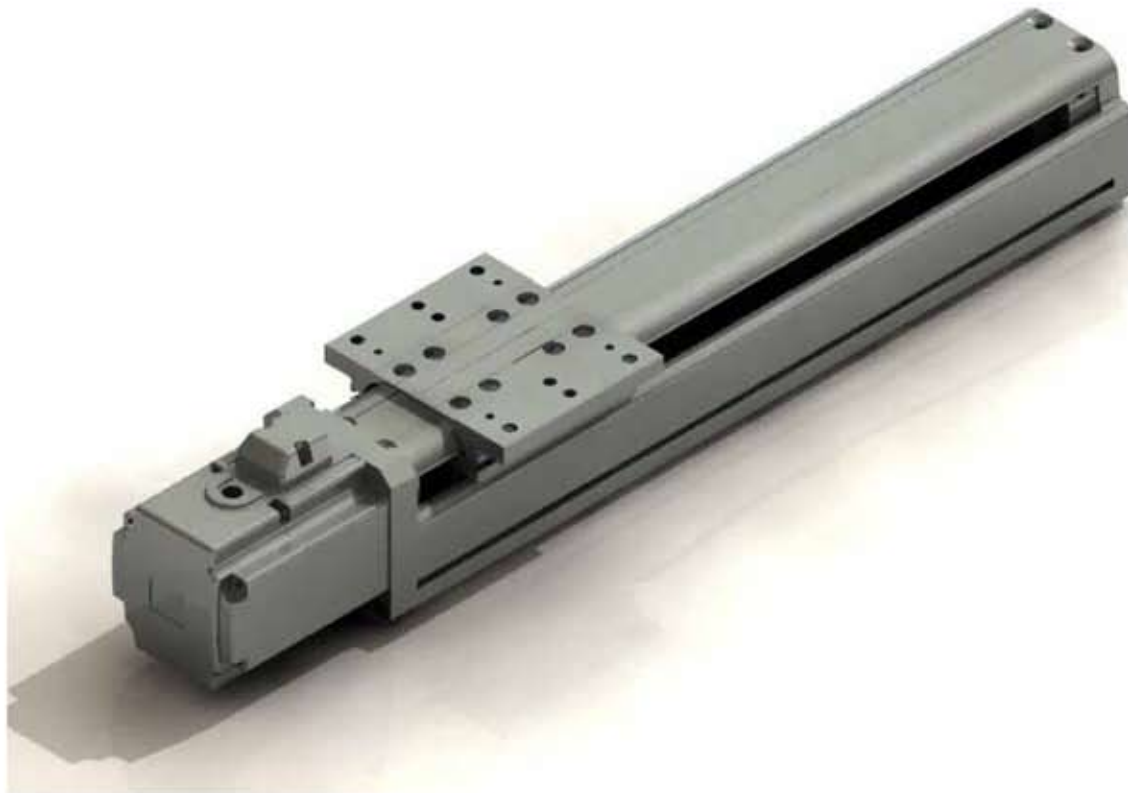


Direct Screw Type Linear Module (MD64)



1

Specification of MD series

2

Design of MD series

3

Feature of MD series

4

Reliability Test

◆ Specification

Model		MD064	
Base Width	mm	64	
Payload	kgf	Vertical : 7 Horizontal : 16	Vertical : 10 Horizontal : 20
Max. Speed	mm/sec	500	
Servo Motor	AC (W)	100W, 3000 rpm	200W, 3000 rpm
Stroke	mm	100 - 300	
Repeatability	mm	± 0.003	
LM Guide	-	1 Rail 2 Block	
Ball Screw	-	Ø12, Lead 10mm, G7	
Body	-	Aluminum Profile (White Color) , Motor (Black)	

Weight						
Model	Load	Stroke	100	200	300	Offset (100mm)
MD064-A10	Kg		3.2	3.7	4.2	0.5
MD064-A20			3.5	4.0	4.5	

Max. Weight Tolerance : 10%

◆ Selection Guide

MD 064 A 20 W 0100 R 10

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Model Name

MD Metronix Direct Robot

② Body Size

064 Body Width : 64 mm

③ Motor Direction

A Direct

④ Motor Capacity

20 Motor : 100W

064 Motor : 200W

⑤ Slide Table Type

N Normal

W Wide



⑥ Stroke

0100 Stroke : 100mm

064 Stroke : 300mm

⑦ Sensor

N Inside Sensor

S Outside Sensor (Both)

R Outside Sensor (Right)

L Outside Sensor (Left)

X No Sensor

1) Inside Sensor



Red Switch

2) Outside Sensor



Red Switch

⑧ Ball Screw Lead

0 Lead : 5mm

→ Max.Speed : 250mm/sec

10 Lead : 10mm

→ Max.Speed : 300mm/sec

20 Lead : 20mm

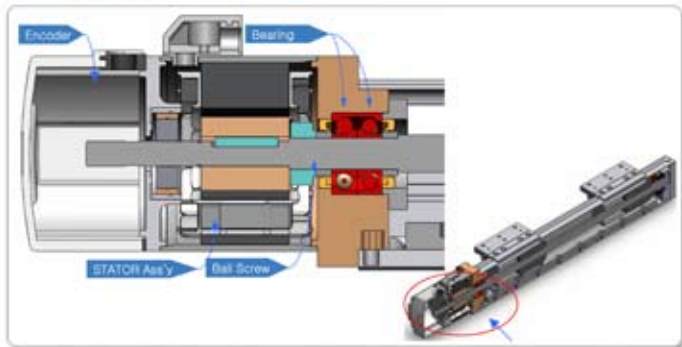
→ Max.Speed : 100mm/sec



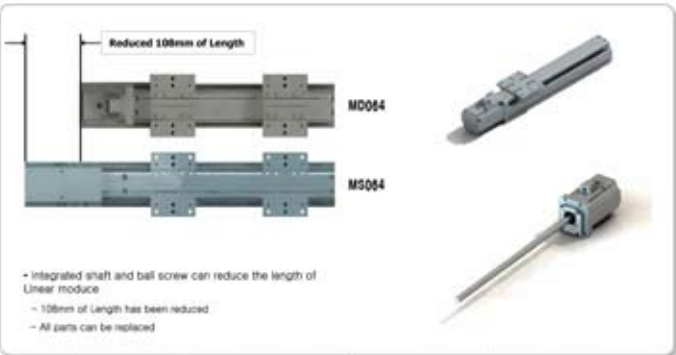
◆ Construction



◆ Internal Construction



◆ Reduced Size (100W of motor)



Reduced 108mm of Length

MD064

MS064

- Integrated shaft and ball screw can reduce the length of Linear module
- 108mm of Length has been reduced
- All parts can be replaced

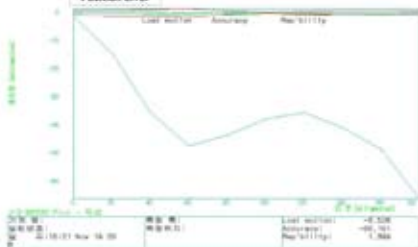
◆ Improved Repeatability



- Reduced twisted coupling error and improved repeatability with direct ball screw
 - Repeatability has been decreased from $\pm 20\mu\text{m}$ to $\pm 3\mu\text{m}$
 - Accurate operation is possible

◆ Measuring Repeatability / Accuracy

Position Error



Date: 21th. Nov. 2008

Standard: JIS-B6330

Motion: Move every 20mm for
200mm (7 times)

Weight: 10kg

Speed: 200 mm/s

Velocity: 0.5G

Lost motion : 0.5um

Accuracy : 66.1

Repeatability : 1um

◆ Photos for Leaser Measuring Facilities



◆ Test condition



Motion Profile

Test record

Date	RPM	Velocity	Weight	Time	Remark
19 th , Nov	3000	1G	20Kg	-	
20 th , Nov	3000	1G	20Kg	24	
21 th , Nov	3000	1G	20Kg	48	Laser Check
22 th , Nov	3000	1G	20Kg	72	
23 th , Nov	3000	1G	20Kg	720	

◆ Test Photo

