

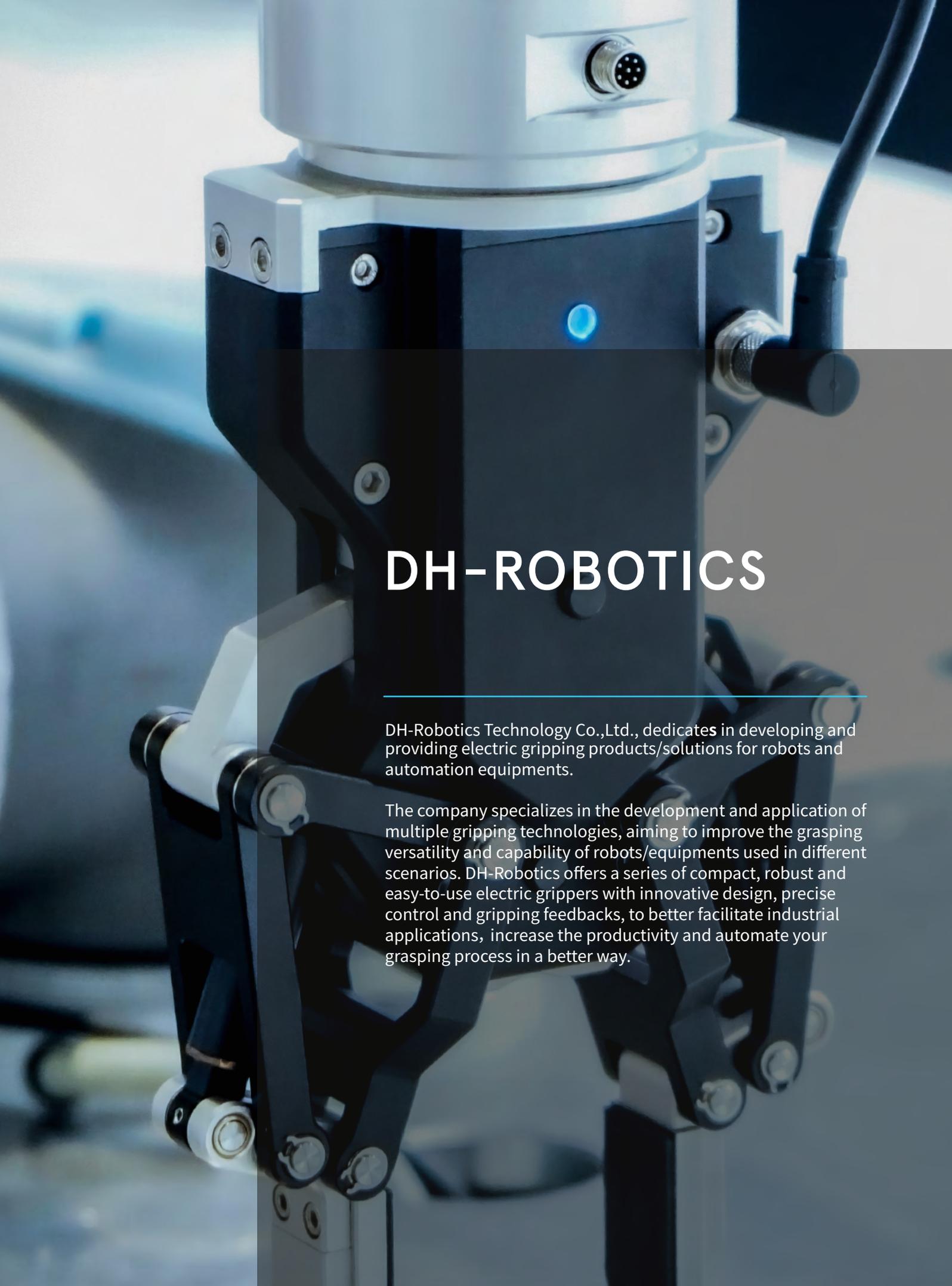
DH-ROBOTICS



Servo-Electric Grippers



en.dh-robotics.com

A close-up photograph of a robotic gripper mechanism. The gripper is primarily black with some white components. A small blue LED light is visible on the side of the main black housing. The gripper is mounted on a white cylindrical base. The background is blurred, showing a factory or industrial setting.

DH-ROBOTICS

DH-Robotics Technology Co.,Ltd., dedicates in developing and providing electric gripping products/solutions for robots and automation equipments.

The company specializes in the development and application of multiple gripping technologies, aiming to improve the grasping versatility and capability of robots/equipments used in different scenarios. DH-Robotics offers a series of compact, robust and easy-to-use electric grippers with innovative design, precise control and gripping feedbacks, to better facilitate industrial applications, increase the productivity and automate your grasping process in a better way.

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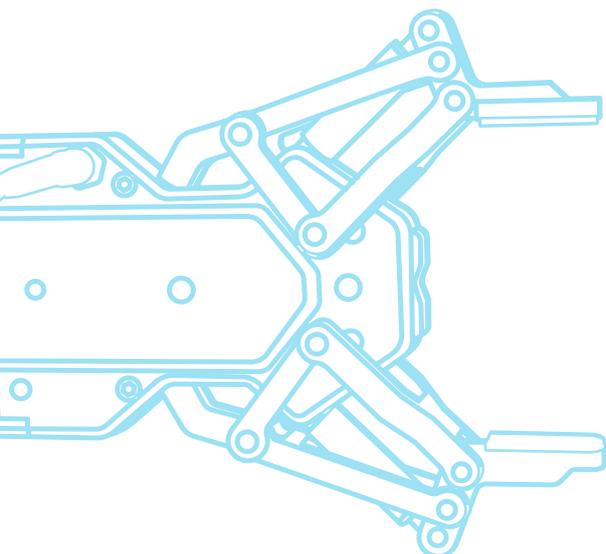
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Collaborative parallel grippers

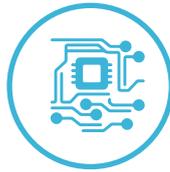
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Application scenarios



Electronics handling

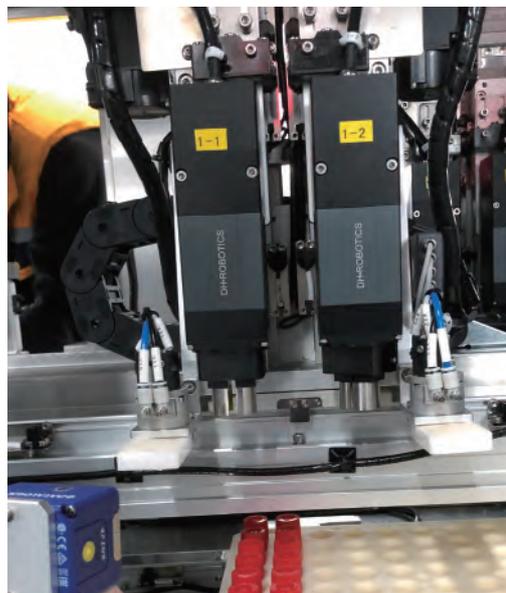


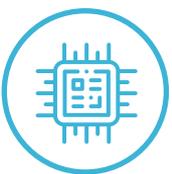
Laboratory automation



New Energy

Widely used in industrial fields





Semiconductor



Car Parts



Precision Assembly



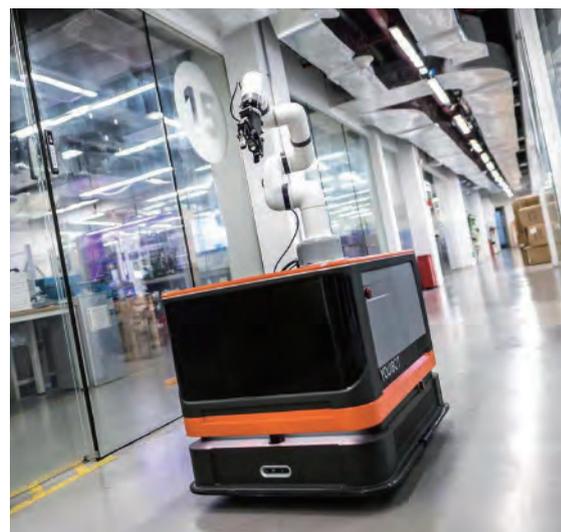
Packaging



New Retailing



Education



PGE/CGE Series

Slim-type parallel grippers

Application Fields

Electronics, medical and laboratory automation, auto parts, new energy, semiconductors, home appliances and other industries, for various applications of small and medium-sized parts assembly, sorting, pick and place.

Features

Integrated design

The drive controller and communication are integrated inside the gripper, and can be used without external controller.

Precise force control

With the special transmission design and driving algorithm compensation, the PGE is able to adjust the force continuously and achieve the force repeatability of 0.1N.

Small size

With compact structure and flexible installation, the PGE is able to save the design space

Intelligent feedback

The PGE series is easy to monitor the gripping process according to the functions such as grasping status detection, real-time position detection and drop detection.

Adjustable parameters

The PGE series is able to meet the requirements from different applications with the adjustable of the gripping position, force, and speed.

PGE — Parallel Gripper Electronics
CGE — Centric Gripper Electronics

PGI/CGI Series

Industrial parallel grippers

Application Fields

Mechanical processing, electronics, auto parts, new energy, home appliances, packaging and other industries, for the pick & place and assembly of medium-sized parts

Features

Integrated design

The drive controller and communication are integrated inside the gripper, and can be used without external controller.

Self-locking

The PGI series is able to maintain the gripping of the workpiece when the power is off, and improve the safety of the gripping process

Long stroke and adjustable gripping force

With 80mm stroke, the PGI-140 is compatible to grip objects with different size

High protection level

The PGI series is designed for harsh environment

Intelligent feedback

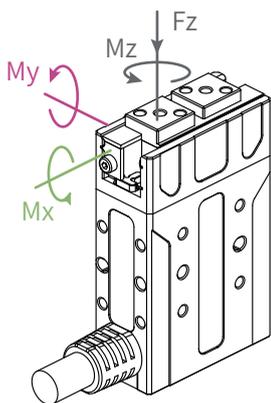
The PGI series is easy to monitor the gripping process according to the functions such as grasping status detection, real-time position detection and drop detection.

PGI — Parallel Gripper Industrial
CGI — Centric Gripper Industrial

PGE-2

Slim-type parallel grippers

DH-ROBOTICS



Allowable vertical load (static)

Fz : 35 N

Allowable vertical load (static)

Mx : 0.2 N·m

My : 0.17 N·m

Mz : 0.2 N·m

Gripping force(per jaw)

0.8~2 N

Stroke

12 mm

Mechanical specifications

Recommended workpiece weight* 0.05 kg

Repeat accuracy (positioning) ± 0.02 mm

Opening/closing time 0.2 s/0.2 s

Driving method Rack and pinion + Cross roller guide

Weight 0.3 kg

Noise emission < 40 dB

Electrical specifications

Communication Interface Standard: Modbus RTU (RS485), Digital I/O
Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT

Nominal voltage 24 V DC ± 10%

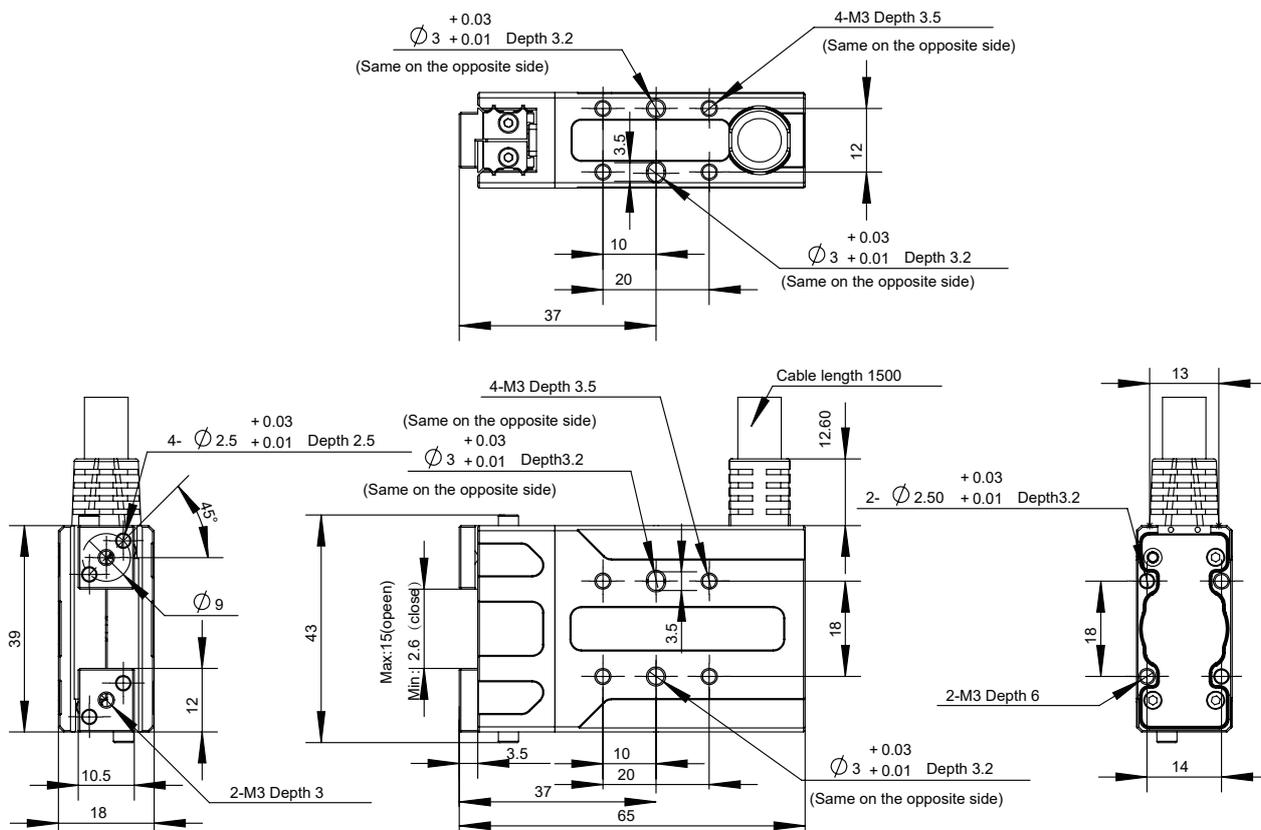
Nominal current 0.2 A

Max. current 0.5 A

IP protection class IP 40

Recommended operating environment 0~40°C, < 85% RH

*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 consult us.



PGE-5

Slim-type parallel grippers

DH-ROBOTICS

Gripping force(per jaw)

Stroke

0.8~5 N

14 mm



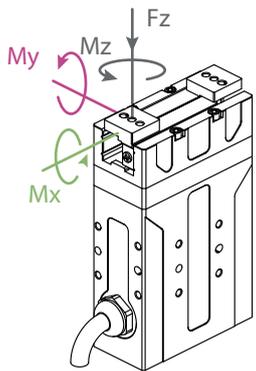
Mechanical specifications

Recommended workpiece weight*	0.1 kg
Repeat accuracy (gripping)	± 0.3 N
Repeat accuracy (positioning)	± 0.02 mm
Opening/closing time	0.2 s/0.2 s
Driving method	Rack and pinion + Cross roller guide
Weight	0.4 kg
Noise emission	< 40 dB

Electrical specifications

Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Nominal voltage	24 V DC ± 10%
Nominal current	0.4 A
Max. current	0.7 A
IP protection class	IP 40
Recommended operating environment	0~40°C, < 85% RH

*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 consult us.



Allowable vertical load (static)

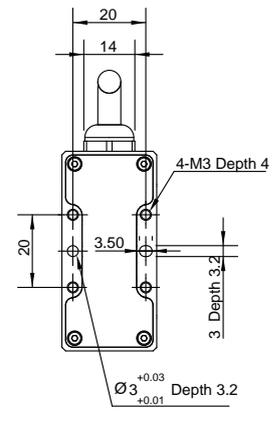
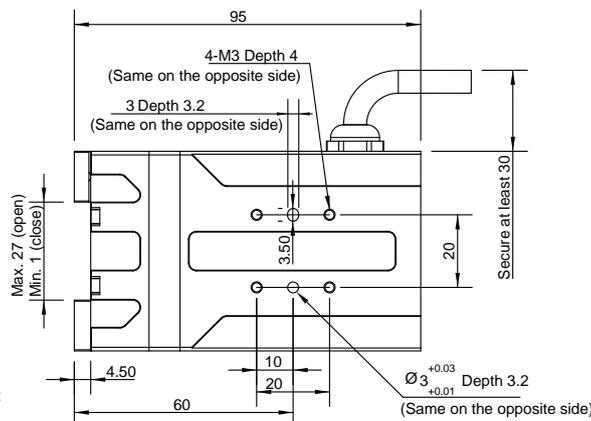
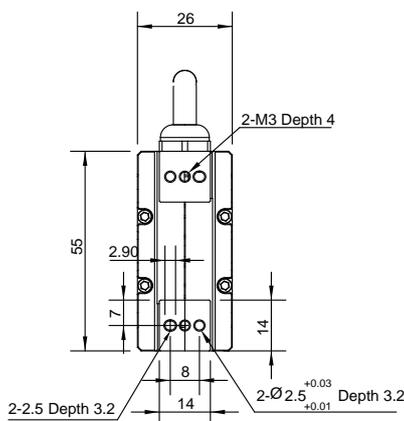
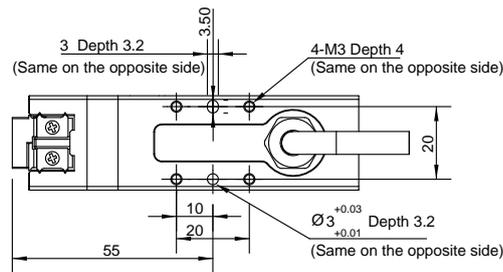
Fz: 50 N

Allowable vertical load (static)

Mx: 0.3 N·m

My: 0.25 N·m

Mz: 0.3 N·m



PGE-8

Slim-type parallel grippers

DH-ROBOTICS

Gripping force(per jaw)

Stroke

2~8 N

14 mm



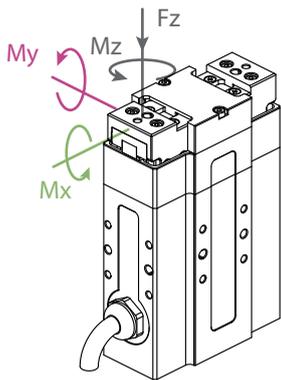
Mechanical specifications

Recommended workpiece weight*	0.1 kg
Repeat accuracy (gripping)	± 0.3 N
Repeat accuracy (positioning)	± 0.02 mm
Opening/closing time	0.2 s/0.2 s
Driving method	Rack and pinion + Linear guide
Weight	0.4 kg
Noise emission	< 40 dB

Electrical specifications

Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Nominal voltage	24 V DC ± 10%
Nominal current	0.4 A
Max. current	0.7 A
IP protection class	IP 40
Recommended operating environment	0~40°C, < 85% RH

*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 consult us.



Allowable vertical load (static)

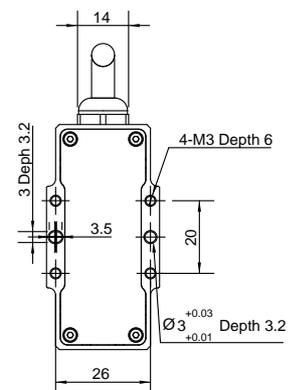
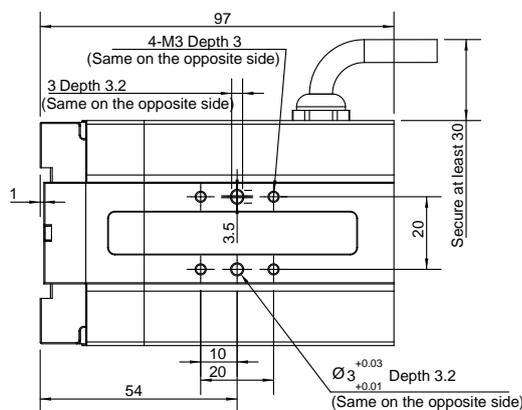
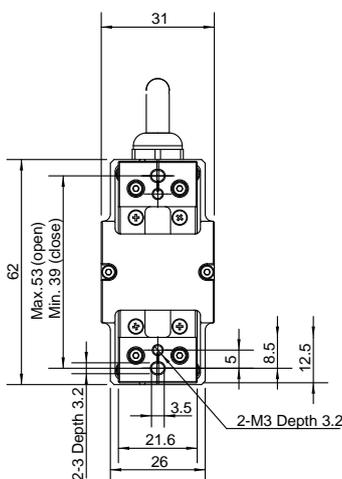
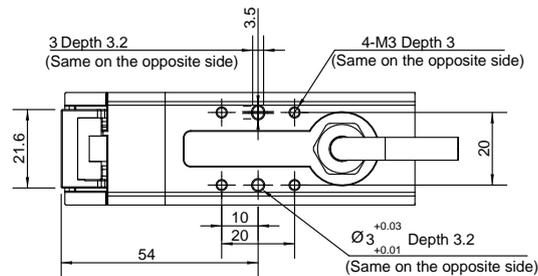
Fz: 90 N

Allowable vertical load (static)

Mx: 0.55 N·m

My: 0.45 N·m

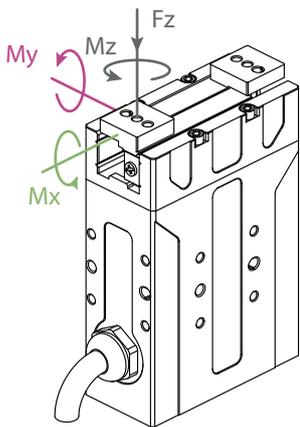
Mz: 0.55 N·m



PGE-15

Slim-type parallel grippers

DH-ROBOTICS



Allowable vertical load (static)

Fz: 70 N

Allowable vertical load (static)

Mx: 0.9 N·m

My: 0.75 N·m

Mz: 0.9 N·m

Gripping force(per jaw)

6~15 N

Stroke

26 mm

Mechanical specifications

Recommended workpiece weight* 0.25 kg

Repeat accuracy (positioning) ± 0.02 mm

Opening/closing time 0.5 s/0.5 s

Driving method Rack and pinion + Cross roller guide

Weight 0.4 kg

Noise emission < 40 dB

Electrical specifications

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

Nominal voltage 24 V DC ± 10%

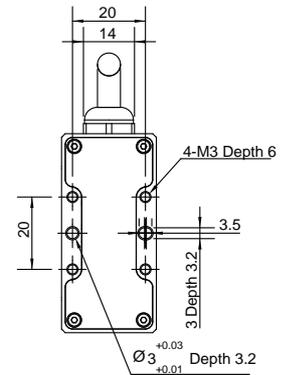
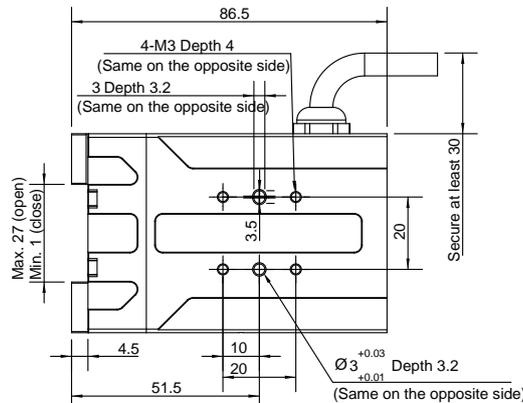
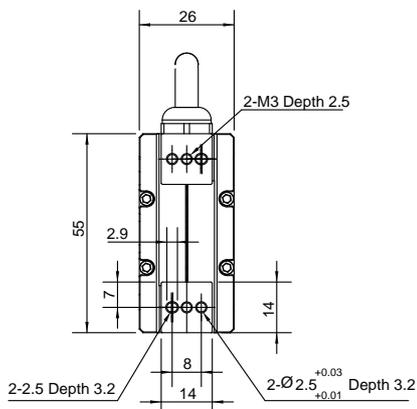
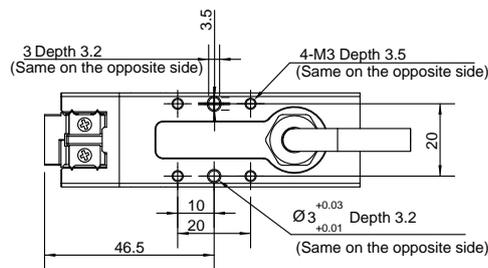
Nominal current 0.25 A

Max. current 0.5 A

IP protection class IP 40

Recommended operating environment 0~40°C, < 85% RH

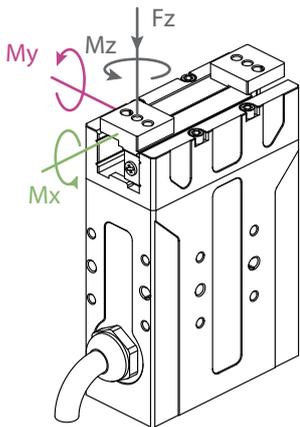
*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, if you have any questions, please consult us.



PGE-50

Slim-type parallel grippers

DH-ROBOTICS



Allowable vertical load (static)

Fz: 150 N

Allowable vertical load (static)

Mx: 2.5 N·m

My: 2 N·m

Mz: 3 N·m

Gripping force(per jaw)

15 ~ 50 N

Stroke

26 mm

Mechanical specifications

Recommended workpiece weight* 1 kg

Repeat accuracy (positioning) ± 0.02 mm

Opening/closing time 0.3 s/0.3 s

Driving method Rack and pinion + Cross roller guide

Weight 0.4 kg

Noise emission < 40 dB

Electrical specifications

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

Nominal voltage 24 V DC ± 10%

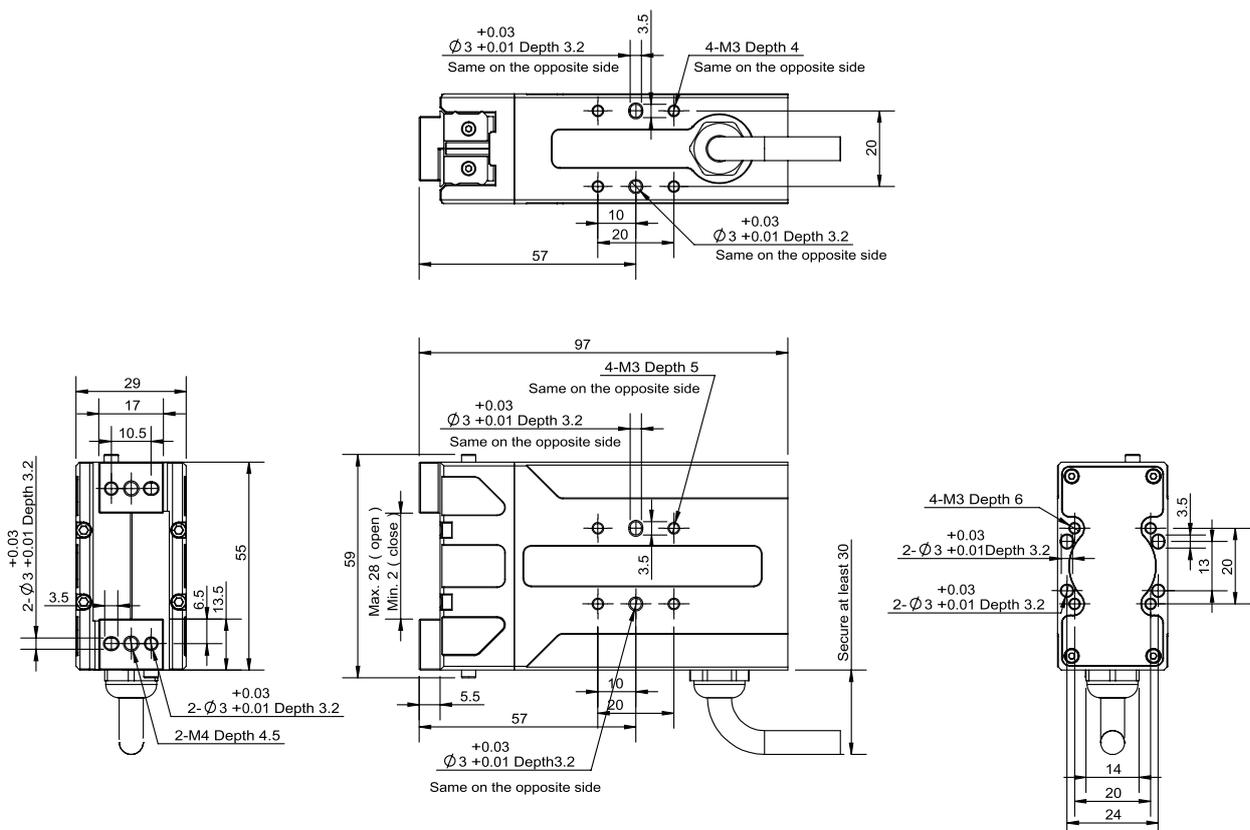
Nominal current 0.25 A

Max. current 0.5 A

IP protection class IP 40

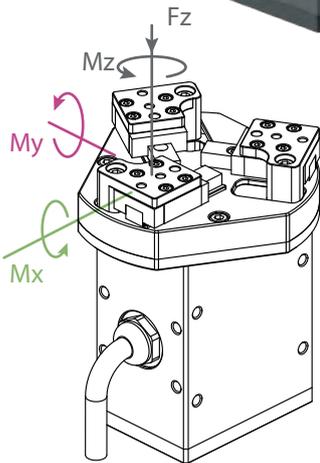
Recommended operating environment 0~40°C, < 85% RH

*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 consult us.



CGE-10

Centric grippers



Allowable vertical load (static)

Fz: 150 N

Allowable vertical load (static)

Mx: 0.62 N · m

My: 0.62 N · m

Mz: 0.62 N · m

DH-ROBOTICS

Gripping force(per jaw)

3~10 N

Stroke (per jaw)

10 mm

Mechanical specifications

Recommended workpiece weight*	0.1 kg
Repeat accuracy (positioning)	± 0.03 mm
Opening/closing time	0.3 s/0.3 s
Driving method	Rack and pinion + Linear guide
Weight	0.43 kg
Noise emission	< 40 dB

Electrical specifications

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

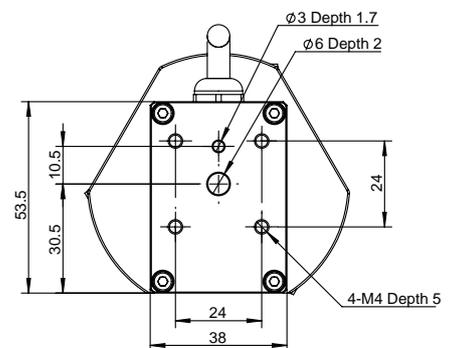
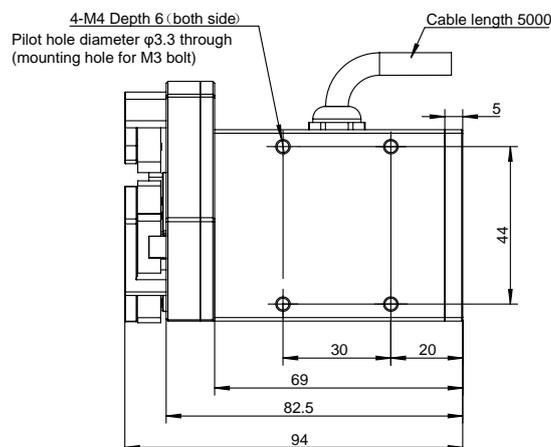
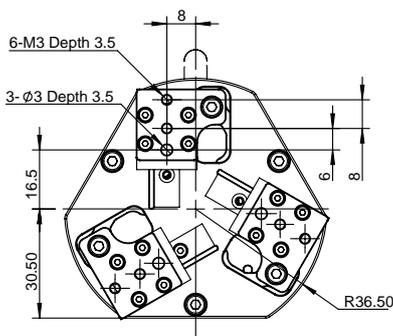
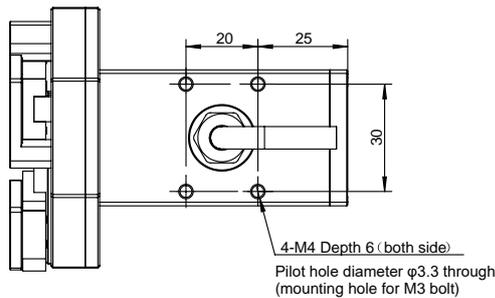
Nominal voltage 24 V DC ± 10%

Nominal current 0.3 A

Max. current 0.6 A

Recommended operating environment 0~40°C, < 85% RH

*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 consult us.



PGS-5

Miniature electromagnet grippers

DH-ROBOTICS

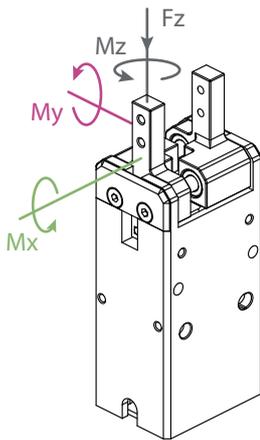


Gripping force(per jaw)

Stroke

3.5 ~ 5 N

4 mm



Allowable vertical load (static)

Fz: 150 N

Allowable vertical load (static)

Mx: 0.62 N · m

My: 0.62 N · m

Mz: 0.62 N · m

Mechanical specifications

Recommended workpiece weight* 0.05 kg

Repeat accuracy (positioning) ± 0.01 mm

Opening/closing time 0.03 s/0.03 s

Driving method Electromagnet + Spring

Weight 0.2 kg

Noise emission < 50 dB

Electrical specifications

Communication interface Digital I/O

Nominal voltage 24 V DC ± 10%

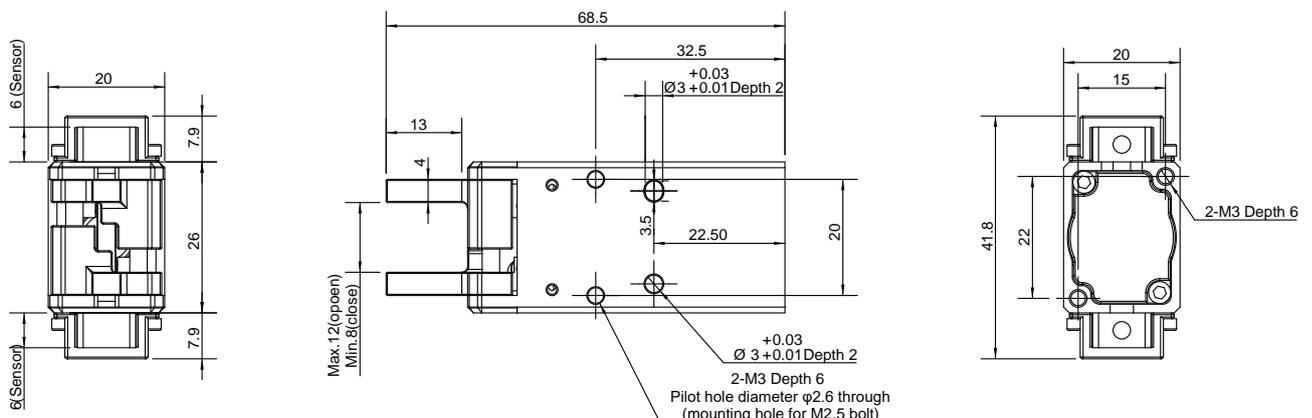
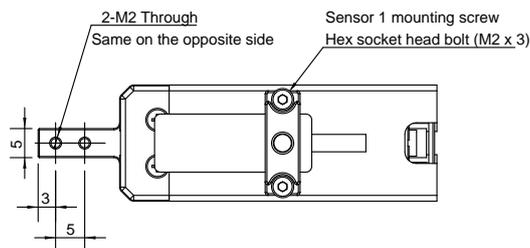
Nominal current 0.1 A

Max. current 3 A

IP protection class IP 40

Recommended operating environment 0~40°C, < 85% RH

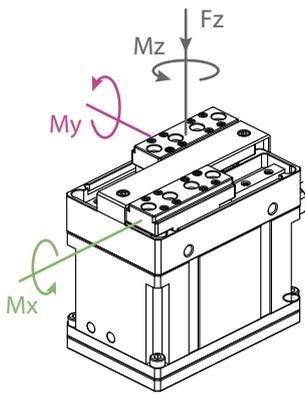
*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion, if you have any questions, please consult us.



PGI-140

Industrial parallel grippers

DH-ROBOTICS



Allowable vertical load (static)

Fz: 300 N

Allowable vertical load (static)

Mx: 7 N·m

My: 7 N·m

Mz: 7 N·m

Gripping force(per jaw)

40~140 N

Stroke

80 mm

Mechanical specifications

Recommended workpiece weight* 3 kg

Repeat accuracy (positioning) ± 0.03 mm

Opening/closing time 0.7 s/0.7 s

Driving method Rack and pinion + Linear guide

Weight 1 kg(exclude fingers)

Noise emission < 50 dB

Electrical specifications

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

Nominal voltage 24 V DC ± 10%

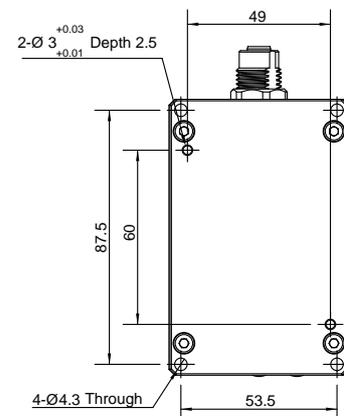
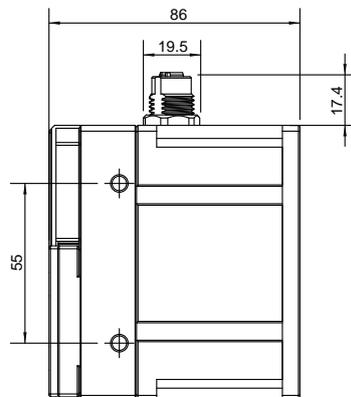
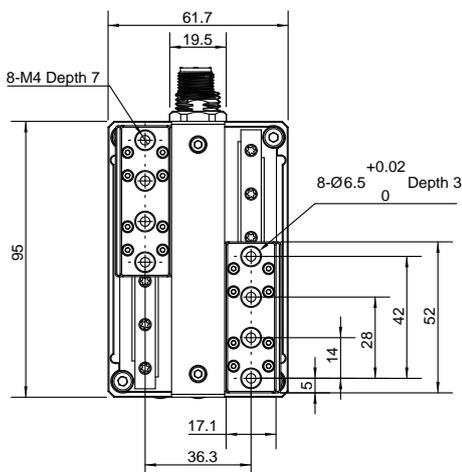
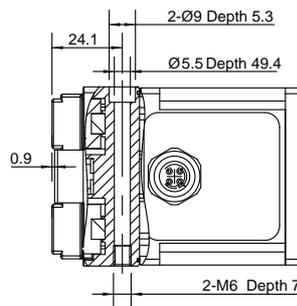
Nominal current 0.5 A

Max. current 1.2 A

IP protection class IP 54

Recommended operating environment 0~40°C, < 85% RH

*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 consult us.



CGI-100

Centric grippers

DH-ROBOTICS

Gripping force

30~100 N

Recommended workpiece diameter (inward)

φ40~φ170 mm



Mechanical specifications

Recommended workpiece weight*	1.5 kg
Repeat accuracy (positioning)	± 0.03 mm
Opening/closing time	0.5 s/0.5 s
Driving method	Pinion
Weight	1.5 kg
Noise emission	< 50 dB

Electrical specifications

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

Nominal voltage 24 V DC ± 10%

Nominal current 0.4 A

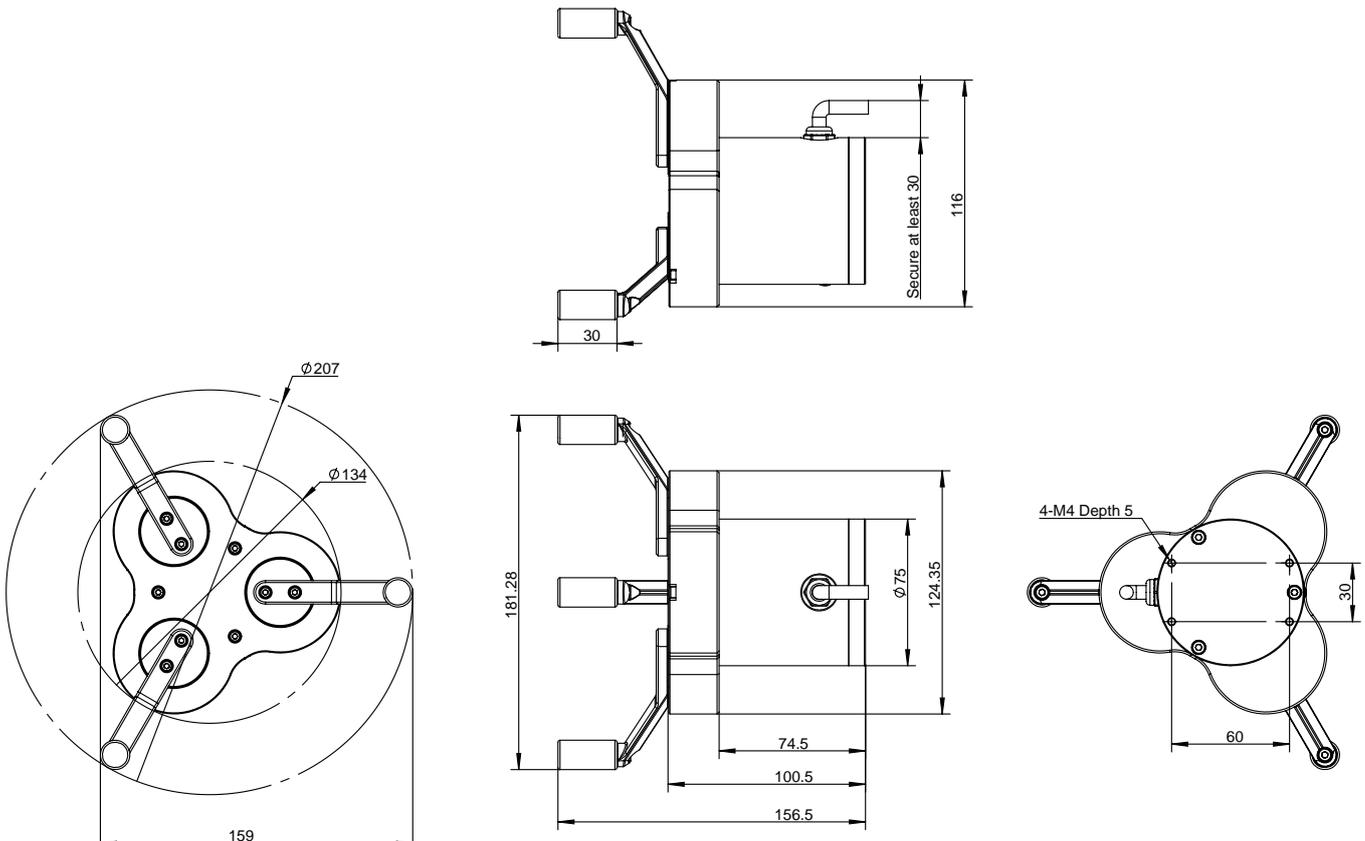
Max. current 1 A

IP protection class IP 40

Recommended operating environment 0~40°C, < 85% RH

*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 consult us.

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.



RGI Series

Servo rotary grippers

Application field

Test tube opening and closing, parts assembly, widely used in medical and laboratory automation, electronics, home appliances, packaging, auto parts and other industries.

Features

Gripping and infinite rotation

with the unique structural design, the RGI series is able to achieve the independent movement of gripping and infinite rotation, which is solving the non-standard design of the equipment and the winding problem of infinite rotation. It is stable and easy to use.

Adjustable parameters

The RGI series is able to adjust the gripping force, position, speed as well as the rotation parameters like torque, speed and angle.

Integrated design

with 50*50mm size, the RGI series is integrated with 2 sets of servo systems and the drive controller.

Easy deployment

The RGI series use the standardized communication and command interfaces which is easy to work with equipment.

Intelligent feedback

The RGI series is easy to monitor the gripping and rotation process with the intelligent feedback of gripping & rotation status and drop detection

RGI-14

Servo rotary grippers

DH-ROBOTICS

Gripping force(per jaw)

10~35 N

Stroke

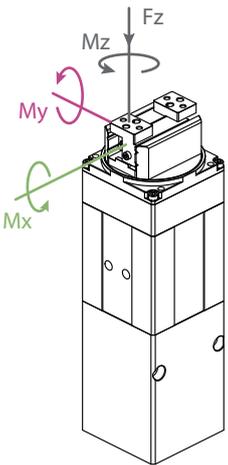
14 mm

Rotation torque

0.25 N·m

Max. angle of rotation

Infinite



Allowable vertical load (static)

Fz: 150 N

Allowable vertical load (static)

Mx: 2 N·m

My: 1.5 N·m

Mz: 2.5 N·m

Mechanical specifications

Recommended workpiece weight* 0.7 kg

Max. rotation speed 1500 deg/s

Repeat accuracy (swiveling) ± 0.02 deg

Repeat accuracy (positioning) ± 0.02 mm

Opening/closing time 0.3 s/ 0.3 s

Weight 1.0 kg

Electrical specifications

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

Nominal voltage 24 V DC ± 10%

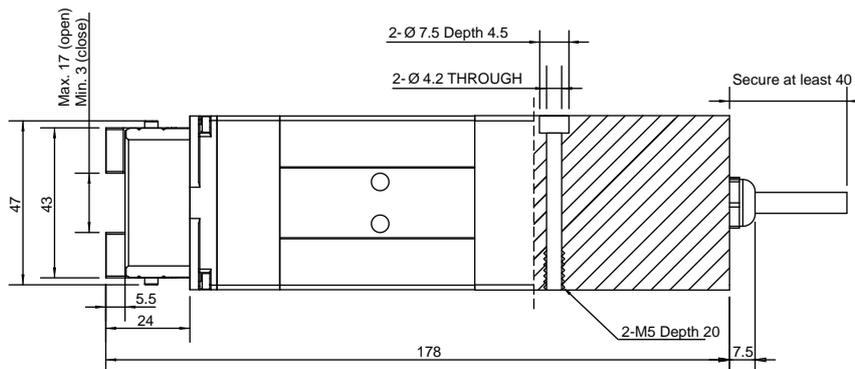
Nominal current 1.1 A

Max. current 2 A

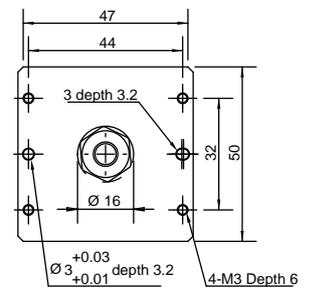
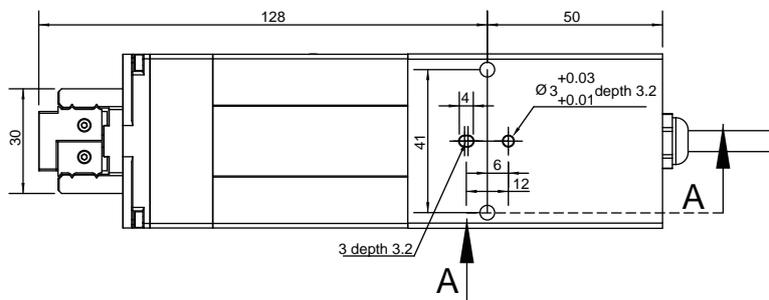
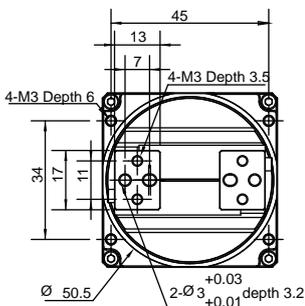
IP protection class IP 20

Recommended operating environment 0~40°C, < 85% RH

*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 consult us.



A-A Section



PGC Series

Collaborative parallel grippers

Application field

The PGC series is able to applied with collabrative and industrial robots for loading, pick&place, assembly, inspection in machining, electronics, medical... etc. industries.

Features

Plug and Play

The PGC series support the Plug & Play with most brands of collabrative robot.

High protection level

The PGC series is suitable for harsh working environment with the high protection level of IP54 and IP67.

Integrated design

The drive controller and communication are integrated inside the gripper, and can be used without external controller.

Self-locking*

The PGC series is able to maintain the gripping of the work-piece when the power is off, and improve the safety of the gripping process

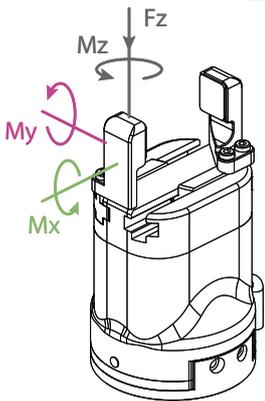
Intelligent feedback

The PGC series is easy to monitor the gripping and rotation process with the intelligent feedback of gripping & rotation status and drop detection

*PGC-50 Excepted

PGC-140

Collaborative parallel grippers



Allowable vertical load (static)

Fz: 300 N

Allowable vertical load (static)

Mx: 7 N·m

My: 7 N·m

Mz: 7 N·m

DH-ROBOTICS

Gripping force(per jaw)

40~140 N

Stroke

50 mm

Mechanical specifications

Recommended workpiece weight* 3 kg

Repeat accuracy (positioning) ± 0.03 mm

Opening/closing time 0.6 s/0.6 s

Driving method Rack and pinion + T-slot guide

Weight 1 kg

Noise emission < 50 dB

Electrical specifications

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

Nominal voltage 24 V DC ± 10%

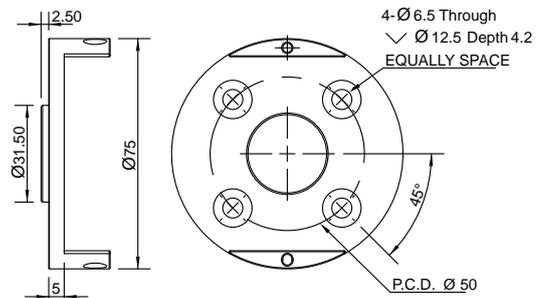
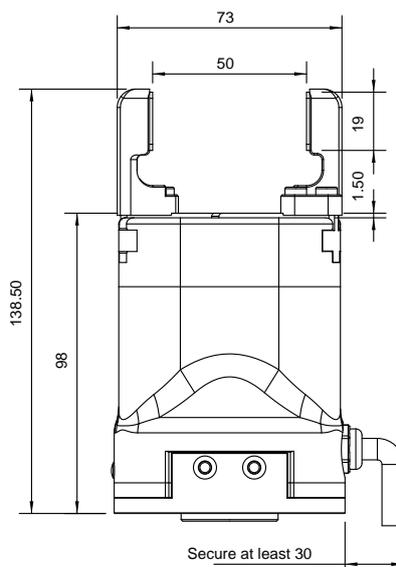
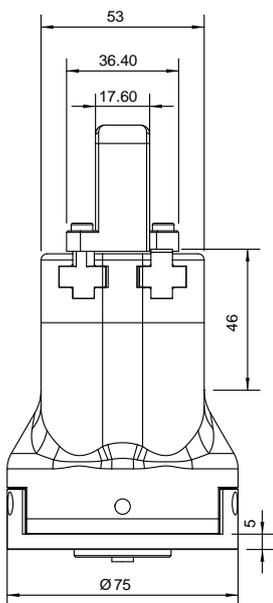
Nominal current 0.4 A

Max. current 1 A

IP protection class IP 67

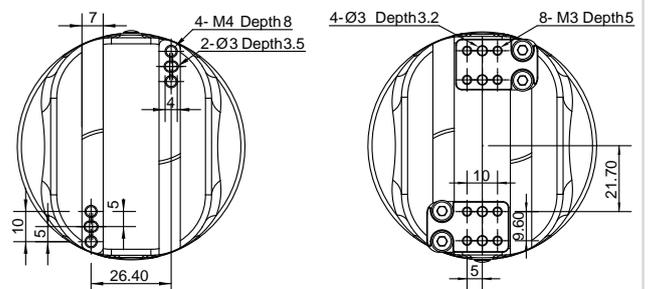
Recommended operating environment 0~40°C, < 85% RH

*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 consult us.



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



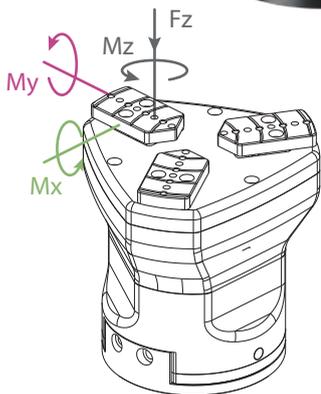
Rail mounting holes

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

CGC-80

Centric grippers



Allowable vertical load (static)

Fz: 200 N

Allowable vertical load (static)

Mx: 2.5 N·m

My: 2 N·m

Mz: 3 N·m

DH-ROBOTICS

Gripping force(per jaw)

20~80 N

Stroke(per jaw)

10 mm

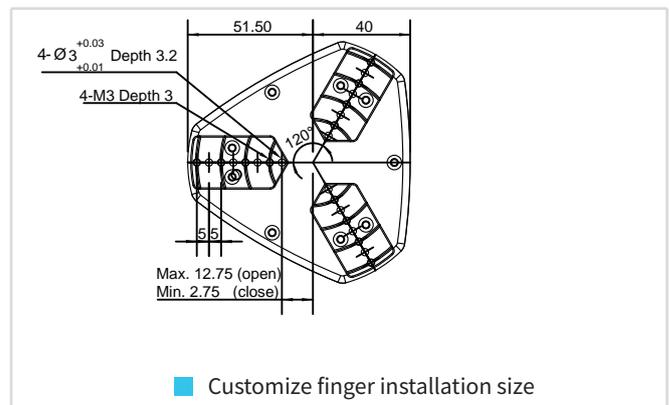
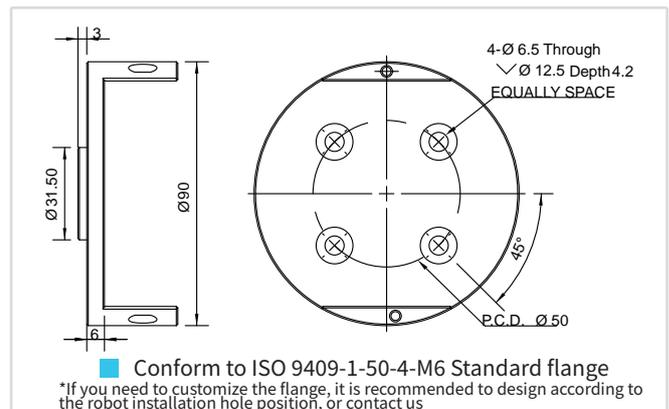
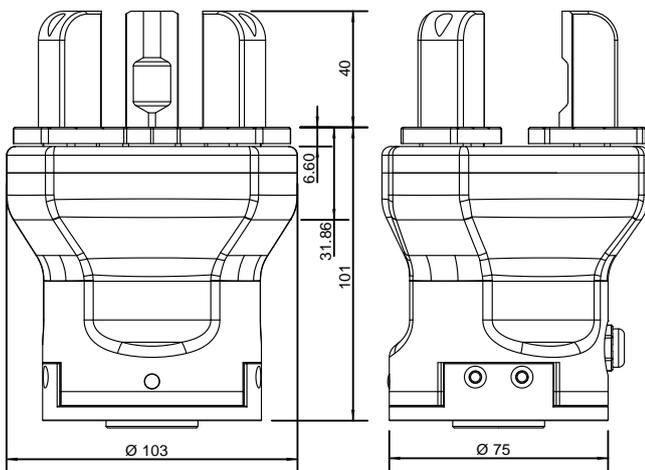
Mechanical specifications

Recommended workpiece weight*	1.5 kg
Repeat accuracy (positioning)	± 0.03 mm
Opening/closing time	0.2 s/0.2 s
Driving method	Rack and pinion + Linear guide
Weight	1.5 kg
Noise emission	< 50 dB

Electrical specifications

Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT
Nominal voltage	24 V DC ± 10%
Nominal current	0.3 A
Max. current	1 A
IP protection class	IP 67
Recommended operating environment	0~40°C, < 85% RH

*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 consult us.



AG Series

Linkage-type adaptive grippers

Application field

The AG/DH series is able to be applied with collaborative and industrial robots for loading, pick&place, assembly, inspection in machining, electronics, medical... etc. industries.

Features

Plug and Play

The linkage-type adaptive grippers support the Plug & Play with most brands of collaborative robot.

Parallel & adaptive gripping

The linkage-type adaptive grippers is able to grip round, spherical or heterosexual workpieces with the flexible fingers.

Integrated design

The drive controller and communication are integrated inside the gripper, and can be used without external controller.

Long stroke and adjustable gripping force

With 145 mm stroke in maximum, the AG series is compatible to grip objects with different size

Self-locking

The AG series is able to maintain the gripping of the workpiece when the power is off, and improve the safety of the gripping process

Intelligent feedback

The AG/DH series is easy to monitor the gripping process according to the functions such as grasping status detection, real-time position detection and drop detection.

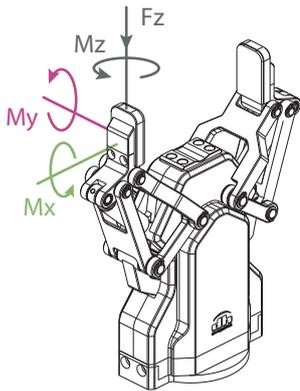
AG — Adaptive Gripper

AG-95

Linkage-type adaptive grippers



reddot award 2019
winner



Allowable vertical
load (static)

Fz: 300 N

Allowable vertical
load (static)

Mx: 4.75 N·m

My: 4.75 N·m

Mz: 4.75 N·m

DH-ROBOTICS

Gripping force(per jaw)

45~160 N

Stroke

95 mm

Mechanical specifications

Recommended workpiece weight* 3 kg

Repeat accuracy (positioning) ± 0.03 mm

Opening/closing time 0.7 s/0.7 s

Driving method Screw drive +Linkage system

Weight 1 kg

Noise emission < 50 dB

Electrical specifications

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

Nominal voltage 24 V DC ± 10%

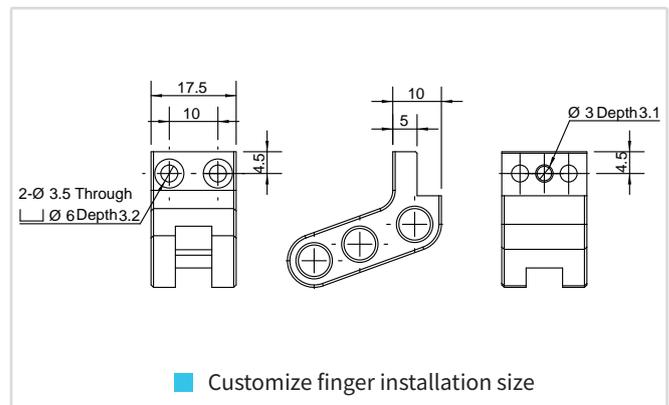
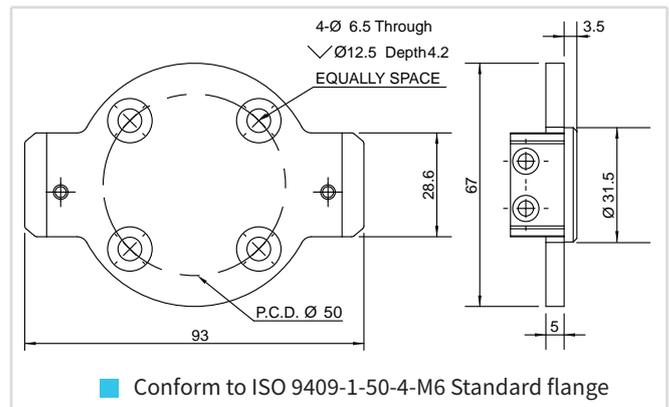
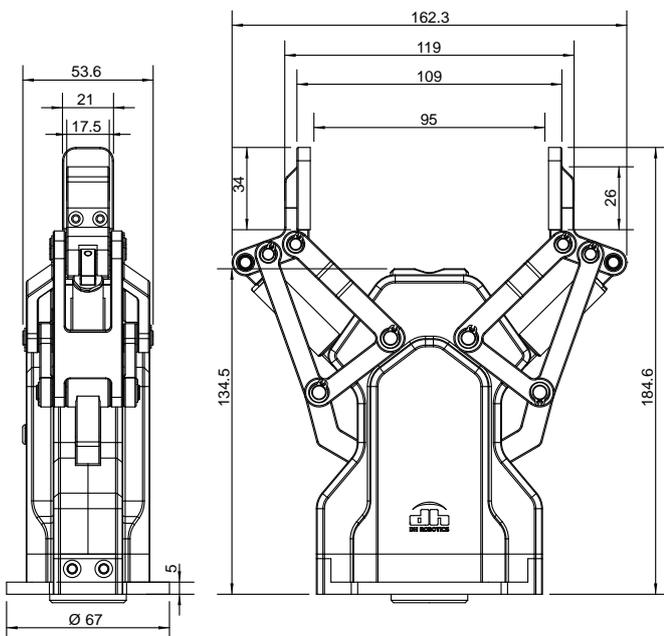
Nominal current 0.8 A

Max. current 1.5 A

IP protection class IP 54

Recommended operating environment 0~40°C, < 85% RH

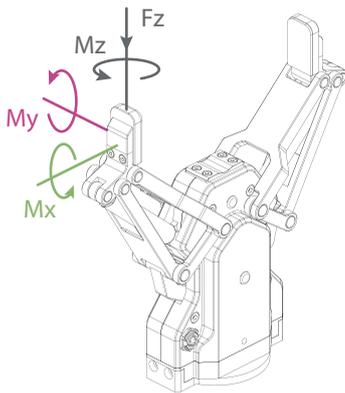
*It depends on the shape of the grasping object, the material and friction of the contact surface, and the acceleration of the motion,if you have any questions, please consult us.



AG-145

Linkage-type adaptive grippers

DH-ROBOTICS



Allowable vertical load (static)

Fz: 300 N

Allowable vertical load (static)

Mx: 1.95 N·m

My: 1.95 N·m

Mz: 1.95 N·m

Gripping force(per jaw)

35~105 N

Stroke

145 mm

Mechanical specifications

Recommended workpiece weight* 2 kg

Repeat accuracy (positioning) ± 0.03 mm

Opening/closing time 0.7 s/0.7 s

Driving method Screw drive + Linkage system

Weight 1.3 kg

Noise emission < 50 dB

Electrical specifications

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

Nominal voltage 24 V DC ± 10%

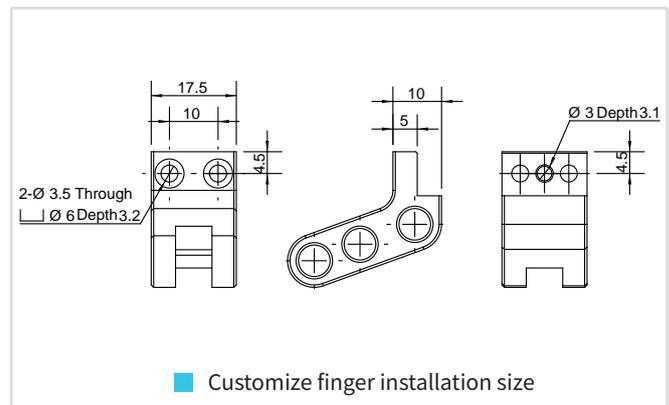
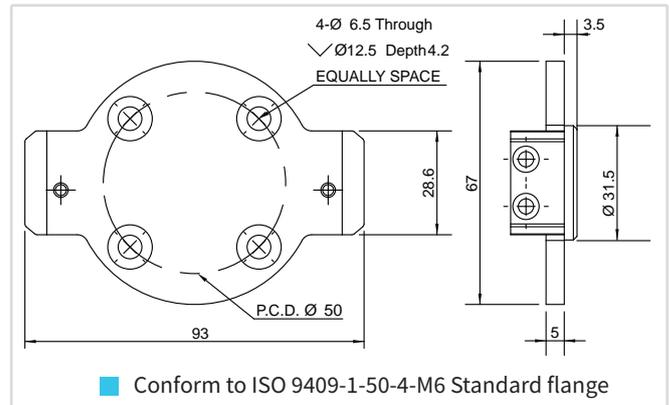
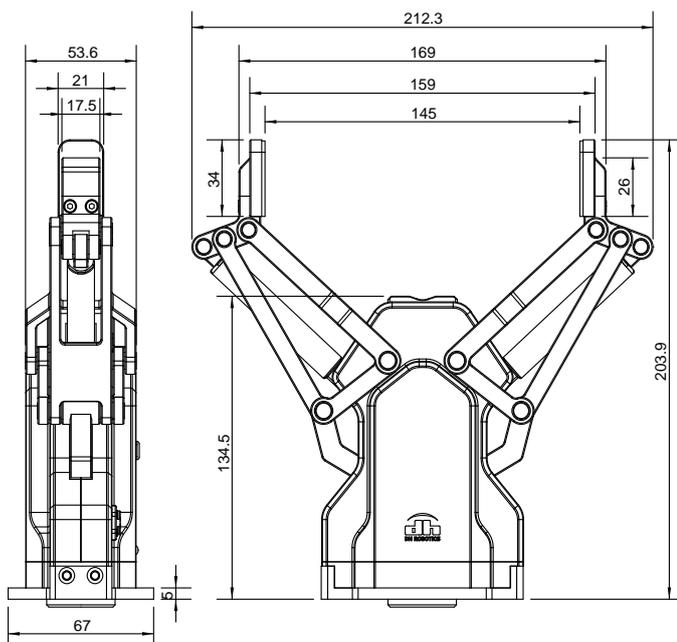
Nominal current 0.8 A

Max. current 1.5 A

IP protection class IP 54

Recommended operating environment 0~40°C, < 85% RH

*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 consult us.



DH-3

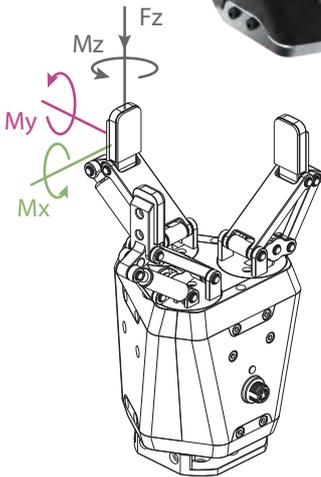
Linkage-type adaptive grippers

DH-ROBOTICS

Gripping force(per jaw)

Stroke

10~65 N **106 mm(parallel)**
122 mm(centric)



Allowable vertical load (static)

Fz: 300 N

Allowable vertical load (static)

Mx: 2.5 N·m

My: 2 N·m

Mz: 3 N·m

Mechanical specifications

Recommended workpiece weight* 1.8 kg

Repeat accuracy (positioning) ± 0.03 mm

Opening/closing time 0.7 s/0.7 s

Driving method Screw, nut + gear drive + linkage mechanism

Weight 1.68 kg

Noise emission < 50 dB

Electrical specifications

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

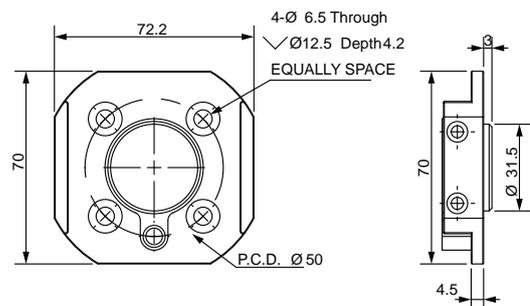
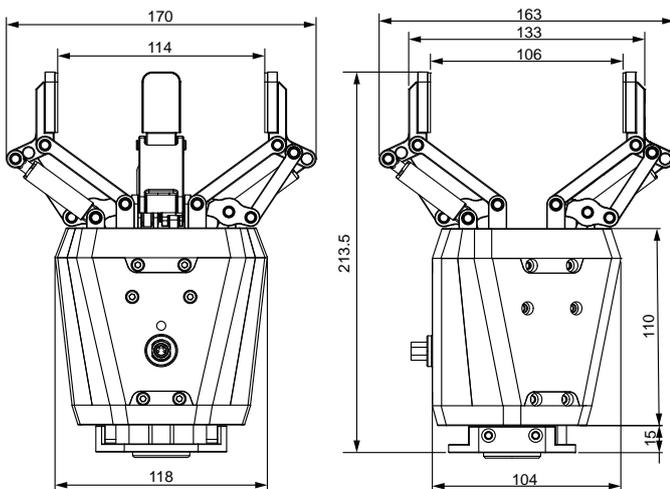
Nominal voltage 24 V DC ± 10%

Nominal current 0.5 A

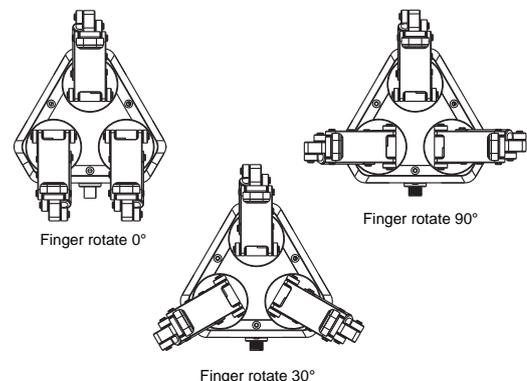
Max. current 1 A

Recommended operating environment 0~40°C, < 85% RH

*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 consult us.



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



Robot ecosystem partner (in alphabetical order) :



DH-ROBOTICS client (in alphabetical order) :



All products strictly follow the standard of CE, FCC, RoHS.



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info@dh-robotics.com

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