

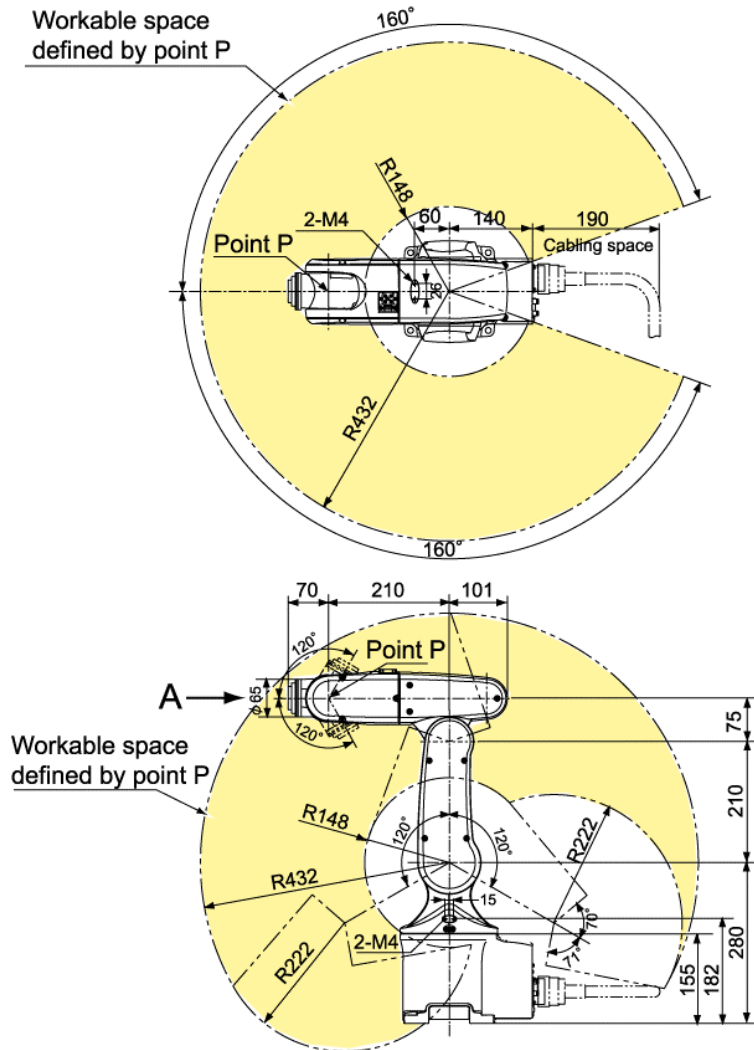
VP-GSeries Vertical articulated robot (Standard type)

Item	Specifications	
	6-axes type	5-axes type (Note 1)
Model name of robot set (Note 2)	VP-6242G	VP-5243G
Model name of robot unit	VP-6242E/GM	VP-5243E/GM
Overall arm length	210 (first arm) + 210 (second arm) = 420 mm	210 (first arm) + 220 (second arm) = 430 mm
Arm offset	J3 (front arm): 75 mm	-
Maximum motion area	R = 502 mm (end-effector mounting face) R = 432 mm (Point P: J4, J5, J6 center)	R = 500 mm (end-effector mounting face) R = 430 mm (Point P: J5, J6 center)
Motion range	J1 : $\pm 160^\circ$ J2 : $\pm 120^\circ$ J3 : $+160^\circ, +19^\circ$ J4 : $\pm 160^\circ$ J5 : $\pm 120^\circ$ J6 : $\pm 360^\circ$	J1 : $\pm 160^\circ$ J2 : $\pm 120^\circ$ J3 : $+136^\circ, -128^\circ$ J4 : none J5 : $\pm 120^\circ$ J6 : $\pm 360^\circ$
Maximum payload	2 kg (2.5 kg at wrist direction downward)	2.5 kg (3 kg at wrist direction downward)
Maximum composite speed	3900 mm/s (at the center of an end-effector mounting face)	
Position repeatability (Note 3)	In each of X, Y and Z directions: ± 0.02 mm	
Maximum allowable inertia moment	Around J4 and J5: 0.030 kgm^2 Around J6: 0.007 kgm^2	Around J5: 0.040 kgm^2 Around J6: 0.010 kgm^2
Position detection	Absolute encoder	
Drive motor and brake	AC servomotors for all joints, Brakes for all joints	
User air piping	4 systems ($\phi 4 \times 4$)	
User signal line	9 (for proximity sensor signals, etc.)	
Air source	Operating pressure	$1.0 \times 10^5 \text{ Pa}$ to $3.9 \times 10^5 \text{ Pa}$
	Maximum allowable pressure	$4.9 \times 10^5 \text{ Pa}$
Degree of protection	IP30	
Weight	Approx. 14 kg (31lbs)	Approx. 13 kg (29lbs)
<p>Note 1: The 5-axes type robot has not the 4th axis (J4).</p> <p>Note 2: The model name of robot set refers to the model name of a complete set including a robot unit and robot controller.</p> <p>Note 3: Position repeatability is the value at constant ambient temperature.</p>		

VP-G Series Vertical articulated robot

Outer Dimensions and Workable Space

(1) VP-6242G (6-axes type)



Name plate sample

Robot model	VP-6242E/GM
DENSO	
Serial number	411200 - **** 08G-004
MADE IN JAPAN	

Detailed drawing of end-effector mounting face (View A)

Technical specifications for the end-effector mounting face (View A):

- 4-M5, Depth 8 (P.C.D. 31.5)
- $\phi 40 \text{ h } 8^0_{-0.039}$
- $\phi 20 \text{ H } 7^{+0.021}_0$, Depth 6
- $\phi 5 \text{ H } 7^{+0.012}_0$, Depth 7

Detailed drawing of base mounting face (Top view)

Technical specifications for the base mounting face (Top view):

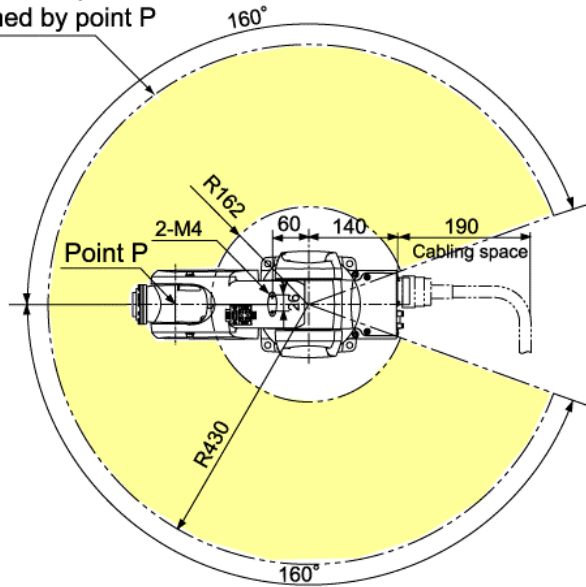
- 2- $\phi 6 \text{ H } 7^{+0.012}_0$ (Reference hole)
- 4- $\phi 10$
- Dimensions: 160, 135, 49±0.05, 135, 160, 144±0.05, R10

Unit: mm

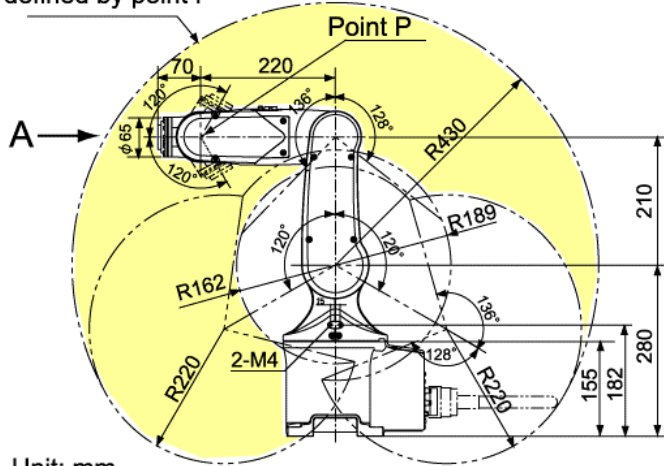
Outer Dimensions and Workable Space [VP-6242G]

(2) VP-5243G(5-axes type)

Workable space defined by point P



Workable space defined by point P

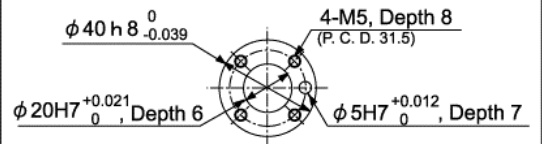


Unit: mm

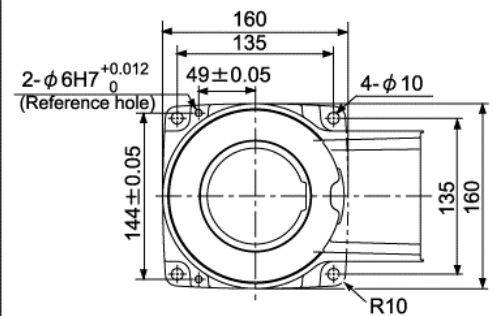
Name plate sample

Robot model	VP-5243E/GM
DENSO	
Serial number	411200 - **** 08G-004
MADE IN JAPAN	

Detailed drawing of end-effector mounting face (View A)



Detailed drawing of base mounting face (Top view)



Outer Dimensions and Workable Space [VP-5243G]