

MESH2 series

MINIATURE ELECTRIC CYLINDER (WITH MOTOR)



Specification

Model		MESH2		
Size		16	20	
Position repeatability	(mm)	±0.02		
Lead	(mm)	2	2	8
Maximum speed *1	(mm/s)	≤50	≤100	≤400
Work load *2	Horizontal (kg)	3	6	1.5
	Vertical (kg)	0.8	1.8	0.8
Pushing force *1,3,4	(N)	24 ~ 68	64 ~ 195	18 ~ 48
Stroke	(mm)	30 / 50		
Motor size	(mm)	□20	□28	
Encoder		Incremental A/B/Z (4000PPR)		
Rated voltage		DC 24V±10%		
Sensor switch		RLT (Please refer to page 5-16)		

Motor type Step motor

Transmission Ball screw

Environment Standard

Guide type Linear guideway

*1. The speed and force may change depending on the cable length, load, stroke and mounting conditions.

*2. The maximum load capacity decreases as the speed increases.

*3. The accuracy of pushing force is ± 20%.

*4. Pushing force for MESH2 is from 30% to 90%.

Order example

MESH2 - 16 L02 - 30 - CQ1 03 N 01 - XA00

Model

Special order no.

Size	Ball screw lead	Stroke	Controller	I/O type	I/O cable length
16	L02 2 mm	30 30 mm	CQ1 MECQ1	N NPN	01 1.5 m
20	L02 2 mm	50 50 mm	CP MECP		03 3 m
	L08 8 mm				

* Please refer to page 4-106

* Standard: 1.5 m

Actuator cable length	
01	1.5 m
03	3 m
05	5 m

* Standard: 3 m

Slot-type photomicro sensor set

RLT - MESH2 - 16 - 1

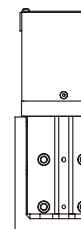
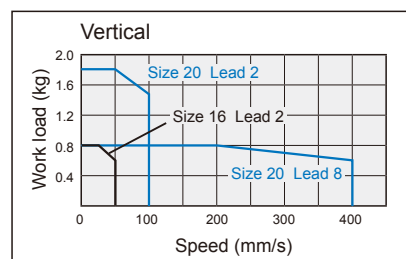
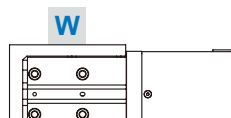
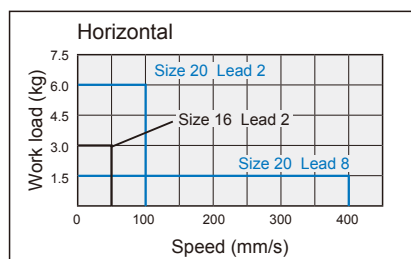
Model

Size

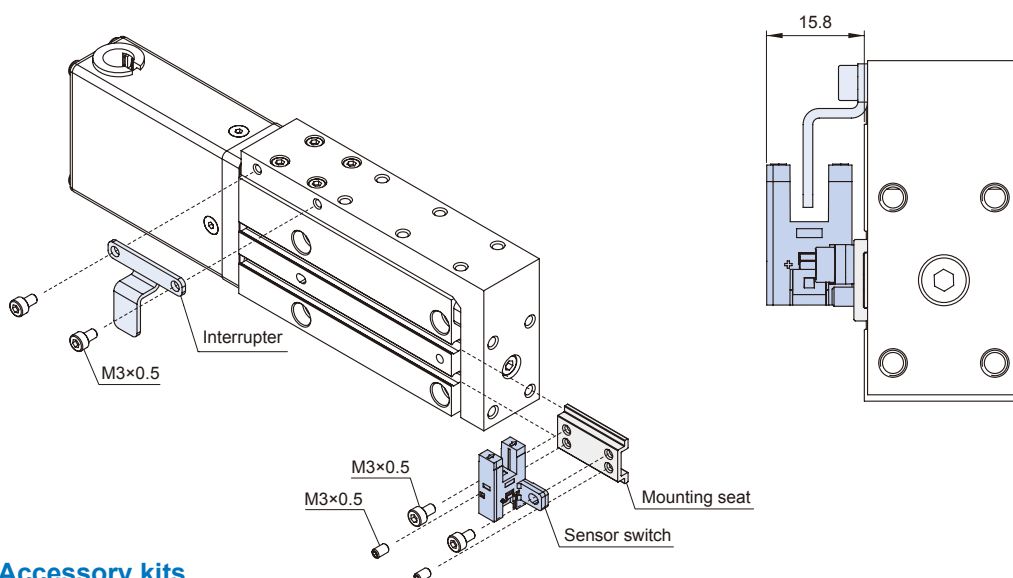
Sensor quantity

16	1 1 pc
20	2 2 pcs

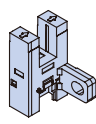
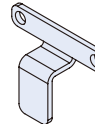
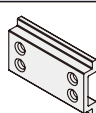
Speed-load curve diagram



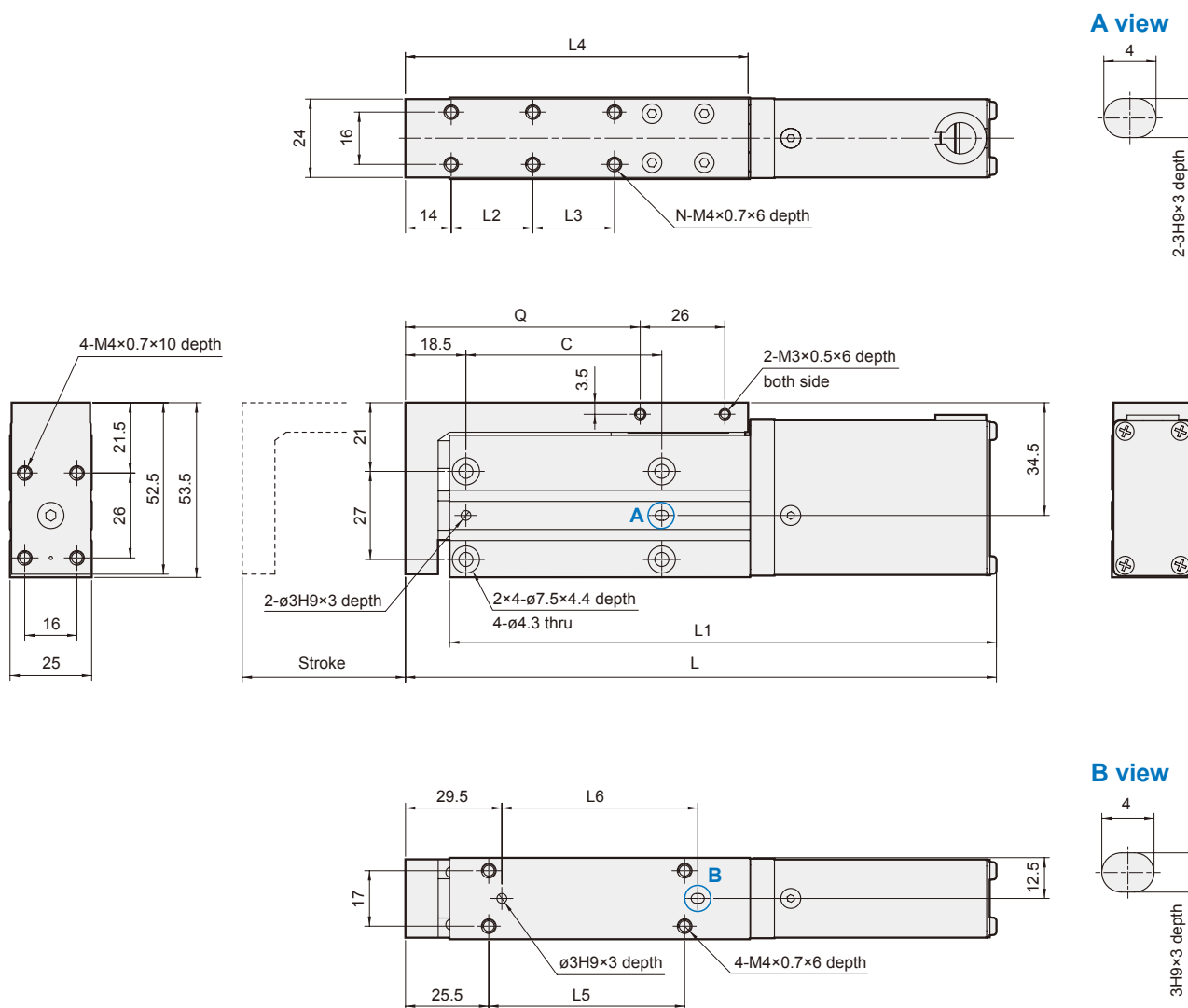
Slot-type photomicro sensor set



Accessory kits

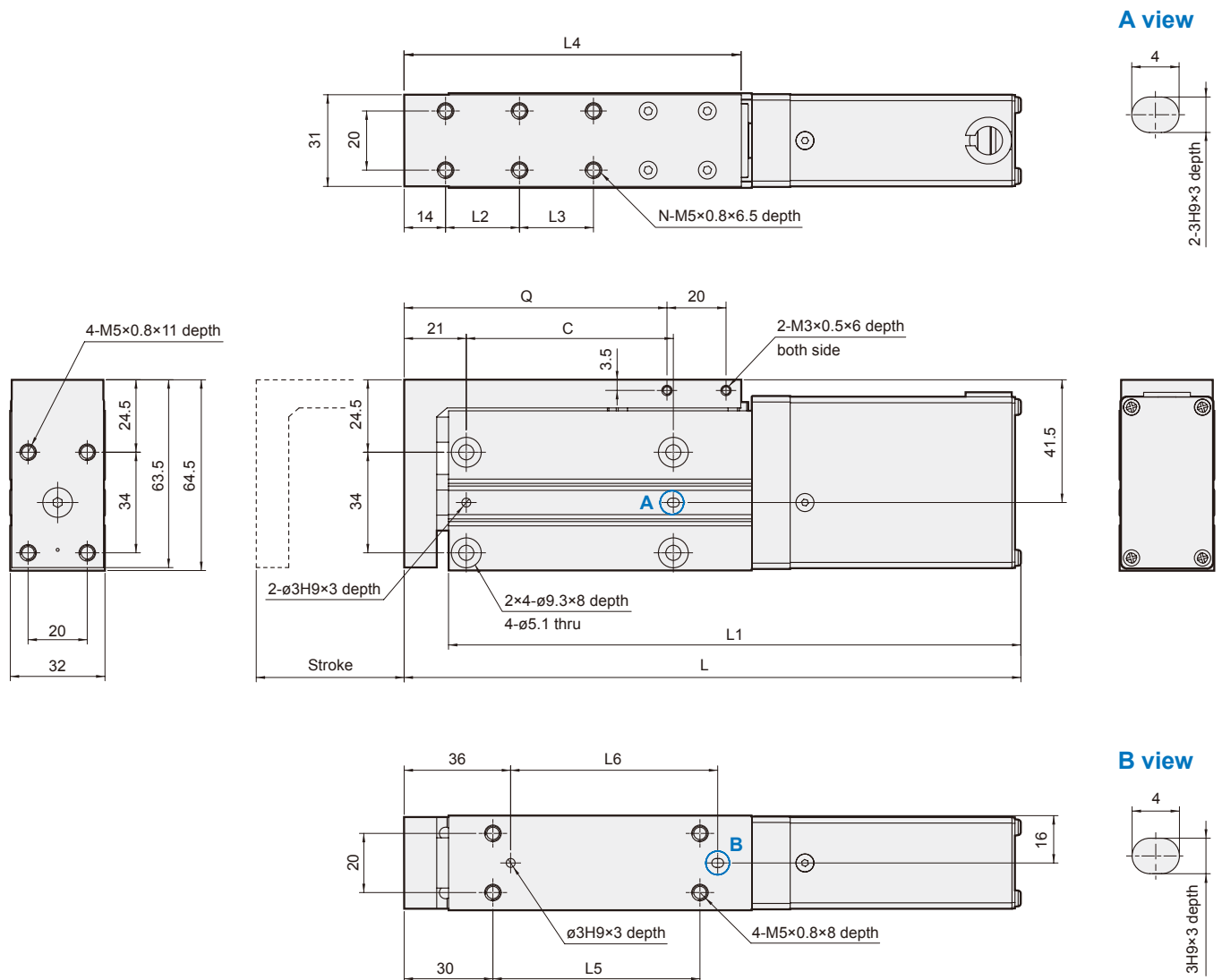
	
Sensor switch (×1)	Interrupter (×1)
	
Mounting seat (×1)	Bolt (×4)
	
	Bolt (×2)

* With cable 2m.



Unit: mm

Stroke	C	L	L1	L2	L3	L4	L5	L6	N	Q	Weight (g)
30	40	161	147.5	30	—	85	40	40	4	52	500
50	60	181	167.5	25	25	105	60	60	6	72	562



Unit: mm

Stroke	C	L	L1	L2	L3	L4	L5	L6	N	Q	Weight (g)
30	40	188.5	173.5	30	—	97	40	40	4	69	950
50	70	208.5	193.5	25	25	114	70	70	6	89	1049

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

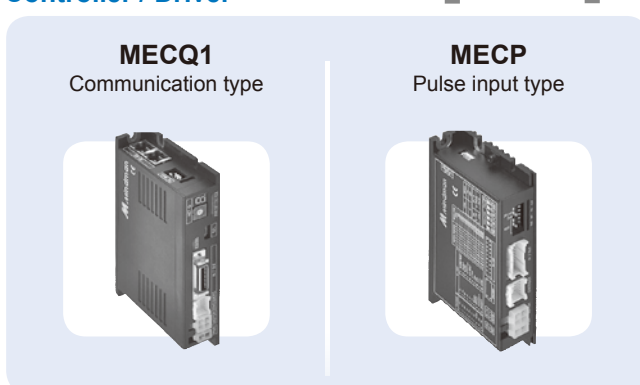
Controller / Driver	Model	Setting items
MECQ1	MECQ1-C035 (*1)	● Parameter setting ● Action program editing ● Action test ● Numerical monitoring
MECP	MECP-C (*2)	● Parameter setting

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

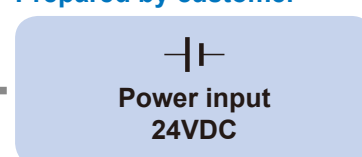
*2. Connectors only.

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

Controller / Driver



Prepared by customer



Connect power supply

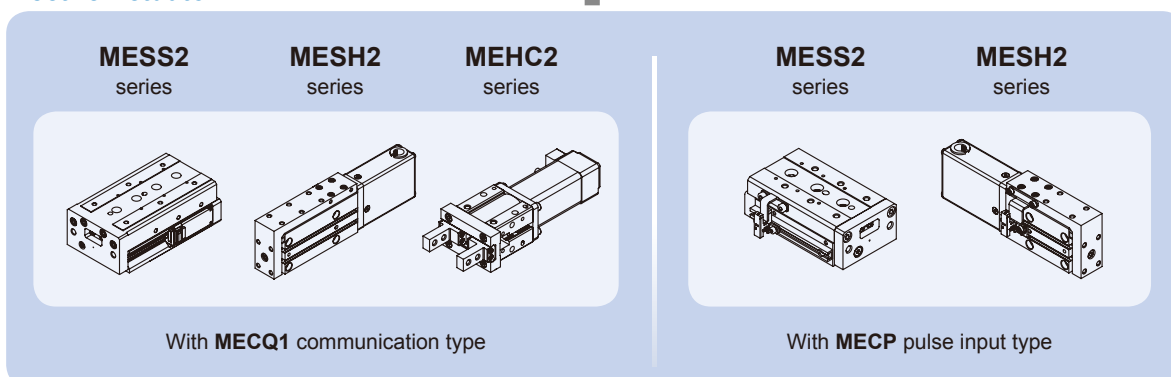
Controller / Driver	Model
MECQ1	MECQ1-P
MECP	

* 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)