

NACHI



MZO1

High Speed and High Precision 1kg Compact Robot

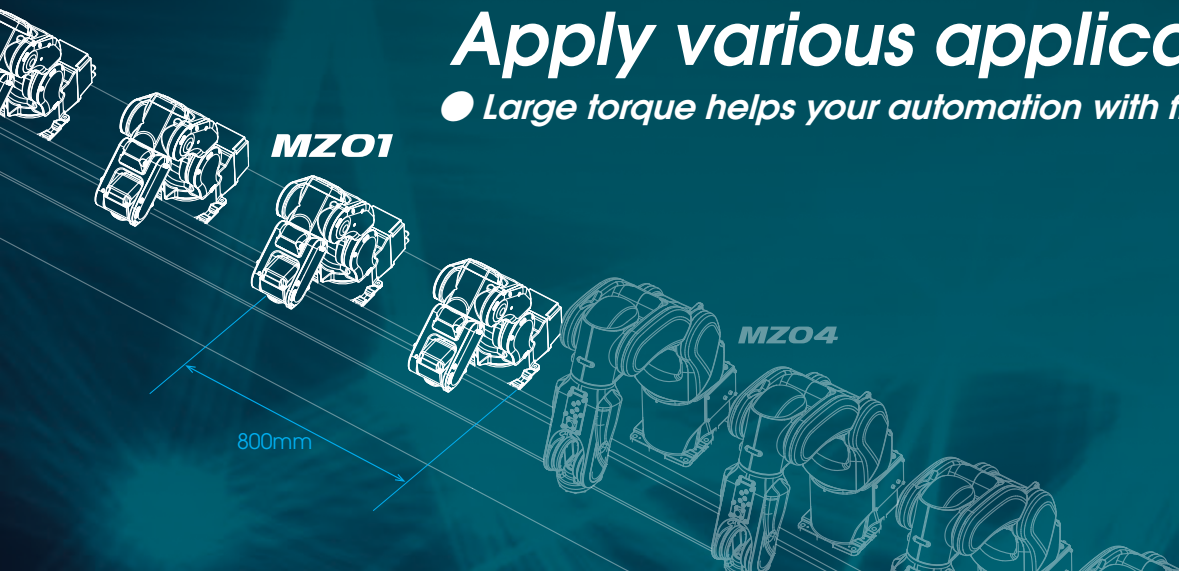
NEW

Great for high density layouts

- Maximizes factory floor space efficiency

Apply various applications

- Large torque helps your automation with flexibility



Basic Specification of Robot

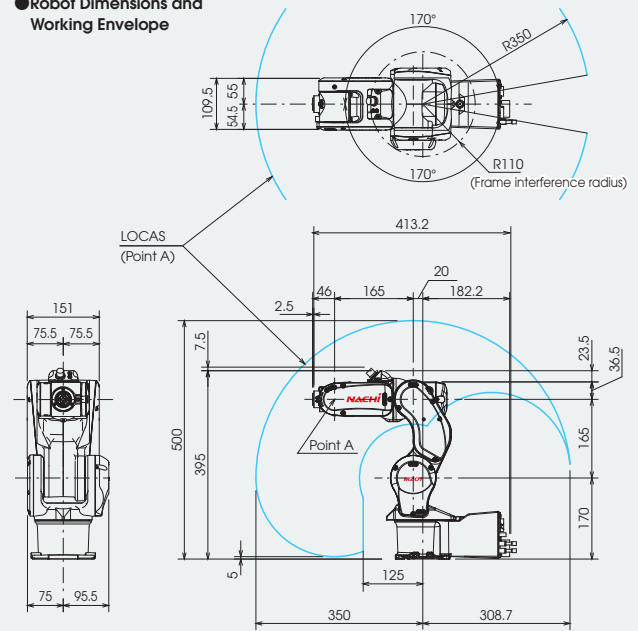
Robot type	MZ01-01
Structure	Articulated
Number of axis	6
Drive system	AC servo motor
Max. working envelope	J1 $\pm 2.97\text{rad}(\pm 170^\circ)$
	J2 $-1.57 \sim 1.48 \text{ rad} (-90 \sim 85^\circ)$
	J3 $-0.87 \sim 1.57 \text{ rad} (-50 \sim 90^\circ)$
	J4 $\pm 2.53\text{rad}(\pm 145^\circ)$
	J5 $\pm 2.18\text{rad}(\pm 125^\circ)$
	J6 $\pm 6.28\text{rad}(\pm 360^\circ)$
Max. speed ¹⁾	J1 5.59rad/s(320°/s)
	J2 5.59rad/s(320°/s)
	J3 6.54rad/s(375°/s)
	J4 10.47rad/s(600°/s)
	J5 10.47rad/s(600°/s)
	J6 10.47rad/s(600°/s)
Max. payload ²⁾	Wrist 1.0kg rated
	Arm 1 max. 0.25kg
Allowable static load torque	J4 0.9N·m
	J5 0.9N·m
	J6 0.78N·m
Allowable moment of inertia ³⁾	J4 0.008kg·m ²
	J5 0.008kg·m ²
	J6 0.006kg·m ²
Position repeatability ⁴⁾	$\pm 0.02\text{mm}$
Max. reach	350mm
Air piping	IN: $\phi 6 \times 2$, OUT: $\phi 4 \times 2$
Application signal line	12 wires
Installation	Floor/Inverted
Ambient conditions	Temperature: $0 \sim 40^\circ\text{C}^5$
	Humidity: $20 \sim 85\% \text{RH}$ (No dew condensation)
	Vibration to the installation face: 0.5G (4.9m/s^2) or less
Dust-proof Drip-proof performance ⁶⁾	Robot only IP40 equivalent
Cleanliness ⁷⁾	ISO 14644-1 CLASS5 (Equivalent)
Noise level ⁸⁾	70dB
Robot mass	10kg

1 (rad) = $180/\pi$ (°), 1(N·m) = 1/9.8(kgf·m)
 ※ Explosion-proof version is not available.

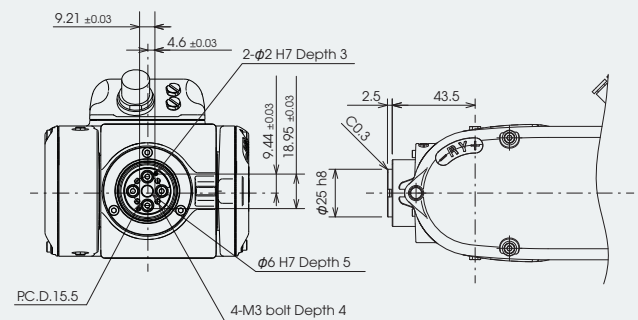
- *1: The "Max. speed" in this table is the available maximum value and will change depending on the work-program and the wrist load condition.
- *2: When no load is on arm 1 (arm of axis 3), the max. wrist load is 1.0kg. However, when a 0.25kg load is on arm 1, the wrist load can only go up to 0.75kg.
- *3: The allowable moment of inertia of wrist changes with load conditions.
- *4: Based on JIS B8432
- *5: Permitted installation is less than 1,000m above sea level.
Allowable operating temperature dependent on installation height.
- *6: Limit use in applications where liquids, such as, organic compound, acidity, alkalinity, chlorine, gasoline and/or cutting fluids. These could deteriorate seal material.
Wire harness is IP65 equivalent, controller is IP20 equivalent.
- *7: To ensure a cleanliness, install the robot in a down-flow type cleanroom.
The robot's packaging is not dust proof. Before bringing the robot into a cleanroom, you must clean the robot by wiping it off or by removing dust and fine particles from it.
- *8: A-weighted equivalent level of sound measured according to JIS Z 8737-1 (ISO 11201), while operating at max. Speed with the rated load.

External and Other Dimensions

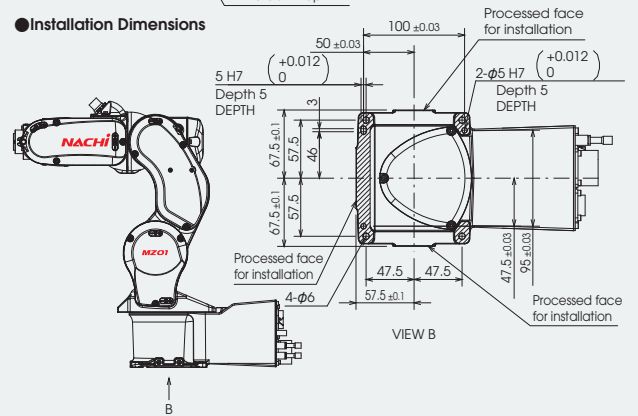
● Robot Dimensions and Working Envelope



● Wrist Dimensions



● Installation Dimensions



NACHI

NACHI-FUJIKOSHI CORP.

www.nachi.com

Head Office Shiodome Sumitomo Bldg. 17F, 1-9-2 Higashi-Shinbashi, Minato-ku, Tokyo 105-0021
Robot Division 1-1-1 Fujikoshi-Honmachi, Toyama 930-8511, JAPAN

Tel: +81-(0)3-5568-5247
 Tel: +81-(0)76-456-2223

Fax: +81-(0)3-5568-5237
 Fax: +81-(0)76-493-5251

NACHI ROBOTIC SYSTEMS INC.
NACHI AMERICA INC. HEADQUARTERS
NACHI CANADA INC.
NACHI MEXICO, S.A. DE C.V.
NACHI BRASIL LTDA.
NACHI EUROPE GmbH
NACHI TECHNOLOGY (THAILAND) CO., LTD.
NACHI SINGAPORE PTE. LTD.
PT.NACHI INDONESIA
NACHI TECHNOLOGY INDIA PVT. LTD.
NACHI (AUSTRALIA) PTY. LTD.
NACHI-FUJIKOSHI (CHINA) CO., LTD.

Michigan, U.S.A.
 Indiana, U.S.A.
 CANADA
 MEXICO
 BRASIL
 GERMANY
 THAILAND
 SINGAPORE
 INDONESIA
 INDIA
 N.S.W. AUSTRALIA
 CHINA

Tel: +1-248-305-6545
 Tel: +1-317-530-1001
 Tel: +1-905-660-0088
 Tel: +52-442-153-2424
 Tel: +55-11-4793-8800
 Tel: +49-(0)2151-65046-0
 Tel: +66-2-714-0008
 Tel: +65-65587393
 Tel: +62-21-527-2841
 Tel: +91-(0)12-4450-2900
 Tel: +61-(0)2-9898-1511
 Tel: +86-(0)21-6915-2200

Fax: +1-248-305-6542
 Fax: +1-317-530-1011
 Fax: +1-905-660-1146
 Fax: +52-442-153-2435
 Fax: +55-11-4793-8870
 Fax: +49-(0)2151-65046-90
 Fax: +66-2-714-0740
 Fax: +65-65587371
 Fax: +62-21-527-3029
 Fax: +91-(0)12-4450-2910
 Fax: +61-(0)2-9898-1678
 Fax: +86-(0)21-6915-5427

<http://www.nachirobotics.com>
<http://www.nachiamerica.com/>
<http://www.nachicanada.com/>
<http://www.nachi.com.mx/>
<http://www.nachi.com.br/>
<http://www.nachi.de/>
<http://www.nachi.co.th/>
<http://www.nachinip.com.sg/>
<http://www.nachi.co.id/>
<http://www.nachi.com.au/>
<https://www.nachi.com.cn/>

●The specifications are subject to changes without notice.
 ●In case that an end user uses this product for military purpose or production of weapon, this product may be liable for the subject of export restriction stipulated in the Foreign Exchange and Foreign Trade Act. Please go through careful investigation and necessary formalities for export.

CATALOG NO. **R7705E-2**

2019.01. * -ABE-ABE