

# DENSO VP-G2 Robot Specifications

## (1) VP-6242G2

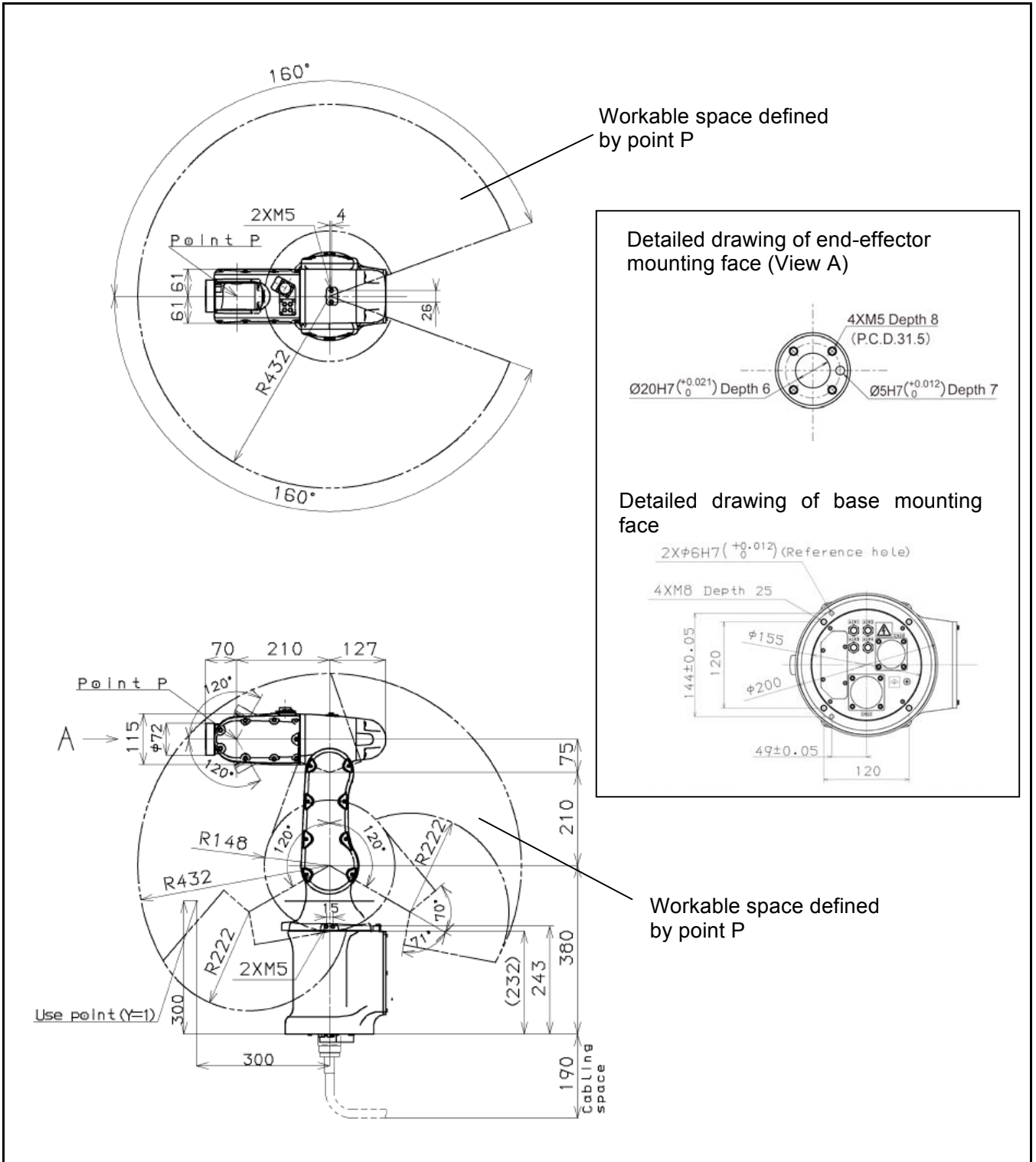
Item	Specifications	
	Standard	Standard (Designed to comply with UL)
Model name of robot unit	VP-6242G2	VP-6242G2-UL
Overall arm length	210 (first arm) + 210 (second arm) = 420 mm	
Arm offset	J3 (front arm): 75 mm	
Maximum motion area	R = 502 mm (end-effector mounting face) R = 432 mm (Point P: J4, J5, J6 center)	
Motion range	J1 : ±160°, J2 : ±120°, J3 : +160°, +19° J4 : ±160°, J5 : ±120°, J6 : ±360°	
Maximum payload	2 kg	
Maximum composite speed	3900 mm/s (at the center of an end-effector mounting face)	
Position repeatability	In each of X, Y and Z directions: ±0.02 mm	
Maximum allowable inertia moment	Around J4 and J5: 0.030 kgm <sup>2</sup> Around J6: 0.007 kgm <sup>2</sup>	
Position detection	Absolute encoder	
Drive motor and brake	AC servomotors for all joints, Brakes for all joints	
User air piping	4 systems (φ4x4)	
User signal line	16 (for proximity sensor signals, etc.)	
Air source	Operating pressure	1.0 × 10 <sup>5</sup> Pa to 3.9 × 10 <sup>5</sup> Pa
	Maximum allowable pressure	4.9 × 10 <sup>5</sup> Pa
Degree of protection	IP40	
Designed to comply with UL	-	UL1740 (Motor ON lamp, Brake release SW)
Weight	Approx. 24 kg	

## (2) VP-6242G2-S1

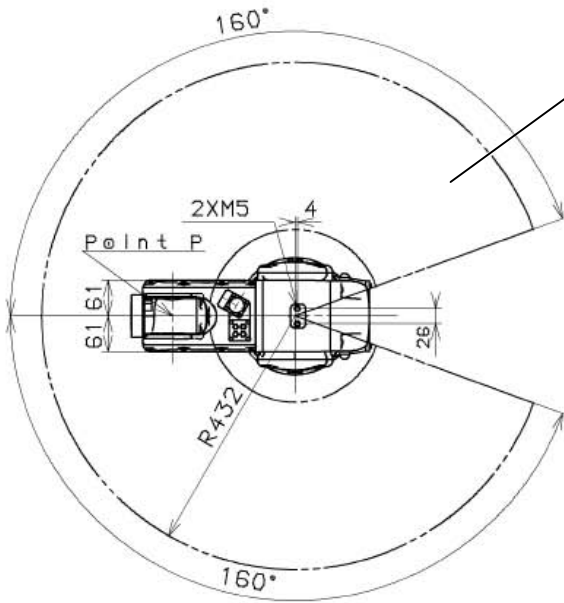
Item	Specifications	
	Hydrogen Peroxide (H <sub>2</sub> O <sub>2</sub> ) Wipe	Hydrogen Peroxide (H <sub>2</sub> O <sub>2</sub> ) Wipe (Designed to comply with UL)
Model name of robot unit	VP-6242G2-S1	VP-6242G2-S1-UL
Overall arm length	210 (first arm) + 210 (second arm) = 420 mm	
Arm offset	J3 (front arm): 75 mm	
Maximum motion area	R = 502 mm (end-effector mounting face) R = 432 mm (Point P: J4, J5, J6 center)	
Motion range	J1 : ±160°, J2 : ±120°, J3 : +160°, +19° J4 : ±160°, J5 : ±120°, J6 : ±360°	
Maximum payload	2 kg	
Maximum composite speed	3900 mm/s (at the center of an end-effector mounting face)	
Position repeatability	In each of X, Y and Z directions: ±0.02 mm	
Maximum allowable inertia moment	Around J4 and J5: 0.030 kgm <sup>2</sup> Around J6: 0.007 kgm <sup>2</sup>	
Position detection	Absolute encoder	
Drive motor and brake	AC servomotors for all joints, Brakes for all joints	
User air piping	4 systems (φ4x4)	
User signal line	16 (for proximity sensor signals, etc.)	
Air source	Operating pressure	1.0 × 10 <sup>5</sup> Pa to 3.9 × 10 <sup>5</sup> Pa
	Maximum allowable pressure	4.9 × 10 <sup>5</sup> Pa
Cleanroom class (FED-STD-209D)	Class 100 (0.3 μm)	
Degree of protection	Wipable with up to 6% hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> )	
Designed to comply with UL	-	UL1740 (Motor ON lamp, Brake release SW)
Weight	Approx. 25 kg	

Outer Dimensions and Workable Space of the Robot Unit

(1) VP-6242G2, VP-6242G2-S1

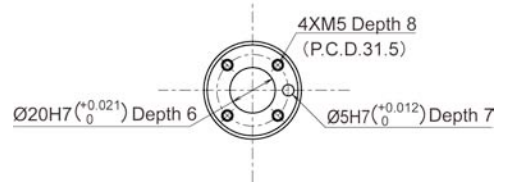


(2) VP-6242G2-UL, VP-6242G2-S1-UL

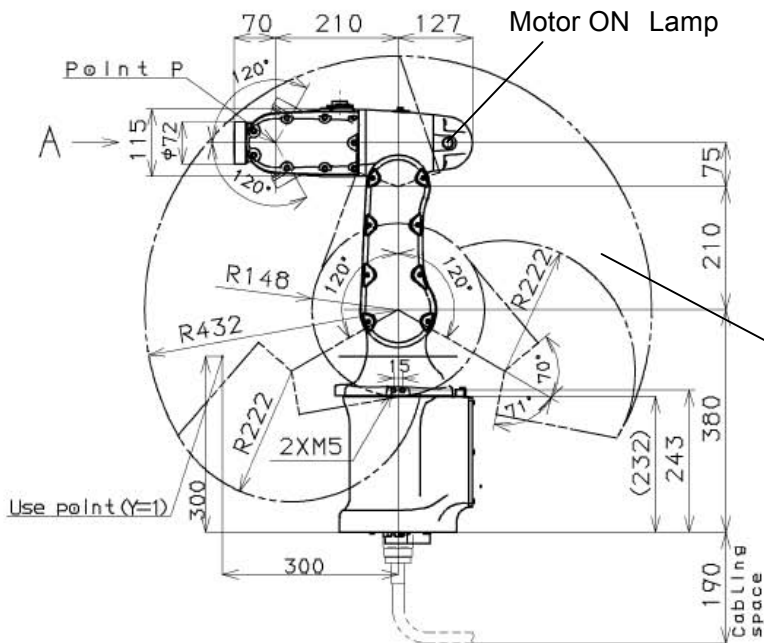
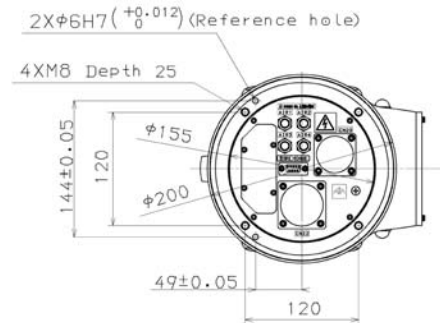


Workable space defined by point P

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



Detailed drawing of base mounting face



Workable space defined by point P

Unit:mm