

Vertical Articulated Robot
VM·VL series

DENSO

More powerful, Much longer



For over 50 years, DENSO Robotics has been working hard to brush up skills of manufacturing industrial robots, mainly with small sized, and also keeping on developing easier and safer robots for all users.

Today, we launch new models, VM and VL series that has a higher load capacity and a longer arm reach with the same operational environment and the functions as our existing models.

They are suitable for transportation, palletizing and depalletizing operations which makes workers free from hard labor.

As these new models of VM and VL are added to our series, all manufacturing processes can be now automated by all DENSO Robotics.

Eliminated External Wiring / Piping

Enable to attach various sensors and other devices on the robot arm with enhanced user wiring, piping, valves, and newly added internal wiring EtherCAT.
Reduced the hassle of wirings and pipings around the robot arm.

Full-coverage Structure

In addition to the standard type, having the robot line-up which is complied with the dust- and splash-proof (protection grade IP67) and Cleanliness (ISO class 5), which applies to electrical and electric parts, food manufacturing processes and pharmaceutical and medical devices, etc. that are required strict conditions for sanitation and cleanliness

Higher Payload and Longer Arm Reach

Suitable for palletizing, depalletizing, inspection, transportation and packaging by taking advantage of higher payload and longer arm reach.

Environmental Resistance

Complied with the protection grade IP67(*) and contribute to automate under severe environments that an oil or water mist scatters.

※Complied with IP67 for wrist, IP65 for unit



Specifications for VM/VS series

Robot model	VM1500	VM1800	VL
Overall arm length(first arm + second arm)	1395(710+685)	1695(860+835)	2085.5(860+1225.5)
Maximum arm reach [mm]	1506	1804	2503
Mounting orientation	Floor, Ceiling, Wall, Sloping(※1)		Floor, Ceiling, Sloping (max 45°)
Maximum payload [kg]	25		40
Position repeatability [mm]	±0.05		±0.06
Protection grade	IP40(Standard type)	IP67(Protected type)	Wrist IP67 Unit IP65
Clean class	ISO5		-
User air piping	Φ8x2 (x1 when use built-in valve)		inner diameterΦ12.5 outer diameterΦ19 x1
Built-in valve(Optional)	Quadruple(max)		-
User signal lines	20(Optional: +10)		19 for X70 connector (User can use 14 PIN) 17 for X200 to X90 connector (User can use 15 PIN)
Ethernet	1 (CAT5e)		-
Weight(※2)	Approx. 215kg	Approx. 220kg	655kg

※1 : Operation angle is limited on wall-mount and sloping-mount. ※2: Robot controller is not included

Outline and specifications for RC9 controller

A simple machine can be built with the built-in PLC which controls the entire cell.
“3D Visual Programming” on “WINCAPS Plus”, a newly developed software enables easy and rapid production system launch.
DENSO Robotics contributes to automation at a wide variety of manufacturing sites. We keep expanding DENSO Robotics application areas.

Model	RC9VM	RC9VL
Image		
Input voltage range [V]	3φ AC200~240 +10%-15%	3φ AC200~480(At AC200, boost with transformer) +10%-15%
Power supply frequency [Hz]	50/60	
Protection degree	IP54	
Weight [kg]	45	65
Dimension [mm]	W500xD400xH450	W600xD400xH1000

※ The appearance and specifications are subject to change for improvement without prior notice.



Please visit our website for more information on products and functions.
<https://www.denso-wave.com/>



Official DENSO WAVE Channel:
Provides explanatory videos of functions, case studies, and robot applications.



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