

5 Basic Specifications

5.1 Basic Specifications

Table 5-1: Basic Specifications¹⁾

Item	Model	MOTOMAN-MH5
Application		Handling
Structure		Vertically Articulated
Degree of freedom		6
Payload		5 kg
Repeatability ²⁾		±0.02 mm
Range of Motion	S-Axis (turning)	±170°
	L-Axis (lower arm)	+150°, -65° ³⁾
	U-Axis (upper arm)	+255°, -136° ³⁾
	R-Axis (wrist roll)	±190° ³⁾
	B-Axis (wrist pitch/yaw)	±125°
	T-Axis (wrist twist)	±360°
Maximum Speed	S-Axis	6.56 rad/s, 376° /s
	L-Axis	6.11 rad/s, 350° /s
	U-Axis	6.98 rad/s, 400° /s
	R-Axis	7.85 rad/s, 450° /s
	B-Axis	7.85 rad/s, 450° /s
	T-Axis	12.57 rad/s, 720° /s
Allowable Moment ⁴⁾	R-Axis	12 N•m (1.22 kgf•m)
	B-Axis	12 N•m (1.22 kgf•m)
	T-Axis	7 N•m (0.71 kgf•m)
Allowable Inertia (GD ² ₄)	R-Axis	0.30 kg•m ²
	B-Axis	0.30 kg•m ²
	T-Axis	0.10 kg•m ²
Approx. Mass		27 kg
Ambient Conditions	Temperature	0 to 45°C
	Humidity	20 to 80% RH (non-condensing)
	Vibration	4.9 m/s ² (0.5G) or less
	Others	Free from corrosive gas or liquid, or explosive gas Free from dust, soot, or water Free from excessive electrical noise (plasma)
Power Capacity		1 kVA

1 SI units are used in this table. However, gravitational unit is used in ()

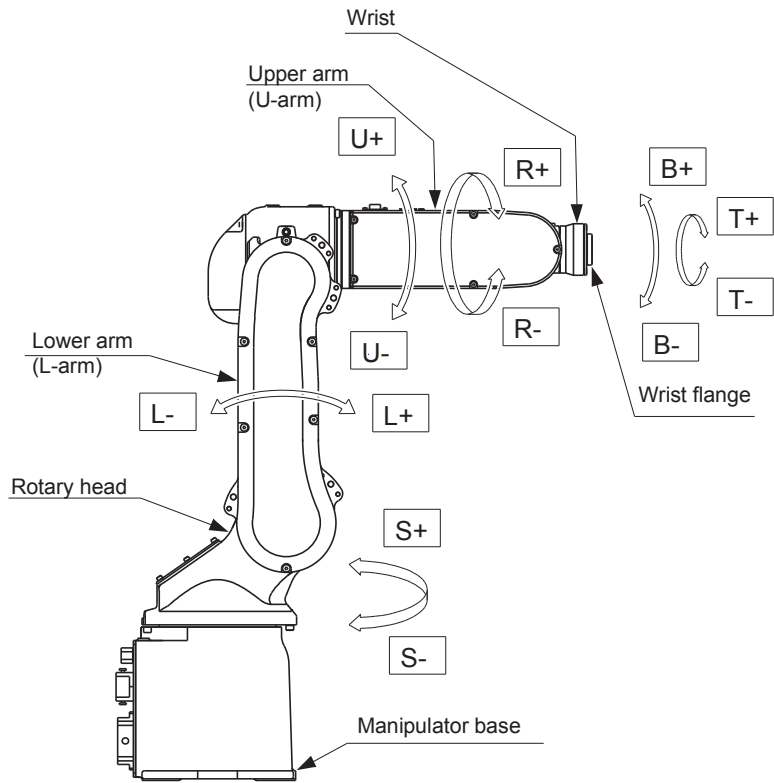
2 Conformed to ISO9283

3 Each L-, U- and R-axes has the limit of motion depending on the postures.

4 Refer to Fig. 6-1 "Moment Arm Rating" for details on the permissible moment of inertia.

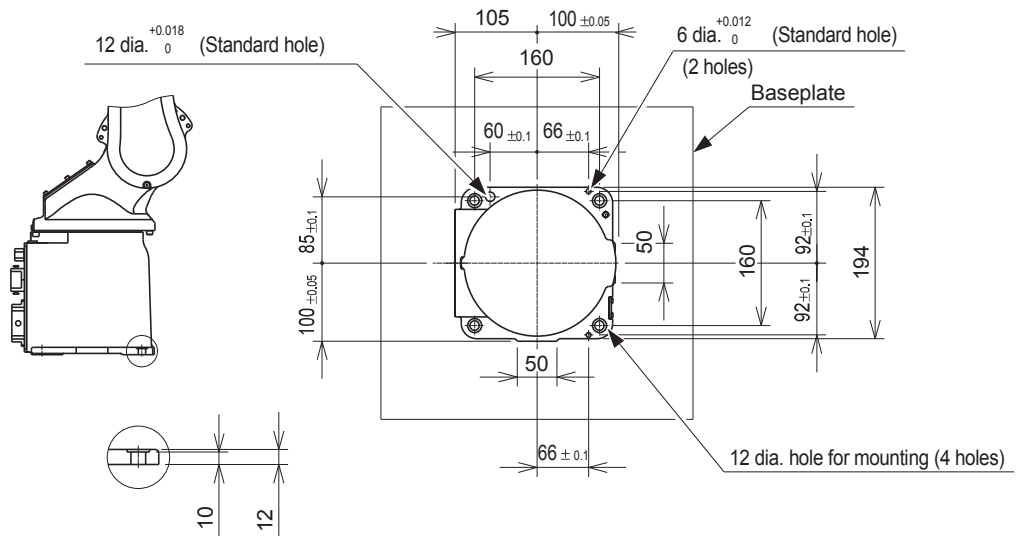
5.2 Part Names and Working Axes

Fig. 5-1: Part Names and Working Axes



5.3 Baseplate Dimensions

Fig. 5-2: Manipulator Base Dimensions



5.4 Dimensions and P-Point Maximum Envelope

Fig. 5-3: Dimensions and P-Point Maximum Envelope (mm)

