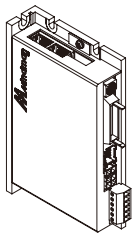
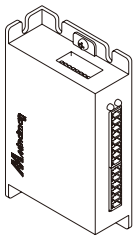
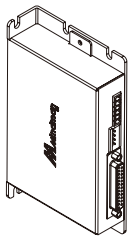
CK10 / CM10 / CM20 series

ELECTRIC CYLINDER CONTROLLER

Controller model	Type	Specification	Exterior	Features
CK10 Torque type	● RS-485 serial communication ● I/O ● Pulse input	24VDC±10% max. 500mA (Except motor current)		● Support RS-485 communication (Modbus RTU) ● Support single / double pulse control ● Support Position Table motion control function ● Offer Dynamic-link library for PC Base(.dll for C++, C#) ● Support torque control with interrupt / continue function ● Support torque method return to origin
CM10 Pulse type	● Pulse input	24VDC±10%		● Support single / double pulse control ● Open loop ● Sensors would be needed for origin return
CM20 Position type	● RS-485 serial communication ● I/O ● Pulse input	24VDC±10% max. 500mA (Except motor current)		● Support RS-485 communication (Modbus RTU) ● Support single / double pulse control ● Programmable motion control function ● Sensors would be needed for origin return

Accessories

Order example		Description
CK10	**-ME015**	Power + Encoder cable of motor - 1.5 m
	-ME03	Power + Encoder cable of motor - 3 m
	-ME05	Power + Encoder cable of motor - 5 m
	-S015	I/O signal cable - 1.5 m (32 Pin)
	-S03	I/O signal cable - 3 m (32 Pin)
	-C035 *1	Transmission cable - 3.5 m
CM10	**-△△-M01** *2,3,4	Power cable - 1 m
	-△△-M03 *2,3,4	Power cable - 3 m
	-△△-M05 *2,3,4	Power cable - 5 m
CM20	**-□□-ME01** *2,3,4	Power + Encoder cable of motor - 1 m
	-□□-ME03 *2,3,4	Power + Encoder cable of motor - 3 m
	-□□-ME05 *2,3,4	Power + Encoder cable of motor - 5 m
	-S015	I/O signal cable - 1.5 m (20 Pin)
	-S03	I/O signal cable - 3 m (20 Pin)

*1. The transmission cables of CK10 and CM20 are the same.
*2. Power pin is included in cable. No need to buy power adapter.
*3. △△ is represented the size of the motor – 20,25.
□□ is represented the size of the motor – 20,25,35,42,56.
*4. The 25/28 motor power and encoder cable are shared.

Wire material

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

Power consumption

Motor size		□20	□25	□28	□35	□42	□56
Power consumption (W)	CK10 + SM motor	26	–	28	36	52	79
	CM20 + BM motor	26	36	36	48	60	84
	CM10 + OBM motor	31	41	41	–	–	–

* The actual power consumption will depend on detailed current setting and moving loads.

CK10 / CM10 / CM20 System structure

ELECTRIC CYLINDER CONTROLLER

Prepared by customer

PLC

Prepared by customer

PC

I/O single cable

Controller	Model
CK10	**CK10-S□**
CM10 *1,2	**CM10-S**
CM20	**CM20-S□**

*1. Customers are kindly requested to prepare the cable for connecting to the PLC.
*2. The controller includes terminal.

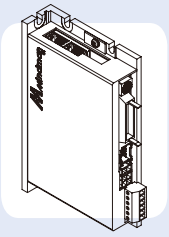
Communication connection & Software setting items

Controller	Model	Setting items
CK10 CM20	CK10-C035	● Parameter setting ● Action program editing ● Action test ● Numerical monitoring

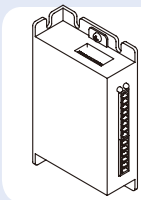
*1. Customers are kindly requested to prepare the RJ45 to RS-485 converter.
*2. Please download the software from the Mindman website.

Controller

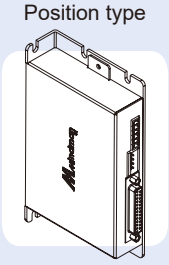
CK10
Torque type



CM10
Pulse type *



CM20
Position type



* Only support external pulse control.

Prepared by customer

Power input 24VDC

Power terminal

Controller	Model
CK10	**CK10-P**
CM10*	**CM10-M**

* The controller and motor power supplies are on the same terminal block.

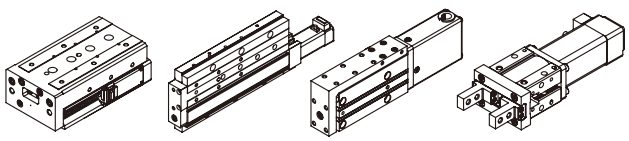
Motor cable

Controller	Model
CK10	**CK10-M□**
CM10	**CM10-△△-M□**
CM20	**CM20-□□-M□**

* The cable terminal has reserved slots for the controller power supply.

Electric actuator

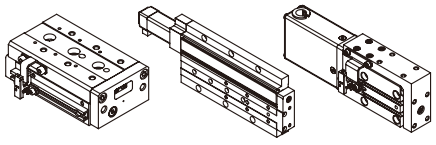
CK10 Torque Type



MESS2 series | **MESF2** series | **MESH2** series | **MEHC2** series

Use torque to set the origin position directly by software.

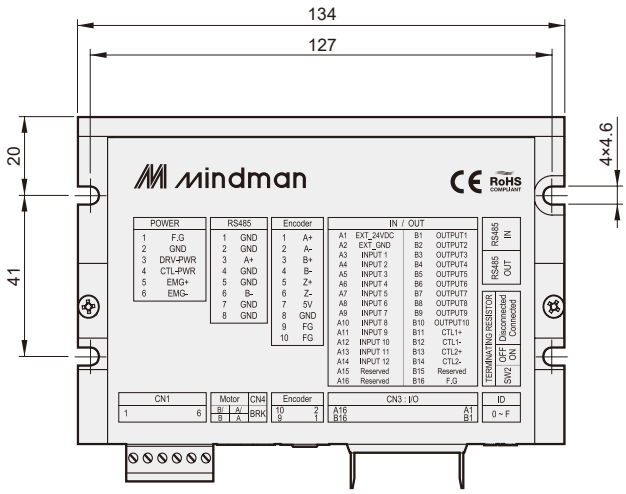
CM10 Pulse Type / **CM20** Position Type

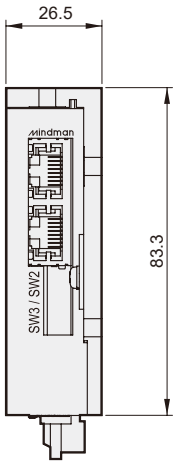


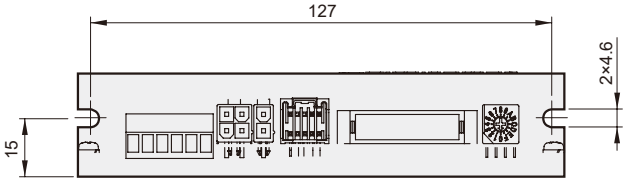
MESS2 series | **MESF2** series | **MESH2** series

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

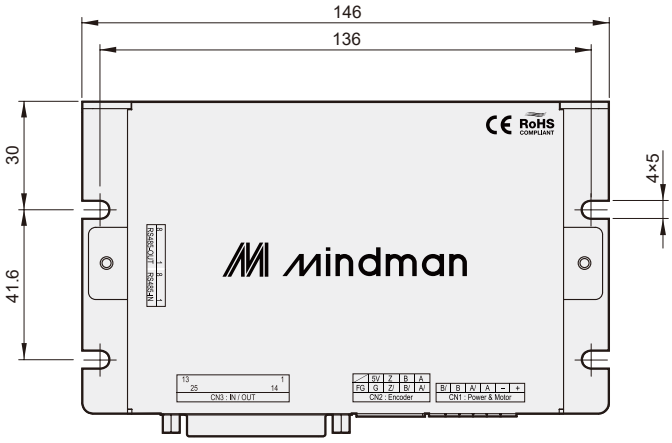
CK10

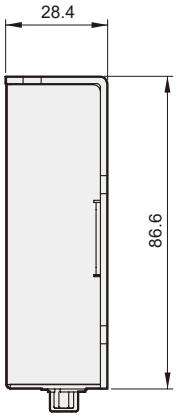

134
127
20
41
4×4.6
mindman
RoHS
POWER
RS485
Encoder
IN / OUT
RS485 IN
RS485 OUT
CN1
Motor
CN4
BRK
CN3 : I/O
ID
0 ~ F

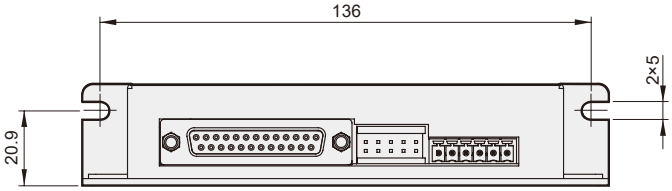

26.5
83.3
SW3 / SW2
mindman


127
15
2×4.6

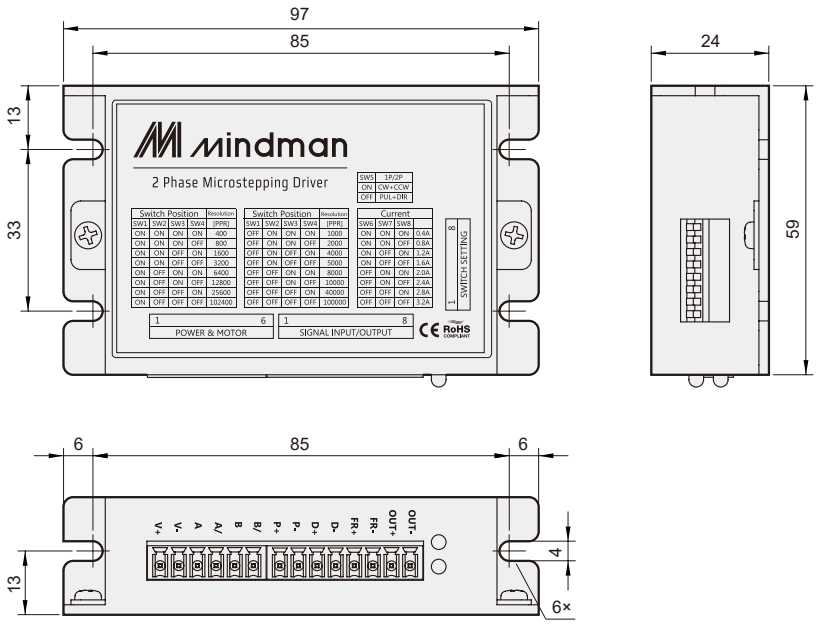
CM20


146
136
30
41.6
4×5
RoHS
mindman
CN3 : IN / OUT
CN2 : Encoder
CN1 : Power & Motor


28.4
86.6


136
20.9
2×5

CM10


97
85
24
13
33
59
mindman
2 Phase Microstepping Driver
SW5 1P/2P
ON CW+CW
OFF PUL+DIR
Switch Position
Resolution
Current
SWITCH SETTING
POWER & MOTOR
SIGNAL INPUT/OUTPUT
RoHS
6
85
6
13
4
6×
V+
V-
A
A/
B
B/
P+
P-
D+
D-
FR+
FR-
OUT+
OUT-