

The DENSO VM-Series six-axis articulated robots offer exceptionally long reaches along with high speed, high precision and a large payload capacity.

- Fast cycle times from 0.89 to 0.95 sec
- Payloads up to 13 kg
- Reaches from 1,000 mm to 1,300 mm
- High maximum allowable moment of inertia
- Compact design saves floor space, facilitates integration
- Floor- or ceiling-mount, with no special hardware required
- Operation in dusty and wet environments (IP65 option)
- Operation in cleanrooms (ISO 5 option)
- ANSI and CE compliance allows global deployment



### Specifications

	VM-6083	VM-60B1
Number of axes	6	
Overall arm length (mm)	830	1,110
Second-arm width (mm)	130	
Reach (to center of 5th axis, mm)	1,021	1,298
Minimum motion area (mm)	393	404
Maximum payload (kg)	13	
Weight, approx. (kg)	82	
Footprint (mm)	300 × 300	
Cycle time (sec)	0.89 (with 5 kg weight)	0.95 (with 5 kg weight)
Maximum composite speed (mm/sec)	8,300	
Maximum joint speed (°/sec)	J1: 225 J2: 168 J3: 187 J4, J5: 375 J6: 600	
Repeatability <sup>1,2</sup> (mm)	±0.05	±0.07
Maximum allowable moment of inertia (kgm <sup>2</sup> )	J4, J5: 0.36 J6: 0.064	
Range of motion (°)	J1: ±170 J2: +135, -90 J3: +165, -80 J4: ±185 J5: ±120 J6: ±360	
Position detection	Absolute encoder	
Drive motors and brakes	AC servomotors for all axes; brakes on 2nd, 3rd, 4th, 5th and 6th axis	
Air piping (in-arm integrated)	7 systems (ø4 × 6, ø6 × 1), three 2-position double solenoid valves	
Wiring (in-arm integrated)	10 lines (max 1 A per line)	
Protection class	Standard: IP40 Options: IP65/54 (wrist/unit) dust- and mistproof; cleanroom ISO 5	
Ceiling-mount <sup>3</sup>	✓	

1. At constant ambient temperature. 2. In all directions. 3. All except cleanroom models, which can be floor-mounted only.

