

RGI Series Electric Rotary Gripper

RGIC-35-12 RGI-100-14
RGIC-100-35 RGI-100-22
RGI-100-30

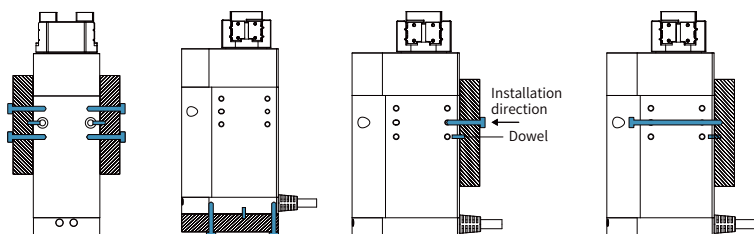


RGI series is the first fully self-developed infinite rotating gripper with a compact and precise structure on the market. It is widely applied in medical automation industry to grip and rotate the test tubes as well as other industries like electronics and New energy industry.

Installation



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



Product Feature

● Gripping & Infinite Rotation

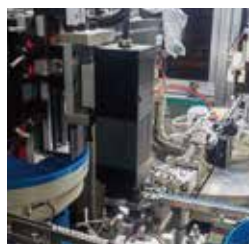
The unique structural design in the industry can realize the simultaneous gripping and infinite rotation on one electric gripper, and solve the winding problem in non-standard design and rotation.

● Compact Double Servo System

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

● High Gripping Force and Torque

The maximum single-sided gripping force is 100N, and the maximum torque is 1.5N·m. Though precise force control and position control, the RGI gripper can more stably complete the grasping and rotating tasks.



Application

Medical automation reagents, blood samples, nucleic acids and other sample processing scenarios such as opening and closing covers, scanning code detection, etc.;

RGI-100 series comes standard with fingertips and can be adapted to 10 mix 1 and 20 mix 1 size tubes to meet the needs of large-scale nucleic acid sampling.

RGIC-35-12



Static Vertical Allowable Load

Fz 100 N

Allowable Loading Moment

Mx 1.5 N·m

My 1.1 N·m

Mz 2.1 N·m

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

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

Parameters

Product Parameter

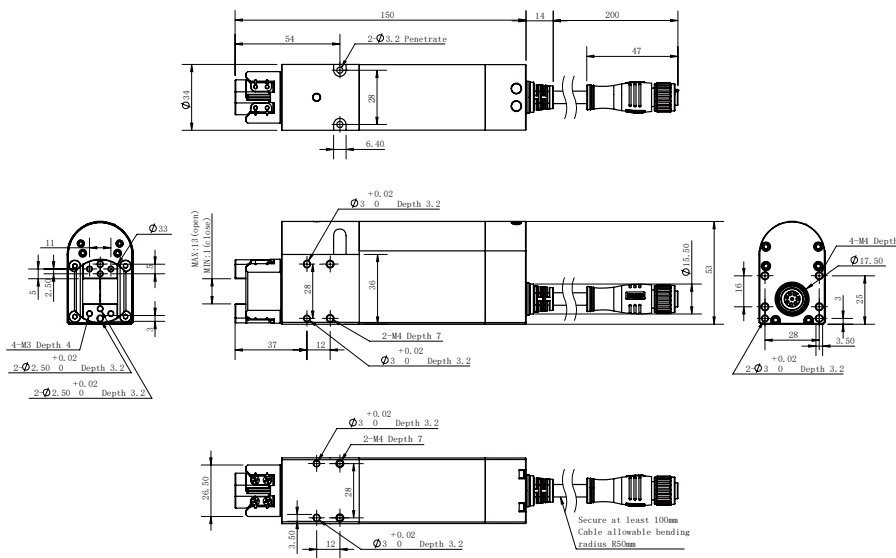
Gripping force (per jaw)	13~35 N
Stroke	12 mm
Rated torque	0.2 N·m
Peak torque	0.5 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *①	0.5 kg
Max. rotation speed	2160 °/s
Repeat accuracy (swiveling)	± 0.05 °
Repeat accuracy (position)	± 0.02 mm
Opening/closing time	0.6 s/0.6 s
Weight	0.64 kg
Size	150 mm x 53 mm x 34 mm Rotary Diameter:33mm

Working Environment

Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT*②
Rated voltage	24 V DC ± 10%
Rated current	1.7 A
Peak current	2.5 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

● Build-in Controller	● Gripping Force Adjustable	● Position Adjustable	● Speed Adjustable	● Drop Detection	● Rotary Adjustable	✗ Self-locking Mechanism
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Technical Drawings



RGIC-100-35



Static Vertical Allowable Load

Fz 200 N

Allowable Loading Moment

Mx 3 N·m

My 3 N·m

Mz 2.5 N·m

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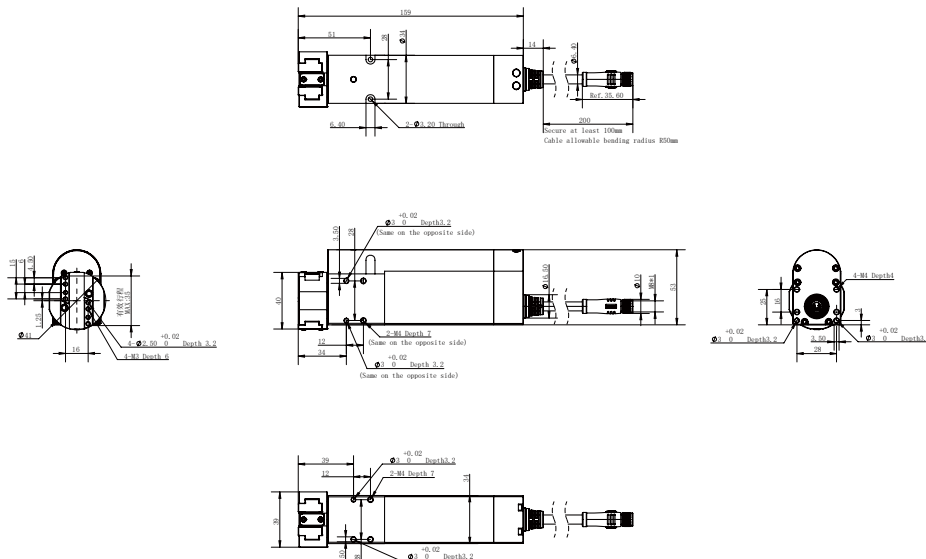
Parameters

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

Working Environment

Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT* ②					
Rated voltage	24 V DC ± 10%					
Rated current	2.0 A					
Peak current	5.0 A					
IP class	IP 40					
Recommended environment	0~40°C, under 85% RH					
Certification	CE, FCC, RoHS					
● Build-in Controller	● Gripping Force Adjustable	● Position Adjustable	● Speed Adjustable	● Drop Detection	● Rotary Adjustable	✗ Self-Locking Mechanism

Technical Drawings



RGI-100-14



Static Vertical Allowable Load

Fz 150 N

Allowable Loading Moment

Mx 2.5 N·m

My 3 N·m

Mz 4 N·m

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Parameters

Product Parameter

Gripping force (per jaw)	30~100 N
Stroke	14 mm
Rated torque	0.5 N·m
Peak torque	1.5 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *①	1.5 kg
Max. rotation speed	2160 °/s
Repeat accuracy (swiveling)	± 0.05 °
Repeat accuracy (position)	± 0.02 mm
Opening/closing time	0.6 s/0.6 s
Weight	1.28 kg
Size	158 mm x 75.5 mm x 47 mm Rotaty Diameter:47.1mm

Working Environment

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

Rated voltage 24 V DC ± 10%

Rated current 1.0 A

Peak current 4.0 A

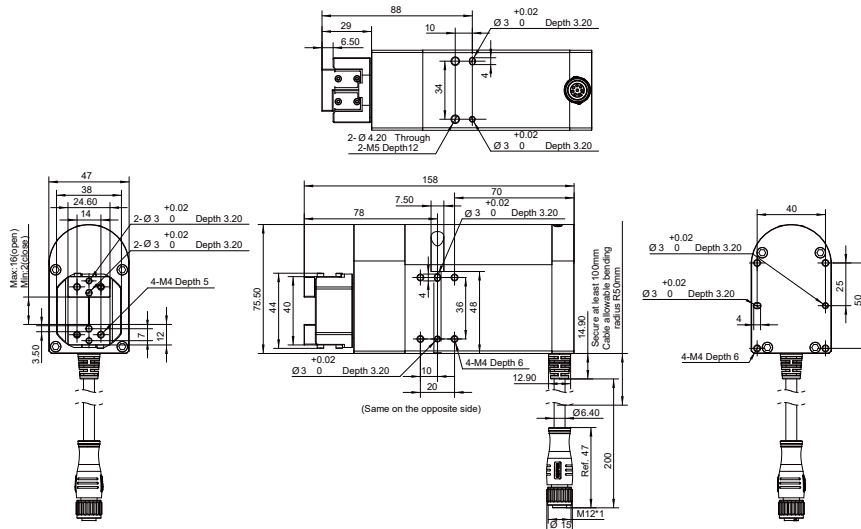
IP class IP 40

Recommended environment 0~40°C, under 85% RH

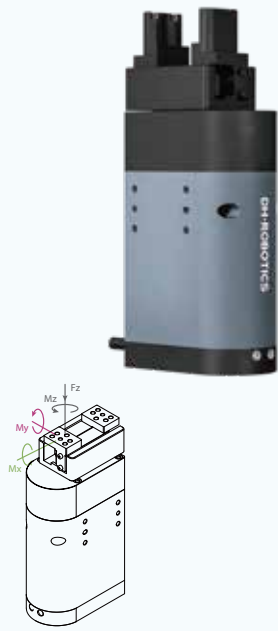
Certification CE, FCC, RoHS

● Build-in Controller	● Gripping Force Adjustable	● Position Adjustable	● Speed Adjustable	● Drop Detection	● Rotary Adjustable	✗ Self-Locking Mechanism
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Technical Drawings



RGI-100-22



Static Vertical Allowable Load

Fz 200 N

Allowable Loading Moment

Mx 3.5 N·m

My 4 N·m

Mz 5.5 N·m

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Parameters

Product Parameter

Gripping force (per jaw)	30~100 N
Stroke	22 mm
Rated torque	0.5 N·m
Peak torque	1.5 N·m
Rotary range	Infinite Rotating
Recommended workpiece weight *①	1.5 kg
Max. rotation speed	2160 °/s
Repeat accuracy (swiveling)	± 0.05 °
Repeat accuracy (position)	± 0.02 mm
Opening/closing time	0.65 s/0.65 s
Weight	1.4 kg
Size	158 mm x 75.5 mm x 47 mm Rotary Diameter: 67.1mm

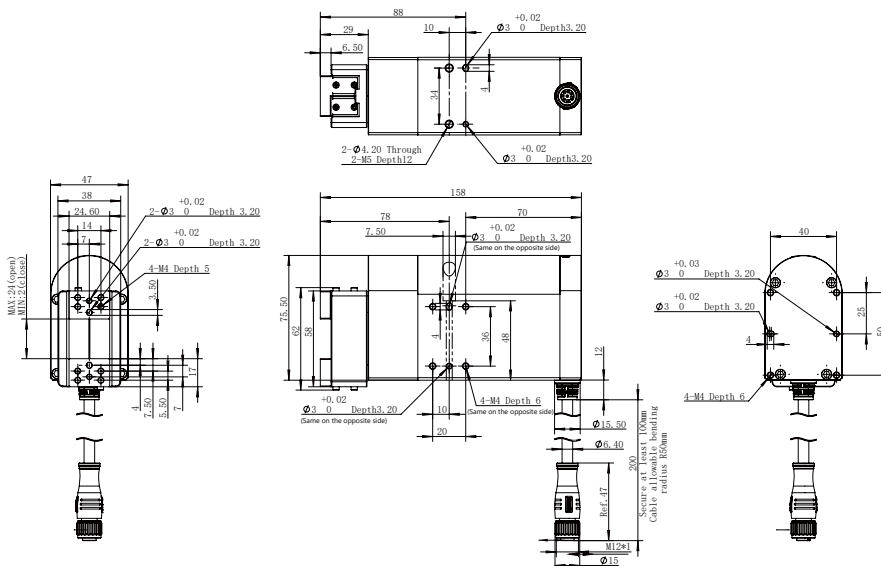
Working Environment

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

Rated voltage	24 V DC ± 10%
Rated current	1.0 A
Peak current	4.0 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

● Build-in Controller	● Gripping Force Adjustable	● Position Adjustable	● Speed Adjustable	● Drop Detection	● Rotary Adjustable	✗ Self-locking Mechanism
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Technical Drawings



RGI-100-30



Static Vertical Allowable Load

Fz 250 N

Allowable Loading Moment

Mx 4.5 N · m

My 5 N · m

Mz 7 N · m

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Parameters

Product Parameter

Gripping force (per jaw)	30~100 N
Stroke	30 mm
Rated torque	0.5 N · m
Peak torque	1.5 N · m
Rotary range	Infinite Rotating
Recommended workpiece weight *①	1.5 kg
Max. rotation speed	2160 °/s
Repeat accuracy (swiveling)	± 0.05 °
Repeat accuracy (position)	± 0.02 mm
Opening/closing time	0.7 s/0.7 s
Weight	1.5 kg
Size	158 mm x 75.5 mm x 47 mm Rotary Diameter: 84.8mm

Working Environment

Communication interface	Standard: Modbus RTU (RS485), Digital I/O Optional: TCP/IP, USB2.0, CAN2.0A, PROFINET, EtherCAT *②
Rated voltage	24 V DC ± 10%
Rated current	1.0 A
Peak current	4.0 A
IP class	IP 40
Recommended environment	0~40°C, under 85% RH
Certification	CE, FCC, RoHS

● Build-in Controller	● Gripping Force Adjustable	● Position Adjustable	● Speed Adjustable	● Drop Detection	● Rotary Adjustable	✗ Self-locking Mechanism
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Technical Drawings

