MEAT series

SLIDER ELECTRIC CYLINDER - BELT DRIVEN (WITH MOTOR)

Mindman

Features

- Reducing the length from installation side to surface of slide to save space.
- Using servo stepper motor to enhance accuracy by driving timing belt with minimum pitch.
- Using four linear ball bearings to sustain the load of slide and maintain stable and smooth motion.
- Integrate the controller into stepper motor and it has memory function for programming.
- Three-phase stepper motor: incremental type 10000P/R, including 3 input、2out.
- All in one: program control mode, pulse control mode and terminal control mode.

Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke
25	100,200,300,400,500,600,700	750

※ Minimum stroke unit 1mm.
※ Please consult us if stroke out of specification.

Specification

Model	MEAT
Tube I.D. (mm)	25
Bearing	Linear ball bearings
Velocity	48~1000 mm/s
Horizontal load	5 kg
Repeatability	± 0.1 mm
Ambient temperature	+5℃~ +40℃

※ Please reserve 5cm space around the installation slide for maintenance purpose.
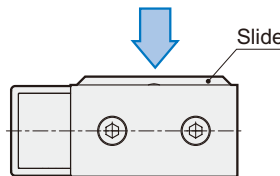
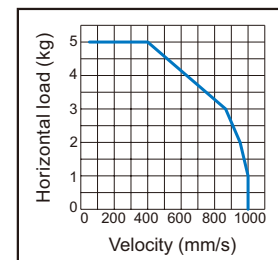## Order example

MEAT — 25 — 200 — 1

- MODEL
- TUBE I.D.
- STROKE
- Blank: Standard
  1: With I/O card
  (Should be ordered alone
  EAT-1: Expansion I/O card)

Loading direction

Slide

Velocity-Horizontal load

Dimensions

- φ 10.5 × 6.5 depth
- 2 × 3- φ 6.5 thru
- 2- φ 16
- 4-M5 × 0.8 × 8 depth
- 4 $^{+0.03}_{0}$ H9 4mm depth
- φ 4 $^{+0.03}_{0}$ H9 4mm depth

192+stroke
115+stroke
12.5

MEAT Motor specification & Dimensions

SLIDER ELECTRIC CYLINDER - BELT DRIVEN (WITH MOTOR)
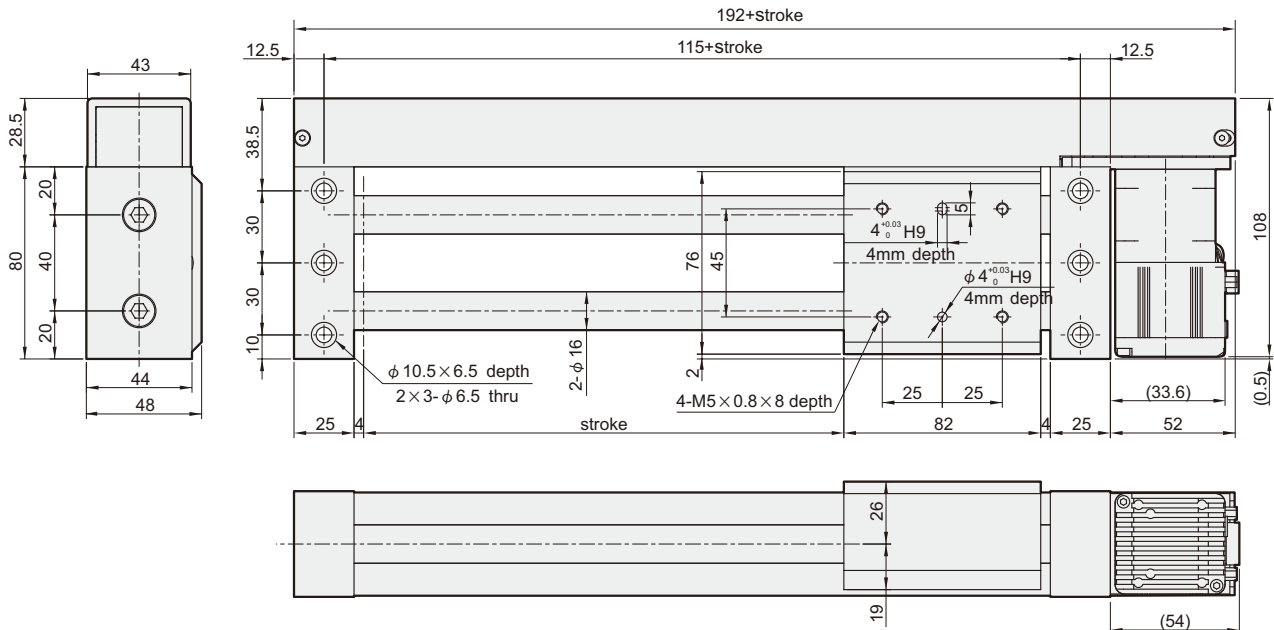
Specification

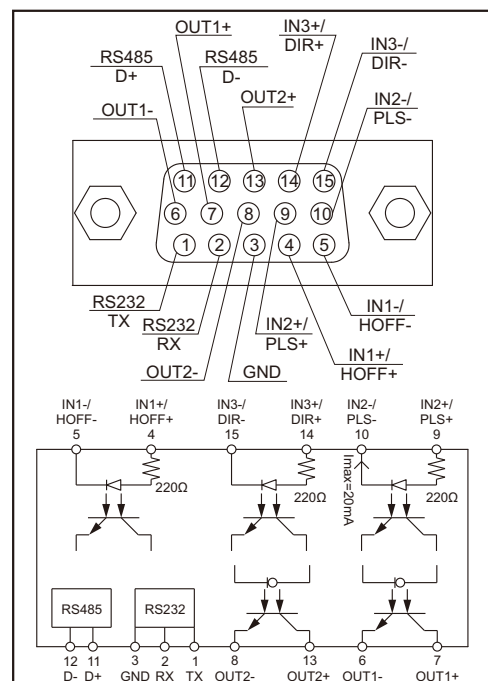| Motor Size	Servo type three-phase stepper motor
Power	DC 24V
Rated current / Max. instant current	4A / 6A
Rated torque	0.25 N.m
Cooling type	Natural cooling
Resolution encoder	Incremental type 10000 resolution/per cycle
Control mode	Position、terminal control、Modbus communication control
Position control — Max input pulse frequency	Differential Signaling: Below 500K PPS; Open Collector Signaling: 200K PPS
Position control — Pulsed mode	CW/CCW、Pulse/DIR
Position control — Smoothing filter	Cushion, Trapezoidal velocity profile acceleration /deceleration
Position control — Electronic gear ratio	Electronic gear ratio (A/B) > 1/9999, A/B < 9999
Position control — Registration complete check	0 ~ 999 Pulse
Terminal control — Internal operation instruction	Executing movement command from Windows Terminal
Terminal control — Scripts edit control	Program input point, programmable set external INPUT ON/OFF signal for positioning.
Interface	RS232(for Windows Terminal) / RS485 / Modbus
JOG function	Run manually(The speed is according to the parameter of configuration)
Brake function	Output the control signal of Z-Axis brake, according to the servo ON/OFF status.
Abnormal function	Servo control stop, positive / negative turn actuation restricted
Protective device	Over current, over voltage, over temperature, encoder abnormal, low voltage, input pulse over limit, follow abnormal detection.
Input signal	Servo control ON/OFF, zero point signal, pulse control signal.
Output Signal	Servo control ready (Z axis brake control signal), location complete, actuation abnormal output (parameter setting).

※ Recommend installation environment: Places without moisture, oily dusty, corrosive and flammable liquid. Without floating dusty and metallic particle. Firm and static places without electrical interference, megathermal equipment.
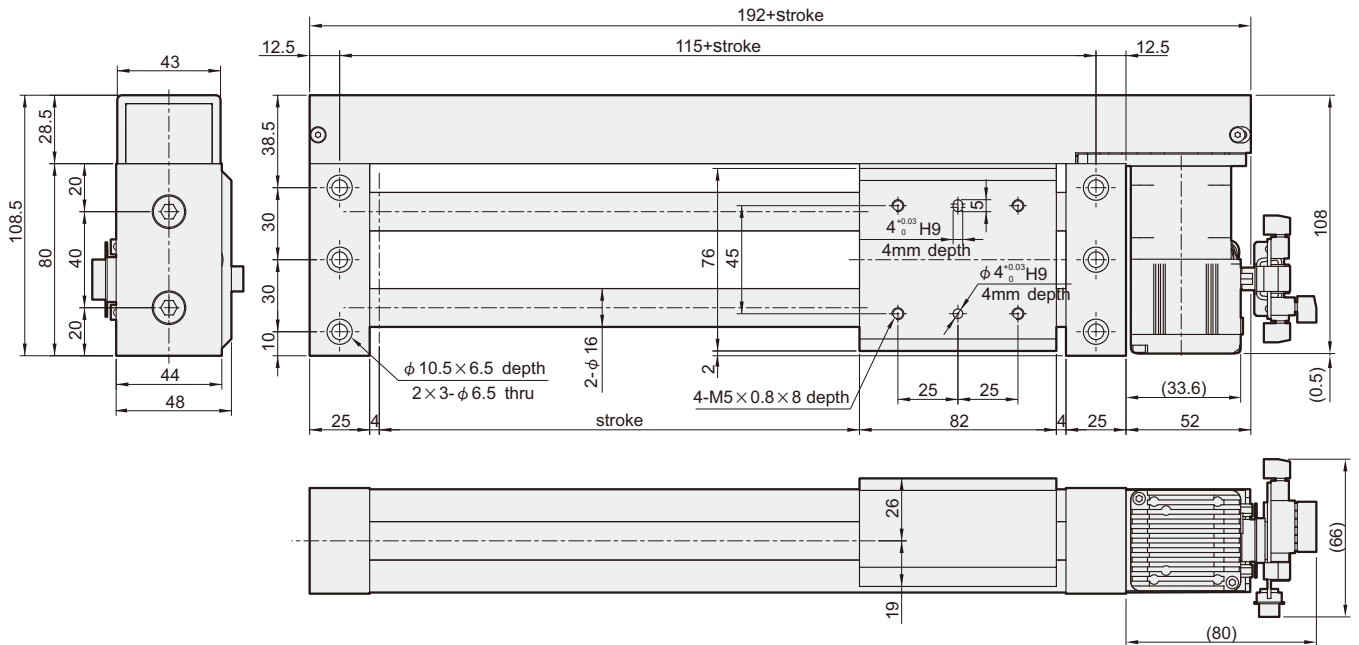
Dimensions
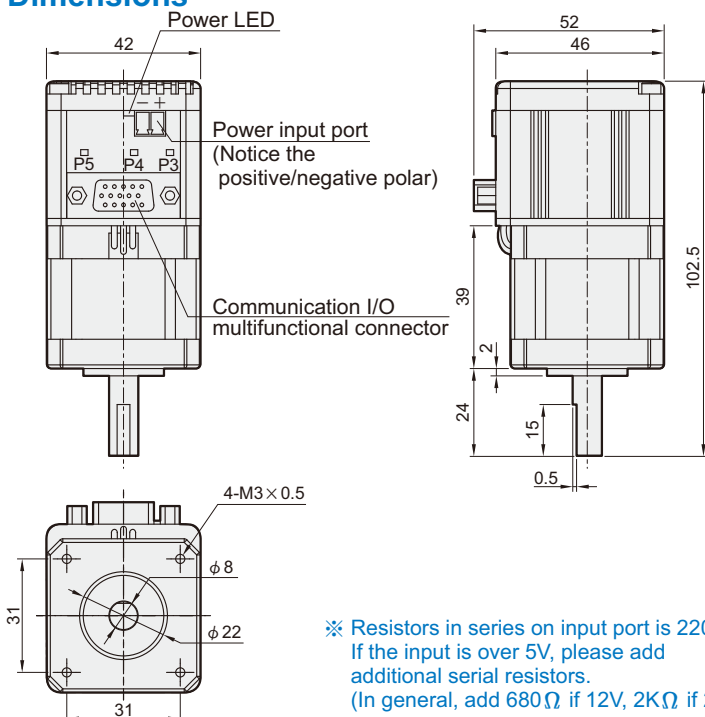
※ Resistors in series on input port is 220Ω.
If the input is over 5V, please add additional serial resistors.
(In general, add 680Ω if 12V, 2KΩ if 24V)

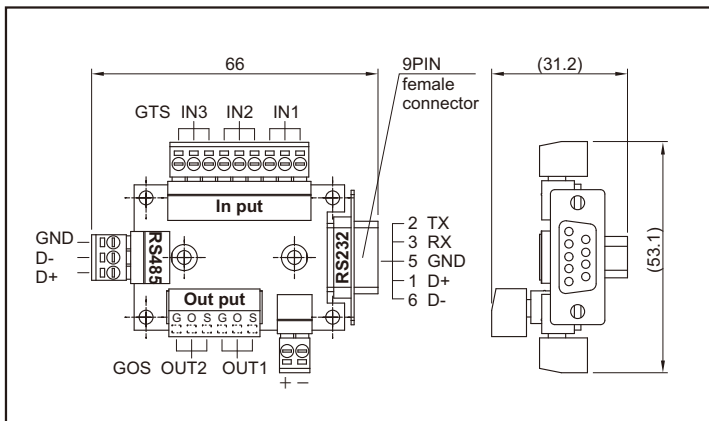## Definition of three-row 15pin DE-15 connector

Dimensions(Including expansion I/O card)

192+stroke

115+stroke

12.5   12.5

43

28.5
108.5
80
40
20
20

44
48

38.5
30
30
10

25   4   stroke

φ 10.5 × 6.5 depth
2 × 3- φ 6.5 thru

2- φ 16

4-M5 × 0.8 × 8 depth

76
45

4 $4^{+0.03}_{0}$ H9
4mm depth

φ 4 $^{+0.03}_{0}$ H9
4mm depth

25   25

82   4   25   52

108

(33.6)

(0.5)

26
19

(66)

(80)

Expansion I/O card

66   9PIN female connector   (31.2)

GTS IN3 IN2 IN1

In put

GND
D-
D+

RS485

RS232

2   TX
3   RX
5   GND
1   D+
6   D-

Out put
G O S G O S

GOS   OUT2   OUT1   + −

(53.1)

※ When in control mode, all inputs/outputs are not defined and should be defined by program. (I/O card is optional)

Outputs/inputs circuit diagram

Out put

+24V

S

Imax=500mA

O

G

In put

+24V

220Ω

2kΩ

S

T

G

Order example

EAT − 1

Expansion I/O card