

# MB-207 series



**MB-207R**

**MB-207B**

## Rack and Pinion Gear / Belt Drive

- **MB-207R(Rack and Pinion Gear Drive)** Long stroke (max. 4,000mm) / High repeatability
- **MB-207B(Belt Drive)** Long stroke (max. 3,000mm) / Low price

## High Speed / High Payload

- Cycle time reduction by max. 1G acceleration and highest speed at Max.2600mm/s
- Maximum Payload : 200Kg ※  
※ 200kg is the maximum payload.  
Payload will be changed according to operation conditions.

## Various Options

- Installation of multiple sliders (Drive Units) to the traveling axis is available for MB-207R
- Module configurations with multiple axes are available as CR type by combining MB207R/MB207B robots and existing Hirata MB robot
- Support high accuracy positioning (MB-207B)
- ISO Clean class 4 (MB-207B)

# MB-207 series

MB-207B  
Collaboration with axes  
(CR type)



<Sample of Model Number>



- ① **Series name**
- ② **Speed**  
M: 1600mm/s  
X: 2600mm/s
- ③ **Frame size**  
20: Width 202mm
- ④ **Motor size**  
7: 750W
- ⑤ **Drive type**  
R: Rack and pinion  
B: Belt
- ⑥ **Installation method**<sup>\*1</sup>  
No marking: Horizontal  
W: Wall hanging
- ⑦ **Stroke**  
1500~4000mm: R type  
1500~3000mm: B type
- ⑧ **Home position direction**<sup>\*2</sup>  
M: Motor side  
T: Tail side
- ⑨ **Junction cable connection**<sup>\*3</sup>  
L: Left side  
R: Right side
- ⑩ **Option**  
E: Over run sensor (NPN)  
F: Over run sensor (PNP)  
G: Air absorb option at pinion gear location<sup>\*4</sup>  
K: High repeatability (sensor + cable carrier)  
L: Belt drive with cable carrier  
H: Clean class<sup>\*5</sup>  
NA: No option

\*1 Hirata has 2 type, Horizontal installation type and Wall hanging installation type.

\*2 It is able to choose Robot Home position, L-side or R-side. Please refer to external dimensions

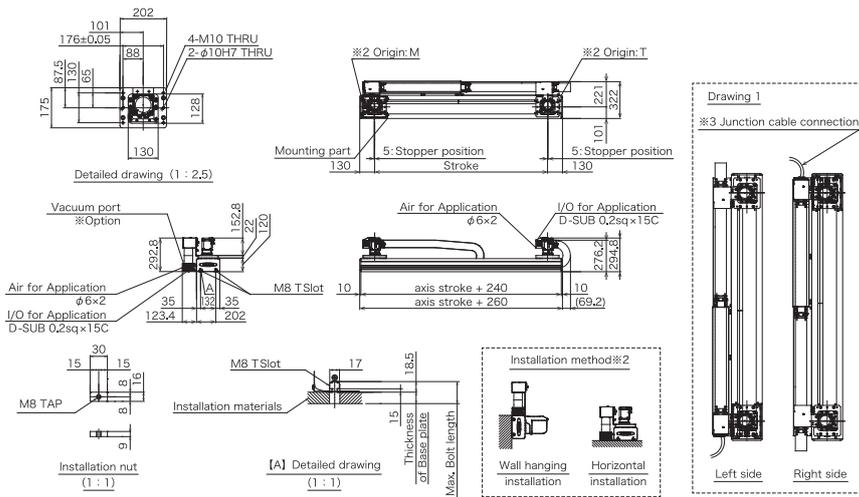
\*3 Drawing 1: Cable connection orientation can be selected in MB-207R type.  
Drawing 2: Cable connection orientation in MB-207B type is motor side only.

\*4 Supports particle prevention with the air vacuum addition near pinion gear drive. (MB-207R type)

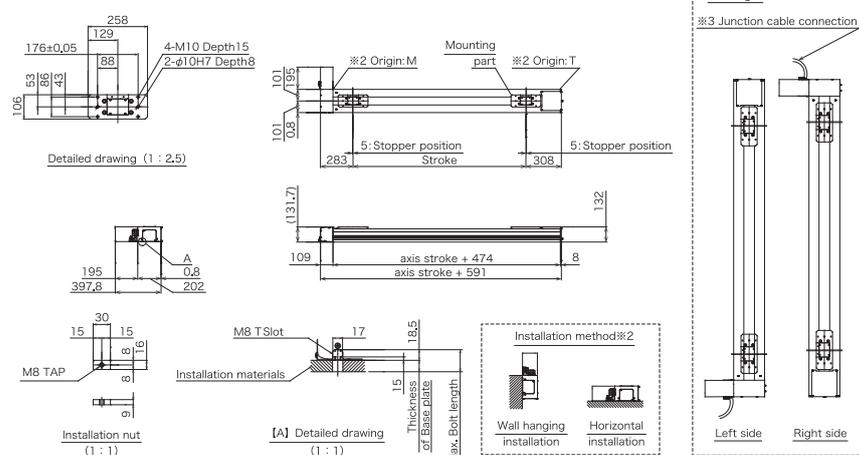
\*5 MB-207B type only.  
Specification combination of H type (Clean type) and K type (High repeatability) cannot be selected.

## Dimensions

### MB-207R (Driving type of rack and pinion)



### MB-207B (Driving type of belt type)



## Specification

Series name		MB series	
Product name	MB-207R	MB-207B	
Drive type	Rack and pinion	Timing Belt	
Position detecting method	Absolute encoder with battery		
Maximum payload	200kg		
Stroke	1500~4000mm	1500~3000mm	
Maximum speed	2600mm/s		
Maximum acceleration	1G		
Repeatability <sup>(*)</sup>	±0.01mm	±0.04mm (±0.01mm)	
Lost motion <sup>(*)</sup>	Less 0.015mm	Less 0.3mm (Less 0.015mm)	
Rated thrust	159N	153N	
Application <sup>(*)</sup>	Signal	I/O : 15core (0.2mm <sup>2</sup> )	I/O : 15core (0.2mm <sup>2</sup> )
	Air	2 lines (φ6×2)	2 lines (φ6×2)
Installation methods	Horizontal / Wall hanging		
Installation condition	Ambient temperature : 0~40°C		
Protection grade	IP00	IP20	
Clean class	—	ISO class 4	
The amount of absorb <sup>(*)</sup>	—	850L/min	

\*6 Value of (Δ) is in case of high repeatability specification (Option).  
It is enable to set only Belt type.  
It is not possible to combine with clean class and high repeatability.

\*7 Driving type of rack and pinion gear is standard specification.  
Driving type of belt is used only in case cable bear spec and high repeatability (Option).

\*8 In case operation of speed 2.6m/s, need absorb 850L/min from both sides of Robot.

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### ⚠ Safety Precautions

● Complying with relevant laws and regulations and standards, and please take a risk prevention for safety. ● Read instruction manual carefully before use, and please surely use correctly.

● Information in this brochure is subject to change without notice. ● The pictures in this brochure are images, the actual product might be different.  
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201912-170DA01