

VP Series

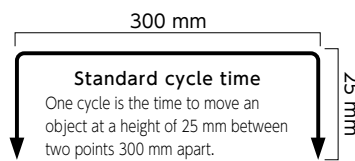
RC8A ▶ P.42

VP-5243 / 6242

The VP series 5243/6242 is the most compact of all DENSO robots, and perfect for installation where motion space is limited.



Maximum arm reach	430 / 432 mm
Maximum payload	2.5 / 3 kg
Standard cycle time	0.99 sec
Position repeatability	±0.02 mm



Specifications

Item	Specifications	
Model	VP-5243	VP-6242
Axes	5	6
Position detection method	Absolute encoder	
Drive motor / brake	All-axis AC servo motor / all-axis with brakes	
Total arm length (No. 1 arm + No. 2 arm)	430 (210 + 220) mm	420 (210 + 210) mm
Arm offset	J3 (forearm)	75 mm
Maximum motion area (Point P)	430 mm	432 mm
Motion range	J1 (No. 1 axis)	±160°
	J2 (No. 2 axis)	±120°
	J3 (No. 3 axis)	+136° , -128°
	J4 (No. 4 axis)	—
	J5 (No. 5 axis)	±120°
	J6 (No. 6 axis)	±360°
Maximum payload	3 kg (wrist downward movement is within ±45°) *3 2.5 kg (wrist downward movement is within ±45°) *4	
Maximum joint speed	J1	270 deg/sec
	J2	202.5 deg/sec
	J3	270 deg/sec
	J4 *5	—
	J5	324 deg/sec
	J6	324 deg/sec
Standard cycle time *1	0.99 sec	
Position repeatability (center of end-effector mounting face) *2	±0.02 mm	
Maximum allowable moment of inertia	J4, J5	0.04 kgm ² *5
	J6	0.01 kgm ²
User air pipe(s)	4 systems (ø 4 × 4)	
User signal line(s)	9 (for proximity sensor signals, etc.)	
Air source	Normal pressure	0.10 to 0.39 MPa
	Maximum allowable pressure	0.49 MPa
Airborne noise (equivalent continuous A-weighted sound pressure level)	80 dB or less	
Weight	Approx. 13 kg	Approx. 15 kg

*1: Time required for a robot to move a 1 kg payload between two points 300 mm apart at a height of 25 mm. *2: Position repeatability is the precision at constant ambient temperature. *3: If wrist downward movement exceeds ±45°, the maximum payload is 2.5 kg. *4: If wrist downward movement exceeds ±45°, the maximum payload is 2 kg. *5: VP-5243 has no J4.

Legend

