

VM-D Series Vertical articulated robot (Dust-proof & splash-proof type) Robot Specifications [VM-6083D-W]

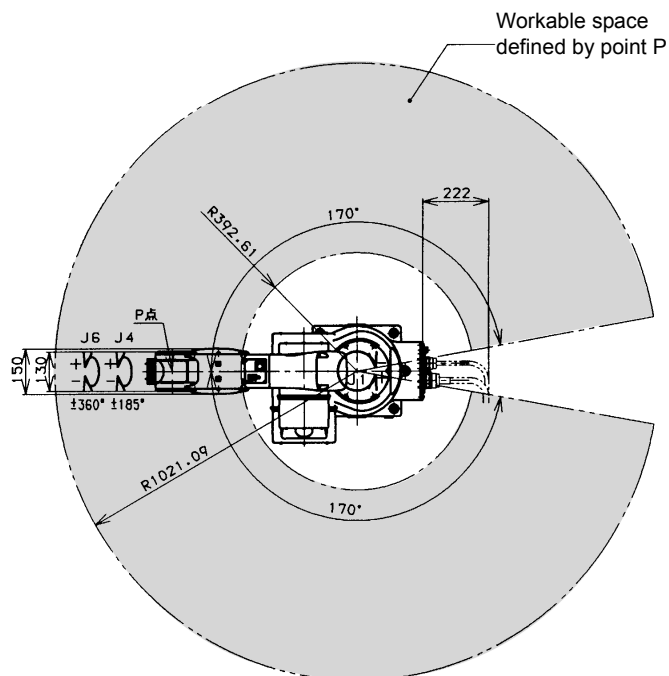
| Item | | Specifications |
|---|----------------------------|--|
| | | Dust-proof & splash-proof type (VM-W) |
| Model name of robot set (Note 1) | | VM-6083D-W |
| Model name of robot unit | | VM-6083DM-W |
| Overall arm length | | 385 (first arm) + 445 (second arm) = 830 mm |
| Arm offset | | J1 (swing): 180 mm, J3 (front arm): 100 mm |
| Maximum workable space | | R = 1,111 mm (end-effector mounting face) R = 1,021 mm (Point P: J4, J5, J6 center) |
| Motion range | | J1: $\pm 170^\circ$, J2: $+135^\circ$, -90° , J3: $+165^\circ$, -80° J4: $\pm 185^\circ$, J5: $\pm 120^\circ$, J6: $\pm 360^\circ$ |
| Maximum payload | | 10 kg |
| Maximum composite speed | | 8300 mm/s (at the center of an end-effector mounting face) |
| Position repeatability (Note 2) | | In each of X, Y and Z directions: ± 0.05 mm (at the center of an end-effector mounting face) |
| Maximum allowable inertia moment | | Around J4 and J5: 0.36 kgm^2 Around J6: 0.064 kgm^2 |
| Position detection | | Absolute encoder |
| Drive motor and brake | | AC servomotors for all joints, Brakes for joints J2 to J6 |
| User air piping (Note 3) | | 7 systems ($\phi 4 \times 6$, $\phi 6 \times 1$), 3 solenoid valves (2-position, double solenoid) contained. |
| User signal line | | 10 (for proximity sensor signals, etc.) |
| Air source | Operating pressure | $1.0 \times 10^5 \text{ Pa}$ to $3.9 \times 10^5 \text{ Pa}$ |
| | Maximum allowable pressure | $4.9 \times 10^5 \text{ Pa}$ |
| Degree of protection | | IP54 (Wrist: IP65) |
| Weight | | Approx. 78 kg |
| <p>Note 1: The model name of robot set refers to the model name of a complete set including a robot unit and robot controller.</p> <p>Note 2: Position repeatability is the value at constant ambient temperature.</p> <p>Note 3: Only the $\phi 4 \times 6$ air piping system may be controlled by built-in solenoid valves.</p> | | |

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Outer Dimensions and Workable Space

VM-6083D-W

Unit (mm)



Example of nameplate (below)

Robot model

VM-6083DM-W

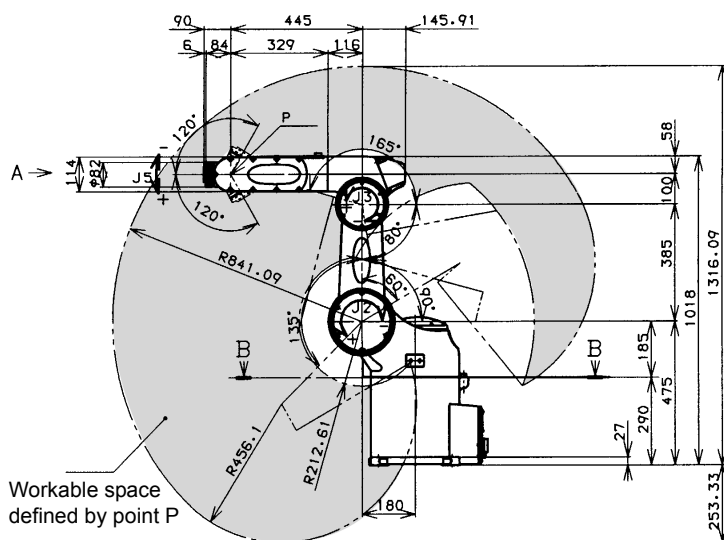
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Serial number

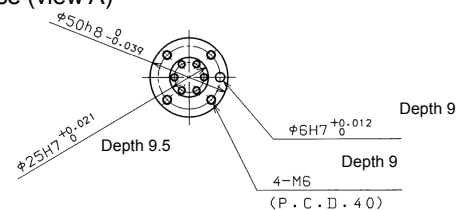
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MADE IN JAPAN



Detailed drawing of end-effector mounting face (view A)



Detailed drawing of base mounting face (Sect. B-B)

