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

● Easy to Use

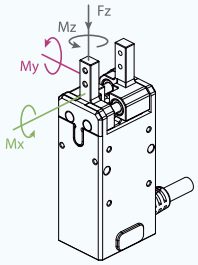
The configuration is simple with the Digital I/O communication protocol.



Application

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

PGS-5-5



Static Vertical Allowable Load

Fz	150 N

Allowable Loading 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.

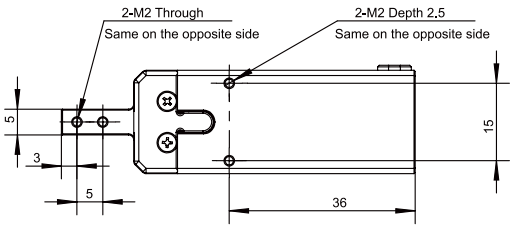
Parameters

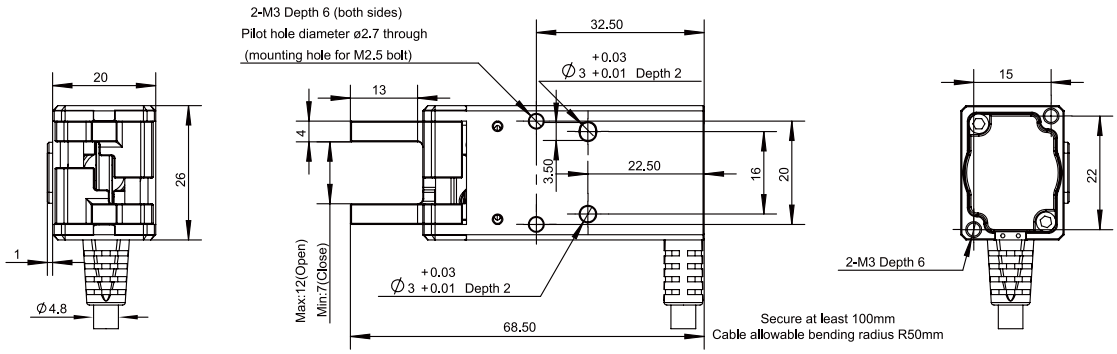
Product Parameter	
Gripping force (per jaw)	3.5-5 N
Stroke	5 mm
Recommended workpiece weight *	0.05 kg
Opening/closing time	0.03 s/0.03 s
Repeat accuracy (position)	± 0.01 mm
Noise emission	< 50 dB
Weight	0.2 kg
Driving method	Electromagnet + Spring
Size	Gripper Size:68.5 mm x 26 mm x 20 mm Controller Size:67.7 mm x 66.8 mm x 29.6 mm

Working Environment	
Communication interface	Digital I/O
Rated voltage	24 V DC ± 10%
Rated current	0.1 A
Peak current	3.0 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
×	×	×	×	×	●

Technical Drawings





PGC Series
Electric Collaborative Parallel Gripper

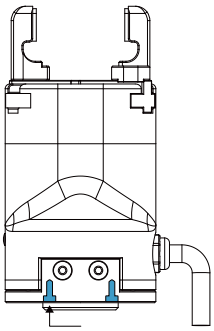
reddot winner 2021

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.

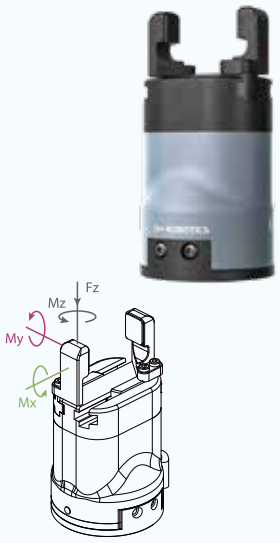
● High Load

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



Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2.5 N·m
My	2 N·m
Mz	3 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

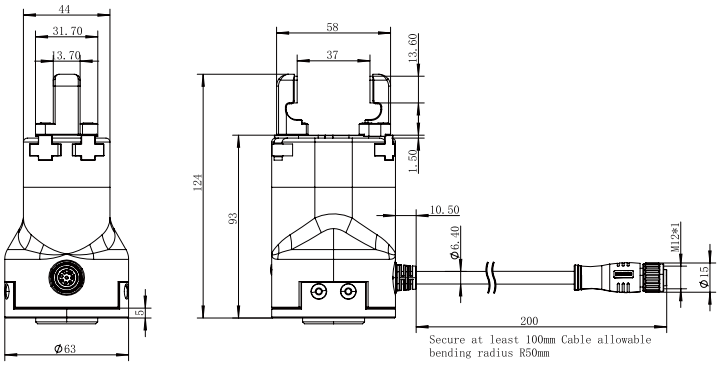
Parameters

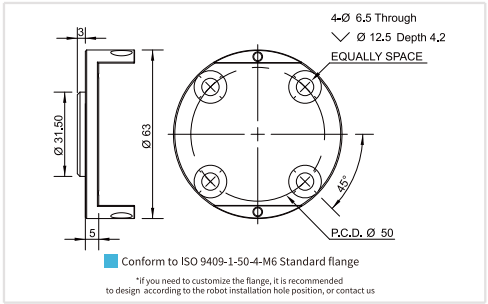
Product Parameter	
Gripping force (per jaw)	15~50 N
Stroke	37 mm
Recommended workpiece weight *①	1 kg
Opening/closing time	0.7 s/0.7 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	0.5 kg
Driving method	Precise planetary gears + Rack and pinion
Size	124 mm x 63 mm x 63 mm

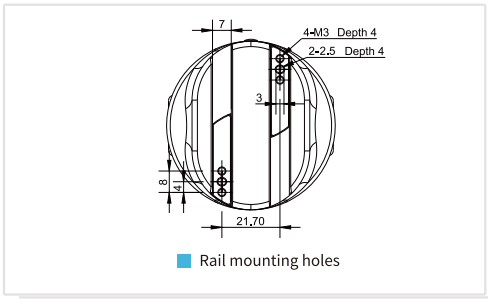
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.25 A
Peak current	0.5 A
IP class	IP 54
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

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

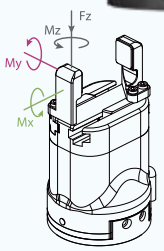
Technical Drawings







PGC-140-50



Static Vertical Allowable Load

Fz	300 N

Allowable Loading Moment

Mx	7 N·m
My	7 N·m
Mz	7 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

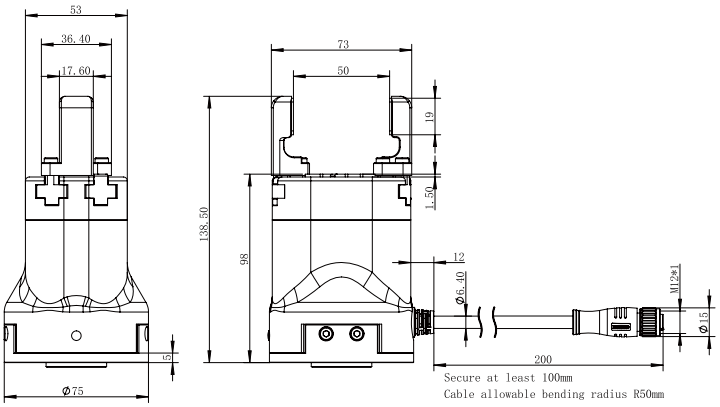
Parameters

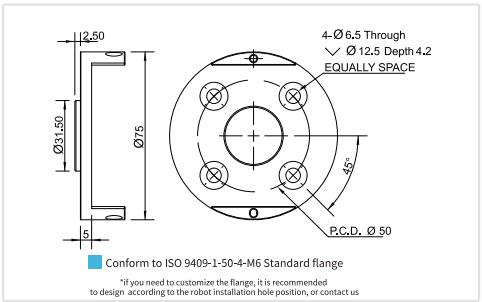
Product Parameter	
Gripping force (per jaw)	40~140 N
Stroke	50 mm
Recommended workpiece weight *①	3 kg
Opening/closing time	0.6 s/0.6 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1 kg
Driving method	Precise planetary gears + Rack and pinion
Size	138.5 mm x 75 mm x 75 mm

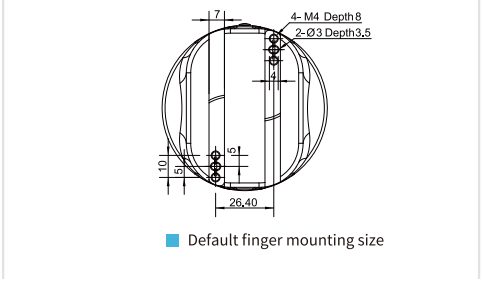
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	1.0 A
IP class	IP 67
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

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

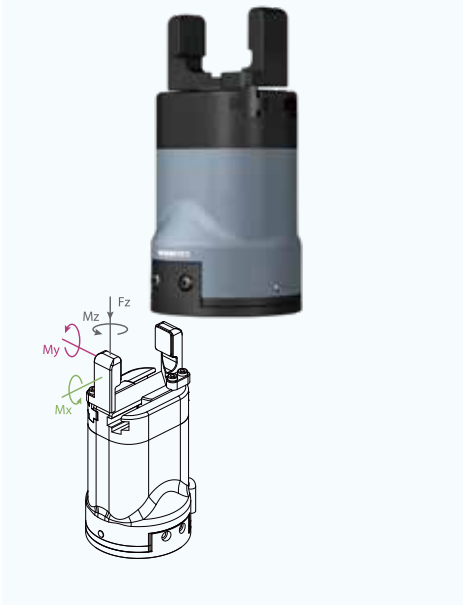
Technical Drawings







PGC-300-60



Static Vertical Allowable Load

Fz	600 N

Allowable Loading Moment

Mx	15 N·m
My	15 N·m
Mz	15 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

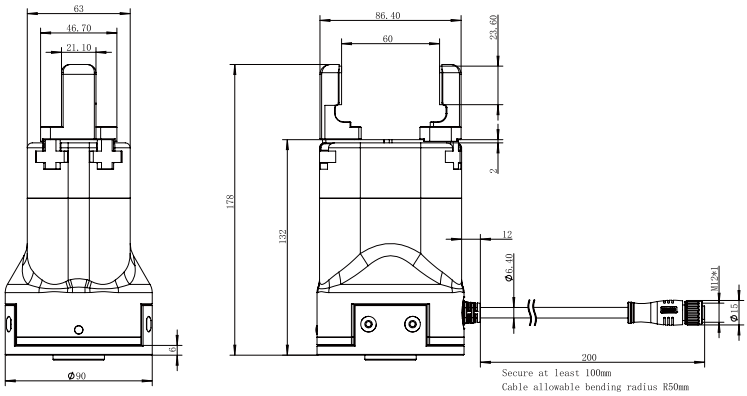
Parameters

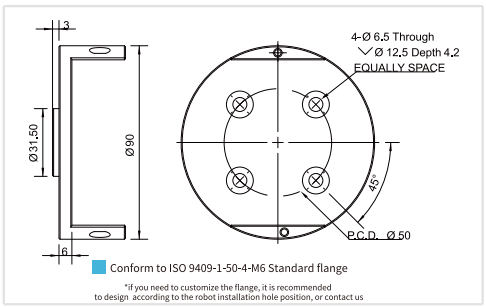
Product Parameter	
Gripping force (per jaw)	80~300 N
Stroke	60 mm
Recommended workpiece weight *①	6 kg
Opening/closing time	0.8 s/0.8 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1.5 kg
Driving method	Precise planetary gears + Rack and pinion
Size	178 mm x 90 mm x 90 mm

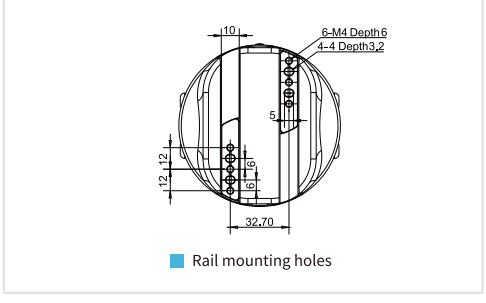
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	2.0 A
IP class	IP 67
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

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

Technical Drawings







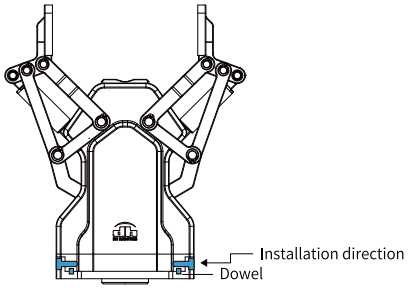
AG Series
Electric Adaptive Gripper

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

Static Vertical Allowable Load

Fz	300 N

Allowable Loading Moment

Mx	4.75 N·m
My	4.75 N·m
Mz	4.75 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

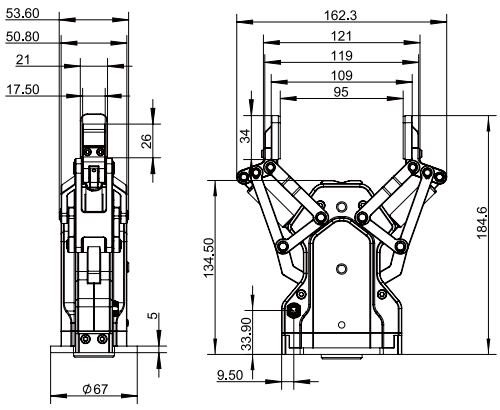
Parameters

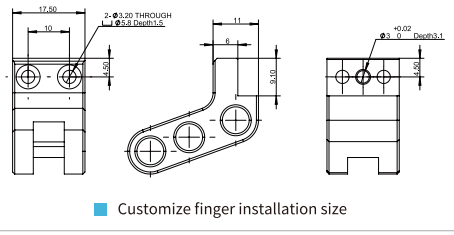
Product Parameter	
Gripping force (per jaw)	45~160 N
Stroke	95 mm
Recommended workpiece weight *①	3 kg
Opening/closing time	0.9 s/0.9 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1 kg
Driving method	Screw drive + Linkage system
Size	184.6 mm x 162.3 mm x 67 mm

Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
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

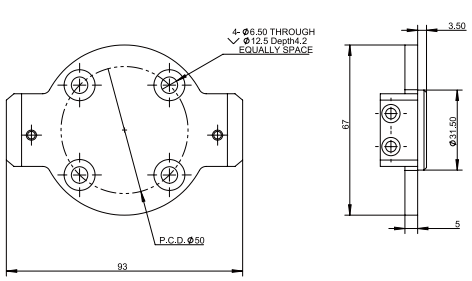
Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism
●	●	●	×	●	●	●

Technical Drawings



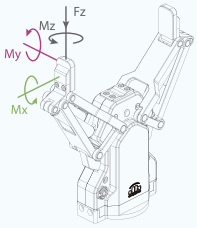


■ Customize finger installation size



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

AG-105-145



Static Vertical Allowable Load

Fz	300 N

Allowable Loading Moment

Mx	1.95 N·m
My	1.95 N·m
Mz	1.95 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

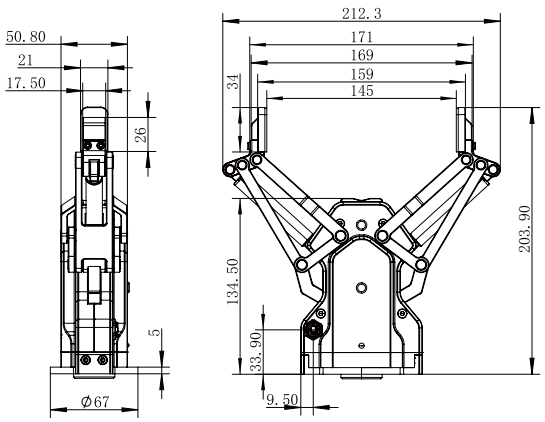
Parameters

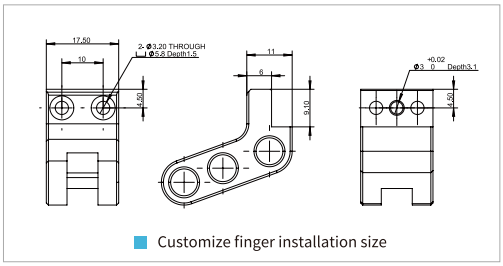
Product Parameter	
Gripping force (per jaw)	35~105 N
Stroke	145 mm
Recommended workpiece weight *①	2 kg
Opening/closing time	0.9 s/0.9 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1.3 kg
Driving method	Screw drive + Linkage system
Size	203.9 mm x 212.3 mm x 67 mm

Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
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

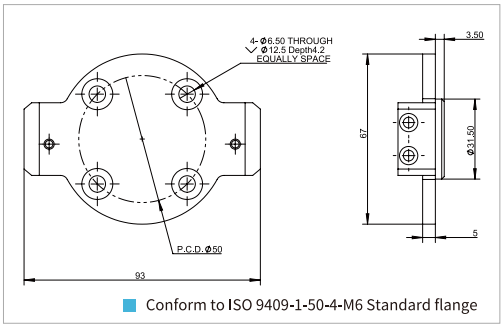
Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism
●	●	●	×	●	●	●

Technical Drawings



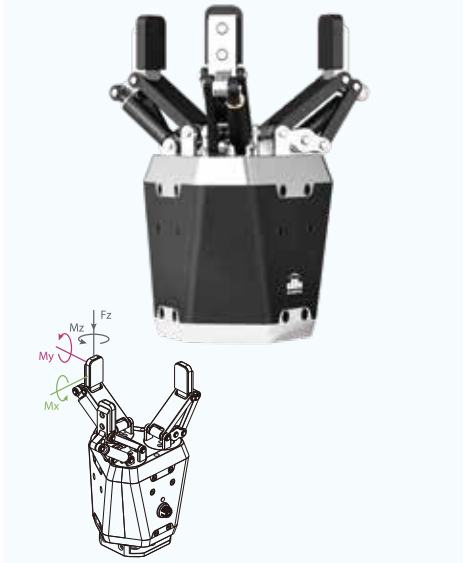


■ Customize finger installation size



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

DH-3



Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	2.5 N·m
My	2 N·m
Mz	3 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

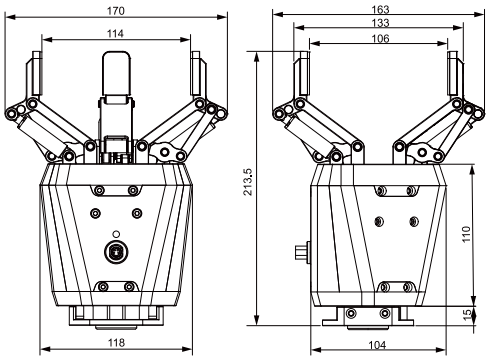
Parameters

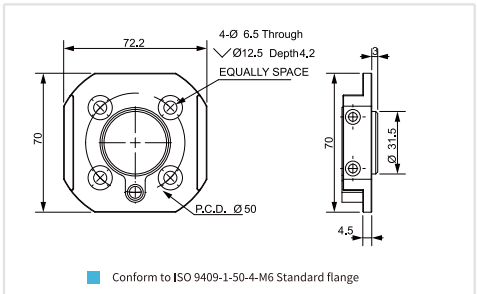
Product Parameter	
Gripping force (per jaw)	10~65 N
Stroke	106 mm (parallel) 122 mm (centric)
Recommended workpiece weight *①	1.8 kg
Opening/closing time	0.7 s/0.7 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1.68 kg
Driving method	Screw nut + gear drive + linkage mechanism
Size	213.5 mm x 170 mm x 118 mm

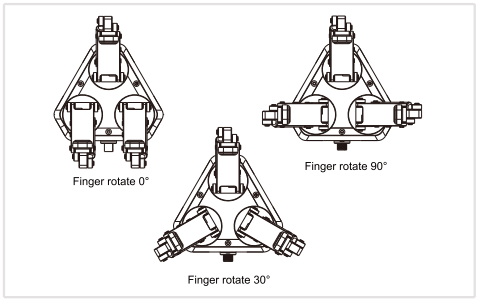
Working Environment	
Communication interface	Standard: TCP/IP, USB2.0, CAN2.0A Optional: EtherCAT*②
Rated voltage	24 V DC ± 10%
Rated current	0.5 A
Peak current	1 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

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

Technical Drawings







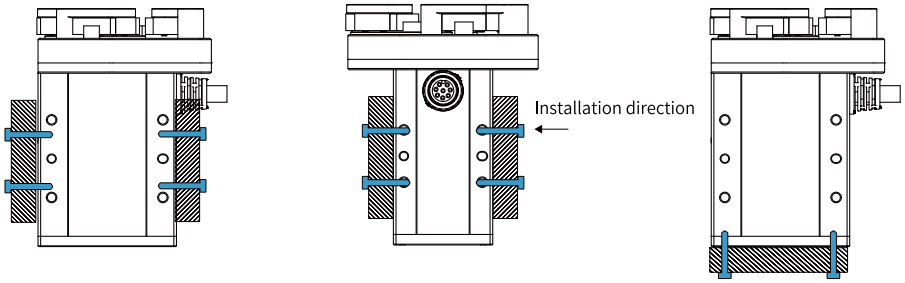
CG Series
Electric Centric Gripper

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.

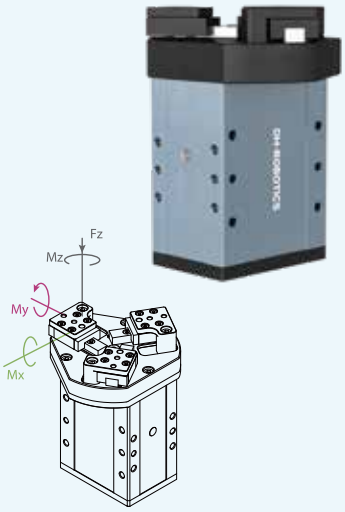
● Overload Protection

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



Static Vertical Allowable Load

Fz	150 N

Allowable Loading Moment

Mx	0.62 N·m
My	0.62 N·m
Mz	0.62 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

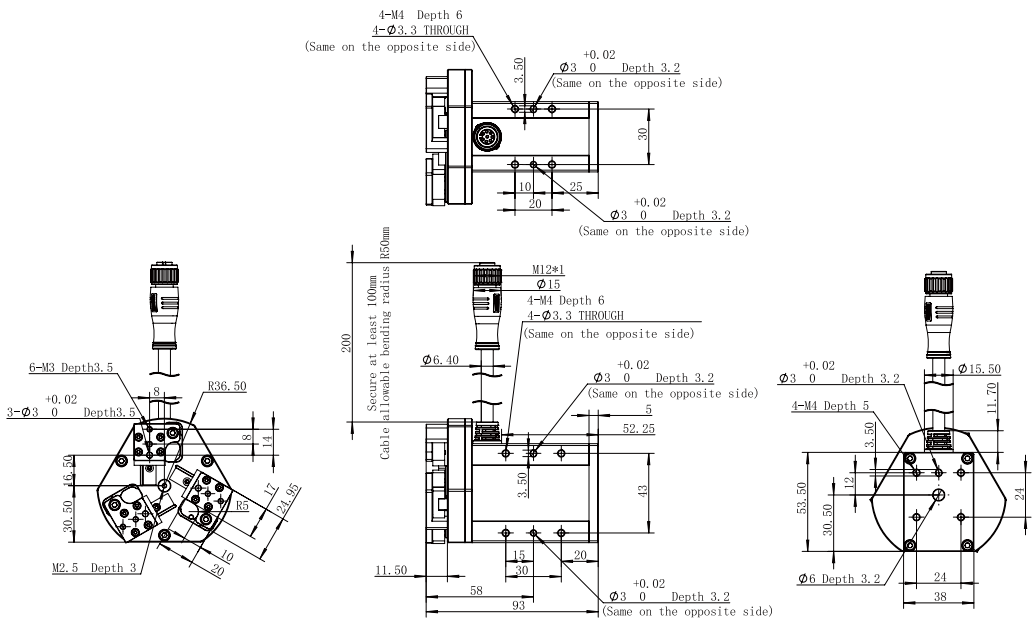
Parameters

Product Parameter	
Gripping force (per jaw)	3~10 N
Stroke	10 mm
Recommended workpiece weight *①	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 gear reducer + Rack and pinion
Size	94 mm x 53.5 mm x 38 mm

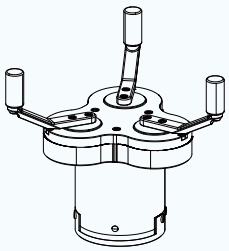
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.3 A
Peak current	0.6 A
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	×

Technical Drawings



CGI-100-170



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.

Parameters

Product Parameter	
Gripping force (per jaw)	30~100 N
Recommended workpiece diameter (inward)	ϕ40~ϕ170 mm
Recommended workpiece weight *①	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	158.4 mm x 124.35 mm x 116 mm(without brake/with brake, same size)

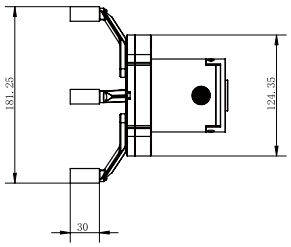
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.4 A
Peak current	1 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

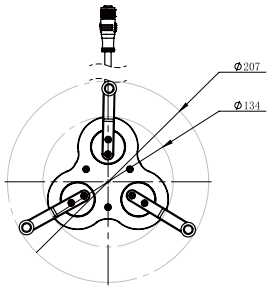
Built-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
●	●	●	●	●	●×

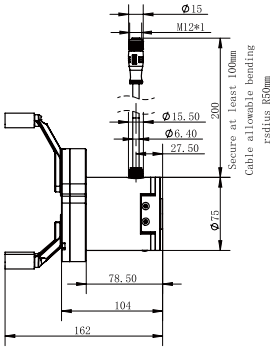
*① It depends on the shape of the grasping object, the material and friction of the contact surface,and the acceleration of the motion, If you have any questions, please contact us.

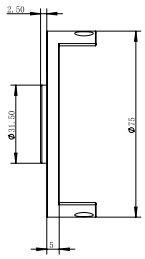
*② Use optional communication, need external communication conversion box, please consult the sales staff for details

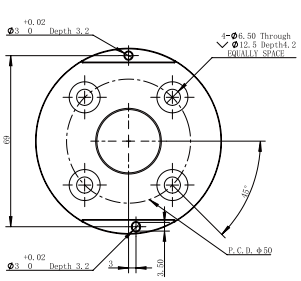
Technical Drawings











■ 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

CGC-80-10

Static Vertical Allowable Load

Fz	200 N

Allowable Loading Moment

Mx	2.5 N·m
My	2 N·m
Mz	3 N·m

*① 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.

*② Use optional communication, need external communication conversion box, please consult the sales staff for details

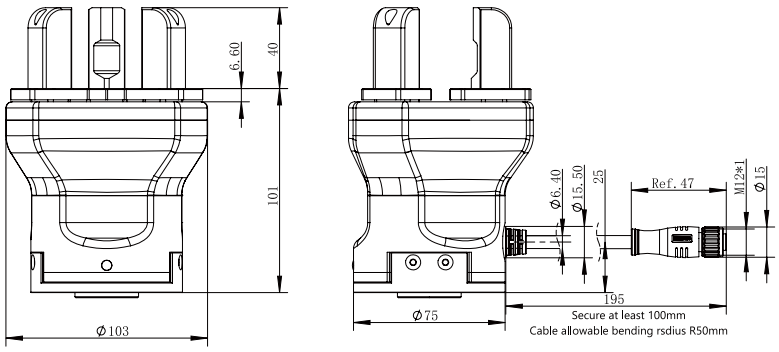
Parameters

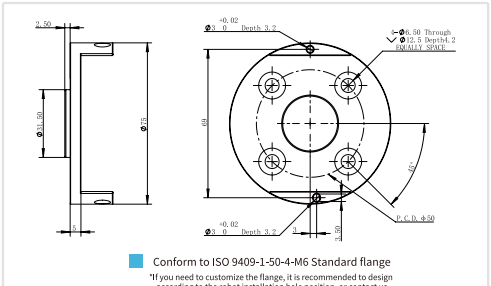
Product Parameter	
Gripping force (per jaw)	20~80 N
Single jaw	10 mm
Recommended workpiece weight *①	1.5 kg
Opening/closing time	0.2 s/0.2 s
Repeat accuracy (position)	± 0.03 mm
Noise emission	< 50 dB
Weight	1.5 kg
Driving method	Precise planetary gear reducer + Rack and pinion
Size	141 mm x 103 mm x 75 mm

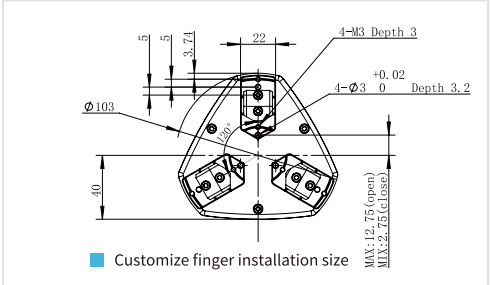
Working Environment	
Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	0.3 A
Peak current	1 A
IP class	IP 67
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

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

Technical Drawings







Honors and Certificates

– Some of Our Certificates

1

2

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6

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1. CE Ceritficate
2. IP Class Ceritficate
3. RoHS Ceritficate
4. EMC Ceritficate
5. FCC Ceritficate
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

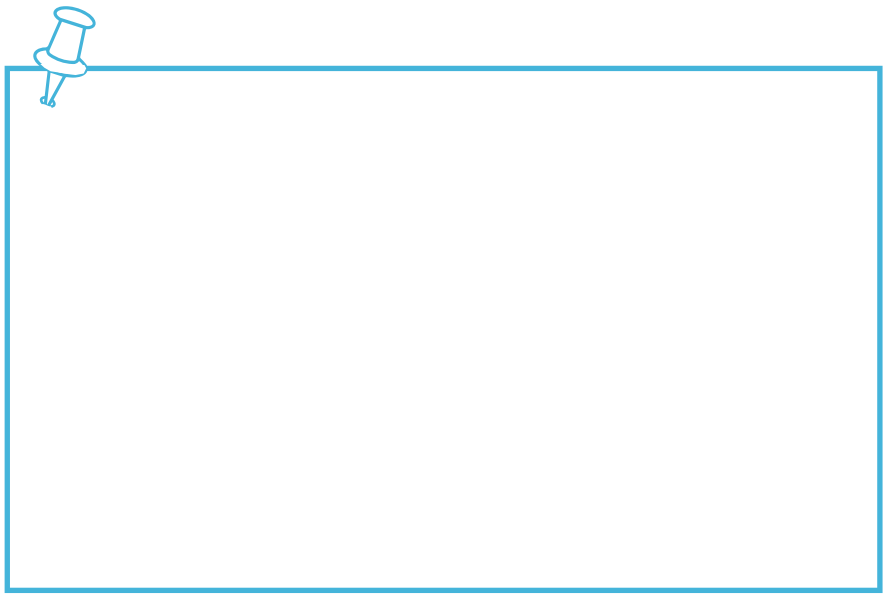

UR


INDUSTRIAL ROBOTS

DH-ROBOTICS

is committed to provide first-class
core components of precision motion control.

DH-ROBOTICS



DH-Robotics Technology Co.,Ltd.

LinkedIn | YouTube Search DH-Robotics

en.dh-robotics.com

info@dh-robotics.com

14th Floor, Building A4, Nanshan Intelligence Park, No. 1001 Xueyuan Avenue,
Taoyuan Street, Nanshan District, Shenzhen City, Guangdong Province, China