YMS55

APPLICATION

Compact single-axis robots
TRANSERVO

Single-axis robots
FLIP-X

Linear motor single-axis robots
PHASER

Cartesian robots
XY-X

SCARA robots
YK-XG

Pick & place robots
YP-X

CLEAN

CONTROLLER

INFORMATION

T type

F type

N type

YMS type

■ Ordering method

YMS55 –	Model	Lead designation	Brake	Stroke	Cable length Note 1	ERCX Controller	Usable for CE	Network option	Battery

Model

Lead designation
12: 12mm
6: 6mm

Brake
No entry: No brakes
BK: Brakes provided

Stroke
50 to 300 (50mm pitch)

Cable length Note 1
3L: 3.5m (Standard)
5L: 5m
10L: 10m
3K/5K/10K No e 1

ERCX Controller

Usable for CE
No entry: Standard
E: CE marking

Network option
No entry: None
CC: CC-Link
DN: DeviceNet
PB: Profibus
EN: Ethernet

Battery
No entry: None
B1: 700mAh (Standard)
B2: 200mAh

ERCD Controller

I/O connector specification
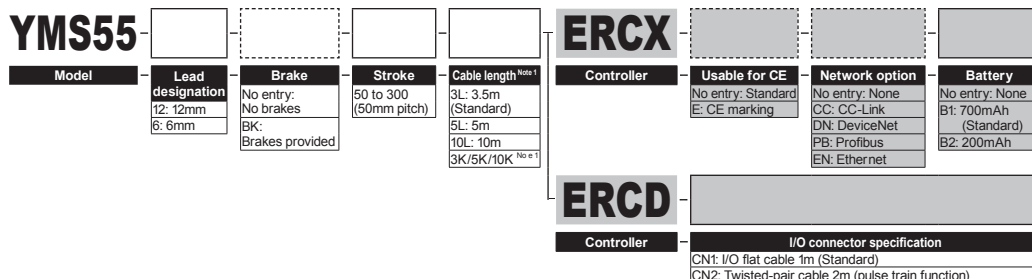CN1: I/O flat cable 1m (Standard)
CN2: Twisted-pair cable 2m (pulse train function)

Note 1. The robot cable is standard cable, but can be changed to bend-resistant cable. See P.424 for details on robot cable.

■ Specifications

AC servo motor output (W)	30	
Repeatability (mm)	+/-0.02	
Deceleration mechanism	Ball screw φ12 (Class C10)	
Ball screw lead (mm)	12	6
Maximum speed Note 1 (mm/sec)	600	300
Maximum payload (kg) Horizontal	5	9
Maximum payload (kg) Vertical	1.5	4
Rated thrust (N) Note 2	32	64
Stroke (mm)	50 to 300 (50mm pitch)	
Cable length (m)	Standard: 3.5 / Option: 5,10	
Linear guide type	–	
Position detector	Resolvers	
Resolution (Pulse/rotation)	16384	

Note. Be sure that radial loads are not applied to the rod.
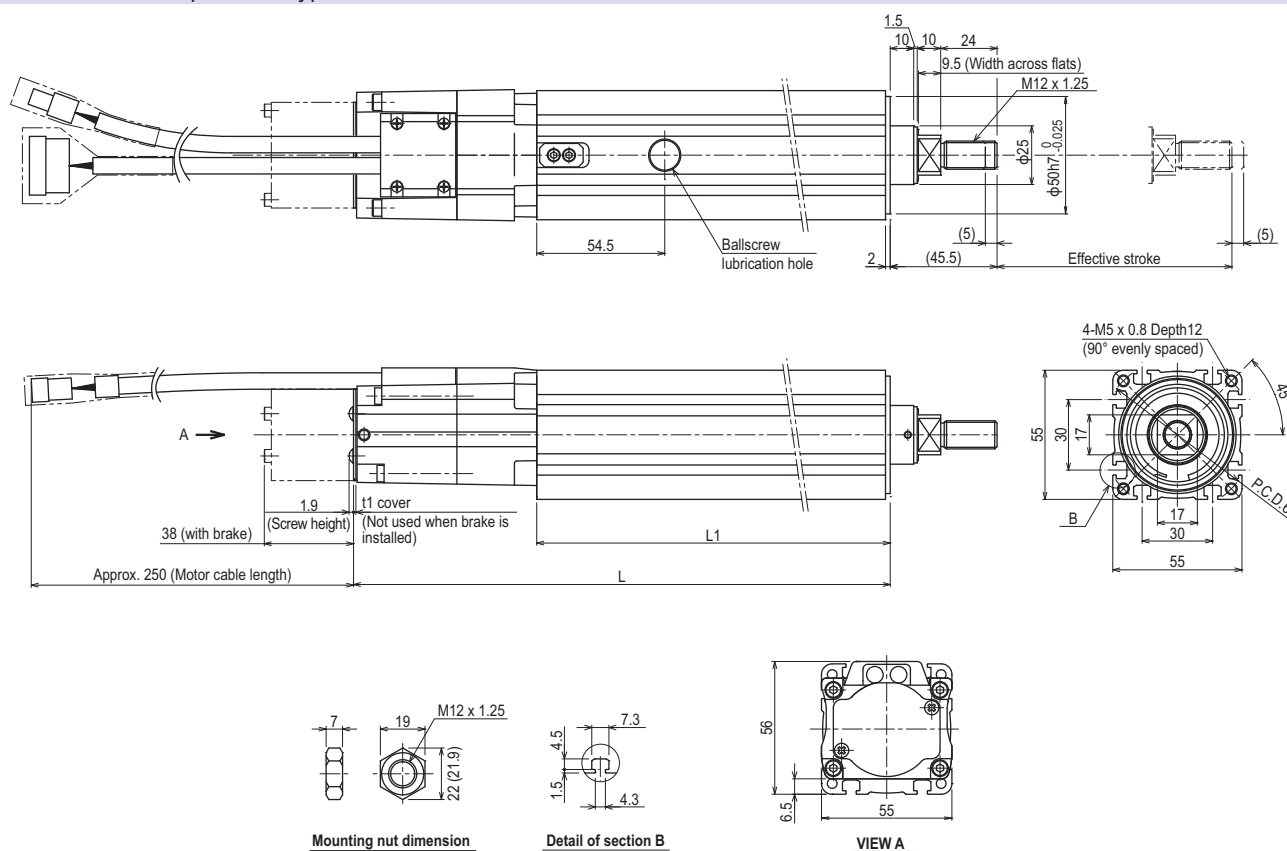Note 1. When the stroke is 300mm, the maximum speeds are 450mm/sec and 225mm/sec (75%).
Note 2. The thrust control accuracy is not guaranteed.

■ Controller

Controller	Operation method
ERCD	Pulse train control / Programming / I/O point trace / Remote command / Operation using RS-232C communication
ERCX (4.5A) Note	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. This is the required power supply capacity. An insufficient power supply capacity can reduce performance.

YMS55　Brakes provided type

1.5
10 10 24
9.5 (Width across flats)
M12 x 1.25
φ25
φ50h7 −0.025
54.5
Ballscrew lubrication hole
2 (45.5) (5) Effective stroke (5)

4-M5 x 0.8 Depth12 (90° evenly spaced)
45°
55
30
17
B
17
30
55
P.C.D.65

A→
1.9 (Screw height)
t1 cover (Not used when brake is installed)
38 (with brake)
Approx. 250 (Motor cable length)
L1
L

Mounting nut dimension
7
19
M12 x 1.25
22 (21.9)

Detail of section B
7.3
4.5
1.5
4.3

VIEW A
56
6.5
55

Effective stroke	50	100	150	200	250	300
L1	150.5	200.5	250.5	300.5	350.5	400.5
L	228.5	278.5	328.5	378 5	428.5	478.5
Weight (kg) Note	1.7	2 0	2.4	2.7	3.1	3.4

Note. Weight of models with no brake. The weight of brake-attached models is 0.2 kg heavier than the models with no brake shown in the table.