

DH-Robotics Technology Co.,Ltd.

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info@dh-robotics.com

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



Product **Features**

High-precision Control

Highly Flexible

Rapid Response

Intelligent **Feedback and** Adaptation

User-friendly and Easy to **Maintain**

Based on independently developed high-precision force control and other technologies, DH-ROBOTICS electric grippers can precisely adjust the gripping force and speed according to control signals, achieving high-precision positioning and gripping, ensuring the electric gripper stably and reliably grips precision objects, and completes tasks with high requirements for operational accuracy.

Diverse Installation Options:

The product offers a variety of installation methods, supporting 2 to 5 different installation directios.

Compact Structure and Small size:

Designed with an integrated approach, the product features a compact structure and small size, allowing for flexible application in limited spaces. It is compatible with lightweight collaborative robots, precision assembly, and other automation equipment, effectively helping enterprises build more compact and efficient automated production lines.

Wide Product Range:

The product lineup is extensive, including industrial parallel, industrial rotary, three-finger centering, and articulated types. This versatility not only meets the clamping needs for symmetric, planar workpieces but also caters to scenarios where workpiece surfaces have irregular curves or require clamping at specific angles.

The fastest opening and closing time can reach 0.15 seconds, perfectly adapting to production scenarios with high cycle times, small batches, and multiple varieties, significantly improving production efficiency, reducing workpiece loss, and enhancing the flexibility of the overall production system. In addition, it can also reduce the relative error generated during the coordination between the electric gripper and the robot arm and other equipment.

Based on the proprietary 'intelligent technology' of DH-ROBOTICS and core technologies such as the 3KHz speed loop bandwidth response, the product has realized intelligent data feedback functions and can also be integrated into MES systems. Through process data transmission and feedback, remote monitoring and diagnosis are achieved, operational compensation deviations are adjusted automatically and in a timely manner, ensuring the accuracy and consistency of operations, and reducing product defect rates.

With a modular design and a visual operation interface, the installation of DH-ROBOTICS electric grippers is convenient and the debugging is simple. Some series of products support plug-and-play with all mainstream collaborative robot brands on the market. The product uses a high-energy permanent magnet synchronous motor, with almost zero mechanical wear during operation. It maintains high efficiency even under long-term high-load operation, has a longer lifespan, and requires almost no regular replacement of parts, significantly reducing maintenance workload and maintenance costs in long-term use.

DH-Robotics Core Technology



Precision Control and Feedback Technology

Mechanical clearance and error compensation, multi-encoder compensation technology, nm high-precision encoder technology, and programmable high-strength clamping technology. Repeat positioning accuracy can reach the nm level.

Integrated Technology



It can integrate autonomous drive, control, communication, encoders, motors, etc. The high power density transmission combined with intelligent software, makes it compact vet powerful, with optimized design for multiple scenarios, making it convenient and easy to use.

Our Support System





R&D System





New Technology

Innovation



Quality Supervision

Projects

Assessment



Engineering Management



High-precision Force Control Technology

With industry-leading direct drive force feedback and high-precision force sampling, this technology delivers exceptional performance, including 3KHz high-response force control, 2g force control accuracy, and a closed-loop force control accuracy of up to 0.1g.



Intelligent Technology

Intelligent load identification, self-tuning, vibration suppression, high-speed response, intelligent prediction of force position accuracy loss, service life and fault prediction.







Training



After-sales Service



Manufacturing



Quality System



Supply Management



Stock Management



Manufacturing

Application Cases



PGE-8-14 Automatic Application One collabotative robot with two electric grippers to complete the loading and unloading.

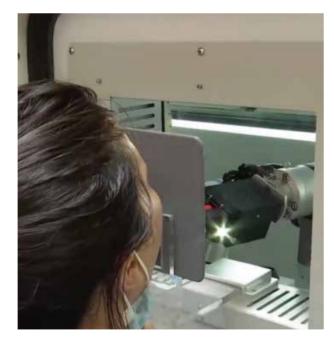


PGE-8-14 Electronics Handling and positioning of very small workpieces.



RGI-35-14 Medical Automation

Automated cup handling system: The gripper transfers a test tube to a specified position, rotates to open the cap, then automatically re-caps and returns it safely.



PGE-15-26 Medical Automation

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



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



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 Automotive

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



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.

Electric Parallel Grippers

PGE / PGSE / PGI /PGC /PGHL Series



Serie	Gripping Force (Per Jaw)	Recommended Workpiece Weight	Stroke	Reference Page
PGE-2-12	0.8~2 N	0.05 kg	12 mm	P09-10
PGE-5-26	0.8~5 N	0.1 kg	26 mm	P11-12
PGE-8-14	2~8 N	0.1 kg	14 mm	P13-14
PGE-15-10	6~15 N	0.25 kg	10 mm	P15-16
PGE-15-26	6~15 N	0.25 kg	26 mm	P17-18
PGE-50-26/40	15~50 N	1 kg	26/40 mm	P19-20
PGE-100-26	30~100 N	2 kg	26 mm	P21-22
PGSE-15-7	6~15 N	0.25 kg	7 mm	P23-24
PGI-80/140-80	16~80 N/40~140 N	3 kg	80 mm	P25-26
PGC-50-35	15~50 N	1 kg	37 mm	P27-28
PGC-140-50	40~140 N	3 kg	50 mm	P29-30
PGC-300-60	80~300 N	6 kg	80 mm	P31-32
PGHL-400-80	140~400 N	8 kg	80 mm	P33-34

Product Features

DH-Robotics has launched several series of Electric Parallel Grippers to meet diverse automation needs. The PGE series is widely popular for its high precision and compact size, with the PGSE-15-7 being its economic option; the PGI series is designed for heavy-duty, long-stroke applications; the PGHL series focuses on high-load, high-precision gripping; and the PGC series, designed for collaborative robots, has won the Red Dot Award and the IF Award, featuring high protection and ease of use.

PGE / PGSE Series Small Size **Flexible Installation**

With a minimum thickness of only **18mm**, the compact structure reduces the load and moment of inertia on the robot/module spindle, which helps to lighten the load of the robot/module and increase the speed. At the same time, it supports a variety of installation methods to meet the needs of gripping tasks and save 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

Force control and flexible technologies are widely used in sectors like semiconductors, 3C electronics, and medical automation. They excel at handling miniature parts in compact production settings and also manage large, heavy workpieces in industries such as new energy lithium battery handling, automotive parts, and machining. Combined with collaborative robots, these technologies efficiently execute complex tasks in medical, 3C, and new energy industries, significantly boosting production efficiency, accuracy, and flexibility.

PGI / PGC / PGHL Series Long Stroke **High Load**

Industrial large stroke gripper, with a maximum single-side gripping force of 400N and a maximum recommended load of 8kg. The total stroke reaches 80mm, and with the fingertips, it can stably grasp medium and large objects, meeting more diverse grasping needs.

High Protection Level

The PGC series boasts a maximum protection rating of IP67, while the PGI series reaches IP54, both industry-leading levels that can withstand harsh conditions such as those found in machine tool loading and unloading.

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.



www.dh-robotics.com 05/06

PGE-2-12

Slim-type Electric Parallel Gripper



Flange Selection PGE 2 12 0 FO S **M1** L5 **JO** Without Extend Cable LX *1 *6 M1 Modbus (RS485)+I/O (NN) L1 1m Cable *1): J0 Without Fingertip Without M2 Modbus (RS485)+I/O (PP) L3 3m Cable I/O(NN): NPN/NPN I/O(PP): PNP/PNP I/O(NP): NPN/PNP I/O(PN): PNP/NPN S Side M3 Modbus (RS485)+I/O (NP) L5 5m Cable J1 Standard Fingertip F0 Without Flang **O** Without Brake **B** bottom M4 Modbus (RS485)+I/O (PN) L10 10m Cable

Cables longer than 10 meters pose a risk of communication interference.
 It is recommended that no more than 4 units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment.
 The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

TECHNICAL SPECIFICATIONS

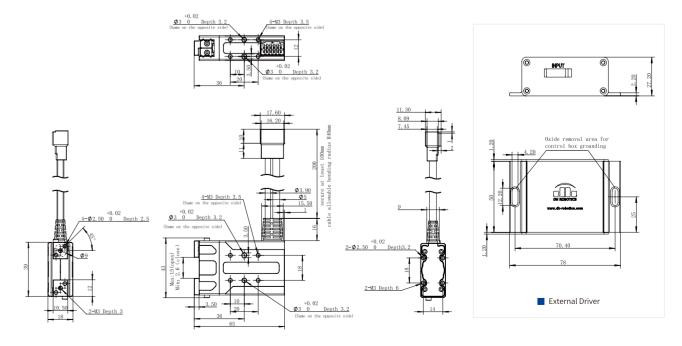
F7 Mx

Working
Driving m
Noise em
Size
Weight
Repeat ac
Full strok
Stroke
Recomme

Static Vertical Allowable Load				
Fz	35 N			
Allowable Loading Moment				
Мх	0.2 N · m			
Му	0.17 N·m			
Mz	0.2 N · m			

force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *④ Requires external communication convertor or customization, Bease contact sales or technical support.
 *(5) When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will

cause the product can not work normally



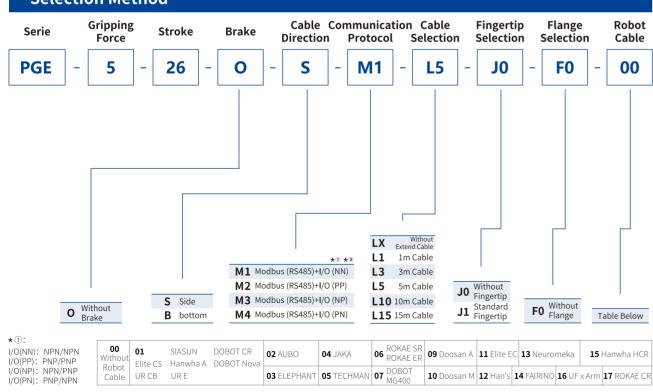
Produ	ct Parame	ter				
Grippi	ng force (pe	().8~2 N			
Recom	mended w	(0.05 kg			
Stroke			12 mm			
Full str	oke openir	time	0.15 s/0.2 s			
Repea	t accuracy	(position)		\pm 0.02 mm		
Weight	t			(0.15 kg	
Size		Contr	Gripper Size: 6 oller Size: 78 m			
Noise	emission			<	< 50 dB	
Driving	g method	Precise pla	anetary gears	s + Rack and	d pinion	
Worki	ng Enviror	iment				
Comm interfa	unication ce	Standard: Modbu Optional: TC	ıs RTU (RS485)、Di P/IP、USB2.0、CAN	gital I/O(2 inputs 2.0A、PROFINET	2 outputs) 、EtherCAT *®	
Rated	voltage			24 V DC	$\pm 10\%$	
Curren	t		0.2 A(Rat	ed)/ 0.5 A	(Peak) *®	
Rated	power				4.8 W	
IP clas	S				IP 40	
Recom	imended ei	nvironmen	t 0~40°C	, under 8	5% RH	
Certification CE, FCC, RoHS					, RoHS	
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism	

PGE-5-26

Slim-type Electric Parallel Gripper



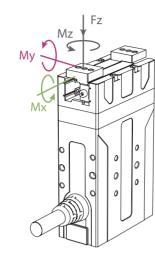
Selection Method



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TECHNICAL SPECIFICATIONS



Recomm Stroke Full strok Repeat a

 \oslash Build-in Controller

affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization pleass contact sales or technical support. ★ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will

Static Vertical Allowable Load

Allowable Loading Moment

 $^{\star}\textcircled{2}$ The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also

50 N

0.3 N · m

0.25 N·m

0.3 N · m

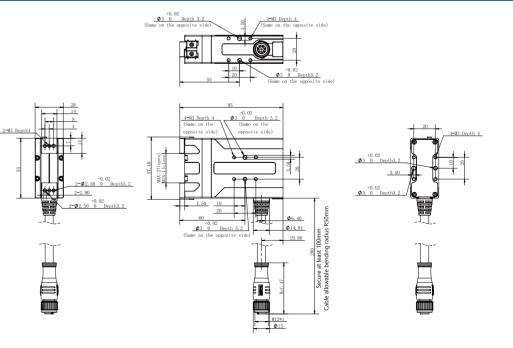
Fz

Мх

Мy

Μz

cause the product can not work normally.



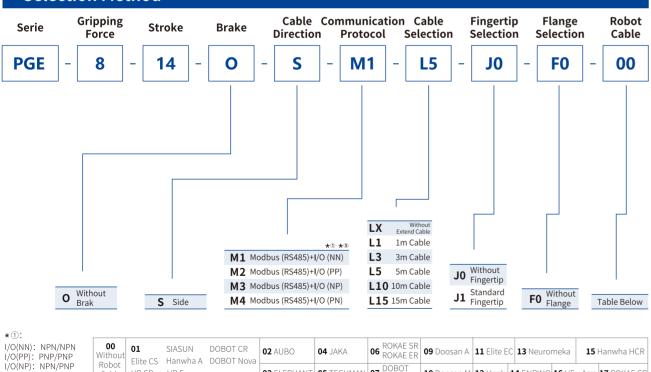
Product Para	ameter				
Gripping force (per jaw)).8~5 N	
Recommende	eight *®		0.1 kg		
Stroke				26 mm	
Full stroke opening/closing time0.3 s/0.3					
Repeat accur	acy (position)		± 0.	02 mm	
Weight				0.4 kg	
Size		95 mm x	55 mm x 3	26 mm	
Noise emissio	on		<	< 50 dB	
Driving meth	Driving method Precise planetary gears + Rack and pinion				
Working Env	rironment				
Communication interface	otaniaararinoababi	RTU (RS485)、Digit 、USB2.0、CAN2.0			
Rated voltage	5		24 V DC	$\pm 10\%$	
Current		0.4 A(Rat	ed)/ 0.7 A	(Peak)*®	
Rated power				9.6 W	
IP class				IP 40	
Recommende	ed environment	0∼40°C,	under 8	5% RH	
Certification CE, FCC, RoHS					
Build-in Controller	orce Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism	

PGE-8-14

10 Doosan M 12 Han's 14 FAIRINO 16 UF x Arm 17 ROKAE CR



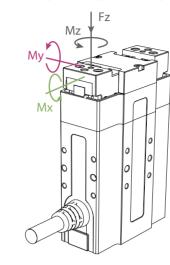
Selection Method



03 ELEPHANT 05 TECHMAN 07 MG400 Cable UR CB UR E I/O(PN): PNP/NPN *(5) It is recommended that no more than 4 units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment.

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TECHNICAL SPECIFICATIONS



Working

Current Rated po

force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization,

*② The recommended load calculation is based on pure friction

Static Vertical Allowable Load

Allowable Loading Moment

90 N

0.55 N · m

0.45 N · m

0.55 N · m

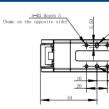
Fz

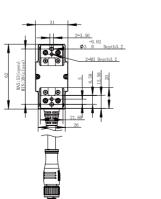
Μх

Мy

Μz

 Please contact sales or technical support.
 * When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally







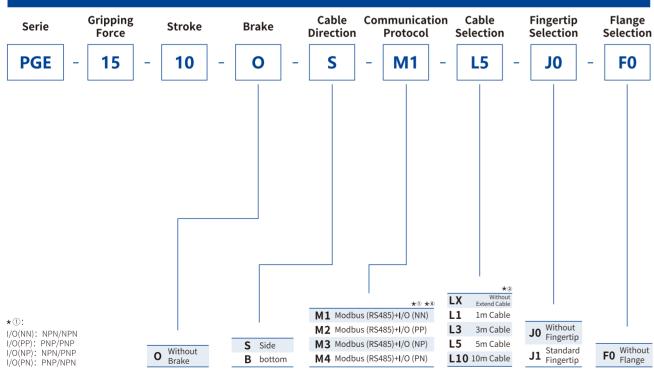
Produ	ct Parame	eter			
Grippiı	ng force (p	erjaw)			2~8 N
Recommended workpiece weight* ^a 0.1 kg					
Stroke 14 mm					
Full stroke opening/closing time0.3 s/0.					s/0.3 s
Repeat accuracy (position)			± 0.	02 mm	
Weight					0.4 kg
Size 97 mm x 0				x 62 mm x 3	31 mm
Noise	emission			<	< 50 dB
Driving	g method	Precise pla	netary gears	s + Rack and	l pinion
Worki	ng Enviro	nment			
Commur	nication s	tandard: Modbus Optional: TCP/I	RTU (RS485)、D P、USB2.0、CAN	igital I/O(2 inputs 2.0A、PROFINET、	; 2 outputs) 、EtherCAT *③
Rated	voltage			24 V DC :	
Curren	it		0.4 A (Ra	ted) / 0.7 A	(Peak)*®
Rated	power				9.6 W
IP clas	S				IP 40
Recom	nmended e	environmen	t 0~40	°C, under 8	5% RH
Certifie	cation			CE, FCC	, RoHS
\odot	\odot	\odot	\odot	\odot	\otimes
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism
	+0. 02				
te side)	(Same on the o	<u>epth 3.2</u> pposite side)			
┫┝╡					
		12			
20 54	Ø3 0	Depth 3.2 e opposite side)			
97					
4-M3 Depth 3 (Same on the opposite side)	+0.02 Ø3 0 Depth3.2 (Same on the opposite side)		-•	26	
		ŧ	+0.02 \$ 0 Depth3.2		<u>iptno</u>
		2 2			-
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54	Ø6. 014.	rsdius R50			
+0.02 Ø 3 0 Depth3. me on the opposite :	2 20			<u> </u>	
	Ref. 47	Secure e allowabl			
		Cabi			
	Ø15				

PGE-15-10

Slim-type Electric Parallel Gripper



Selection Method

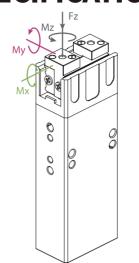


*② Cables longer than 10 meters pose a risk of communication interference.

* (i) It is recommended that no more than 4 units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment.

The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

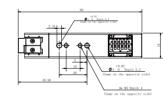
TECHNICAL SPECIFICATIONS

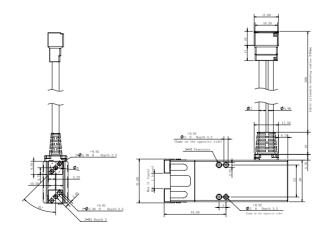


Full strok Repeat ac Weight Size Noise em Driving m Working

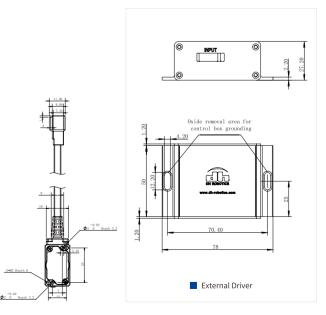
Static Vertical Allowable LoadFz35 N				
Allowable L	oading Moment			
Mx 0.45 N⋅m				
Му	0.4 N·m			
Mz	0.45 N · m			

Acquire science contract allow contracts of cost of cost of the science activity of the s





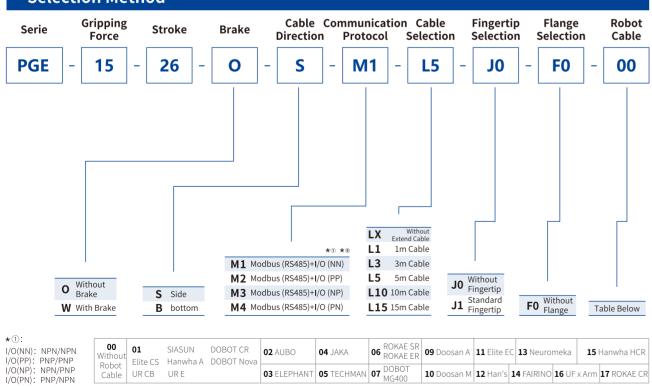
Product Parameter						
Gripping force (p	6~15 N					
Recommended w	(0.25 kg				
Stroke				10 mm		
Full stroke opening/closing time 0.3 s/						
Repeat accuracy	(position)		± 0.	02 mm		
Weight			0.	.155 kg		
Size	Con	Gripper Size: troller Size: 78 r	89 mm x 30 mm mm x 52.4 mm >			
Noise emission			<	< 50 dB		
Driving method Precise planetary gears + Rack and pinion						
Working Enviro	nment					
Communication s interface	tandard: Modbus Optional: TCP/I	RTU (RS485)、Di P、USB2.0、CAN				
Rated voltage			24 V DC	$\pm 10\%$		
Current		0.1 A (Rate	ed) / 0.22 A	(Peak)*®		
Rated Power				2.4 W		
IP class				IP 40		
Recommended e	nvironmen	t 0~40	°C, under 8	5% RH		
Certification CE, FCC, RoHS						
Build-in Controller	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism		



PGE-15-26

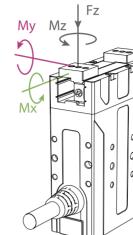


Selection Method



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TECHNICAL SPECIFICATIONS



Full strok Weight Size

Working

Communio interface Rated vol

Current

Rated pov IP class

Recomme

Certificat

 \odot Build-in Controller

* When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally

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.

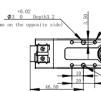
pleass contact sales or technical support.

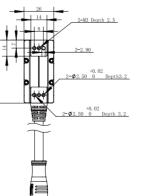
Fz

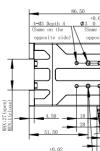
Мх

Мy

Μz







Static Vertical Allowable Load

Allowable Loading Moment

*② The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also

affect the load. If you have any questions, please consult us.

*③ Requires external communication convertor or customization,

70 N

0.9 N · m

0.75 N · m

0.9 N · m

Recomme

Stroke

Repeat ac

Noise em

Driving m

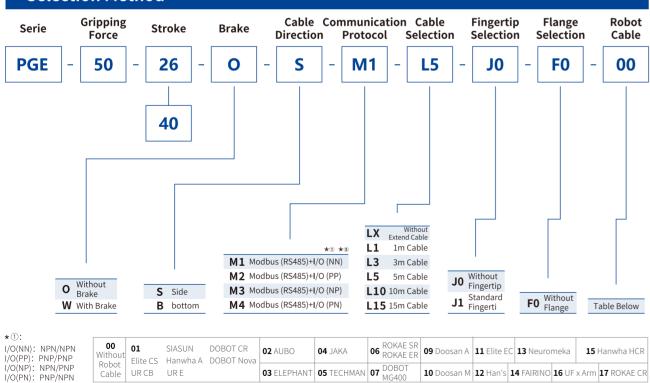
Parameter				
force (per jaw)		(6~15 N	
ended workpiece v	().25 kg		
			26 mm	
ke opening/closing	time	0.5	s/0.5 s	
ccuracy (position)		± 0.02 mm		
		().33 kg	
8		n x 26 mm(witho mm x 26 mm(wi		
nission	101.5 1111 × 55		< 50 dB	
nethod Precise pl	anetary gea	rs + Rack and	l pinion	
	, <u>, , , , , , , , , , , , , , , , , , </u>		I	
Environment			2	
cation Standard: Modbu Optional:TCP/		igital I/O(2 inputs 2.0A、PROFINET、		
ltage		24 V DC :	$\pm 10\%$	
	0.25 A (Ra	ated)/ 0.5 A	(Peak)*®	
ower			6 W	
			IP 40	
ended environmer	nt 0~40	°C, under 8	5% RH	
tion		CE, FCC	, RoHS	
Gripping Force Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism	
Came on the opposite side)			epth 6	

PGE-50

Slim-type Electric Parallel Gripper



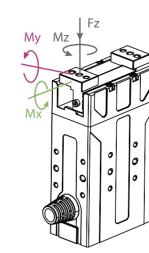
Selection Method



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TECHNICAL SPECIFICATIONS



Static Vertical Allowable Load

Allowable Loading Moment

2 N · m

3 N · m

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*③ Requires external communication convertor or customization

*② The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also

PGE-50-26 PGE-50-40

2.5 N·m 4.5 N·m

150 N

5 N · m

7 N · m

Fz

Мχ

My

Μz

Recomme workpiece Stroke Full stroke ope Repeat accui

Working

Communi interface Rated vo

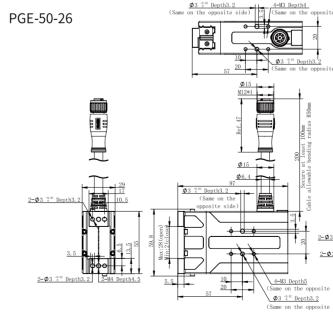
Certificat

 \odot Build-in Controller

★ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally

Technical Drawings

pleass contact sales or technical support.



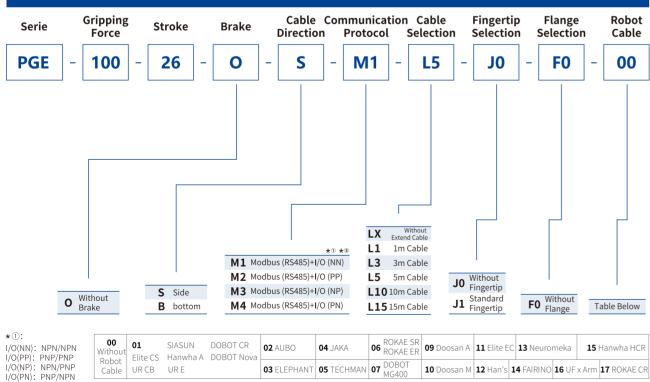
This drawing is for the gripper without the brake. If you need the drawing for the gripper w official website or contact our sales.

Produc	t Parameter	PGE-50-2	26	PGE-	50-40		
Gripping	g force (per jaw)	15~50 N		15	5~50 N		
Recomr workpie	mended ece weight *®	1 kg			1 kg		
Stroke		26 mm	10 mm				
Full stroke	opening/closing time	0.45 s/0.4	15 s	0.6	s/0.6 s		
Repeat a	ccuracy (position)	\pm 0.02 m	± 0.0)2 mm			
Weigh	t	0.4 kg	0.4 kg 0.51 kg				
Size		97 x 55 x 29 mm 118 x 55 x 29 m		97 x 78 x 29 mm(wit 118 x 78 x 29 mm			
Noise	emission	< 50 dB		<	50 dB		
Driving	g method	Precise pla	netary geai	rs + Rack and	pinion		
Worki	ng Environr	nent					
Commu				Digital I/O(2 inputs V2.0A、PROFINET、			
	voltage			24 V DC =			
Currer	nt		0.25 A (Ra	nted)/ 0.5 A	(Peak)*®		
Rated	Power				6 W		
IP clas	s				IP 40		
Recom	nmended en	vironmen	t 0~40	°C, under 8	5% RH		
Certifi	cation			CE, FCC,	RoHS		
\odot	\odot	\odot	\odot	\odot	optional		
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism		
4-M3 Depth4							
Same on the opp	osite side) -		PG	E-50-40			
	-						
Ø3 *** Depth3.2 Same on the opp	2 oosite side)						
=	1	min	· -				
200 Secure at least 100mm secure at least 100mm					⊕ - ∳-		
200 least 100mm ending radiu		⊣	78 78 MAX:41 (o		+ + + - +		
20 Secure at]	- τ	⊥ ∽					
Cable allc							
Ca	4-M3 Depth 6		i I I				
_ °≊ ⁻	2-Ø3 % Depth3.2	50 <u>3</u> 20 50 <u>3</u> 20			D		
$\frac{4-M3 \text{ Depth5}}{\phi_3 \stackrel{\text{\tiny the opt}}{\to} \frac{1}{2}}$ $\frac{\phi_3 \stackrel{\text{\tiny the opt}}{\to} \frac{1}{2} \frac{1}{2$	P=	24					
ame on the oppos for the grippe	site side) er with the brake, ple	ease download it	t from our				

PGE-100-26



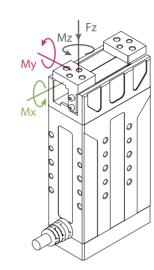
Selection Method



* 🔄 It is recommended that no more than 4units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment

The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

TECHNICAL SPECIFICATIONS



Recomm Stroke Full strok Repeat ac

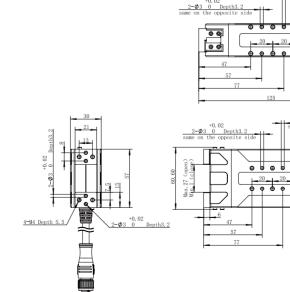
Working

Communio interface Rated vol

Static Vertical Allowable Load Fz 150 N Allowable Loading Moment Мх 2.5 N · m Мy 3 N · m Μz 4 N · m *② The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization pleass contact sales or technical support.

★ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work norma

Technical Drawings



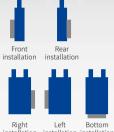
Produ	ct Parame	ter				
Gripping force (per jaw) 30~100 N						
Recom	mended w	orkpiece w	/eight * [∞]		2 kg	
Stroke					26 mm	
Full stroke opening/closing time				0.5	s/0.5 s	
Repeat	accuracy	(position)		± 0.0	02 mm	
Weight				().55 kg	
Size 1			125 mm	125 mm x 57 mm x 30 mm		
Noise e	emission			< 50 dB		
Driving	g method	Precise pla	netary gear	s + Rack and	pinion	
Morkin	ng Enviror	mont				
	ng Enviror		s RTU (RS485)、[Digital I/O(2 inputs	2 outputs)	
interfac	e			2.0A PROFINET	、EtherCAT *®	
	voltage		0.2 4/0	24 V DC :		
Curren	-		0.3 A(Ra	ated)/ 1.2 A		
Rated					7.2 W	
IP class					IP 40	
		nvironmen	t 0~40	°C, under 8		
Certific	cation			CE, FCC	, RoHS	
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism	
pth3 2 site side	2003 Common the C-MI Depth's some on the C-MI	ha 2 $\frac{1}{100}$ ha 2 to side $\frac{5.0}{100}$ to opposite side $\frac{5.0}{100}$ to side $\frac{1}{100}$ $\frac{1}{100}$ $\frac{1}{100}$ $\frac{1}{100}$	2-Ø3 0 Depth3			

www.dh-robotics.com 19/20

PGSE-15-7

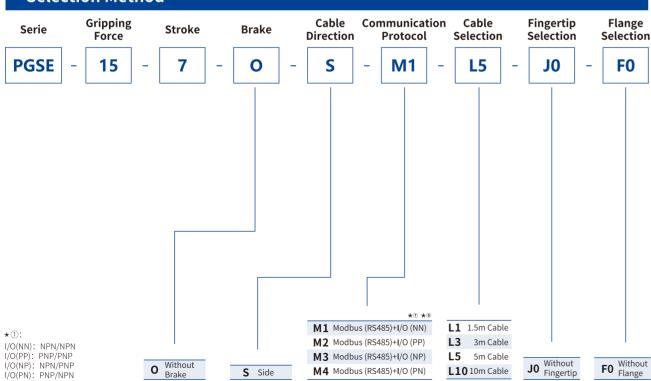
Cost-effective solution for replacing pneumatic gripper with electric grippe.





Left Bottom

Selection Method



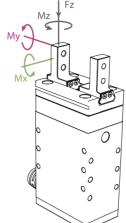
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Slim-type Electric Parallel Gripper

TECHNICAL SPECIFICATIONS



Stroke Full strok Weight Size Driving m Noise en

> Communio interface Rated vo

IP class

 \oslash

Build-in Controller

Static Verti	cal Allowable Load
Fz	70 N
Allowable I	oading Moment
Mx	0.9 N · m
My	0.75 N · m
Mz	0.9 N · m

of 4 affec *③ Requires external communication convertor or customization, pleass contact sales or technical support.

* When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work norn

Technical Drawings

8

23.20

23, 40

ford

4-M3 Depth 3.5 Ø2.50 0 2-M3 Thro Ø2.50 0 Depth 3.2 Depth 3. 4-M3 Depth 3.3 15.2 MAX:

Product Parar	neter	
Gripping force	6~15 N	
Recommended	l workpiece weight	.** 0.25 kg
Stroke		7 mm
Full stroke ope	ning/closing time	0.15 s/0.15 s
Weight		0.15 kg
Size	85.6 n	nm x 38 mm x 23.2 mm
Driving method	d Precise planet	ary gears + Rack and pinion
Noise emission		< 50 dB
Working Envir	onment	
Communication interface	Modbus RTU (RS485)、	Digital I/O(2 inputs 2 outputs)*®
Rated voltage		24 V DC \pm 10%
Current	0.15	5 A(Rated)/ 0.8 A(Peak)*®
Full stroke ope Weight Size Driving method Noise emission Working Envir Communication interface Rated voltage	85.6 n d Precise planeta onment Modbus RTU (RS485)、	0.15 s/0.15 s $0.15 kg$ nm x 38 mm x 23.2 mm ary gears + Rack and pinion < 50 dB Digital I/O(2 inputs 2 outputs)* ³ 24 V DC ± 10%

Rated power

Recommended environment

Certification

 \odot Gripping Force Adjustable

 \otimes Position Adiustable

 \otimes Speed Adiustable

 \otimes Drop Detection

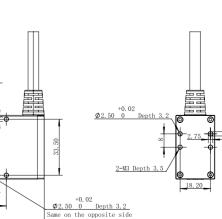
0~40°C, under 85% RH

CE, FCC, RoHS



3.6 W

IP 40



PGI

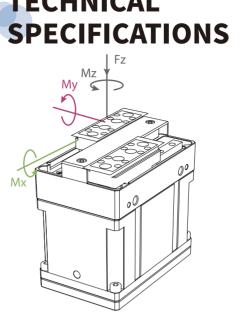
Electric Parallel Gripper



Solaction Mathed

Serie	_	Gripping Force	8	Stroke	Brake	Cable Directio		nication (cocol Se	Cable lection	Fingerti Selectio			Robo Cabl
PGI	_	80] - [80 -	w	- S	- N	11 -	L5 -	JO	- FO		00
		80											
		140											
								·					
								LX With Extend Ca					
					M1 M	odbus (RS485)+	*1 *5	L1 1m Cal	ole				
						odbus (RS485)+	*① *⑤ I/O (NN)	L1 1m Cal L3 3m Cal	ole ole	lithout	Without		
					M2 M	odbus (RS485)+ odbus (RS485)+ odbus (RS485)+	*① *⑤ I/O (NN) I/O (PP)	L1 1m Cal	ble ble ble J0 F	/ithout ingertip	F0 Without Flange		
1	W w	/ith Brake		S Side	M2 M0 M3 M0	odbus (RS485)+	*① *⑤ I/O (NN) I/O (PP) I/O (NP)	L1 1m Cal L3 3m Cal L5 5m Cal	ble ble ble ble	ingertip	FO Flange	Table Be	low
	W w	lith Brake		S Side	M2 M0 M3 M0	odbus (RS485)+ odbus (RS485)+	*① *⑤ I/O (NN) I/O (PP) I/O (NP)	L1 1m Call L3 3m Call L5 5m Call L10 10m Call	ble ble ble ble	ingertip	FU _{Flange} Standard –	Table Be	low
D: (NN): NPN/ (PP): PNP/I	NPN	/ith Brake 00 Without Robot	01 Elite C	SIASUN	M2 M0 M3 M0	odbus (RS485)+ odbus (RS485)+	*① *⑤ I/O (NN) I/O (PP) I/O (NP)	L1 1m Call L3 3m Call L5 5m Call L10 10m Call	ble ble ble ble ble ble J0 ^W _F J1 ^S _F	ingertip tandard ingertip	FO Flange	Table Be	

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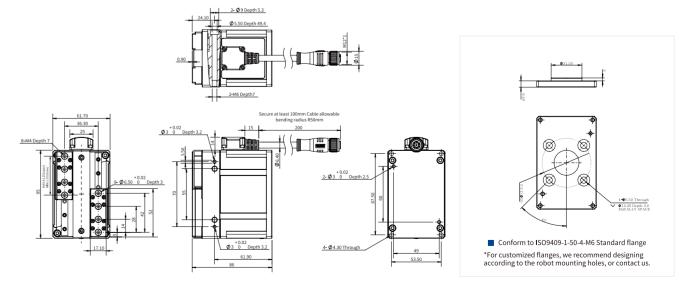


Static Vertic	al Allowable Load
Fz	300 N
Allowable Lo	oading Moment
Мх	7 N · m
Му	7 N · m
Mz	7 N · m

of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization, pleass contact sales or technical support.

★④ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

Technical Drawings



TECHNICAL

Produ	ct Parame	ter PGI	-80-80	PGI-	140-80
Grippin	g force (per j	aw) 16~	80 N	40	~140 N
Recomme	nded workpiece w	veight*® 1.6 l	<g< td=""><td></td><td>3 kg</td></g<>		3 kg
Stroke	Stroke 80 mm				
Full strok	e opening/closir		80mm) 50mm)	1.1	s/1.1 s
Repea	t accuracy	(position)		± 0.	03 mm
Weight	t		1 kį	g (Exclude f	ingers)
Size			95 mm x	61.7 mm x	86 mm
Noise	emission			<	< 50 dB
Driving	g method	Precise pla	netary gear	s + Rack and	l pinion
Worki	ng Enviror	nment			
Commu				igital I/O(2 inputs 0A、PROFINET、	
Rated	voltage			24 V DC :	$\pm 10\%$
Currer	nt		0.5 A(Ra	ated)/ 1.2 A	(Peak) *®
Rated	power				12 W
IP clas	s				IP 54
Recom	nmended e	nvironmer	nt 0~40	°C, under 8	5% RH
Certifie	cation			CE,FCC	, RoHS
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Self-locking Mechanism

PGC-50-35

Electric Collaborative Parallel Gripper

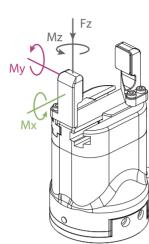




Serie	Gripping Force	Stroke	Brake	Cable (Direction	Communic Protoco			Fingertip Selection		
PGC -	50 -	35 -	Ο	- S	- M1	- I	.5 -	J1	- F1	- 00
					•∩ ∗ s LX	Withou	t			
				te de la companya de		Extend Cabl				
			M1 Mod	dbus (RS485)+ I /O (Externa cabi				
				dbus (RS485)+I/O (dbus (RS485)+I/O (NN) L1	. 1m Cable	2			
			M2 Mod M3 Mod	dbus (RS485)+I/O (dbus (RS485)+I/O (NN) L1 PP) L3 NP) L5	1m Cable 3m Cable 5m Cable	e Sta	ndard	- Standard -	
O <i>v</i>	Vithout Brake	S Side	M2 Mod M3 Mod	dbus (RS485)+ I /O (NN) L1 PP) L3 NP) L5	1m Cable 3m Cable	e 11 Sta	ndard gertip	F1 Standard – Flange	Table Below
_			M2 Mod M3 Mod M4 Mod	dbus (RS485)+I/O (dbus (RS485)+I/O (NN) L1 PP) L3 NP) L5	1m Cable 3m Cable 5m Cable 0 10m Cable	e 11 Sta			Table Below
0 v): (NN): NPN/NP1 (PP): PNP/PNP	N 00 01	SIASUN	M2 Mod M3 Mod	dbus (RS485)+I/O (dbus (RS485)+I/O (dbus (RS485)+I/O (dbus (RS485)+I/O (02 AUBO 04	NN) L1 PP) L3 NP) L5	Im Cable 3m Cable 5m Cable 0 10m Cable ROKAE SR ROKAE SR ROKAE SR	e J1 Sta	gertip		Table Below 15 Hanwha H

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TECHNICAL SPECIFICATIONS



Recomm Stroke Full strok Repeat a Weight Size

Working Communi

 \odot Build-in Grippiı Adju Controller

pleass contact sales or technical support. *③ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

*② The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us.

*③ Requires external communication convertor or customization.

Static Vertical Allowable Load

Allowable Loading Moment

Fz

Мх

Мy

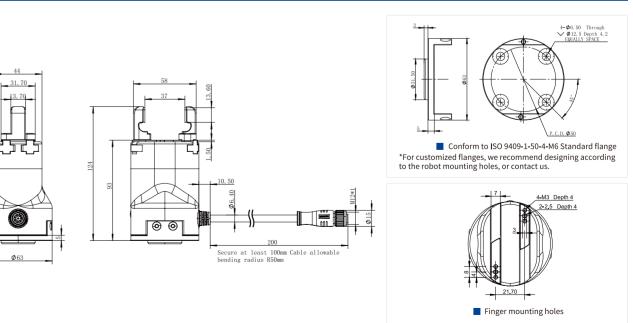
Μz

150 N

2.5 N · m

2 N · m

3 N · m



Product	Param	eter				
Gripping force (per jaw) 15~50 N						
Recommended workpiece weight ** 1 kg						1 kg
Stroke					3	7 mm
Full stro	ke open	ing/clo	sing time		0.7 s	/0.7 s
Repeat a	accuracy	(positi	on)		± 0.03	3 mm
Weight					().5 kg
Size			12	4 mm x 6	3 mm x 63	3 mm
Noise en	nission				< !	50 dB
Driving r	nethod	Precise	e planetar	y gears + F	Rack and p	pinion
Working	g Enviro	nment				
Commun interface	ication			(RS485)、Digita 2.0、CAN2.0A、		
Rated vo	oltage			2	24 V DC \pm	: 10%
Current			0.2	5 A(Rateo	d)/ 0.5 A(I	Peak) *®
Rated po	ower					6 W
IP class						IP 54
Recomm	nended	environ	ment	0~40°C,	under 85	% RH
Certifica	tion				CE, FCC,	RoHS
	ping Force Jjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism

PGC-140-50

Electric Collaborative Parallel Gripper

Robot

Cable

00



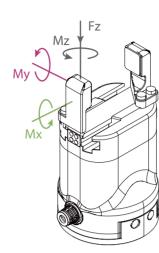


Selection Method Cable Communication Cable Gripping Fingertip Flange Serie Stroke Brake Direction Force Protocol Selection Selection Selection PGC 140 50 W S **M1** L5 **J1 F1** LX Without Extend Cable *1) *5) M1 Modbus (RS485)+I/O (NN) L1 1m Cable M2 Modbus (RS485)+I/O (PP) L3 3m Cable M3 Modbus (RS485)+I/O (NP) L5 5m Cable J1 Standard Fingertip F1 Standard Flange W With Brake M4 Modbus (RS485)+I/O (PN) L10 10m Cable Table Below **S** Side *1):

I/O(NN): NPN/NPN I/O(PP): PNP/PNP	00 Without	01 Elite CS		DOBOT CR DOBOT Nova	02 AUBO	O4 JAKA	06 ROKAE SR Rokae er	09 Doosan A	11 Elite EC	13 Neuro	meka :	15 Hanwha HCR
I/O(NP): NPN/PNP I/O(PN): PNP/NPN	Robot Cable	UR CB	URE	0000111010	03 ELEPHANT	05 TECHMAN	07 DOBOT MG400	10 Doosan M	12 Han's	14 FAIRINO	16 UF x A	rm 17 ROKAE CR

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TECHNICAL SPECIFICATIONS



Full strok Repeat ad Weight Size Noise em

Working Communio interface Rated vo

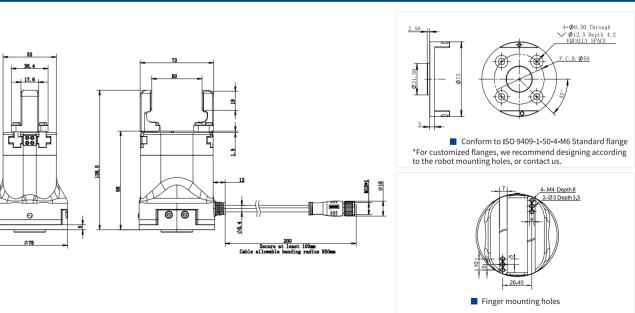
Build-in

Controller

Static Vertical Allowable Load Fz 300 N Allowable Loading Moment Мχ 7 N · m Мy 7 N · m 7 N · m Μz *② The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor

of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization, pleass contact sales or technical support.

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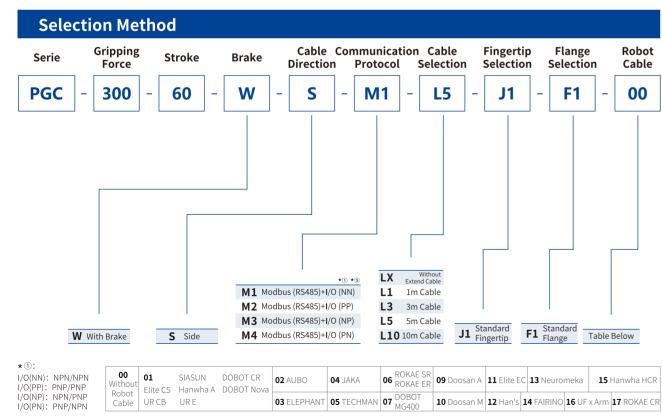
Product Param	eter				
Gripping force (per jaw) 40~140 N					
Recommended workpiece weight *2 3 k					
Stroke 50 m					
Full stroke oper	0.75 s/	′0.75s			
Repeat accuracy	y (positi	on)		± 0.02	3 mm
Weight					1 kg
Size		138.	5 mm x 7	5 mm x 7	5 mm
Noise emission				<	50 dB
Driving method	Precis	e planetar	ry gears + F	Rack and p	oinion
Working Enviro	onment				
Communication Sta	andard: Moo Optional: T(dbus RTU (RS CP/IP、USB2.4	6485)、Digital 0、CAN2.0A、F	I/O(2 inputs 2 PROFINET、E	outputs) therCAT * ³
Rated voltage			2	24 V DC \pm	: 10%
Current		0.	.4 A(Ratec	d)/ 1.2 A(Peak) *®
Rated Power					9.6 W
IP class					IP 67
Recommended	environ	ment	0~40°C,	under 85	% RH
Certification				CE, FCC,	RoHS
\odot	\bigotimes	\odot	\bigotimes	\bigotimes	\bigotimes
					Self-locking Mechanism

PGC-300-60

Electric Collaborative Parallel Gripper

DESIGN AWARD 2021 reddot winner 2021

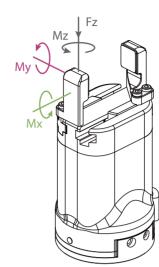




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TECHNICAL SPECIFICATIONS



Static V

Allowa

Fz

Мχ

My

Μz

*② The recommer

Gripping Recomme Stroke Full strok

Product

- Repeat ac Weight
- Size
- Noise em

Driving m

Working

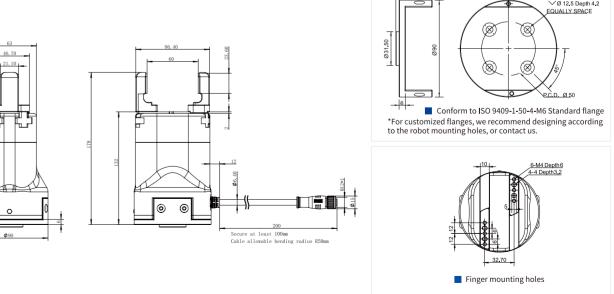
Communic interface Rated vol

Build-in Controller

Vertical Allowable Load	Curre	ent
600 N	Rateo	d pov
ble Loading Moment	IP cla	SS
15 N·m	Reco	mme
15 N∙m	Certif	icati
15 N · m		
nded load calculation is based on pure friction h a friction coefficient of 0.2 and a safety factor gravity shift of the gripped object will also	\odot	0

force gripping, with a friction coefficient of 0.2 and a safety fac of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization pleass contact sales or technical support.

* When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally



roduct Param	eter				
ripping force (p	ber jaw)			80~	300 N
ecommended	workpie	ece weigh	nt*®		6 kg
roke				6	0 mm
ıll stroke open	ing/clos	sing time		0.8 s	/0.8 s
epeat accuracy	/ (positi	on)		± 0.02	3 mm
eight					1.5 kg
ze		17	8 mm x 9	0 mm x 9	0 mm
oise emission				<	50 dB
riving method	Precise	e planetar	y gears + F	Rack and p	pinion
orking Enviro	nment				
mmunication erface			(RS485)、Digita 2.0、CAN2.0A、		
ated voltage				24 V DC ±	
urrent			0.4 A(Rat	ed)/ 2 A(Peak)*®
ated power					9.6 W
class					IP 67
commended	environ	ment	0~40°C,	under 85	% RH
ertification				CE, FCC,	RoHS
	Position	Speed	Drop		Self-locking
n Gripping Force er Adjustable	Adjustable	Adjustable	Detection	Plug & Play	Mechanism
		_ 3			
					0 6.5 Through Ø 12.5 Depth 4.2 DUALLY SPACE
	-		(Ø	10/	\
	Ø31.50	060 			ţŢ.



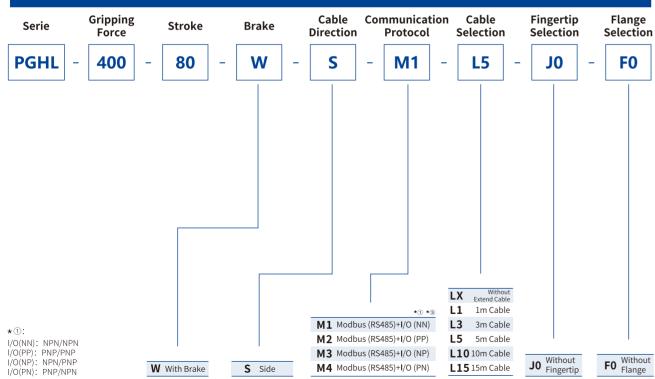
PGHL-400-80





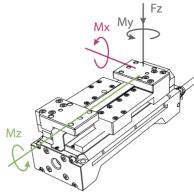


Selection Method



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TECHNICAL SPECIFICATIONS



Fz

Мх Мy

Stroke
Full stro
Repeat a
Weight
Size

Working Communi interface Rated vol Static Vertical Allowable Load Current 1000 N Rated po Allowable Loading Moment IP class 50 N · m 50 N · m Recomme

Μz 15 N · m * The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization pleass contact sales or technical support. *④ When selecting the power supply, please select according to

the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

+0.02 2-ø4 0 ∓4.20

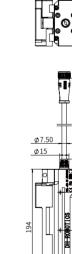
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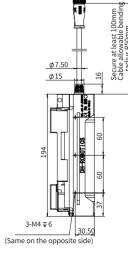
Technical Drawings

+0.02 ø18 0 ∓2.0

 32 ± 0.02

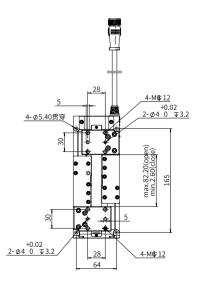
4-M**©**10





Product Parameter						
Gripping force (per jaw) 140~400 N					~400 N	
Recommended workpiece weight*© 8 kg					8 kg	
Stroke					80 mm	
Full sti	roke openii	ng/closing	time	1.0	s/1.1 s	
Repea	t accuracy	(position)		± 0.	02 mm	
Weigh	t				2.2 kg	
Size			194 mm	x 73 mm x	70 mm	
Noise	emission			<	< 60 dB	
Drivin	g method	Precise planetary gears+ Tshaped lead screw+Rack and pinion				
Working Environment						
WORKI		ment				
	unication	Standard: Modbu Optional: TCP/IP	us RTU (RS485)、 V、USB2.0、CAN2	Digital I/O(2 input 2.0A、PROFINET、	s 2 outputs) . EtherCAT * [®]	
Commu interfac	unication	Standard: Modbu	us RTU (RS485)、 P、USB2.0、CAN2	Digital I/O(2 input 2.0A、PROFINET、 24 V DC	. EtherCAT *③	
Commu interfac	unication ce voltage	Standard: Modbu	2、USB2.0、CAN2	2.0A、PROFINET、	. EtherCAT * $^{\circ}$ \pm 10%	
Commu interfac Rated Currer	unication ce voltage	Standard: Modbu	2、USB2.0、CAN2	2.0A、PROFINET、 24 V DC	. EtherCAT * $^{\circ}$ \pm 10%	
Commu interfac Rated Currer	voltage nt power	Standard: Modbu	2、USB2.0、CAN2	2.0A、PROFINET、 24 V DC	$\pm 10\%$ (Peak) *	
Commu interfac Rated Currer Rated IP clas	nication voltage nt power s	Standard: Modbu	2, USB2.0, CAN2	2.0A、PROFINET、 24 V DC	LetherCAT *® ± 10% (Peak) *® 24 W IP 40	
Commu interfac Rated Currer Rated IP clas	voltage nt power s nmended e	Standard: Modbu Optional: TCP/IP	2, USB2.0, CAN2	2.0A、PROFINET、 24 V DC Rated)/ 3 A	LetherCAT *3 ± 10% (Peak) *3 24 W IP 40 55% RH	
Communiterfact Rated Curren Rated IP clas Recom	voltage nt power s nmended e	Standard: Modbu Optional: TCP/IP	2, USB2.0, CAN2	24 V DC 24 V DC Rated)/ 3 A °C, under 8	LetherCAT *3 ± 10% (Peak) *3 24 W IP 40 55% RH	
Communiterfact Rated Curren Rated IP clas Recom	voltage nt power s nmended e	Standard: Modbu Optional: TCP/IP	2, USB2.0, CAN2	24 V DC 24 V DC Rated)/ 3 A °C, under 8	LetherCAT *3 ± 10% (Peak) *3 24 W IP 40 55% RH	





Electric Rotary Grippers

RGI / RGD Series



Serie	Gripping Force (Per Jaw)	Recommended Workpiece Weight	Stroke	Reference Page
RGI-100-14/22/30	30~100 N	1.5 kg	14/22/30 mm	P37-38
RGIC-35-12	13-35 N	0.5 kg	12 mm	P39-40
RGIC-100-35	40~100 N	1 kg	35 mm	P41-42
RGD-5-14	2~5.5 N	0.05 kg	14 mm	P43-44
RGD-35-14/30	10~35 N	0.35 kg	14/30 mm	P45-46

Product Features

DH-Robotics offers industrial Electric Rotary Gripper, including the RGI and RGD series. The RGI is the market's first fully independently developed infinite rotary gripper, overcoming the challenges of wiring and power supply, with a compact and precise structure. The RGD direct-drive rotary electric gripper adopts a zero-backlash rotary module, improving rotational accuracy and making it perfectly suitable for high-precision manufacturing scenarios.

RGI Series Gripping & Infinite Rotation

The unique structural design in the industry can realize the simultane ous 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

In the field of medical automation, the RGI-100 series electric grippers come standard with fingertip modules, which can be adapted to 10-in-1 and 20-in-1 size test tubes. They support the processing, opening and closing, and barcode scanning of samples such as reagents, blood samples, and nucleic acids, meeting the needs of large-scale nucleic acid sampling. The RGD grippers adopt direct drive technology, which greatly improves the rotation accuracy and is widely used in high-precision positioning assembly, handling, and correction adjustment in the fields of 3C electronics and semiconductors.



RGD Series 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 semiconduc tor 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

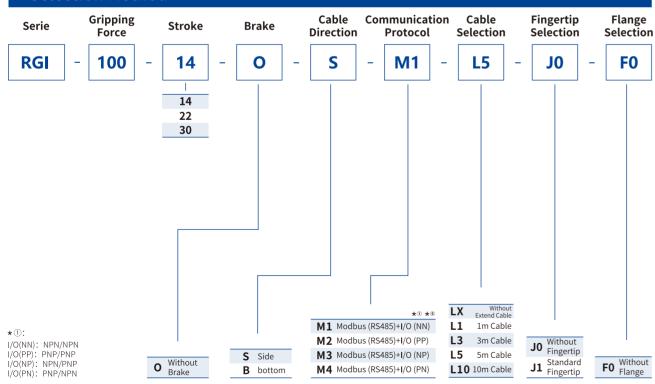
The gripper adopts the design of integrating the dual servo system of gripping and rotation with the drive control module, which is smaller and more compact, and applies to more scenarios. Brakes are optional to meet the require ments of various applications.

www.dh-robotics.com 33/34

RGI-100

Electric Rotary Gripper



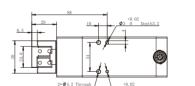


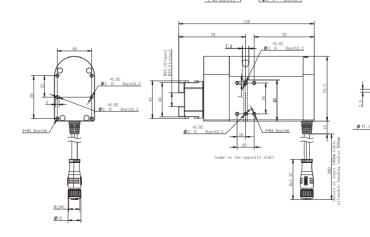
*(5) It is recommended that no more than 4 units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment. **The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.**

	HNI CIFI My Mz		ONS	Product Par Gripping force Recommended w weight(Fingertip Stroke Full stroke openin Repeat accurace
	00			Repeat accuracy
Statio	: Vertica	l Allowabl	e Load	Rated tor
	RGI-100-14			Peak torc
	150 N	200 N	150 N	Rotary ra
		ding Mon		
	2.5 N · m			Weight
	3 N · m	4 N · m	4 N · m	Size
Mz	4 N · m	5.5 N · m	5.5 N · m	Working
\odot	\odot	\bigcirc	\odot	Communicatio
Build-in Controller	Gripping For Adjustable	ce Position Adjustable	Speed Adjustable	Rated vol
Drop	Rotary	Self-locking		Current
Detection	Adjustable	e Mechanism		Rated por
		coefficient of 0.2 a	d on pure friction and a safety factor	IP class
force gripping		t of the gripped of	biect will also	IP Class
force gripping of 4. The cente affect the load *③ Requires ex	er of gravity shif I. If you have an ternal communi	t of the gripped ol y questions, pleas cation convertor or	se consult us.	
force gripping of 4. The cente affect the load *③ Requires ex pleass contact *④ When sele	er of gravity shif I. If you have an ternal communi sales or technical cting the power	y questions, pleas cation convertor or I support. supply, please se	se consult us. customization, elect according to	Recommo
force gripping of 4. The cente affect the load *③ Requires ex pleass contacts *④ When sele the peak curre	er of gravity shif I. If you have an ternal communi sales or technical cting the power	y questions, pleas cation convertor or support. supply, please se it is lower than the	se consult us. customization,	

Technical Drawings

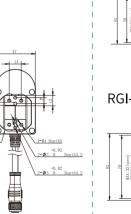
RGI-100-14





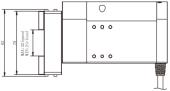
arameter	RGI-100-14	RGI-100-22	RGI-100-30
rce (per jaw)	30~100 N	30~100 N	30~100 N
d workpiece tip included) *®	1.5 kg	1.5 kg	1.5 kg
	14 mm	22 mm	30 mm
ning/closing time	0.45 s/0.25 s	0.5 s/0.3 s	0.55 s/0.35 s
racy (position)	\pm 0.02 mm	\pm 0.02 mm	\pm 0.02 mm
acy (swiveling)	\pm 0.05 °	\pm 0.05 °	± 0.05 °
ion speed	2160 °/s	2160 °/s	2160 °/s
orque	0.5 N · m	0.5 N · m	0.5 N · m
rque	1.5 N∙m	1.5 N · m	1.5 N · m
ange	Infinite Rotating	Infinite Rotating	Infinite Rotating
	1.28 kg	1.4 kg	1.5 kg
			158 x 75.5 x 47 mm otaty Diameter: 84.8 mm
g Environ	iment		
ation interface	Standard: Modbus R O	TU(RS485),Digital I/ ptional: TCP/IP,CAN2.0	o(2 inputs 2 outputs) A,PROFINET,EtherCAT ★③
oltage		24	V DC \pm 10%
		1 A(Rated	d)/4 A (Peak) *®
ower			24 W
			IP 40
mended ei	nvironment	0~40°C, u	nder 85% RH
ation		C	E, FCC, RoHS







RGI-100-30

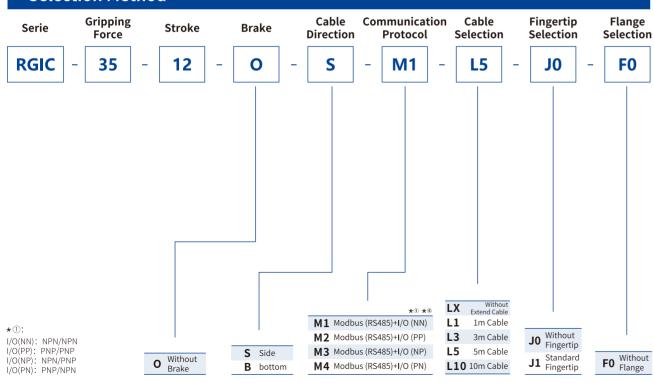


RGIC-35-12

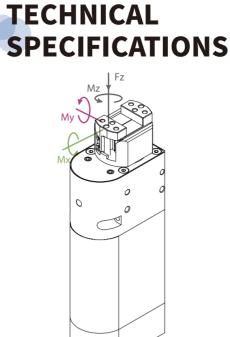
Electric Rotary Gripper



Selection Method



* 🖲 It is recommended that no more than 4units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.



Product Gripping Recommend Stroke Full strok

- Repeat ac Rated tor
- Peak torg
- Rotary ra
- Max. rota Repeat ac
- Weight
- Size

Working

Communio
interface
Rated vo
Current

- Rated po
- IP class
- Recomme
- Certificat

 \odot

Build-in

$^{\star}\ensuremath{\textcircled{O}}$ The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization pleass contact sales or technical support. * When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will

cause the product can not work normally

Static Vertical Allowable Load

Allowable Loading Moment

100 N

1.5 N · m

1.1 N · m

2.1 N · m

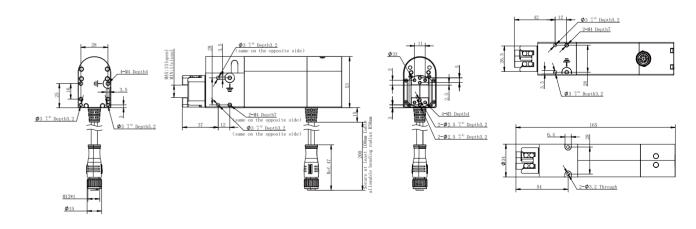
Fz

Мх

My

Μz

Technical Drawings



*Product size change on January 10, 2025: Height dimension changed from 150 to 165, others remain unchanged.

uct Parameter						
ing force (per jaw) 13~35 N						
mended workpiece weight(Fingertip included) *2 0.5 kg).5 kg	
xe 12 mm						
troke ope	ening/clos	sing time	2	0.5 s	/0.4 s	
at accura	icy (positi	on)		± 0.02	2 mm	
d torque				0.2	N·m	
torque				0.5	N·m	
ry range			In	finite Rot	ating	
rotation	speed			21	60 °/s	
at accura	icy (swive	ling)		\pm	0.05 °	
ht 0.64 kg					64 kg	
	165 mm x 53 mm x 34 mm Rotaty Diameter:33 mm					
king Envi	ronment					
nunication		odbus RTU(R	S485),Digital CP/IP,CAN2.0A	I/O(2 inputs 2	outputs)	
ace d voltage		optional. It		24 V DC \pm		
ent		1	.7 A(Rated	l)/ 2.5 A(I	Peak)*®	
d power			,	,, ,	, 0.8 W	
ISS					IP 40	
mmende	d environ	ment	0~40°C,	under 85	% RH	
fication	, , , , , , , , , , , , , , , , , , ,					
\odot	\bigcirc	\odot	\bigotimes	$\overline{\bigcirc}$	\otimes	
Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Rotary Adjustable	Self-locking Mechanism	

RGIC-100-35

Electric Rotary Gripper



Selection Method Gripping Cable Communication Cable Fingertip Flange Serie Stroke Brake Selection Force Direction Protocol Selection Selection 35 RGIC 100 0 S L5 **JO F0** Μ _ _ LX Without Extend Cable L1 1m Cable L3 3m Cable J0 Without Fingertip L5 5m Cable S Side F0 Without Flange O Without Brake J1 Standa. Fingertip **L10** 10m Cable **B** bottom Modbus (RS485)

* 🕘 It is recommended that no more than 4units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

	Fz	
	Mz	Str
My	2000	Fu
£	0000	Re
Mx	Cole -	Ra
		Pe
		Ro
		Ма
		We
		Siz
		Wo
	00	Cor
Static \	/ertical Allowable Load	Ra
Fz	100 N	Cu
	ble Loading Moment	Ra
Мх	1.5 N · m	IP
Му	1.1 N · m	Re
Mz	2.1 N · m	Ce
force gripping, with	ded load calculation is based on pure friction a friction coefficient of 0.2 and a safety factor gravity shift of the gripped object will also	\odot

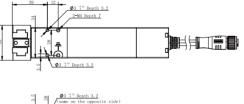
TECHNICAL

SPECIFICATIONS

fo of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization. pleass contact sales or technical support.

★③ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

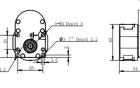
Technical Drawings



Gripping Force Adjustable

Position Adjustable

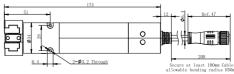
Build-in Controller





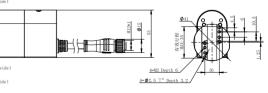
FP

*On January 10, 2025, the product dimensions will change: the height dimension will be changed from 159 to 174, and the rest will remain unchanged.



Prod	uct Para	meter					
Gripp	Gripping force (per jaw)					100 N	
Recom	mended wor	kpiece weigh	t(Fingertip i	ncluded) *		1 kg	
Strok	ke				35	5 mm	
Full s	stroke op	ening/clo	sing tim	e	0.9 s	/0.9 s	
Repe	at accura	icy (positi	on)		± 0.02	2 mm	
Rate	d torque				0.35	N∙m	
Peak	torque				1.5	N∙m	
Rota	ry range			In	finite Rot	ating	
Мах.	rotation	speed			1400 °/s		
Weig	Weight				0.65 kg		
Size					174 mm x 53 mm x 34 mm Rotaty Diameter:41 mm		
Worl	king Envi	ronment	:				
Comm	nunication i	nterface	Optinal: 1	Standa CP/IP,CAN2.0A	ard: Modbus RTU , PROFINET, E		
Rate	d voltage				24 V DC \pm	: 10%	
Curre	Current 2 A(Rated)/ 5 A(Peak)**						
Rated power 48 W				48 W			
IP class						IP 40	
Reco	mmende	d environ	ment	0∼40°C,	under 85	% RH	
Certification					CE, FCC,	RoHS	
\odot	\odot	\odot	\odot	\odot	\odot	\otimes	





Speed

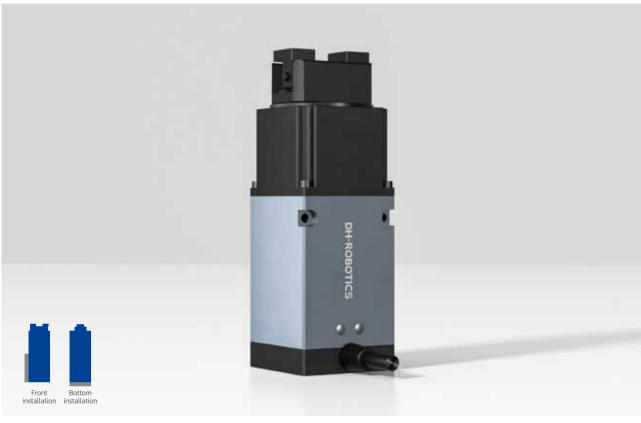
Adjustable

Drop Detectio

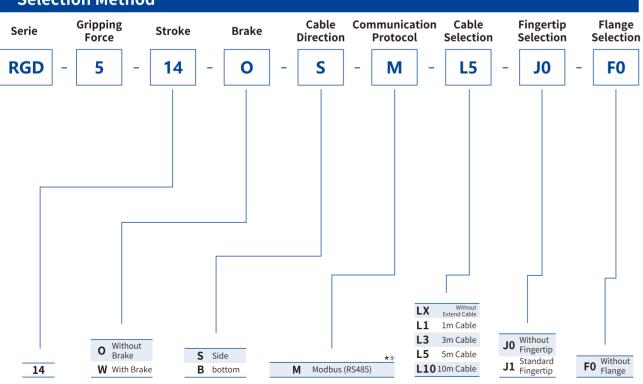
Rotary Adjustable

RGD-5

Direct Drive Rotary Gripper



Selection Method



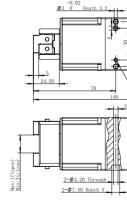
*(s) It is recommended that no more than 4 units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment. **The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.**

TECI	HNIC	:AL		Product F
SPE	CIFIC	CATIC	ONS	Gripping f
	Mz F	Z		Recomme
Ν	My J			Stroke
	AR	J.		Full stroke
	MX			Repeat ac
				Repeat ac
	q	9		Max. rotat
	00			Rated tore
				Peak torq
Statio	c Vertical	Allowab	le Load	Rotary ba
Fz			150 N	Rotary rar
Allow	able Loa	ding Moi	nent	Weight
Mx			2 N·m	Size
Му		1.	5 N · m	Noise emi
Mz		2.	5 N∙m	Monthing
\bigcirc	\bigcirc	\bigcirc	$\overline{\bigcirc}$	Working
Build-in Controller	Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Communi
\bigcirc	\bigcirc	(sptional)		Rated volt
Drop Detection	Rotary Adjustable	Self-locking Mechanism		Current
			imum of 0.5 N · m. al support personnel.	Rated pov
 The recomm rce gripping, v 	nended load cal with a friction co	culation is base officient of 0.2 a	d on pure friction and a safety factor	IP class
ie load. If you h	have any questi	ons, please con	bject will also affect sult us. r or customization,	Recomme
leass contact s ④When selecti	ales or technica	il support. Ipply, please se	lect according to the rameter, it will cause	Certificati
eak current. If t ne product can	the current is lo not work norm	wer than the pa ally.	rameter, it will cause	

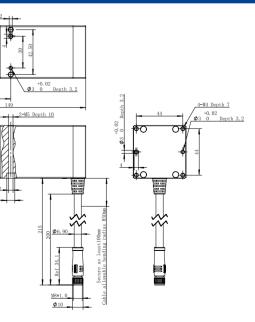
Technical Drawings

2-Ø3

2-Ø3 0



Product Parameter	
Gripping force (per jaw)	2-5.5 N
Recommended workpiece we	eight ^{*®} 0.05 kg
Stroke	14 mm
Full stroke opening/closing ti	me 0.5 s/0.3 s
Repeat accuracy (position)	\pm 0.02 mm
Repeat accuracy (swiveling)	\pm 0.1 °
Max. rotation speed	1500 °/s
Rated torque	0.1 N·m
Peak torque ^{*®}	0.25 N·m
Rotary backlash	Zero backlash
Rotary range	Infinite Rotating
Weight	0.86 kg(without brake) 0.88 kg(with brake)
Size	149 mm x 50 mm x 50 mm Rotaty Diameter: 47 mm
Noise emission	< 60 dB
Working Environment	
	Modbus PTU (PS485)
Communication interface	Modbus RTU (RS485) Optional: TCP/IP、EtherCAT *③
Rated voltage	24 V DC \pm 10%
Current	1.2 A(Rated)/ 2.5 A(Peak) $^{\star_{\textcircled{0}}}$
Rated power	60 W
IP class	IP 40
Recommended environment	0~40°C, under 85% RH



CE, FCC, RoHS

Parameter Table of Rotational Time in Place for Different Inertia Loads

Reference Size/mm	Material	Weight/g	Corresponding Inertia/Kg · mm ²	Actual Rotation Angle/°	Reference Correction Tme/ms
				45	200
				90	200
Unload	-	0	0	180	400
				360	500
				720	700
				45	200
				90	300
20*80*25	Aluminum Block	57	61	180	400
	Dioen			360	500
				720	700
				45	300
				90	350
74.7*80*25	Aluminum Block	387	402	180	400
	Dioen			360	550
				720	750
			685	45	400
				90	450
96.7*80*25	Aluminum Block	503		180	500
	Dioen			360	650
				720	850
				45	850
				90	1000
111.3*80*25	Aluminum Block	582	941	180	1200
	Dioch			360	1450
				720	1650
				45	1350
				90	1550
126*80*25	Aluminum Block	662	1263	180	1850
	Dioen			360	1950
				720	2450

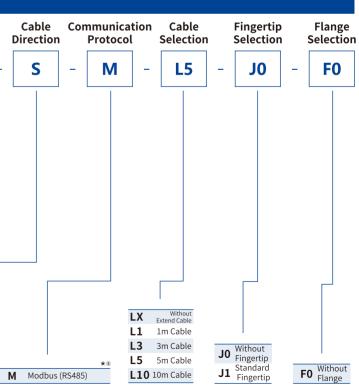
RGD-35



Selection Method Gripping Force Serie Stroke Brake Direction RGD 35 14 0 S _ _ _ O Without Brake 14 S Side 30 **B** bottom W With Brake

*(5) It is recommended that no more than 4 units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment. The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

Direct Drive Rotary Gripper



TEC	HNIC	CAL		Product Pa
SPE		-	ONS	Gripping forc Recommended weight(Fingertip
N	ly JER			Stroke
				Full stroke open
				Repeat accur
				Repeat accura
		1		Max. rotatio
	00			Rated torqu
				Peak torque
Stati	c Vertical	Allowab	le Load	Rotary back
Fz			150 N	Rotary rang
Allov	vable Loa	ding Mo	ment	Weight
Мх			2 N · m	Size
Му		1.	5 N∙m	Noise emiss
Mz		2.	5 N∙m	
\bigcirc	\bigcirc	\bigcirc	\sim	Working Ei
Build-in	Gripping Force	Position	Speed	Communic
Controller	Adjustable	Adjustable	Adjustable	Rated volta

Drop Detection Rotary Adjustable Self-locking Mechanism
 Detection
 Adjustable
 Mechanism

 *① The peak torque can be increased to a maximum of 0.5 N · m.
 For specificdetails, please consult with technical support personnel.

 *② The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us.

 *③ Requires external communication convertor or customization, please contact sales or technical support.
 *④ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

optional

Technical Drawings

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Product Parameter	RGD-35-14	RGD-35-30
Gripping force (per jaw)	10-35 N	10-35 N
Recommended workpiece weight(Fingertip included) *©	0.35 kg	0.35 kg
Stroke	14 mm	30 mm
Full stroke opening/closing time	0.5 s/0.5 s	0.7 s/0.7 s
Repeat accuracy (position)	\pm 0.02 mm	\pm 0.02 mm
Repeat accuracy (swiveling)	\pm 0.1 °	\pm 0.1 °
Max. rotation speed	1500 °/s	1500 °/s
Rated torque	0.1 N·m	0.1 N · m
Peak torque*®	0.25 N · m	0.25 N · m
Rotary backlash	Zero backlash	Zero backlash
Rotary range	Infinite Rotating	Infinite Rotating
Weight	0.86 kg(without brake) 0.88 kg(with brake)	1 kg(without brake) 1.02 kg(with brake)
Size	159 mm x 50 mm x 50 mm Rotaty Diameter: 47 mm	159 mm x 50 mm x 50 mm Rotaty Diameter: 83.6 mm
Noise emission	< 60 dB	< 60 dB
Working Environment		

Working Environment	
Communication interface	Modbus RTU (RS485) Optional: :TCP/IP、EtherCAT*③
Rated voltage	24 V DC \pm 10%
Current	1.2 A(Rated)/ 2.5 A(Peak) $^{\star \scriptscriptstyle \circledcirc}$
Rated power	60 W
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

78.5

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Ø3 0 Depth 3.2 RGD-35-14 RGD-35-30 5. 50 25.20 H-M4 Depth 7 +0.02 0 Depth 3.2 \$6.90 2-Ø4.20 Through 2-Ø7.50 Depth 5 Ø47 * 쑸 H 1 <u>M8*1.0</u> Ø10

Parameter Table of Rotational Time in Place for Different Inertia Loads

Reference Size/mm	Material	Weight/g	Corresponding Inertia/Kg · mm ²	Actual Rotation Angle/°	Reference Correction Tme/ms			
				45	200			
				90	200			
Unload	-	0	0	180	400			
				360	500			
				720	700			
				45	200			
				90	300			
20*80*25	Aluminum Block	57	61	180	400			
	Dioen			360	500			
				720	700			
			402	45	300			
				90	350			
74.7*80*25	Aluminum Block	387		180	400			
				360	550			
				720	750			
				45	400			
							90	450
96.7*80*25	Aluminum Block	503	503 685	180	500			
	Dioen			360	650			
				720	850			
				45	850			
				90	1000			
111.3*80*25	Aluminum Block	582	941	180	1200			
	DIOCK			360	1450			
				720	1650			
				45	1350			
				90	1550			
126*80*25	Aluminum Block	662	1263	180	1850			
	DIOCK			360	1950			
				720	2450			



 \odot

2**-Ø**3

www.dh-robotics.com 45/46

Articulated Electric Grippers

AG / DH Series



Serie	Gripping Force (Per Jaw)	Recommended workpiece weight	Stroke	Reference Page
AG-160-95	45~160 N	3 kg	95 mm	P51-52
AG-105-145	35~105 N	2 kg	145 mm	P53-54
DH-3	10~65 N	1.8 kg	106 mm (parallel) 122 mm (centric)	P55-56
DH-5	2~5.5 N	0.05 kg	14 mm	P57-58

Product Features

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.

Envelope Adaptive Capture

The gripper linkage mecha nism 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 equip ment, new energy and other industries.





AG-160-95

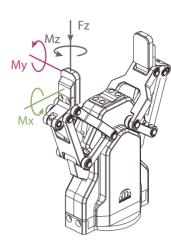
Electric Adaptive Gripper



Selection Method Cable Communication Cable Robot Gripping Fingertip Flange Serie Stroke Brake Direction Force Protocol Selection Selection Selection Cable 95 W AG 160 S **M1** L5 **J1 F1** 00 Without Extend Cable LX *1) *5 M1 Modbus (RS485)+I/O (NN) L1 1m Cable M2 Modbus (RS485)+I/O (PP) L3 3m Cable M3 Modbus (RS485)+I/O (NP) L5 5m Cable J1 Standard Fingertip F1 Without Flange W Self-locking M4 Modbus (RS485)+I/O (PN) L10 10m Cable Table Below S Side 1: 00 01 SIASUN DOBOT CR 02 AUBO 06 ROKAE SR O9 Doosan A 11 Elite EC 13 Neuromeka 15 Hanwha HCR I/O(NN): NPN/NPN O4 JAKA I/O(PP): PNP/PNP Elite CS Hanwha A DOBOT Nova Robot Elite CS Hanwl Cable UR CB UR E I/O(NP): NPN/PNP 03 ELEPHANT 05 TECHMAN 07 MG400 10 Doosan M 12 Han's 14 FAIRINO 16 UF x Arm 17 ROKAE CR I/O(PN): PNP/NPN * 🔅 It is recommended that no more than 4units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment

The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

TECHNICAL SPECIFICATIONS



Gripping Recomm Stroke Full strok

Current Rated por

Certificat

*② The recommended load calculation is based on pure friction \odot force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. Build-in Controller *③ Requires external communication convertor or customization

please contact sales or technical support. *@ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

Static Vertical Allowable Load

Allowable Loading Moment

Fz

Мх

Мy

Μz

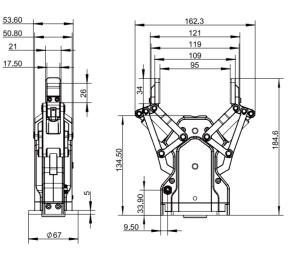
300 N

4.75 N · m

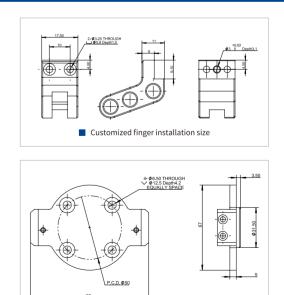
4.75 N · m

4.75 N · m

Technical Drawings



Product Parameter					
Gripping force (per jaw)				45~	160 N
Recommende	ed workpi	ece weigł	nt *®		3 kg
Stroke				9	5 mm
Full stroke op	ening/clo	sing time		0.9 s	/0.9 s
Repeat accur	acy (positi	on)		± 0.03	3 mm
Weight					1 kg
Size		184.6 n	nm x 162.	3 mm x 6 [.]	7 mm
Noise emission < 60 d			60 dB		
Driving method Screw drive + Linkage system			vstem		
Working Env	ironment	:			
Communication interface			RS485)、Digita D、CAN2.0A、F		
Rated voltage	ò			24 V DC \pm	: 10%
Current		0.	8 A(Rateo	d)/ 1.5 A(I	Peak) *®
Rated power				1	9.2 W
IP class IP 54				IP 54	
Recommended environment 0~40°C, under 85% RH				% RH	
Certification				CE,FCC,	RoHS
Build-in controller Gripping Force Adjustable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism



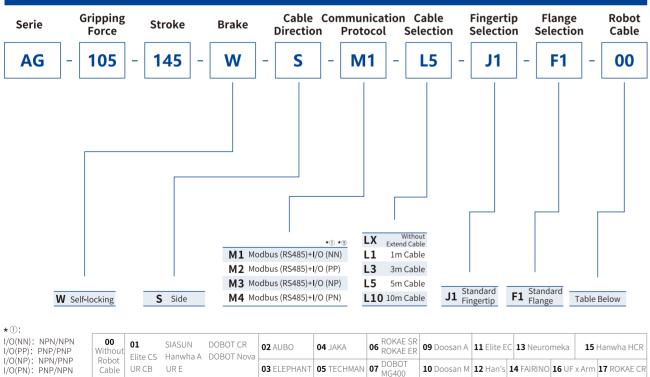
Conform to ISO 9409-1-50-4-M6 Standard flange

AG-105-145

Electric Adaptive Gripper



Selection Method



* 🔅 It is recommended that no more than 4units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

SPECIFICATIONS

 \odot Build-in

Controlle

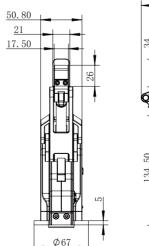
TECHNICAL

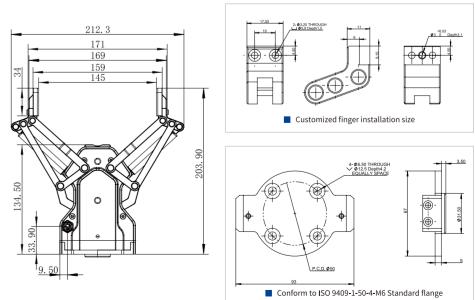
Static Vertical Allowable Load				
Fz 300 N				
Allowable Loading Moment				
Mx 1.95 N · m				
My 1.95 N⋅m				
Mz 1.95 N · m				

of the reconstruction of the second states of the second states of the second states of the second states of the second second states of the second second second states of the second s *③ Requires external communication convertor or customization pleass contact sales or technical support. * ④ When selecting the power supply, please select according to

the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

Technical Drawings





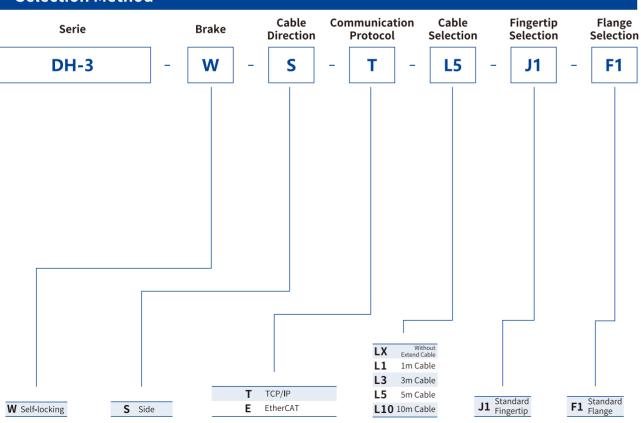
Product P	arameter				
Gripping fo		35~.	105 N		
Recomme	nded workpie	ece weigh	it* [®]		2 kg
Stroke				145	5 mm
Full stroke	opening/clo	sing time		0.9 s	/0.9 s
Repeat acc	curacy (positi	ion)		± 0.03	3 mm
Weight				1	L.3 kg
Size 203.9 mm x 212.3 mm x 6				7 mm	
Noise emission < 60 dl				60 dB	
Driving method Screw drive + Linkage system				rstem	
Working E	nvironment	:			
Communicat interface		lodbus RTU (R CP/IP、USB2.(
Rated volta	age			24 V DC \pm	: 10%
Current		0.	8 A(Rateo	d)/ 1.5 A(I	Peak)*®
Rated pow	er			1	9.2 W
IP class IP 54				IP 54	
Recommended environment 0~40°C, under 85% RH					% RH
Certificatio	on			CE, FCC,	RoHS
Build-in Controller		Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism

DH-3

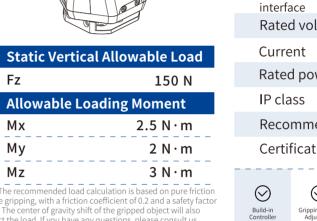
Electric Adaptive Gripper



Selection Method



TECHNICAL SPECIFICATIONS F7 G



*② The recomm *② The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization, pleass contact sales or technical support.

*③ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

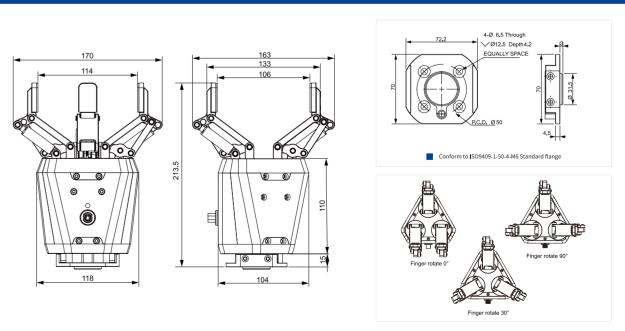
Technical Drawings

Fz

Мх

Мy

Μz



Product Para	meter				
Gripping force (per jaw) 10~65 N					
Recommended workpiece weight * [®] 1.8 kg					1.8 kg
Stroke	10	6 mm (pa	rallel) 12	2 mm (ce	entric)
Full stroke op	ening/clo	sing time		0.7 s	/0.7 s
Repeat accura	acy (positi	on)		± 0.02	3 mm
Weight				1.	.68 kg
Size		213.5 r	nm x 170	mm x 11	8 mm
Noise emission < 60 dB				60 dB	
Driving method Screw nut + gear driv + linkage mechanism					
Working Env	ironment				
Communication interface		S	tandard: TCP,	/IP, USB2.0, 0 Optional: Ef	CAN2.0A therCAT*②
Rated voltage			2	24 V DC \pm	10%
Current			0.5 A(Rat	ed)/ 1A(Peak)*®
Rated power					12 W
IP class IP 40				IP 40	
Recommended environment 0~40°C, under 85% RH					% RH
Certification CE, FCC, RoHS				RoHS	
Build-in Controller	Position Adjustable	Speed Adjustable	Drop Detection	⊖ Plug & Play	Self-locking Mechanism

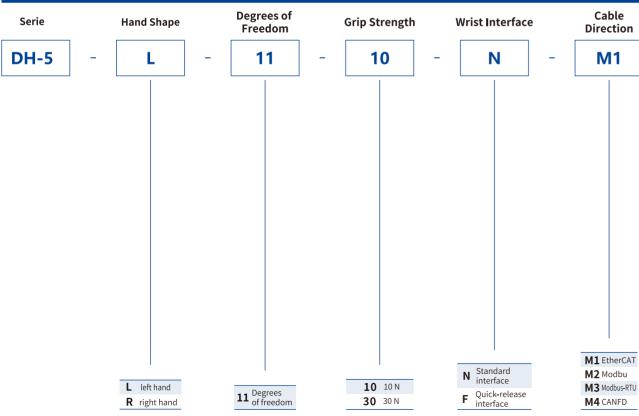
DH-5

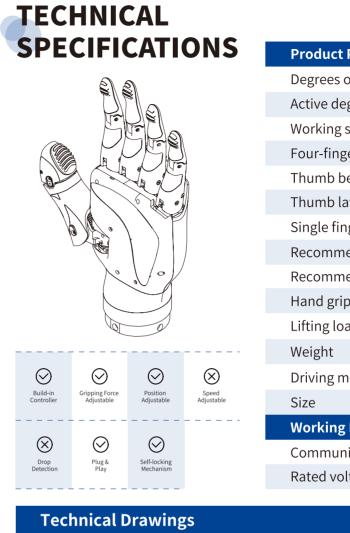
Dexterous Hand

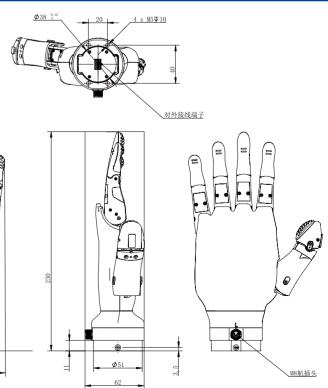


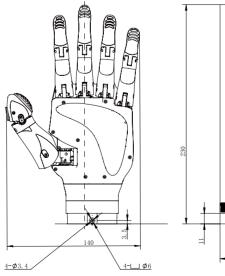
Bottom installation











Parameter		
of freedom		11
egree of freedom		6
speed		1.0 s
ger bending angle		80°+90°
pending angle		30°+15°
ateral swing angle		70°
ngertip force		10 N
ended maximum f	riction load	2 kg
iended maximum s	tructural lifting load	4 kg
p strength		30 N
ad		10 kg
		700 g
nethod	Coreless Motor +F Reducer +Screw + Conne	
Adult Hand Siz	ze(230 mm*85 mm*	0
; Environment		
nication interface	Modbus-R	TU/CAN
ltage	24 V DC	$\pm 10\%$

Electric Parallel Grip

Electric Centric Grippers CGE / CGI / CGC Series



Serie	Gripping Force (Per Jaw)	Recommended Workpiece Weight	Stroke	Reference Page
CGE-10-10	3~10 N	0.1 kg	10 mm	P61-62
CGI-100-170	30~100 N	1.5 kg	Ф40~Ф170 mm	P63-64
CGC-80-10	20~80 N	1.5 kg	10 mm	P65-66

Product Features

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 avail able in a variety of models for a variety of scenarios, stroke and end devices.

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.

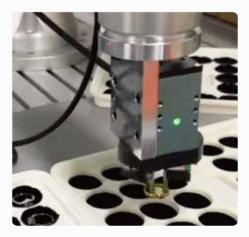
Overload Protection

The high-performance servo motor can provide instanta neous overload protection.

Application

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

LECTRIC ENTRIC BRIPPER



CGE-10-10

Electric Centric Gripper



Robot Cable 00 Without Extend Cable LX *1 *5 M1 Modbus (RS485)+I/O (NN) L1 1m Cable M2 Modbus (RS485)+I/O (PP) L3 3m Cable M3 Modbus (RS485)+I/O (NP) L5 5m Cable J0 Without Fingertip F0 Without Flange O Without Brake **S** Side M4 Modbus (RS485)+I/O (PN) L10 10m Cable Table Below *1): 00 01 SIASUN DOBOT CR 02 AUBO
 O6
 ROKAE SR ROKAE ER
 09 Doosan A
 11 Elite EC
 13 Neuromeka
 15 Hanwha HCR
 I/O(NN): NPN/NPN O4 JAKA I/O(PP): PNP/PNP Elite CS Hanwha A DOBOT Nova Robot Elite CS Hanwh Cable UR CB UR E 03 ELEPHANT 05 TECHMAN 07 MG400 I/O(NP): NPN/PNP 10 Doosan M 12 Han's 14 FAIRINO 16 UF x Arm 17 ROKAE CR I/O(PN): PNP/NPN

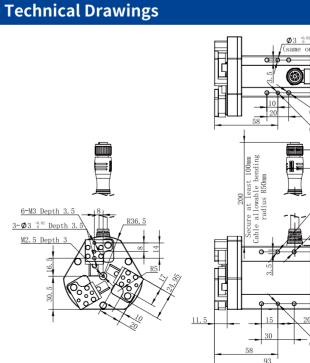
*(5) It is recommended that no more than 4 units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment. The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

	Fz	Gripping
Mz		Recomme
My		Stroke
		Full strok
		Repeat a
Mx		Weight
d		Size
0	0 0 0	Noise em
0	00000	Driving me
Static Vortic		Working Communic interface
	al Allowable Load	Rated vol
Fz	150 N	Current
	oading Moment	Rated po
Mx	0.62 N·m	Recomm
Му	0.62 N·m	Certificat
Mz	0.62 N·m	
e gripping, with a frictior . The center of gravity shi ct the load. If you have a	calculation is based on pure friction coefficient of 0.2 and a safety factor ift of the gripped object will also ny questions, please consult us. nication convertor or customization,	Build-in Controller

TECHNICAL

SPECIFICATIONS

pleass contact sales or technical support. *④ When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will cause the product can not work normal



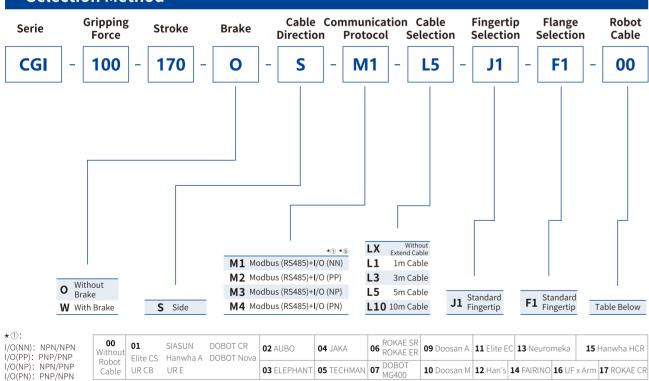
Product Parameter	
Gripping force (per jaw)	3~10 N
Recommended workpiece w	veight *◎ 0.1 kg
Stroke	10 mm
Full stroke opening/closing t	time 0.3 s/0.3 s
Repeat accuracy (position)	\pm 0.03 mm
Weight	0.43 kg
Size	94 mm x 53.5 mm x 38 mm
Noise emission	< 50 dB
Driving method Precise planeta	ary gear reducer + Rack and pinion
Working Environment	
	RTU (RS485), Digital I/O(2 inputs 2 outputs) USB2.0、CAN2.0A、PROFINET、EtherCAT * $^{\circ}$ 24 V DC \pm 10%
Current	0.3 A(Rated)/ 0.6 A(Peak) *®
Rated power	7.2 W
Recommended environment	t 0~40°C, under 85% RH
Certification	CE, FCC, RoHS
Build-in Controller Sipping Force Adjustable Social Position Adjustable	Speed Adjustable Drop Detection Self-locking Mechanism
(same on the opposite side)	B3 1° Depth 3.2 4-M4 Depth 5 4-M4 Depth 5 06 Depth 3.2 24 38

CGI-100-170

Electric Centric Gripper

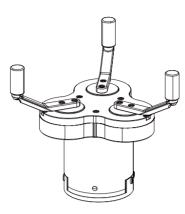


Selection Method



* 🖲 It is recommended that no more than 4units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

TECHNICAL SPECIFICATIONS

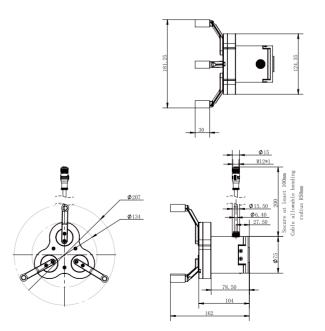


This type of gripper is recommended to use the standard finger. If you need to replace it in the application, please contact us for confirmation.

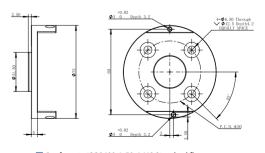
 $^{\star}\textcircled{2}$ The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization, pleass contact sales or technical support. * ④ When selecting the power supply, please select according to

the peak current. If the current is lower than the parameter, it will cause the product can not work normally.

Technical Drawings



Product Para	ameter									
Gripping force (per jaw) 30~100 N										
Recommende	ed workpiece we	eight *∞		1.5 kg						
Recommended w diameter (inward			Φ40~Φ1	70 mm						
Full stroke op	ening/closing ti	me		1.35 s						
Repeat accur	acy (position)		± 0.0)3 mm						
Weight				1.5 kg						
Size 158.4 n	nm x 124.35 mm x 116 mr	n (without b	rake/with brake,:	same size)						
Noise emissio	on		<	50 dB						
Driving method Precise planetary gears + Rack and pinion										
Working Env	ironment									
Communication Standard: Modbus RTU (RS485), Digital I/O(2 inputs 2 outputs) interface Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *®										
Rated voltage	5		24 V DC :	± 10%						
Current		0.4 A(I	Rated)/ 1 A	(Peak) *®						
Rated power				9.6 W						
IP class				IP 40						
Recommende	ed environment	0~40	°C, under 8	5% RH						
Certification			CE, FCC	, RoHS						
\odot) 😔	\oslash	\odot	optional						
Build-in Gripping Controller Adjusta		Speed Adjustable	Drop Detection	Self-locking Mechanism						



Conform to ISO9409-1-50-4-M6 Standard flange *For customized flanges, we recommend designing according to the robot mounting holes, or contact us.

CGC-80-10

Electric Collaborative Centric Gripper

10 Doosan M 12 Han's 14 FAIRINO 16 UF x Arm 17 ROKAE CR



Mx	
Static V	ertical Allowable Load
Fz	200 N
Allowal	le Loading Moment
Mx	2.5 N · m

TECHNICAL

My Mz

Мy

Μz

_ _ _ _ _

SPECIFICATIONS

Product Gripping

Recomme Single jav

Full strok

Repeat ac

Weight

Size

Noise em

Driving m

Working

Communic interface Rated vol

Current

Rated pov

IP class

Recomme

Certificat

 \odot (Build-in Controller Grippi Adju

Technical Drawings

affect the load. If you have any questions, please consult us. *③ Requires external communication convertor or customization.

pleass contact sales or technical support.

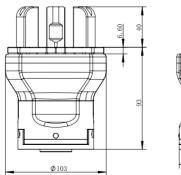
cause the product can not work normally

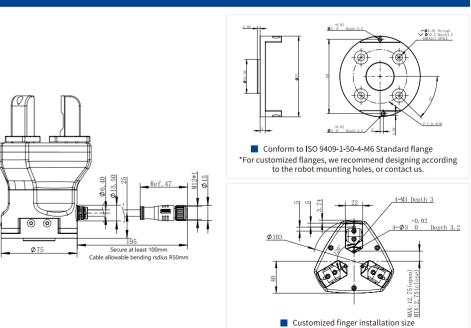
*② The recommended load calculation is based on pure friction force gripping, with a friction coefficient of 0.2 and a safety factor of 4. The center of gravity shift of the gripped object will also

* When selecting the power supply, please select according to the peak current. If the current is lower than the parameter, it will

2 N · m

3 N · m





Cable 00 LX Without Extend Cable *1) *5 M1 Modbus (RS485)+I/O (NN) L1 1m Cable M2 Modbus (RS485)+I/O (PP) L3 3m Cable M3 Modbus (RS485)+I/O (NP) L5 5m Cable J1 Standard Fingertip F1 Standard Flange W With Brake M4 Modbus (RS485)+I/O (PN) L10 10m Cable Table Below **S** Side *1): 00 01 SIASUN DOBOT CR 02 AUBO 06 ROKAE SR O9 Doosan A 11 Elite EC 13 Neuromeka 15 Hanwha HCR I/O(NN): NPN/NPN O4 JAKA I/O(PP): PNP/PNP Elite CS Hanwha A DOBOT Nova Robot Elite CS Hanwl Cable UR CB UR E I/O(NP): NPN/PNP 03 ELEPHANT 05 TECHMAN 07 MG400

* 🔄 It is recommended that no more than 4units of DH-Robotics products be accessed on a single 485 bus, otherwise 485 communication anomalies may occur. If you need to access more than 4 devices, it is recommended to contact the sales staff for product adjustment The Modbus RTU (RS485) to USB module will no longer be provided for free. Please place a separate order if needed.

I/O(PN): PNP/NPN

Para	meter									
force (per jaw) 20~80 N										
ended workpiece weight *◎ 1.5 kg										
w 10 m										
ke ope	ening/clo	sing time		0.5 s	/0.5 s					
ccura	cy (positi		± 0.03	3 mm						
					1.5 kg					
		141	mm x 10	3 mm x 7	5 mm					
nissio					50 dB					
nethod Precise planetary gear reducer + Rack and pinion										
; Envi	ronment									
ation		odbus RTU (RS CP/IP、USB2.0								
ltage			2	24 V DC \pm	: 10%					
		0.	5 A(Rateo	d)/ 1.2 A(Peak) *					
wert					12 W					
					IP 67					
ende	d environ	ment	0~40°C,	under 85	% RH					
tion				CE, FCC,	RoHS					
oing Force justable	Position Adjustable	Speed Adjustable	Drop Detection	Plug & Play	Self-locking Mechanism					

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	ROKAE CR
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										1
High current electric claw (Peak current>1.5A)			-													08				_					1
In common (Support large and small current electric gripper)						01	01	01									09	10	11	12	13	14	15	16	17

DH-Robotics' Gripper and Cylinder communication converter

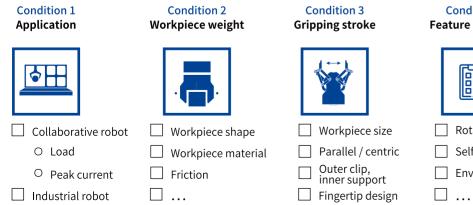
The communication within DH-Robotics' Servo Gripper and Servo Electric Cylinder defaults to Modbus RTU (RS485) and a small number of I/O(2 inputs 2 outputs). If customers choose other communication converter, they will need to use the communication converter. The following communication converter are available for selection:

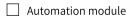
communication converter Name	Ordering Model		communication converter Name	Ordering Model
EtherCAT 1-1	M2E-B1-1		TCP/IP 1-1	M2T-B1-1-YBT
		and the	PROFINET 1-2	M2P2-B1-2-HJ
 EtherCAT 1-4	M2E-B1-4		PROFINET 1-接11	M2P-B1-11-9
EtherCAT转 I/O 1-More	Please contact our technical staff confirm the specific parameters	A	Modbus RTU (RS485) to USB Converter Module	A801-0036-WG

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.

□ ...











```
Envelope grab
```



□ ...

Precautions on Model Selection

Note 1: Confirm the required gripping force and workpiece quality

When the workpiece is clamped by the friction force generated by the clamping force, the required clamping force is calculated as follows:

- F: Clamping force (N)
- μ: Friction coefficient
- m: Workpiece quality (kg)
- g: Acceleration due to gravity (9.8m/s²)
- mg: Workpiece weight (N)

Friction coefficient μ	Fingertip and workpiece material (benchmark)
0.1	Metal(Surface roughness under Rz3.2)
0.2	Metal
Over 0.2	Rubber, resin

(Reference) The friction $coefficient(\mu)$ varies depending on the usage environment, surface pressure, workpiece shape, etc.

Note 2: Confirm gripper stroke and fingertip

 \cdot The stroke of the gripper needs to be greater than the difference between the maximum and minimum dimensions of the workpiece.

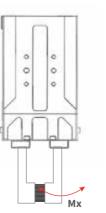
 \cdot Choose the right fingertip: The fingertip is too long, too big, and the weight is too heavy, the inertia force or bending moment when opening and closing will affect the gripper, which may cause the performance of the gripper to decrease or shorten the service life.

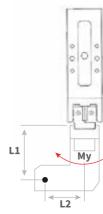
Note 3: Check the external force exerted on the gripper

- The vertical load borne by the clamping jaw must be within the allowable load.
- The moment the clamping jaws bear must be within the maximum allowable load moment.
- \cdot Allowable load F(N) =

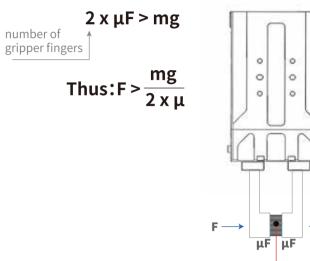
L(mm) x 10⁻³

Note: Mx and My are calculated by L1, and Mz is calculated by L2. Confirm whether the calculated gripper can withstand the external force (based on the smaller F value calculated from Mx, My, Mz).

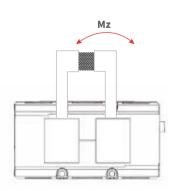




Clamped workpiece, The condition that the workpiece will not fall is



M(Load allowable moment) (N·m)

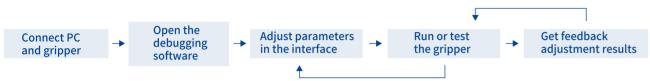


mg

Host Computer Debugging Software (PC Side)

User-friendly

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



Parameters Adjustable

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

Real-time feedback

- four gripping states
- (1)movement status
- 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

Honors and Certificates

- Some of Our Certificates







5

6





3





- 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

Customer Trust

More than 800 customers around the world are using DH-Robotics products The number of customers continues to grow rapidly...



Product Distribution

Chinese Agent Distribution Cties

Beijing/Changchun/Changsha/Chengdu/Chongqing/Dalian/Dongguan/ Guangzhou/Hangzhou/Hefei/Jinan/Nanchang/Nanjing/Ningbo/Qingdao/ Shanghai/Shenyang/Shenzhen/Suzhou/Wuhan/Wuxi/Xi'an/Xiamen/Yantai/ Yangzhou/Zhengzhou/Zhuhai

Overseas Agents Distribution Area

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VERSION CHANGE LOG

	Revision Date	Released Version	
	2025.04	CN.2504	• The RS48 selection p
-	2025.02	CN.2502	 Discontin RGIC-35-3 RGIC-100 PGE-2-12 RGI-100-3 RGI-100-3 RGIC-35-3 New Elect
	2024.07	CN.2407	 New Proc Added th supply sele protocol PGE-2-12 grounding PGE-5-26 PGE-100- PGE-5-26 15 meter ex PGC-140- current upo CGC-80-1 update to 0 robot cable PGS-5-5 c CGE-10-1 drawing up Notes on PGS-5-5 a RGD Serie place for d CGC-80-1

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Change Log

85 module option has been removed from the parameters. Please purchase separately if needed.

nuation of RGD-5-30 and PGS-5-5 products -12 height changed from 150 to 165 0-35 height changed from 159 to 174 2: 0.15s / 0.2s -14: 0.45s / 0.25s -22: 0.5s / 0.3s -30: 0.55s / 0.35s -12: 0.5s / 0.4s ctric Adaptive Gripper: DH-5

duct in the PGI Series: PGI-80-80 he rated parameter, the precautions for power ection, the precautious for 485 communication

2 & PGE-15-10 added controller diagram and tips, cable length notes 6 canceled brake -26 added bottom cable version 6, PGE-8-14, PGE-15-26, PGE-50, PGE-100-26 added extend cable -50 open/close time updated to 0.75s, peak odated to 1.2A, drawing updated 10 open/close time updated to 0.5s, rated current 0.5A, peaked current updated to 1.2A, added 01 le cable updated to L1,L5, added controller diagram 10 product iteration, product structure updated, pdated optional communication protocol updated added external diagram ies added parameter table of rotational time in

different inertia loads

10 added 01 robot cable