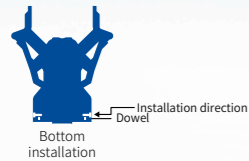


# AG-160-95

Electric Adaptive Gripper



reddot award 2019  
winner



## Selection Method

Serie	Gripping Force	Stroke	Brake	Cable Direction	Communication Protocol	Cable Selection	Fingertip Selection	Flange Selection	Robot Cable
AG	160	95	W	S	M1	L5	J1	F1	00

W Self-locking

S Side

*① *③	
M1	Modbus (RS485)+I/O (NN)
M2	Modbus (RS485)+I/O (PP)
M3	Modbus (RS485)+I/O (NP)
M4	Modbus (RS485)+I/O (PN)

*① *③	
LX	Without Extend Cable
L1	1m Cable
L3	3m Cable
L5	5m Cable
L10	10m Cable

J1 Standard Fingertip

F1 Without Flange Table Below

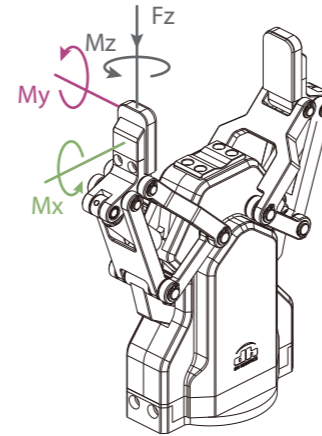
①:  
I/O(NN): NPN/NPN  
I/O(PP): PNP/PNP  
I/O(NP): NPN/PNP  
I/O(PN): PNP/NPN

00	Without Robot Cable	01	SIASUN Elite CS	DOBOT CR Hanwha A	02	DOBOT Nova	03	UR CB	04	UR E	05	UR E	06	UR E	07	UR E	08	UR E	09	UR E	10	UR E	11	UR E	12	UR E	13	UR E	14	UR E	15	UR E	16	UR E	17	UR E
----	---------------------	----	-----------------	-------------------	----	------------	----	-------	----	------	----	------	----	------	----	------	----	------	----	------	----	------	----	------	----	------	----	------	----	------	----	------	----	------	----	------

\*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.

## TECHNICAL SPECIFICATIONS



### Static Vertical Allowable Load

Fz 300 N

### Allowable Loading Moment

Mx 4.75 N·m

My 4.75 N·m

Mz 4.75 N·m

\*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 converter 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.

### Product Parameter

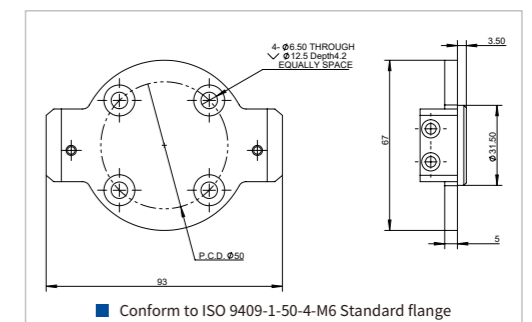
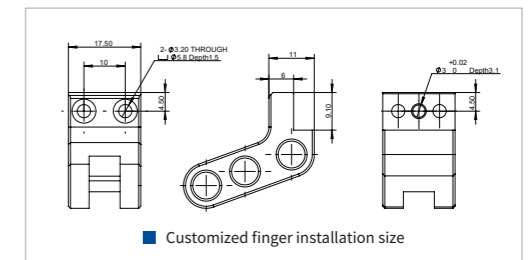
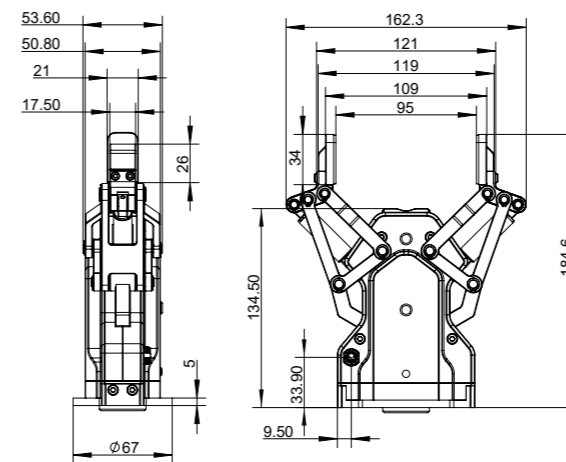
Gripping force (per jaw)	45~160 N
Recommended workpiece weight *②	3 kg
Stroke	95 mm
Full stroke opening/closing time	0.9 s/0.9 s
Repeat accuracy (position)	± 0.03 mm
Weight	1 kg
Size	184.6 mm x 162.3 mm x 67 mm
Noise emission	< 60 dB
Driving method	Screw drive + Linkage system

### Working Environment

Communication interface	Standard: Modbus RTU (RS485)、Digital I/O(2 inputs 2 outputs) Optional: TCP/IP、USB2.0、CAN2.0A、PROFINET、EtherCAT *③
Rated voltage	24 V DC ± 10%
Current	0.8 A(Rated)/ 1.5 A(Peak) *④
Rated power	19.2 W
IP class	IP 54
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

<input checked="" type="checkbox"/> Build-in Controller	<input checked="" type="checkbox"/> Gripping Force Adjustable	<input checked="" type="checkbox"/> Position Adjustable	<input checked="" type="checkbox"/> Speed Adjustable	<input checked="" type="checkbox"/> Drop Detection	<input checked="" type="checkbox"/> Plug & Play	<input checked="" type="checkbox"/> Self-locking Mechanism
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## Technical Drawings



# AG-105-145

Electric Adaptive Gripper



## Selection Method

Serie	Gripping Force	Stroke	Brake	Cable Direction	Communication Protocol	Cable Selection	Fingertip Selection	Flange Selection	Robot Cable
AG	105	145	W	S	M1	L5	J1	F1	00

W Self-locking

S Side

*① *⑤	
M1	Modbus (RS485)+I/O (NN)
M2	Modbus (RS485)+I/O (PP)
M3	Modbus (RS485)+I/O (NP)
M4	Modbus (RS485)+I/O (PN)
LX	Without Extend Cable
L1	1m Cable
L3	3m Cable
L5	5m Cable
L10	10m Cable

J1 Standard Fingertip

F1 Standard Flange

Table Below

\*①:

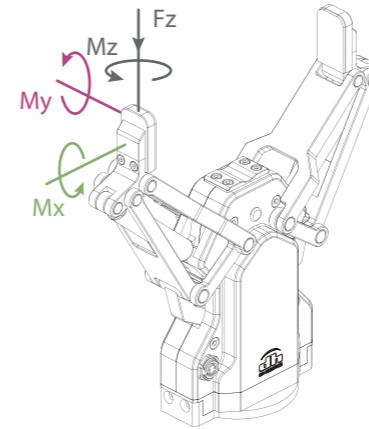
I/O(NN): NPN/NPN  
I/O(PP): PNP/PNP  
I/O(NP): NPN/PNP  
I/O(PN): PNP/NPN

00	01	SIASUN	DOBOT CR	02	04	06	09	11	13	15
Without Robot Cable	Elite CS UR CB	Hanwha A UR E	DOBOT Nova	AUBO	JAKA	ROKAE SR ROKAE ER	Doosan A	Elite EC	Neuromeka	Hanwha HCR
				03	05	07	10	12	14	17
				ELEPHANT	TECHMAN	DOBOT MG400	Doosan M	Han's	FAIRINO	ROKAE CR
									16	
									UF x Arm	

\*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.

## TECHNICAL SPECIFICATIONS



### 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

\*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 converter 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.

### Product Parameter

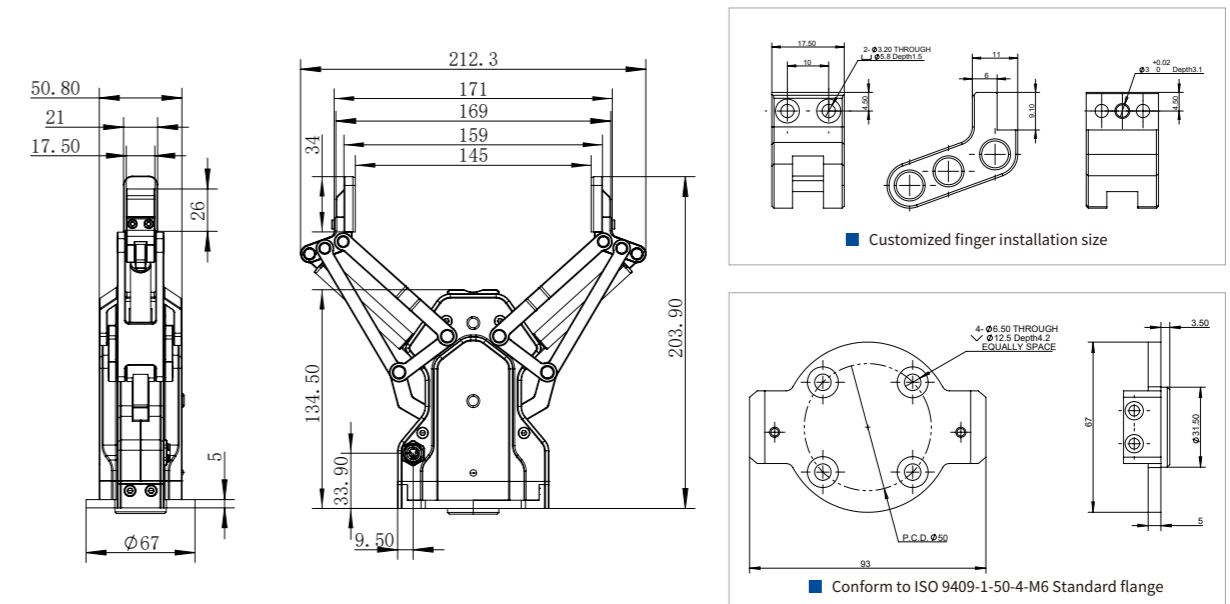
Gripping force (per jaw)	35~105 N
Recommended workpiece weight *③	2 kg
Stroke	145 mm
Full stroke opening/closing time	0.9 s/0.9 s
Repeat accuracy (position)	± 0.03 mm
Weight	1.3 kg
Size	203.9 mm x 212.3 mm x 67 mm
Noise emission	< 60 dB
Driving method	Screw drive + Linkage system

### Working Environment

Communication interface	Standard: Modbus RTU (RS485)、Digital I/O(2 inputs 2 outputs) Optional: TCP/IP、USB2.0、CAN2.0A、PROFINET、EtherCAT *③
Rated voltage	24 V DC ± 10%
Current	0.8 A(Rated)/ 1.5 A(Peak) *④
Rated power	19.2 W
IP class	IP 54
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

<input checked="" type="checkbox"/> Build-in Controller	<input checked="" type="checkbox"/> Gripping Force Adjustable	<input checked="" type="checkbox"/> Position Adjustable	<input checked="" type="checkbox"/> Speed Adjustable	<input checked="" type="checkbox"/> Drop Detection	<input checked="" type="checkbox"/> Plug & Play	<input checked="" type="checkbox"/> Self-locking Mechanism
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## Technical Drawings








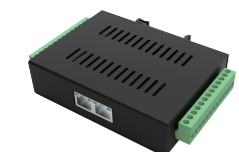

# Short Wire Correspondence Table

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	Jaka
Small current electric gripper (Peak current≤0.6A)	C01							
Small current electric gripper (Peak current<1.5A)		C01	C01	C01	C01			C02
High current electric claw (Peak current>1.5A)								
In common (Support large and small current electric gripper)						C01	C01	

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

# Customer Trust

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



# Version Change Log

Revision Date	Released Version	Change Log
2025.09	CN.2509	<ul style="list-style-type: none"> <li>Integration of old and new electric gripper selection manuals;</li> <li>Added notes on rotational repeatability accuracy for RGI &amp; RGIC</li> <li>Introduction of the new DH-5-6 dexterous hand</li> </ul>
2025.04	CN.2504	<ul style="list-style-type: none"> <li>New option added for robot short-line configuration.;</li> <li>The free configuration for Modbus RTU (RS485) to USB module has been canceled. If needed, please place a separate order for purchase.。</li> </ul>
2025.03	CN.2503	<ul style="list-style-type: none"> <li>Version one</li> </ul>

Due to continuous product upgrades, content changes may occur without prior notice.  
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