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.

Specification

Model	MEAT
Size	25
Bearing	Linear ball bearings
Velocity (mm/s)	48~1000
Horizontal load (kg)	5
Repeatability (mm)	± 0.1
Ambient temperature (°C)	+5 ~ +40

* Please reserve 5cm space around the installation slide for maintenance purpose.

Table for standard stroke

Size	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.
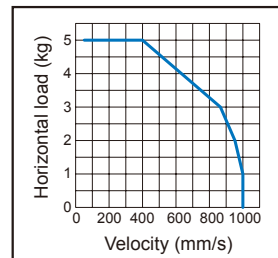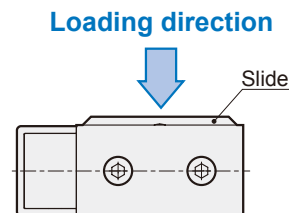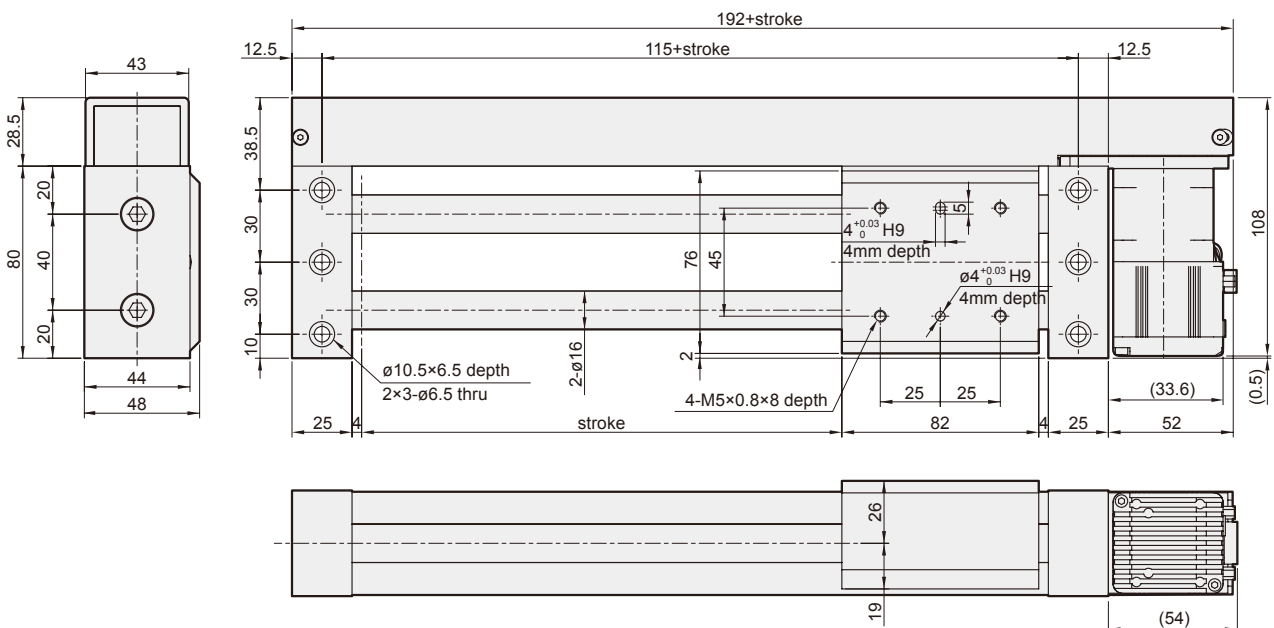
Order example

MEAT — 25 — 200 — 1

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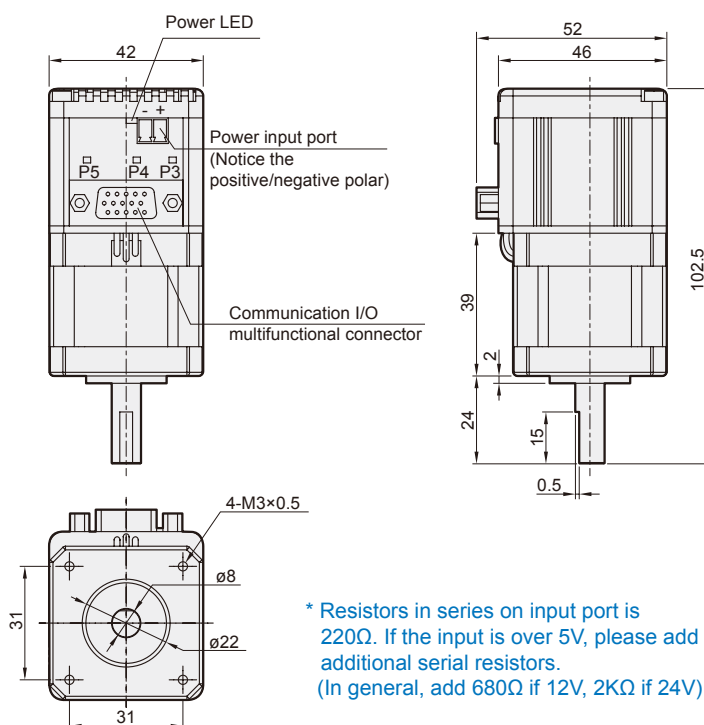 EAT-1: Expansion I/O card)

Velocity-Horizontal load

Loading direction

Slide

Dimensions

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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
	Pulsed mode	CW/CCW, Pulse/DIR
	Smoothing filter	Cushion, Trapezoidal velocity profile acceleration /deceleration
	Electronic gear ratio	Electronic gear ratio (A/B) > 1/9999, A/B < 9999
	Registration complete check	0 ~ 999 Pulse
Terminal control	Internal operation instruction	Executing movement command from Windows Terminal
	Scripts edit control	Program input point, programmable set external INPUT ON/OFF signal for positioning.

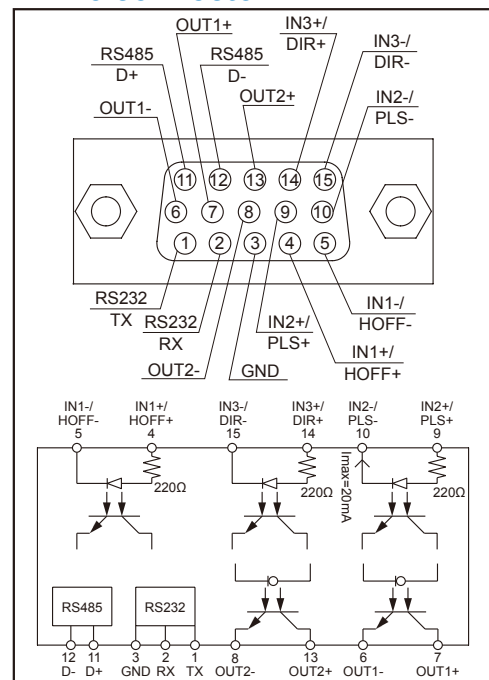|	
Interface	RS232(for Windows Terminal) / RS485 / Modbus
JOG function	Run manually(The speed is according to the parameter of configuration)
Brake function	Output the control signal of Z-Axis brake, according to the servo ON/OFF status.
Abnormal function	Servo control stop, positive / negative turn 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

Power LED
42
Power input port (Notice the positive/negative polar)
P5 P4 P3
Communication I/O multifunctional connector

52
46
102.5
39
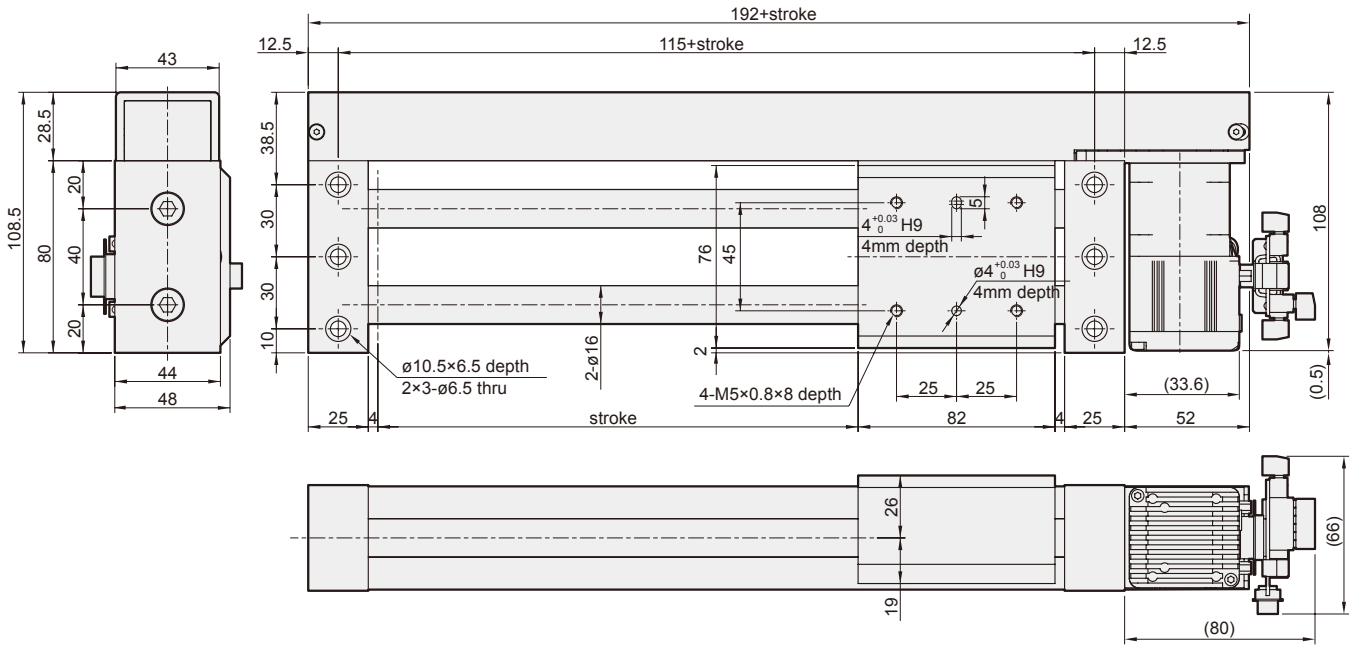2
24
15
0.5

4-M3×0.5
ø8
ø22
31
31

* 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

OUT1+
RS485 D+
RS485 D-
OUT1-
OUT2+
IN3+/ DIR+
IN3-/ DIR-
IN2-/ PLS-

11 12 13 14 15
6 7 8 9 10
1 2 3 4 5

RS232 TX
RS232 RX
OUT2-
IN2+/ PLS+
GND
IN2+/ PLS+
IN1-/ HOFF-
IN1+/ HOFF+

IN1-/ HOFF- 5
IN1+/ HOFF+ 4
IN3-/ DIR- 15
IN3+/ DIR+ 14
IN2-/ PLS- 10   Imax=20mA
IN2+/ PLS+ 9

220Ω 220Ω 220Ω

RS485   RS232

12 11   3 2 1   8   13   6   7
D- D+ GND RX TX OUT2- OUT2+ OUT1- OUT1+

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Dimensions (Including expansion I/O card)

192+stroke
115+stroke
12.5
12.5
43
28.5
20
108.5
80
40
20
44
48
38.5
30
30
10
25
4
ø10.5×6.5 depth
2×3-ø6.5 thru
2-ø16
stroke
76
45
2
4-M5×0.8×8 depth
$4^{+0.03}_{0}$ H9
4mm depth
5
ø$4^{+0.03}_{0}$ H9
4mm depth
25
25
82
4
25
52
(33.6)
108
(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
Out put
G O S G O S
GOS OUT2 OUT1
+ -
2 TX
3 RX
5 GND
1 D+
6 D-
(53.1)

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

Order example

EAT — 1

Expansion I/O card

Outputs/inputs circuit diagram

Out put
+24V
S
Imax=500mA
O
G

In put
+24V
S
220Ω
2kΩ
T
G