

# GRS-MEG/MIG

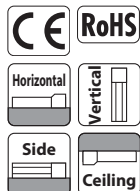
Body width  
**32mm**

O.D. grip  
I.D. grip

Solenoid  
Gripper

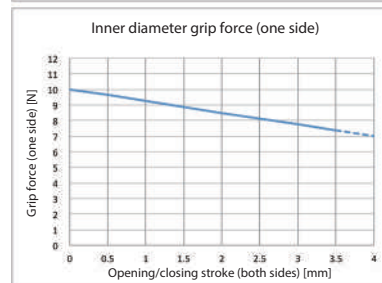
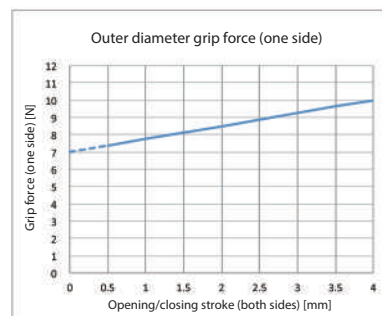
## Model Specification Items

|            |                     |                          |                                       |  |                               |  |   |  |   |  |
|------------|---------------------|--------------------------|---------------------------------------|--|-------------------------------|--|---|--|---|--|
| <b>GRS</b> | -                   |                          | -                                     | <b>4</b>   | -                             |  | - |  | - |  |
| Series     | Type                | Stroke                   | Driver box                            | Solenoid gripper cable length                          | Options                       |  |   |  |   |  |
| MEG        | Outer diameter grip | 4: 4mm<br>(2mm per side) | DBN Driver box<br>(NPN specification) | N None<br>P 1m<br>S 3m<br>M 5m<br>X□□ Specified length | Refer to Options table below. |  |   |  |   |  |
| MIG        | Inner diameter grip |                          | DBP Driver box<br>(PNP specification) |  |                               |  |   |  |   |  |
|            |                     |                          | N No driver box                       |  |                               |  |   |  |   |  |



- (1) For outer diameter grip, it opens when conductive and closes when not conducting (normally closed). For inner diameter grip, it closes when conductive and opens when not conducting (normally open).
- (2) Since a spring is used for the grip mechanism, the grip force changes depending on the open/closing stroke of the fingers.
- (3) To operate the solenoid gripper, a driver box is essential. Please refer to P.8 for specification details.
- (4) Please refer to P.9 for gripper selection.

## Correlation Diagram of Grip Force and Opening/Closing Stroke



(Note) The grip force changes depending on the open/closing stroke of the fingers.

## Actuator Specifications

| Model           | Grip direction | Max grip force (N)  | Stroke (mm)       |
|-----------------|----------------|---------------------|-------------------|
| GRS-MEG-4-①-②-③ | Outer diameter | 20<br>(10 per side) | 4<br>(2 per side) |
| GRS-MIG-4-①-②-③ | Inner diameter |                     |                   |

Legend ① Driver box ② Cable length ③ Option

## Stroke and Operation Time

| Stroke (mm) | Operating time [Open/close] (s) |
|-------------|---------------------------------|
| 4           | 0.03 or less                    |

## Solenoid gripper cable length

| Type             | Solenoid gripper cable code |
|------------------|-----------------------------|
| Standard type    | P(1m)                       |
|                  | S(3m)                       |
|                  | M(5m)                       |
| Specified length | X06(6m) ~ X10(10m)          |
|                  | X11(11m) ~ X15(15m)         |

\* Robot cable specification option is not available.

## Option

| Name   | Option code | Reference page |
|--|-------------|----------------|
| Actuator cable (pigtail cable) length: 2 m   | <b>AC2</b>  | See P.7        |
| Actuator cable (pigtail cable) length: 5 m   | <b>AC5</b>  |                |
| Cable exit direction (Top)                   | <b>CJT</b>  |                |
| Sensor attached x 1 (NPN specification) (*1) | <b>S1N</b>  |                |
| Sensor attached x 2 (NPN specification) (*1) | <b>S2N</b>  |                |
| Sensor attached x 1 (PNP specification) (*1) | <b>S1P</b>  |                |
| Sensor attached x 2 (PNP specification) (*1) | <b>S2P</b>  |                |
| Rubber cover attached (chloroprene rubber)   | <b>RCH</b>  |                |
| Rubber cover attached (silicone rubber)      | <b>RSL</b>  |                |

(\*1) Driver box: for DBN, only S1N and S2N can be selected.  
Driver box: for DBP, only S1P and S2P can be selected.

## Actuator Specifications

| Item                | Description       |
|---------------------|-------------------|
| Max grip force      | 20N, one side 10N |
| Operating time      | 0.03s or less     |
| Operation frequency | 120CPM            |
| Mass                | 0.27kg            |

CPM: Cycle per minute

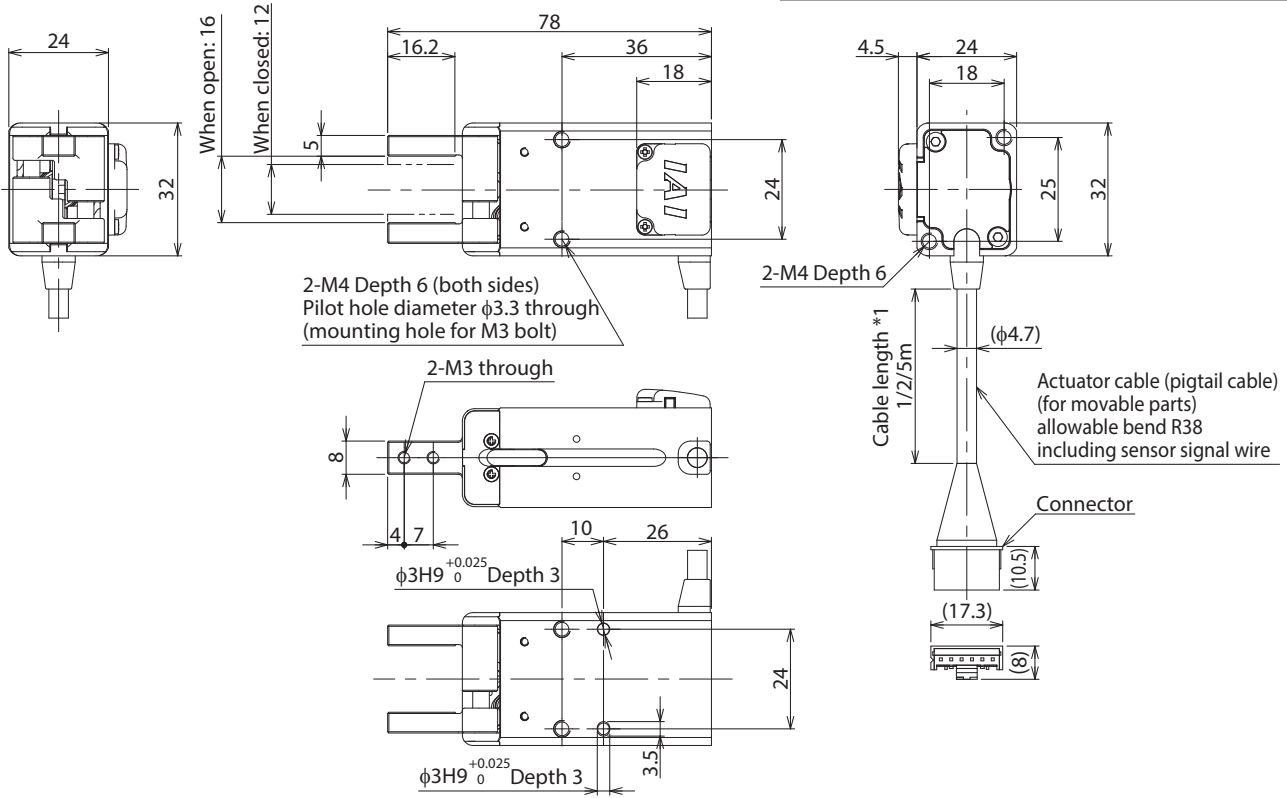
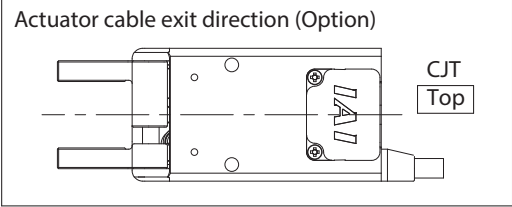
| Item                                    | Description  |
|---|--|
| Drive system                            | Grip mechanism (chuck): Compression spring + cam mechanism<br>Release mechanism (unchuck): Solenoid electromagnetism + cam mechanism |
| Repeatability                           | ±0.1mm   |
| Backlash                                | One side 0.5mm or less   |
| Finger guide                            | Slide guide  |
| Ambient operating temp. & humidity      | 0 to 40°C, 85% RH or less (Non-condensing)   |
| Degree of protection                    | IP20   |
| Vibration resistance / shock resistance | 4.9m/s <sup>2</sup> 100Hz or less  |
| Compliant international standards       | CE marking, RoHS Directive   |
| Delivery date                           | Indicated in "Check Delivery Date" on the website  |

Dimensions

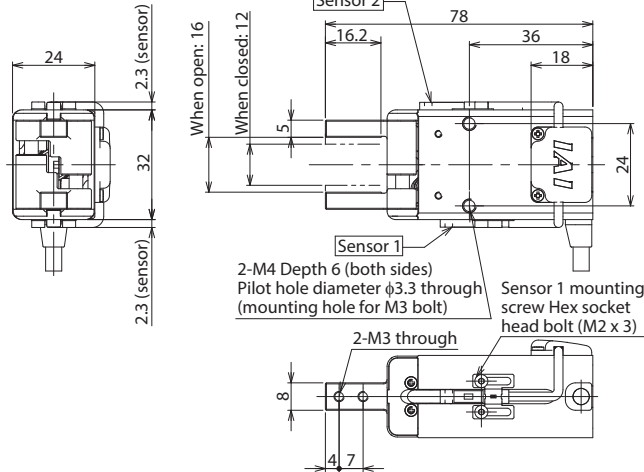
CAD drawings can be downloaded from our website.  
www.intelligentactuator.com



\*1 The actuator cable (pigtail cable) is a robot cable.  
The actuator cable (pigtail cable) standard length is 1m.  
Can be changed to 2m or 5m as an option (model: AC2/ACS).



Sensor attached (option)



Rubber cover attached (option)

