

DENSO

VS-S2 H₂O₂/UV SERIES



VS-050-S2

Payload: 4 kg
Arm reach: 520 mm

Specialized Robots for the Pharmaceutical & Medical Industries

www.densorobotics-europe.com

VS-S2 H₂O₂/UV SERIES

PRECISE. COMPACT. ROBUST.

The VS-S2 H₂O₂/UV Series is a next-generation robot arm from DENSO Robotics, a global leader in compact industrial robots. Featuring a hygienic and easy-to-clean design, the VS-S2 H₂O₂/UV Series is particularly suitable for cleanrooms.

Discover the VS-S2 H₂O₂/UV Series – the first choice for robust and reliable robotic solutions in cleanroom environments.

Features

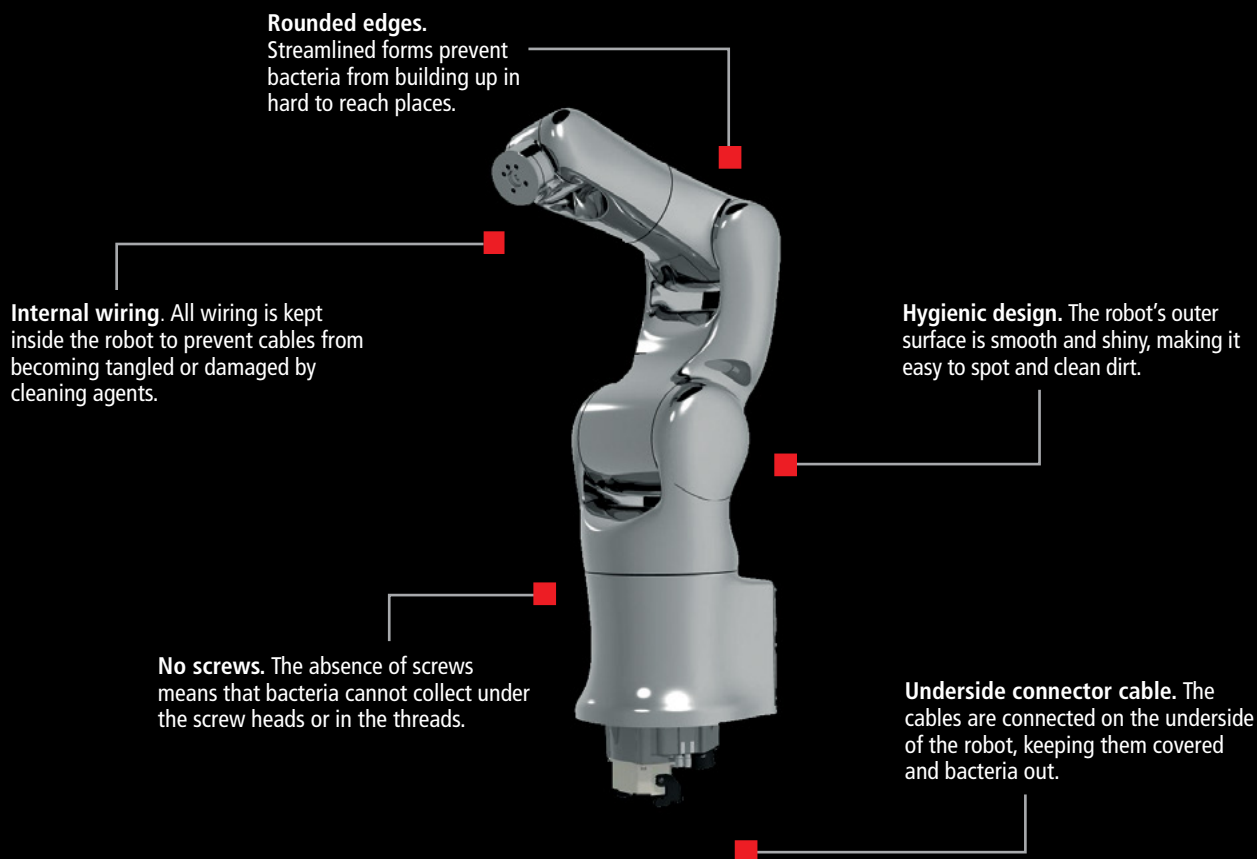
- Cleanroom class ISO 5¹
- H1 grease
- Certifications: Fraunhofer IPA & UL (for the US and Canada)
- Mounting options: floor, ceiling, wall

Industries

- Life science
- Pharmaceutical
- Medical
 - Medical devices
 - Medicine
 - Cell culture

Applications

- Material handling
- Pick & place
- Packaging
- Customized projects



¹Tested at the variation VS-050-S2-AV6-R1

SPECIFICATIONS

Mounting options



VS-050-S2



		Unit	VS-050-S2
Number of axes			6
Max. arm reach (Point P: wrist center)		mm	520
Overall arm length (first arm + second arm)		mm	520 (255 + 265)
Payload		kg	4
Maximum composite speed (at the center of an end-effector mounting face)		mm/sec	8 573
Cycle time (1)		sec	0.35
Position repeatability (at the center of an end-effector mounting face) (2)		mm	±0.02
Communication Interface Flange-A (optional)			25 (17 + 8) lines
Environmental resistance	Hydrogen peroxide		Vaporized hydrogen peroxide (H ₂ O ₂ /35% water solution)
	Protection class		IP65 (IP67 for the wrist element)
	Cleanroom class		ISO 5
Motion range	J1	deg	±180 (3)
	J2		120, -115
	J3		141, -115
	J4		±270
	J5		±115 (4)
	J6		±360
Maximum allowable inertia	J4, J5	kgm ²	0.2
	J6		0.05
Maximum allowable moment	J4, J5	Nm	6.66
	J6		3.13
Signal lines & air piping (optional)	Signal line		10 lines (5)
	Air piping		2 x solenoid valves (2 positions, double solenoids)
Air source	Operating pressure	Mpa	0.20~0.39
	Maximum allowable pressure		0.49
Airborne noise (A-weighted equivalent continuous sound pressure level)		dB	(65 or less)
Drive motor and brake			AC servomotors for all joints, brakes for all joints
Position detection			Absolute encoder
Arm weight		kg	Approx. 34

1. Time required for a robot to lift an object to a height of 25 mm, and move back and forth between two locations 300 mm apart.
2. The figure given for position repeatability is valid at ambient temperatures.
3. Limited motion when wall-mounted.
4. When electric gripper interface flange-A is additionally selected, J5 moves between angles +110 and -105 degrees.
5. When electric gripper interface flange-A is additionally selected, the number of signal lines is reduced to 4.



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Watch the VS-S2 in action



DENSO – Inventor of the QR Code