

# *DENSO*

NEW VS SERIES  
H<sub>2</sub>O<sub>2</sub> / UV RESISTANT



VS-050-S2

Payload: 4 kg  
Arm reach: 520 mm

Specialised Robots for Pharmaceutical  
& Medical Industries

[www.densorobotics-europe.com](http://www.densorobotics-europe.com)

# NEW VS H<sub>2</sub>O<sub>2</sub> / UV SERIES

PRECISE. FAST. COMPACT. RESISTANT.

As the established market leader in the compact assembly industrial robots segment, DENSO Robotics continues to set the benchmark in reliability, flexibility and functionality. **With 85,000 DENSO robots installed across the globe - 17,000 are employed in its own manufacturing facilities** - no other company has more expertise.

DENSO Robotics follows the needs of growing markets and presents functional, innovative and high-quality products.

The DENSO 6-axis **New VS H<sub>2</sub>O<sub>2</sub> / UV Series** offers a sleek and futuristic design that is suitable specifically for a cleanroom environment. In addition, it is **resistant to strong sterilization chemicals such as H<sub>2</sub>O<sub>2</sub> spray and Ultra Violet light**, it has a sanitary design and it is easy to maintain. All while preserving DENSO's fast, precise, compact and now highly resistant image.

## Features

- Cleanroom class ISO 5
- H1 Grease
- Certification: IPA & UL\*
- Mounting options: floor, ceiling, wall

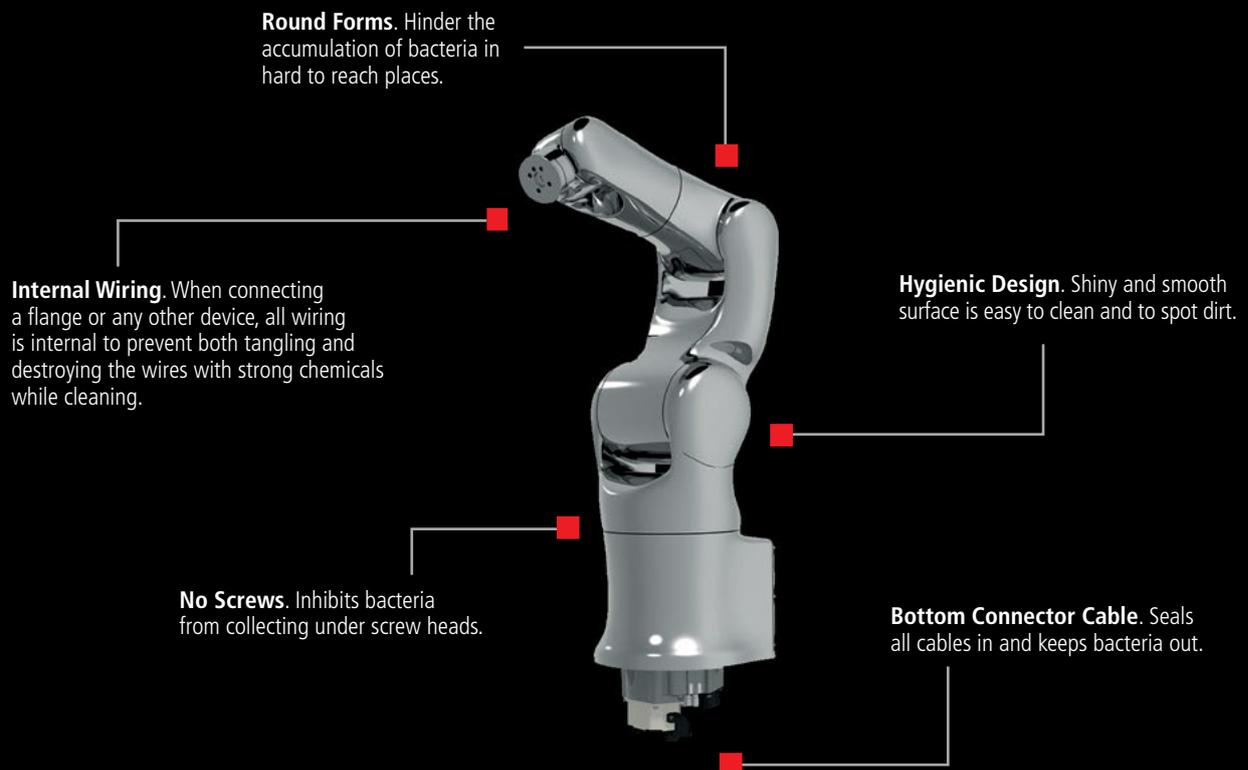
\*Certifications are in progress (est. summer-autumn 2015).

## Industries

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

## Applications

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



# SPECIFICATIONS

## Mounting Options

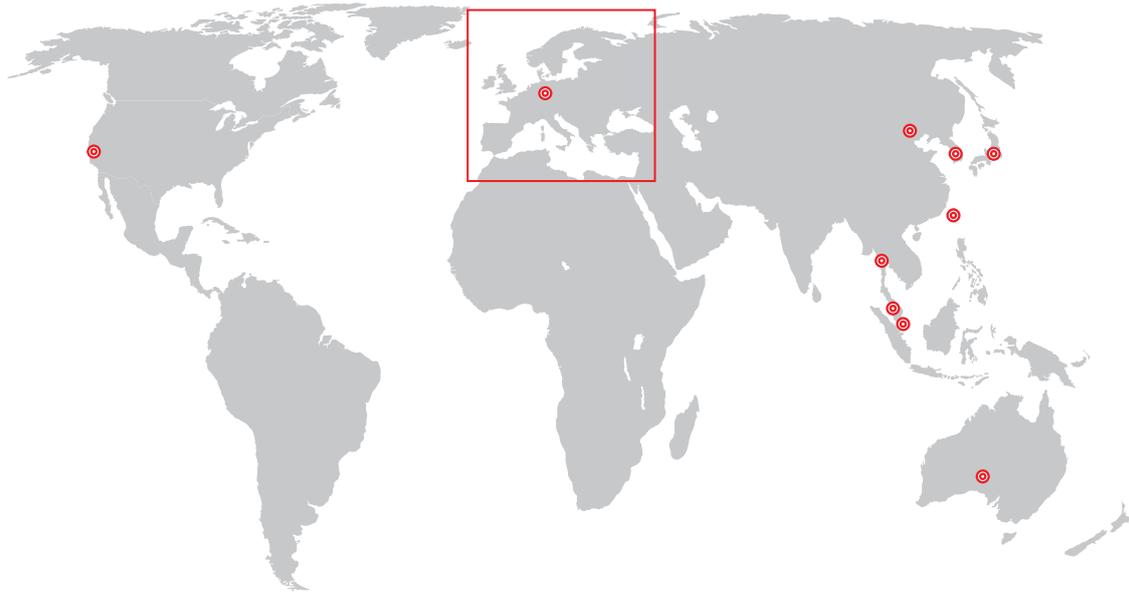


## VS-050-S2



		Unit	VS-050-S2
Number of axis			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 (Option)			25 (17 + 8) lines
Environment resistance	Hydrogen peroxide		Vaporized Hydrogen Peroxide Hydrogen Peroxide 35% water
	Protection class		IP65 (IP67 for the wrist part)
	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 <sup>2</sup>	0.2
	J6		0.05
Maximum allowable moment	J4, J5	Nm	6.66
	J6		3.13
Signal lines & air piping (Option)	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. Position repeatability is the value at constant ambient temperature.
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 will be reduced to 4.



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- Germany (Headquarters)
- Austria | Benelux | Czech Republic (covers Slovakia & Poland) | Denmark (covers Norway) | Finland | France | Israel | Italy | Lithuania (covers Latvia) | Romania (covers Hungary) | Russia (covers all Russian speaking countries) | Serbia (covers Slovenia, Croatia, Bosnia & Herzegovina, Montenegro, Macedonia & Bulgaria) | Spain | Sweden | Switzerland | Turkey | United Kingdom (covers Ireland)

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For more information



DENSO - Inventor of the QR-Code

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