

Technical Specifications VS-068/ VS-087

Item		Specifications	
Model of robot unit		VS-068	VS-087
Axes		6	
Position detection		Absolute encoder	
Drive motor and brake		All-axis servo motor / all-axis brake	
Total arm length (No. 1 arm + No. 2 arm)		680(340+340)mm	875(445+430)mm
Maximum motion area(Point P)		710mm	905mm
Motion range	J1 (No.1 axis)	±170°(*4)	
	J2 (No.2 axis)	+135°, -100°	
	J3 (No.3 axis)	+153°, -120°	+153°, -136°
	J4 (No.4 axis)	±270°	
	J5 (No.5 axis)	±120°	
	J6 (No.6 axis)	±360°	
Maximum payload		7kg	
Maximum joint speed	J1	356.25deg/sec	285deg/sec
	J2	303deg/sec	252.5deg/sec
	J3	378.75deg/sec	303deg/sec
	J4	475deg/sec	378.75deg/sec
	J5	475deg/sec	378.75deg/sec
	J6	760deg/sec	606deg/sec
Cycle time(*1)		0.31sec	0.34sec
Position repeatability(at the center of an end-effector mounting face)(*2)		±0.02mm	±0.03mm
Maximum allowable moment of inertia	J4,J5	0.45 kgm ²	
	J6	0.1 kgm ²	
Maximum allowable moment	J4,J5	16.2 Nm	
	J6	6.86 Nm	
Signal line / Air pipe solenoid valve (option)	Signal line	10(for proximity sensor signals, etc.)(*5,6)	
	Air pipe solenoid valve (*3)	7 systems (φ4 × 6, φ6 × 1) [solenoid valves can be selected from 1 to 3] 1. 3 × solenoid valves (2 position, double solenoid) 2. 3 × solenoid valves (3 position, exhaust center solenoid) 3. 3 × solenoid valves (3 position, closed center solenoid)	
Communication Interface Flange-A(optional)		17 (power wire for cameras, etc.) (*6)	
		LAN×1(1000BASE-T)(*7)	
Air source	Normal pressure	0.20Mpa - 0.39Mpa	
	Maximum allowable pressure	0.49Mpa	
Airborne noise(A-weighted equivalent continuous sound pressure level)		65 dB or less	
Protection grade		Protected type : IP67 8 (option) Dust & splash proof type : wrist IP65 / unit IP54 (option) Cleanroom type : ISO class 3 / 5 (option)	
Weight		Approx. 49kg	Approx. 51kg

*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. Controllable by use of the embedded solenoid valve only for φ4×6.

*4. Limited motion range when wall mounted. For details, please contact our sales representative.

*5. There are 4 of these lines (proximity sensors or other signal lines) when selected together with communication interface flange-A.

*6. Allowable current is limited.

*7. The LAN cable to connect to the connector panel is 20 m or shorter.

*8. The robot interior is air-pressurized to maintain protective class IP67. Use the air-purge unit to remove air. Do not use the robot underwater

