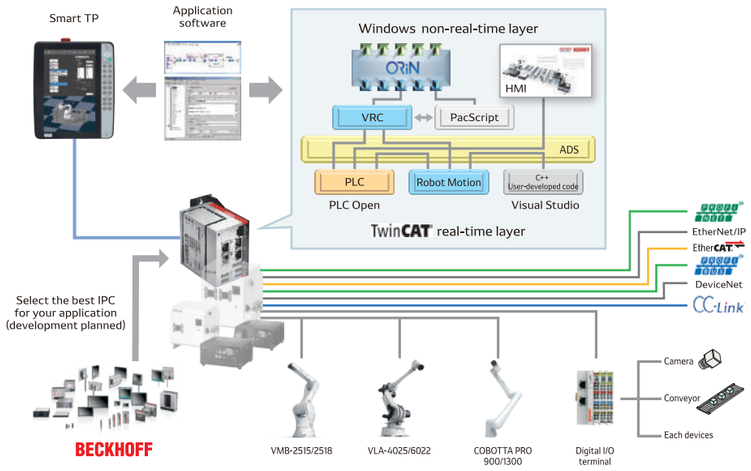
Robot Controller

RC9/CRC9

Controller that realizes integrated equipment control

By combining selectivity for optimization according to the application; openness (*CRC9 is under development.) for integration of the user, system integrator, and manufacturer technologies; and expandability for simple integration of the entire system, the RC9 controller achieves simple integrated facility control.





■External dimensions (mm)

RC9 :600×582×690 / 600×582×840

CRC9 :420×360×200 / 420×461×200

■Weight (kg)

RC9 :Approx. 93kg / Approx. 104kg

CRC9 :Approx. 15kg / Approx. 18kg

■Applicable robots

RC9 :VMB-2515 / 2518, VLA-4025/6022

CRC9 :COBOTTA PRO 900 / 1300

RC8A



■External dimensions (mm)

:357×320×94

■Weight (kg) :Safety I/O-less specification, Standard specification: Approx. 10kg

:Safety motion specification: Approx. 11kg(*1)

■Applicable robots

:VP-5243/6242(*2)

VS050/060

VS050S2

VS068/087

VS-6556/6577

VM-6083/60B1

HSR® 048/055/065

HS035A1/045A1/055A1

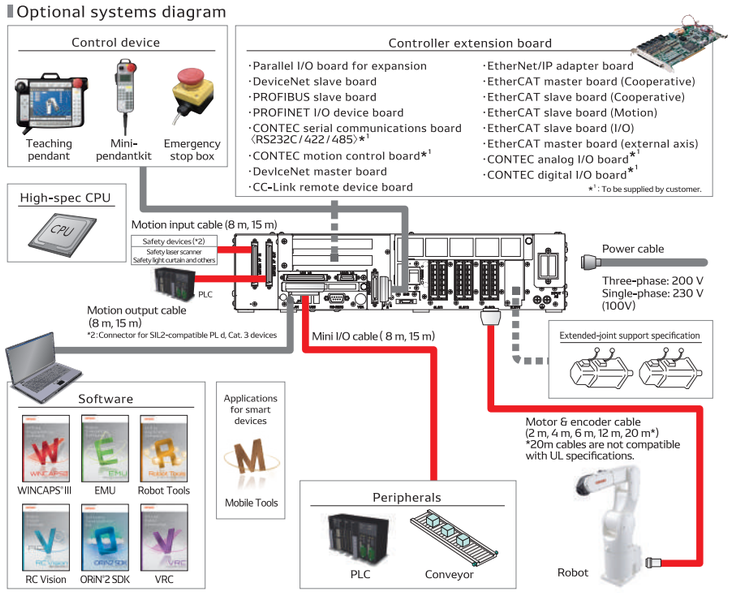
HM-4*****

XR-43***

*1: Does not include the supplied cables.

*2: Power for the 100 VAC specification is" Single-phase 100 VAC –5% to 110 VAC +10% 50/60 Hz, 1 kVA.

■Optional systems diagram



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DENSO WAVE INCORPORATED

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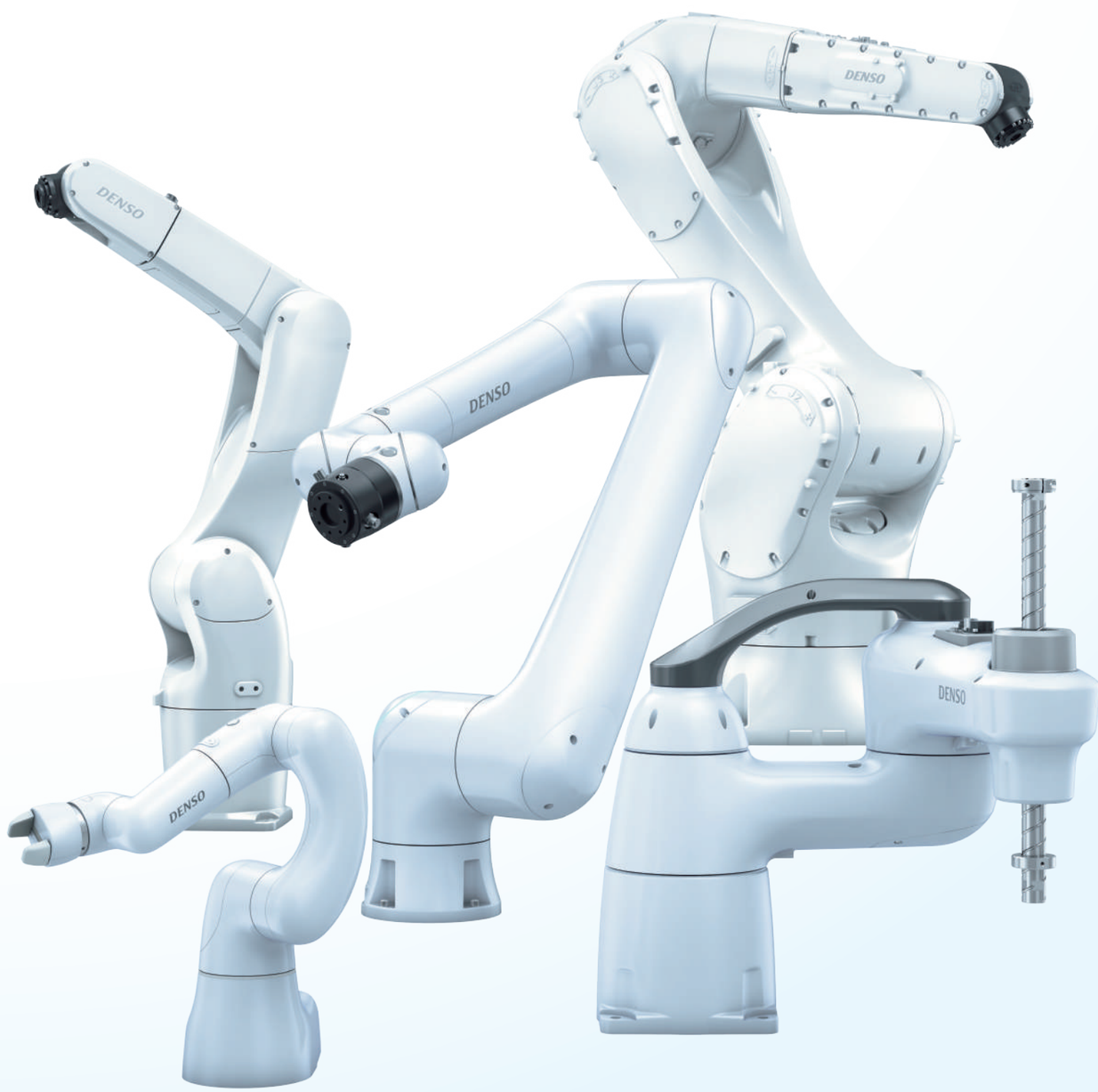
DENSO Robotics®

Robot Lineup

DENSO



DENSO Robotics® Lineup

5-AND 6-AXIS ROBOTS

VP Series RC8A

VP-5243 / 6242



Maximum arm reach	430 / 432 mm
Maximum payload	3 *1 / 2.5 *2 kg
Position repeatability *3	±0.02 mm
Variation	● Standard type

VS Series RC8A

VS050 / 060



Maximum arm reach	505 / 605 mm
Maximum payload	4 kg
Position repeatability *3	±0.02 mm
Variation	● Standard type ● Protected type (IP67) ● Dust & splash proof type (wrist: IP65, unit: IP54) ● Cleanroom type (ISO Class 3/5) ● UL specifications

VS068 / 087



Maximum arm reach	710 / 905 mm
Maximum payload	7 kg
Position repeatability *3	±0.02 to ±0.03 mm
Variation	● Standard type ● Protected type (IP67) ● Dust & splash proof type (wrist: IP65, unit: IP54) ● Cleanroom type (ISO Class 3/5) ● UL specifications

VS-6556 / 6577



Maximum arm reach	653 / 854 mm
Maximum payload	7 kg *5
Position repeatability *3	±0.02 to ±0.03 mm
Variation	● Standard type ● Dust & splash proof type (wrist: IP65, unit: IP54) ● Cleanroom type (Class 10/100)

VM Series RC8A

VM-6083 / 60B1



Maximum arm reach	1,021 / 1,298 mm
Maximum payload	13 kg *6
Position repeatability *3	±0.05 to ±0.07 mm
Variation	● Standard type ● Dust & splash proof type (wrist: IP65, unit: IP54) ● Cleanroom type (Class 100)

VMB Series RC9

VMB-2515 / 2518



Maximum arm reach	1,506 / 1,804 mm
Maximum payload	25 kg
Position repeatability *3	±0.05 mm
Variation	● Standard type ● Protected type ● Cleanroom type

VLA Series RC9

VLA-4025 / 6022



Maximum arm reach	2,503 / 2,257 mm
Maximum payload	40 / 60 kg
Position repeatability *3	±0.06 mm
Variation	● Protected type (wrist: IP67, unit: IP65)

PHARMACEUTICAL/MEDICAL ROBOTS

VS Series RC8A

VS050S2



Maximum arm reach	520 mm
Maximum payload	4 kg
Position repeatability *3	±0.02 mm
Standard cycle time *4	0.35 sec (for 1 kg payload)
Variation	● H_2O_2-resistant ● UL specifi cations

4-AXIS ROBOTS

HSR® Series RC8A

HSR®048 / 055 / 065



Arm reach	480 / 550 / 650 mm
Vertical stroke	100 / 200 / 320 / 510 mm *7
Maximum payload	8 kg
Position repeatability *3	±0.01 to ±0.012 mm
Standard cycle time *4	0.28 - 0.31 sec (for 2 kg payload)
Variation	● Standard type ● Bellows type ● Dust & splash proof type (IP65) ● Cleanroom type (ISO Class 3) *8 ● UL specifications ● Ceiling type ● H1 Grease type (IP65)

HS-A1 Series RC8A

HS035A1 / 045A1 / 055A1



Arm reach	350 / 450 / 550 mm
Vertical stroke	100 / 150 / 200 / 320 mm
Maximum payload	5 kg
Position repeatability *3	±0.01 mm
Standard cycle time *4	0.29 sec (for 2 kg payload)
Variation	● Standard type ● Bellows type ● Dust & splash proof type (IP65) ● Cleanroom type (ISO Class 3) *8 ● UL specifications *8 ● Ceiling type

HM Series RC8A

HM-40＊＊＊ / 4A＊＊＊



Arm reach	600 / 700 / 850 / 1,000 mm
Vertical stroke	100 / 150 / 200 / 300 / 400 mm
Maximum payload	10 / 20 kg
Position repeatability *3	±0.02 to ±0.025 mm
Standard cycle time *4	0.29 - 0.31 sec (for 2 kg payload)
Variation	● Standard type ● Dust & splash proof type (IP65) ● Cleanroom type (ISO Class 5) ● UL specifications ● Ceiling type

LPH Series RC8A

LPH-040



Arm reach	400 mm
Vertical stroke	150 mm
Maximum payload	3 kg
Position repeatability *3	±0.02 mm
Standard cycle time *4	0.45 sec (for 2 kg payload)
Variation	● Standard type

COLLABORATIVE ROBOTS

COBOTTA®

CVR038



Total arm length (No.1 arm + No.2 arm)	342.5 (165+177.5) mm
Rated payload (Maximum payload)	0.5 kg *10 *Without electric gripper
Position repeatability *3	±0.05 mm
Variation	● Standard type ● OSS version

COBOTTA® PRO CRC9

CVRB-0609 / 1213



Maximum arm reach	1,066 / 1,463 mm
Maximum payload	6 / 12 kg
Position repeatability *3	±0.03 to ±0.04 mm
Variation	● Dust & splash proof type (IP54) ● Cleanroom type (ISO Class 5)

GANTRY ROBOTS

XR Series RC8A

XR-43＊＊＊



Arm reach	200 / 250 / 300 mm
X-axis stroke	450 / 760 / 1,060 mm
Maximum payload	5 kg
Position repeatability *3	±0.015 mm
Standard cycle time *4	0.56 sec (for 3 kg payload)
Variation	● Standard type

INTER-PROCESS TRANSFER ROBOTS

SC Series RC8A

SCL＊＊＊



1-axis stroke	600 to 12,000 mm
2-axis stroke	100 / 200 / 300 / 400 mm
3-axis stroke	100 / 200 / 300 / 400 mm
4-axis stroke	100 / 200 / 300 / 400 mm
Maximum payload	3 kg/S *11, 5 kg/Z
Position repeatability *3	±0.02 to ±0.05 mm
Variation	● Standard type

*1 : If wrist downward movement exceeds ±45°, the maximum payload is 2.5 kg. *2 : If wrist downward movement exceeds ±45°, the maximum payload is 2.5 kg.
*3 : Position repeatability (center of end-effector mounting face) is the precision at constant ambient temperature.
*4 : One cycle is the time taken to move an object at a height of 25 mm between two points 300 mm apart.

*5 : If wrist downward movement exceeds ±45°, the maximum payload is 6 kg. *6 : If the payload exceeds 11 kg, flange downward movement is limited to ±10°.
* 7 : Standard type vertical stroke *8 : Floor type only *9 : Standard type/dust and splash proof type *10 : 0.7 kg within ±10° with the wrist angled downward
*11 : With S stroke of 400, 2 kg/S