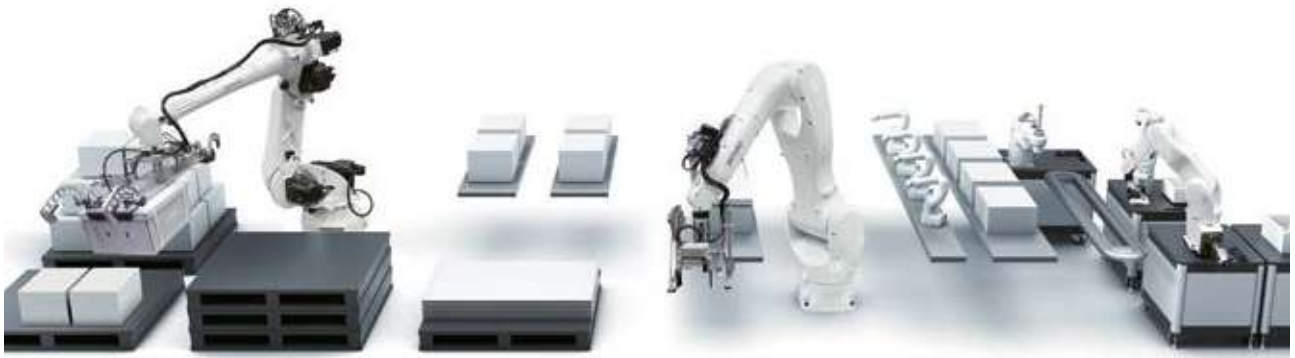


VLA/VMB Series

These high-payload, long-arm-reach models are ideally suited to transport and palletizing work.



VLA-4025 / 6022

Features

Resist with adverse environments

These robots have an IP67* protection rating, helping to facilitate automation in harsh environments where oil and mist can splash.

*Wrist: IP67-compliant, main unit: IP65-compliant



Ideal for transporting and palletizing heavy loads

The robots in the VLA series have the largest payload and arm length of any DENSO robot, making them ideal for automating heavy load transfer and palletizing operations. When combined with "Palletizing Builder," which is an option with WINCAPS Plus Offline Programming software suite, the palletizing process can be automated without coding.



Built-in field network

The field network is wired inside the robot, reducing the complexity of the external wiring. Compatible communication standards: PROFINET, PROFIBUS, DeviceNet



Options

Multibus cable

Field networks such as DeviceNet are wired inside the robot, reducing the complexity of external wiring.

Level-adjustable plate kit for fixing robot

Attachment for forklifts

Adjustable mechanical stopper kit for 1st axis (VL)

Protection cover for connector panel

Non adjustable leveling plate for fixing robot

VMB-2515 / 2518

Features

Used in contaminate-critical environments

In addition to the standard specifications, the lineup includes robots that comply with dust and splash resistance (IP67) and cleanliness standards (ISO class 5). They can be used to automate processes in a variety of industries, from automotive parts manufacturing and electrical/electronic parts to food, pharmaceutical, and medical equipment manufacturing processes.



Full-cover structure

Internal EtherCAT wiring for flexible hand design



2nd arm User wiring option

A wide variety of devices and hands can be mounted on the robot flange with options for user wiring, piping, and solenoid valves. The 2nd arm user wiring allows up to two EtherCAT lines to be wired internally. The 3-axis wiring option prevents tangling and wear on the external wiring/piping.



3-axis wiring option

Options

External battery extension unit



A backup battery for the encoder can be installed externally to the robot. This allows easier battery replacement and improved maintenance.

Brake release unit



A switch that allows you to release the brake of each axis (the wiring of this switch is directly connected to the brake release signal of each axis).

Level-adjustable plate kit for fixing robot

Attachment for forklifts

Non adjustable leveling plate for fixing robot

Adjustable mechanical stopper kit for 1st axis

VMB Series

RC9 ▶ P.36

VMB-2515 / 2518

The robots are suitable for transporting large items and palletizing processes, helping automate tasks involving heavy items.



Maximum arm reach	1,506 / 1,804 mm
Maximum payload	25 kg

Specifications

Item		Specifications	
Model		VMB-2515	VMB-2518
Axes		6	
Drive motor / brake		All-axis AC servo motor / all-axis with brakes	
Total arm length (No. 1 arm + No. 2 arm)		1,395 (710 + 685) mm	1,695 (860 + 835)mm
Maximum motion area (Point P)		1,506 mm	1,804 mm
Motion range	J1	±170° *1	
	J2	+140° , -100°	
	J3	+170° , -130°	
	J4	±200°	
	J5	±145°	
	J6	±360°	
Maximum payload		25 kg	
Maximum joint speed	J1	240 deg/sec	212 deg/sec
	J2	240 deg/sec	212 deg/sec
	J3	300 deg/sec	265 deg/sec
	J4	425 deg/sec	
	J5	425 deg/sec	
	J6	887 deg/sec	
Position repeatability *2		±0.05 mm	
Allowable wrist load moment	J4	52 Nm	
	J5	52 Nm	
	J6	52 Nm	
User air pipe(s)	2nd arm unit	No option	2 systems (ø8 x 2)
	3-axis unit	Solenoid valve options	9 systems (ø6 x 8, ø8 x 1) *3 [The solenoid valves can be selected in a combination of systems 1, 2, 3] 1. Solenoid valve (2-position, double solenoid) 2. Solenoid valve (3-position, exhaust center solenoid) 3. Solenoid valve (3-position, closed center solenoid) Cleanroom type has 8 systems (ø6 x 8).
User signal line(s)	2nd arm unit	No option	· 15 (for proximity sensor signals, etc.) *4 · LAN cable (STP) x 1
	3-axis unit	Options	· Additional 10 (for proximity sensor signals, etc.) *4 · LAN cable (STP) x 1
Air source	Normal pressure	0.20 to 0.39 MPa	
	Maximum allowable pressure	0.49 MPa	
Protection grade		Standard type: IP40	Protected type: IP67 Cleanroom type: ISO class 5
Weight		Approx. 230 kg	Approx. 250 kg

*1: The movable range is narrower if the unit is installed on a wall or tilted. *2: Position repeatability is the precision at constant ambient temperature.

*3: Controllable by use of the embedded solenoid valve only for ø6. *4: Allowable current is limited.

Legend

VMB -

Maximum payload: 25: 25 kg

Total arm length: 15: 1,506 mm
18: 1,804 mm

Options: W7: Protected type
C5: Cleanroom type (ISO class 5)

Selecting VMB robot options

When ordering a VMB robot, please select options 1 to 4 below.

1 Robot + Controller Set

Select from the eight different set part numbers [Selection required]



VMB Robot

RC9 Controller

Model	Part Name	Model	Part Name
VMB-2515/RC9M-M	Reach 1,500 mm	VMB-2518/RC9M-M	Reach 1,800 mm
VMB-2515/RC9M-P	Payload 25 kg	VMB-2518/RC9M-P	Payload 25 kg
VMB-2515W7/RC9M-M		VMB-2518W7/RC9M-M	
VMB-2515W7/RC9M-P		VMB-2518W7/RC9M-P	
VMB-2515C5/RC9M-M		VMB-2518C5/RC9M-M	
VMB-2515C5/RC9M-P		VMB-2518C5/RC9M-P	

2 Solenoid Valve

If a solenoid valve option is required, select one type. If it is not required, there is no need to select an option.



①	②	③	④	①	②	③	④	Model	Model				
1	2PD	2PD	2PD	2PD	9	2PD	3PE	3PC	3PC	1	Solenoid valve OP 2PD × 4	9	Solenoid valve OP 2PD × 1 / 3PE × 1 / 3PC × 2
2	2PD	2PD	2PD	3PE	10	2PD	3PC	3PC	3PC	2	Solenoid valve OP 2PD × 3 / 3PE × 1	10	Solenoid valve OP 2PD × 1 / 3PC × 3
3	2PD	2PD	2PD	3PC	11	3PE	3PE	3PE	3PE	3	Solenoid valve OP 2PD × 3 / 3PC × 1	11	Solenoid valve OP 3PE × 4
4	2PD	2PD	3PE	3PE	12	3PE	3PE	3PE	3PC	4	Solenoid valve OP 2PD × 2 / 3PE × 2	12	Solenoid valve OP 3PE × 3 / 3PC
5	2PD	2PD	3PE	3PC	13	3PE	3PE	3PC	3PC	5	Solenoid valve OP 2PD × 2 / 3PE × 1 / 3PC × 1	13	Solenoid valve OP 3PE × 2 / 3PC × 2
6	2PD	2PD	3PC	3PC	14	3PE	3PC	3PC	3PC	6	Solenoid valve OP 2PD × 2 / 3PC × 2	14	Solenoid valve OP 3PE × 1 / 3PC × 3
7	2PD	3PE	3PE	3PE	15	3PC	3PC	3PC	3PC	7	Solenoid valve OP 2PD × 1 / 3PE × 3	15	Solenoid valve OP 3PC × 4
8	2PD	3PE	3PE	3PC						8	Solenoid valve OP 2PD × 1 / 3PE × 2 / 3PC × 1		

3 Internal Wiring / Piping Options

Select from 48 types [Selection required]



- (1) Standard wiring/piping
 - (2) Standard wiring/piping + 2nd arm wiring/piping option
 - (3) Standard wiring/piping + J3 axis wiring/piping option
 - (4) Standard wiring/piping + 2nd arm wiring/piping option + J3 axis wiring/piping option
- *In the case of standard wiring/piping ((1) above), a part number must also be selected.

Specification to be selected						Product name
Reach	Protected	Solenoid valve OP	2nd arm OP	3-axis OP		
1	1500	IP40	—	—	—	Internal wiring/piping specifications: 1,500 mm / IP40
2			—	—	○	Internal wiring/piping specifications: 1,500 mm / IP40 / with 3-axis OP
3			—	○	—	Internal wiring/piping specifications: 1,500 mm / IP40 / with 2nd arm OP
4			—	○	○	Internal wiring/piping specifications: 1,500 mm / IP40 / with 2nd arm OP, with 3-axis OP
5			○	—	—	Internal wiring/piping specifications: 1,500 mm / IP40 / with solenoid valve
6			○	—	○	Internal wiring/piping specifications: 1,500 mm / IP40 / with 3-axis OP, with solenoid valve
7			○	○	—	Internal wiring/piping specifications: 1,500 mm / IP40 / with 2nd arm OP, with solenoid valve
8			○	○	○	Internal wiring/piping specifications: 1,500 mm / IP40 / with 2nd arm OP, with 3-axis OP, with solenoid valve
9		IP67	—	—	—	Internal wiring/piping specifications: 1,500 mm / IP67
10			—	—	○	Internal wiring/piping specifications: 1,500 mm / IP67 / with 3-axis OP
11			—	○	—	Internal wiring/piping specifications: 1,500 mm / IP67 / with 2nd arm OP
12			—	○	○	Internal wiring/piping specifications: 1,500 mm / IP67 / with 2nd arm OP, with 3-axis OP
13			○	—	—	Internal wiring/piping specifications: 1,500 mm / IP67 / with solenoid valve
14			○	—	○	Internal wiring/piping specifications: 1,500 mm / IP67 / with 3-axis OP, with solenoid valve
15			○	○	—	Internal wiring/piping specifications: 1,500 mm / IP67 / with 2nd arm OP, with solenoid valve
16			○	○	○	Internal wiring/piping specifications: 1,500 mm / IP67 / with 2nd arm OP, with 3-axis OP, with solenoid valve
17		Clean ISO5	○	—	—	Internal wiring/piping specifications: 1,500 mm / ISO5 / with solenoid valve
18			○	—	○	Internal wiring/piping specifications: 1,500 mm / ISO5 / with 3-axis OP, with solenoid valve
19			○	○	—	Internal wiring/piping specifications: 1,500 mm / ISO5 / with 2nd arm OP, with solenoid valve
20			○	○	○	Internal wiring/piping specifications: 1,500 mm / ISO5 / with 2nd arm OP, with 3-axis OP, with solenoid valve
21			—	—	—	Internal wiring/piping specifications: 1,500 mm / ISO5
22			—	—	○	Internal wiring/piping specifications: 1,500 mm / ISO5 / with 3-axis OP
23			—	○	—	Internal wiring/piping specifications: 1,500 mm / ISO5 / with 2nd arm OP
24			—	○	○	Internal wiring/piping specifications: 1,500 mm / ISO5 / with 2nd arm OP, with 3-axis OP

Specification to be selected						Product name
Reach	Protected	Solenoid valve OP	2nd arm OP	3-axis OP		
25	1800	IP40	—	—	—	Internal wiring/piping specifications: 1,800 mm / IP40
26			—	—	○	Internal wiring/piping specifications: 1,800 mm / IP40 / with 3-axis OP
27			—	○	—	Internal wiring/piping specifications: 1,800 mm / IP40 / with 2nd arm OP
28			—	○	○	Internal wiring/piping specifications: 1,800 mm / IP40 / with 2nd arm OP, with 3-axis OP
29			○	—	—	Internal wiring/piping specifications: 1,800 mm / IP40 / with solenoid valve
30			○	—	○	Internal wiring/piping specifications: 1,800 mm / IP40 / with 3-axis OP, with solenoid valve
31			○	○	—	Internal wiring/piping specifications: 1,800 mm / IP40 / with 2nd arm OP, with solenoid valve
32			○	○	○	Internal wiring/piping specifications: 1,800 mm / IP40 / with 2nd arm OP, with 3-axis OP, with solenoid valve
33		IP67	—	—	—	Internal wiring/piping specifications: 1,800 mm / IP67
34			—	—	○	Internal wiring/piping specifications: 1,800 mm / IP67 / with 3-axis OP
35			—	○	—	Internal wiring/piping specifications: 1,800 mm / IP67 / with 2nd arm OP
36			—	○	○	Internal wiring/piping specifications: 1,800 mm / IP67 / with 2nd arm OP, with 3-axis OP
37			○	—	—	Internal wiring/piping specifications: 1,800 mm / IP67 / with solenoid valve
38			○	—	○	Internal wiring/piping specifications: 1,800 mm / IP67 / with 3-axis OP, with solenoid valve
39			○	○	—	Internal wiring/piping specifications: 1,800 mm / IP67 / with 2nd arm OP, with solenoid valve
40			○	○	○	Internal wiring/piping specifications: 1,800 mm / IP67 / with 2nd arm OP, with 3-axis OP, with solenoid valve
41		Clean ISO5	○	—	—	Internal wiring/piping specifications: 1,800 mm / ISO5 / with solenoid valve
42			○	—	○	Internal wiring/piping specifications: 1,800 mm / ISO5 / with 3-axis OP, with solenoid valve
43			○	○	—	Internal wiring/piping specifications: 1,800 mm / ISO5 / with 2nd arm OP, with solenoid valve
44			○	○	○	Internal wiring/piping specifications: 1,800 mm / ISO5 / with 2nd arm OP, with 3-axis OP, with solenoid valve
45			—	—	—	Internal wiring/piping specifications: 1,800 mm / ISO5
46			—	—	○	Internal wiring/piping specifications: 1,800 mm / ISO5 / with 3-axis OP
47			—	○	—	Internal wiring/piping specifications: 1,800 mm / ISO5 / with 2nd arm OP
48			—	○	○	Internal wiring/piping specifications: 1,800 mm / ISO5 / with 2nd arm OP, with 3-axis OP

4 Power Cable

Select from two types [Selection Required]



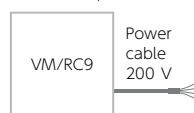
RC9 controller

- (1) Power cable 200 V
- (2) Power cable 400 V

Part Name
1 AC power cable (200 V, 10 m)
2 AC power cable (400 V, 10 m)

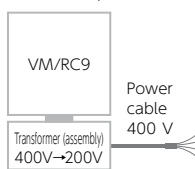
■ VM (without transformer)

Select 200 V power cable.



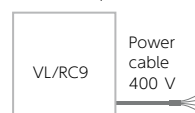
■ VM (shipped with transformer assembly)

Select 400 V power cable.



■ VL (without transformer)

Select 400 V power cable.



■ VL (shipped with transformer assembly)

Select 200 V power cable.

