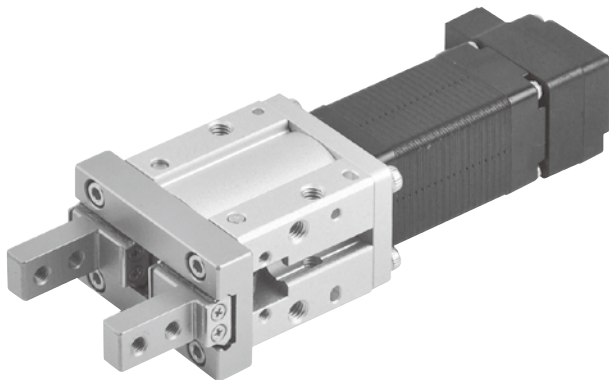


MEHC2 series

ELECTRIC GRIPPER (WITH MOTOR)



Specification

Model	MEHC2	
Size	16	25
Gripping force *1 (N)	19.5	26
Opening / Closing stroke (mm)	6	14
Position repeatability *2 (mm)	±0.02	
Motor size (mm)	□20	□28
Encoder	Incremental A/B/Z (4000PPR)	
Rated voltage	DC24 V ±10%	
Gripping mass *3 (kg)	0.4	0.8
Weight (g)	222	662

*1. Gripping force tolerance ± 20%.

*2. When under same procedure, the position repeatability of workpiece.

*3. The gripping mass may change depending on the gripper attachments or friction coefficient.

Motor type	Step motor	Transmission	Lead screw
Environment	Standard	Guide type	Linear guideway

Order example

MEHC2 — 16 — N F — CQ1 03 N 01 — XA00

Model **Size** **Special order no.**

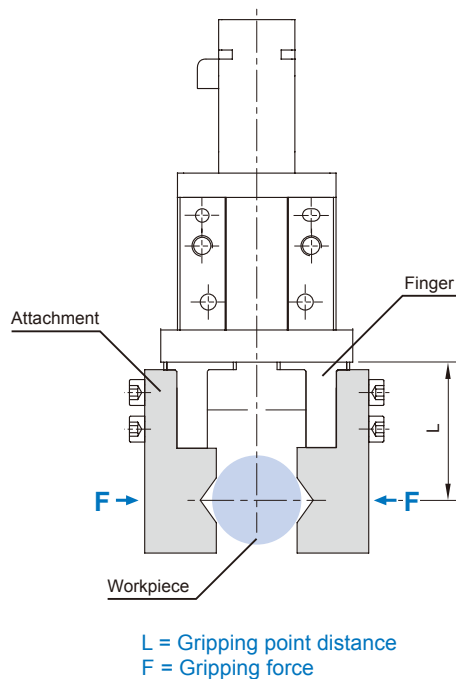
Spec. and type		Motor cable entry	Controller	I/O type	I/O cable length	
Blank: Standard	N: Narrow	Blank: Parallel	CQ1 MECQ1	N NPN	01 1.5 m	
			* Please refer to page 4-106.		03 3 m	
1: Standard type with side tapped	N1: Narrow type with side tapped	F: Perpendicular				* Standard: 1.5 m
2: Standard (Through hole)	N2: Narrow (Through hole)					
3: Flat						

Actuator cable length

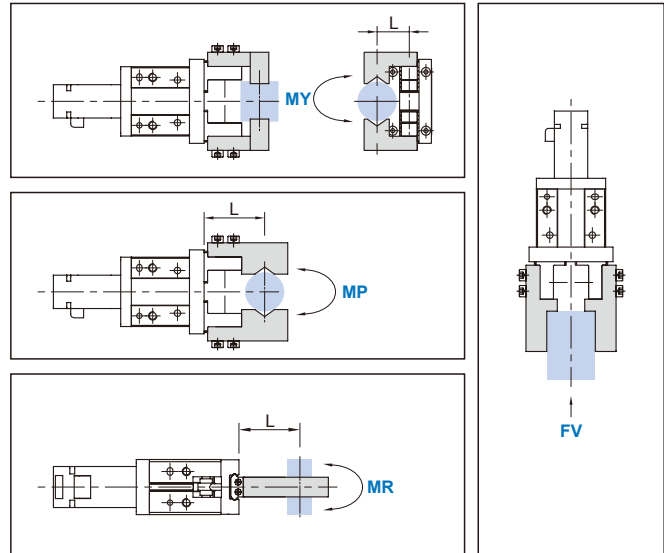
01	1.5 m
03	3 m
05	5 m

* Standard: 3 m

Evaluation of gripping force

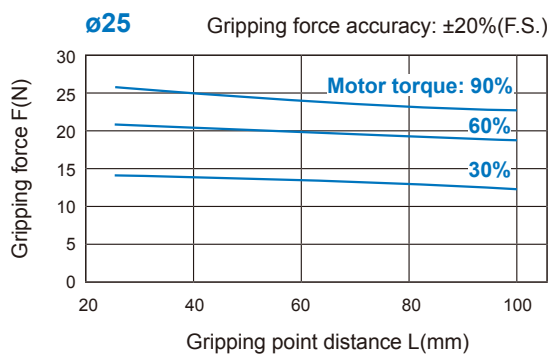
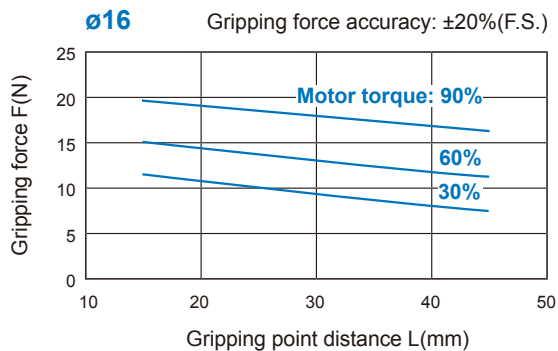


Allowable moment and force (N.m / N)



Model	MY	MP	MR	FV
	Max. moment (N.m)			Max. force (N)
MEHC2-16	0.68	0.68	1.36	98
MEHC2-25	1.94	1.94	3.88	255

Diagram



Calculation of allowable external force

$$\text{Allowable load } F(N) = \frac{M(\text{maximum allowable moment})(N \cdot m)}{L(m)}$$

*MY: Allowable yaw moment
*MP: Allowable pitch moment
*MR: Allowable roll moment

*FV: Vertical maximum force
*L: Distance to the loading location (mm).

Example

When a static load of 20N is operating, which applies roll Moment to point L=25mm from the MEHC2-16 guide.

$$\text{Allowable load } F(N) = \frac{MR}{L(m)} = \frac{1.36}{0.025} = 54.4 \text{ N}$$

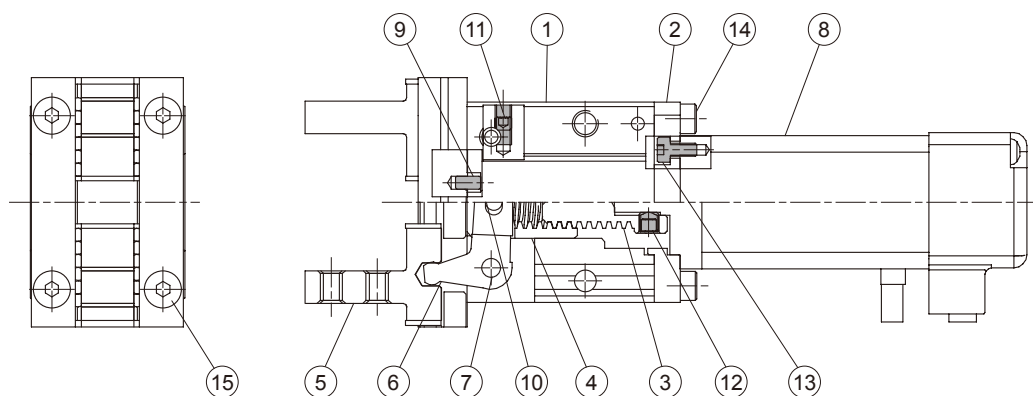
Since actual load 20N is less than allowable load 54.4 N, the gripper can be used.

MEHC2 Inside structure & Parts list

ELECTRIC GRIPPER (WITH MOTOR)



Mindman



Material

No.	Part name	Material	Q'y
1	Body	Aluminum alloy	1
2	Motor fixed plate	Aluminum alloy	1
3	Screw	Stainless steel	1
4	Nut	Bronze	1
5	Gripping set	Stainless steel (*)	1
6	Rod	Stainless steel	2
7	Pin	Carbon steel	2
8	Step motor	—	1
9	Locating pin	Bearing steel	3
10	Pin	Steel	1
11	Screw	Stainless steel	4
12	Screw	Carbon steel	1
13	Bolt	Stainless steel	4
14	Bolt	Stainless steel	4
15	Bolt	Stainless steel	4

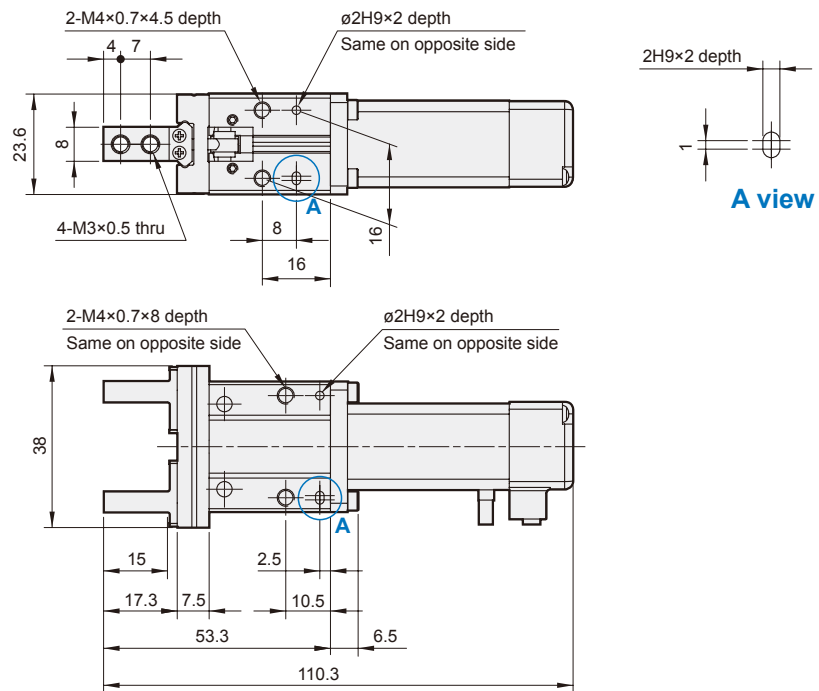
* Bearing steel balls as standard.

MEHC2 Dimensions $\phi 16$

ELECTRIC GRIPPER (WITH MOTOR)



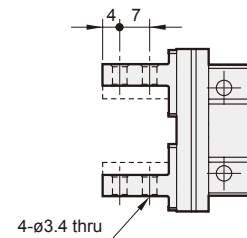
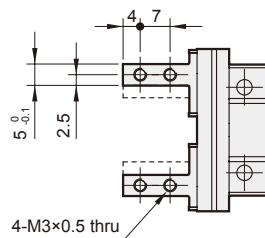
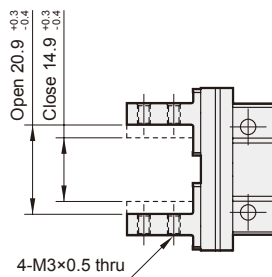
Mindman



Standard

1: Side tapped mounting

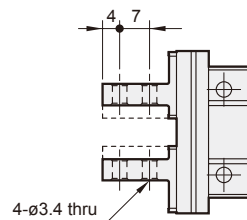
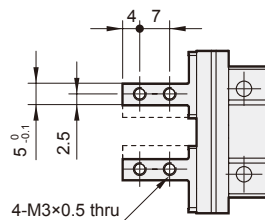
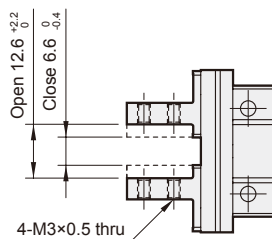
2: Standard (Through hole)



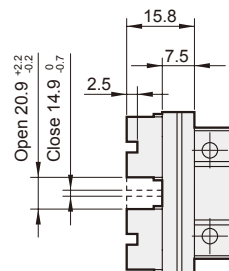
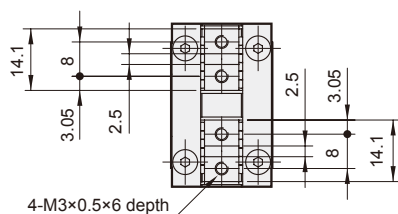
N: Narrow type

N1: Narrow type with side tapping

N2: Narrow type (Through hole)

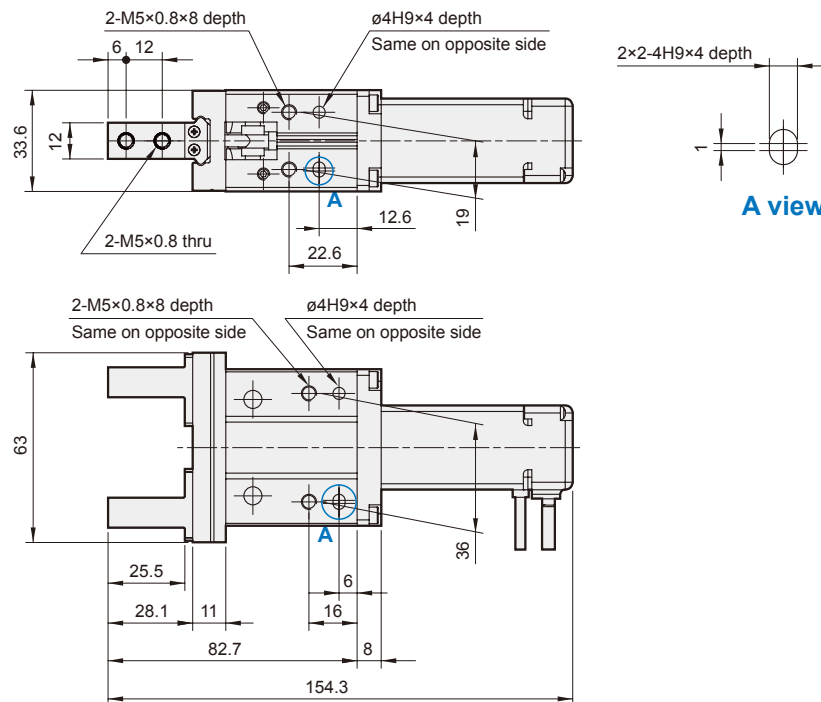


3: Flat type



MEHC2 Dimensions $\phi 25$

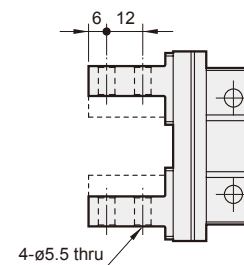
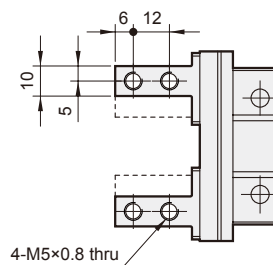
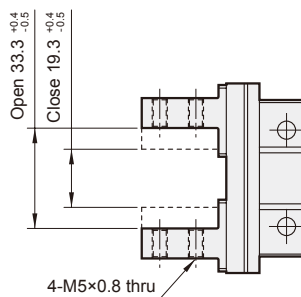
ELECTRIC GRIPPER (WITH MOTOR)



Standard

1: Side tapped mounting

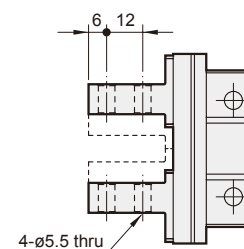
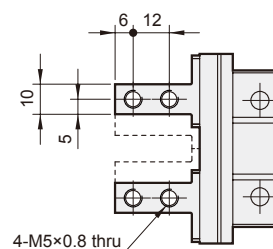
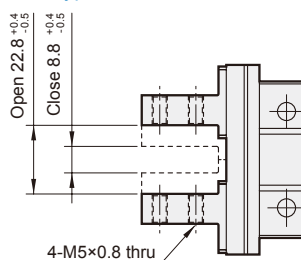
2: Standard (Through hole)



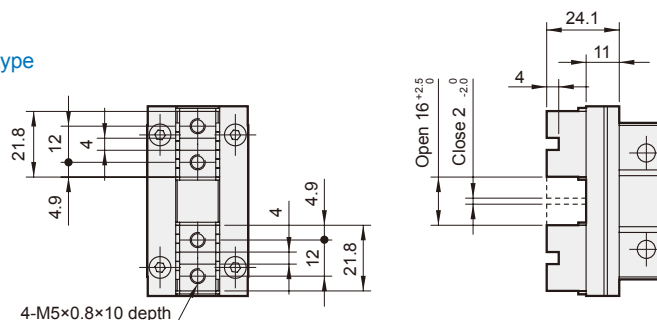
N: Narrow type

N1: Narrow type with side tapping

N2: Narrow type (Through hole)



3: Flat type



MECQ1 / MECP series

ELECTRIC CYLINDER DRIVER / CONTROLLER



Controller / Drive model	Type	Specification	Exterior	Features
MECQ1	Communication (485 & I/O)	24VDC±10% max. 500mA (Except motor current)		● Provide I/O control ● Provide 485 communication control ● Various control mode ● With status indicator ● With closed-loop monitoring functions
MECP	Pulse input			● Provide single/double pulse control ● Can amplify the current to improve motor performance ● With status indicator ● With closed-loop monitoring functions

Accessories

Order example	Description
MECQ1-P	Controller power adapter *1
MECQ1-M015	Actuator cable - 1.5M *1
MECQ1-M03	Actuator cable - 3M *1
MECQ1-M05	Actuator cable - 5M *1
MECQ1-S015	I/O signal cable - 1.5M (26Pin)
MECQ1-S03	I/O signal cable - 3M (26Pin)
MECQ1-C035	Transmission cable - 3.5M
MECP-C	Parameter setting adapter (Pulse input)
MECP-S015	I/O signal cable - 1.5M (20Pin)
MECP-S03	I/O signal cable - 3M (20Pin)

*1. Shared with MECP series.

Wire material

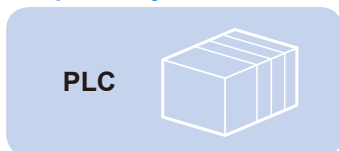
Wire		Material
I/O Signal cable		Isolation
Cable	Encoder cable	Isolation + Flexible
	Motor cable	Flexible

MECQ1 / MECP System structure

ELECTRIC CYLINDER DRIVER / CONTROLLER



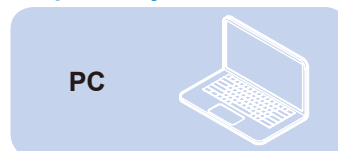
Prepared by customer



I/O single cable

Controller / Driver	Model
MECQ1	MECQ1-S □
MECP	MECP-S □

Prepared by customer



Communication connection & Software setting items

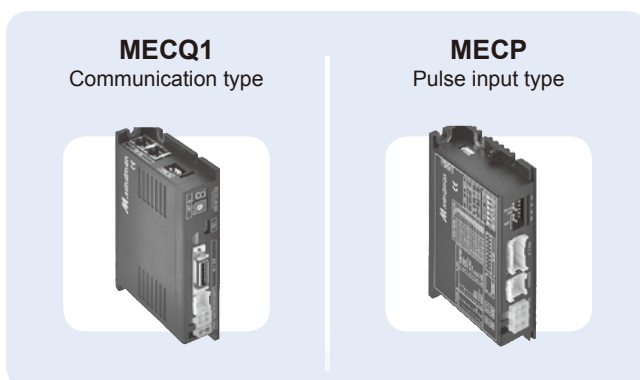
Controller / Driver	Model	Setting items
MECQ1	MECQ1-C035 (*1)	● Parameter setting ● Action program editing ● Action test ● Numerical monitoring
MECP	MECP-C (*2)	● Parameter setting

*1. Customers could prepare RJ45 to RS-485 by themselves.

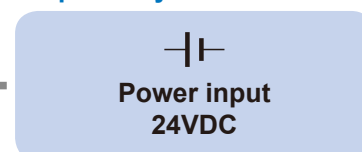
*2. Connectors only.

*3. Please download the software from the Mindman website.

Controller / Driver



Prepared by customer



Connect power supply

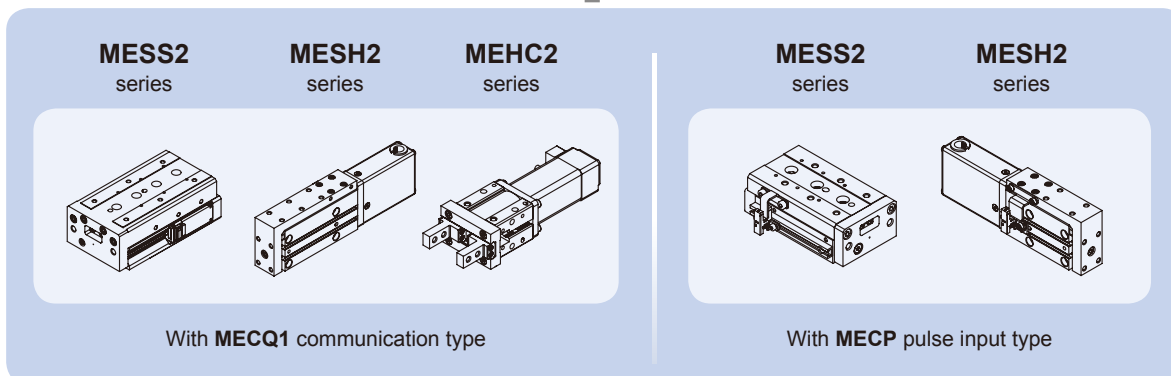
Controller / Driver	Model
MECQ1	MECQ1-P
MECP	

* Connectors only.

Motor cable

Controller / Driver	Model
MECQ1	MECQ1-M □
MECP	

Electric Actuator



Set the origin position directly by software

Need to install an external sensor to set the origin position
(Sensor set to be purchased separately)