

Technical Specifications VM-6083/60B1

Standard type

Item		Specifications	
Model name of robot unit		VM-6083	VM-60B1
Axes		6	
Position detection		Absolute encoder	
Drive motor and brake		All-axis AC servo motor / J2 to J6 with brakes	
Total arm length (No. 1 arm + No. 2 arm)		830(385+445)mm	1,110(520+590)mm
Arm offset	J1(Rotation)	180mm	
	J3 (forearm)	100mm	
Maximum motion area(Point P)		1,021mm	1,298mm
Motion range	J1 (No.1 axis)	±170°	
	J2 (No.2 axis)	+135°, -90°	
	J3 (No.3 axis)	+165°, -80°	+168°, -80°
	J4 (No.4 axis)	±185°	
	J5 (No.5 axis)	±120°	
	J6 (No.6 axis)	±360°	
Maximum payload		13kg(*4)	
Maximum joint speed	J1	180deg/sec	150deg/sec
	J2	150deg/sec	112.5deg/sec
	J3	200deg/sec	150deg/sec
	J4	262.5deg/sec	
	J5	262.5deg/sec	
	J6	420deg/sec	
Cycle time(*1)		0.89 sec	0.95 sec
Position repeatability (center of end-effector mounting face) (*2)		±0.05 mm	±0.07 mm
Maximum allowable moment of inertia	J4,J5	0.36 kgm ²	
	J6	0.064 kgm ²	
User air pipe 3		7 systems(φ4×6, φ6×1) 3 x solenoid valves (2 position, double solenoid)	
User signal line		10(for proximity sensor signals, etc.)	
Air source	Normal pressure	0.10-0.39 Mpa	
	Maximum allowable pressure	0.49 Mpa	
Airborne noise (equivalent continuous A-weighted sound pressure level)		80 dB or less	
Protection grade		Dust & splash proof type : wrist IP65 / unit IP54 (option) Cleanroom tyle : class100	
Weight		Approx. 82kg	

*1.Time required for a robot to move 5 kg payload between two points 300 mm apart at a height of 25 mm.

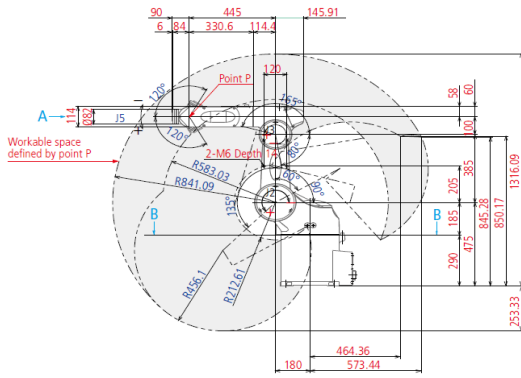
*2.Position repeatability is the precision at constant ambient temperature.

*3.Controllable by use of the embedded solenoid valve only for φ4×6.

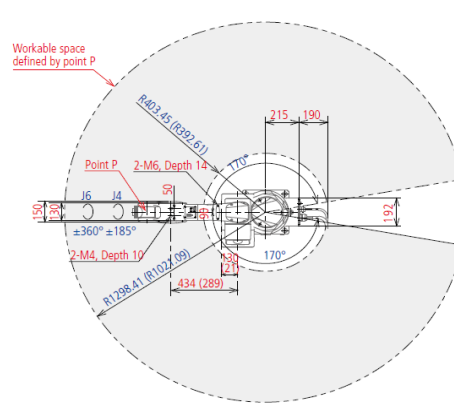
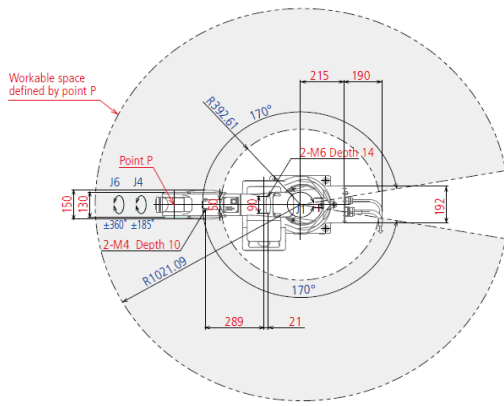
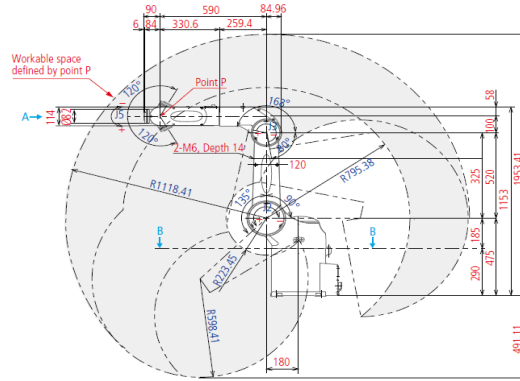
*4.If the payload exceeds 11 kg, wrist downward movement is limited to ±10°.

External Dimensions for Standard Type Unit: mm

VM-6083

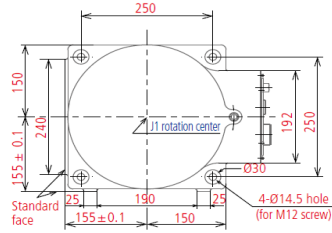
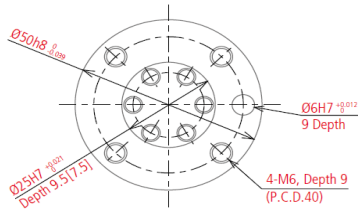


VM-60B1



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

Detailed drawing of base mounting face (B-B view)



The values in brackets [] are of the cleanroom type (class 100)

Legend

VM - 6 0 -

<p>Model : VM: Mid-sized 4-axis robot</p>	<p>Axes : 6: 6-axis</p>	<p>Maximum payload 0: 13kg</p>	<p>Total arm length : 83: 830mm B1: 1110mm</p>	<p>Options : None: Standard type, W: Dust & splash proof type (Wrist: IP65, unit: IP54) P: Cleanroom type (class 100)</p>
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Standard Components

Group	Item	Q'ty
Robot & Accessories	Robot unit	1
	Motor & encoder cable (option)	1
	Sheet of direction indicator labels	1
	Connector set for hand control signals (for CN20 and CN21)	1set
Controller & Accessories	Robot controller	1
	Power cable (5 m)	1
	Pendantless connector (Dummy connector)	1
	Cable clamp	1
Software etc	WINCAPS III trial version installer disc	1
	Manuals ("Manual Pack disc" and "Safety Precautions")	1set
	Warning label	1