

Compact Yet Powerful with High Repeatability and Fast Speed

- Payloads up to 3 kg
- Compact Wrist Fits in Tight Spaces
- Long, Slim Arm for Greater Reach
- Compact Elbow for Optimum Workcell Layout



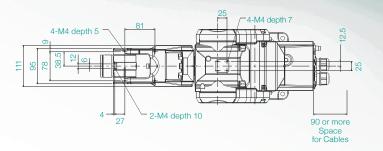
Specifications

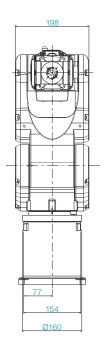
Center of J4/J5/J6 Sulumin			C3-A601 (C3)			
Degrees of freedom	Mounting type		Tabletop	Ceiling	Skewed	Wall
Max. Motion Range P point: through the center of J4/J5/J6 600 mm Wrist flange surface 665 mm Max. operating speed Joint #1 450 % Joint #2 450 % 514 % Joint #3 514 % 553 % Joint #5 553 % 553 % Joint #6 720 % Weight (cables not included) Repeatability Joint #1 #6 27 kg Repeatability Joint #1 #6 ±170 deg(±180 deg without the mechanical stop) ±30 deg Max. motion range Joint #1 ±170 deg(±180 deg without the mechanical stop) ±30 deg Joint #2 Joint #3 -151 deg-+225 deg -160 deg-+255 deg Joint #4 ±200 deg -101 ft deg -183 deg Joint #6 ±380 deg -184 deg -184 deg -184 deg Raled 1 kg -184 deg <			·			
Center of J4/J5/J6 Substituting Speed Substituting Speed Joint #1 450'/s	Max. Motion Range	P point: through the	600 mm			
Max. operating speed						
Max. operating speed	Wrist flange surface		665 mm			
Joint #2 450 /s 514 /s 514 /s 5153 /	Max. operating speed	Joint #1	450°/s			
		Joint #2	450°/s			
		Joint #3		514	514°/s	
Meight (cables not included) Repeatability Joint #1		Joint #4	553°/s			
Meight (cables not included) 27 kg ± 0.02 mm		Joint #5	553°/s			
Repeatability		Joint #6	720°/s			
Max. motion range Joint #1 ±170 deg(±180 deg without the mechanical stop) ±30 deg Joint #2 -160 deg -+65 deg -51 deg -+225 deg Joint #3 -51 deg -+225 deg Joint #4 ±200 deg Joint #5 ±360 deg Payload Rated 1 kg Maximum 3 kg Standard cycle time¹ 0.37 sec Allowable moment Joint #4 0.15 kg •m2 of inertia Joint #5 0.15 kg •m2 Joint #6 0.1 kg •m2 Motor power consumption Joint #6 400 W Joint #2 400 W Joint #3 150 W Joint #4 50 W Joint #3 150 W Joint #4 50 W Joint #4 50 W Joint #3 50 W Joint #4 50 W Joint #5 50 W Joint #5 50 W Joint #5 50 W Joint #6 50 W Joint #5 50 W Joint #5 <th>Weight (cables not included)</th> <th></th> <th colspan="4">27 kg</th>	Weight (cables not included)		27 kg			
Joint #2	Repeatability	Joint #1-#6	±0.02 mm			
Joint #3 -51 deg-+225 deg Joint #4 ±200 deg Joint #5 ±135 deg Joint #6 ±360 deg Payload Rated 1 kg Maximum 3 kg Standard cycle time¹ 0.37 sec Allowable moment Joint #4 0.15 kg*m2 of inertia Joint #5 0.15 kg*m2 Joint #6 0.1 kg*m2 Joint #6 0.1 kg*m2 Joint #1 400 W Joint #2 400 W Joint #3 150 W Joint #4 50 W Joint #4 50 W Joint #5 50 W Joint #5 50 W Joint #6 50 W J	Max. motion range	Joint #1		±170 deg(±180 deg wit	hout the mechanical stop)	±30 deg
Joint #4		Joint #2	-160 deg~+65 deg			
Joint #5		Joint #3	-51 deg~+225 deg			
Doint #6		Joint #4	±200 deg			
Payload Rated Maximum 1 kg Maximum 3 kg Standard cycle time¹ 0.37 sec Allowable moment Joint #4 0.15 kg⋅m2 Joint #6 0.15 kg⋅m2 Motor power consumption Joint #1 400 W Joint #2 400 W Joint #2 Joint #3 150 W Joint #4 50 W Joint #5 50 W Joint #5 50 W Joint #5 50 W Joint #6 50 W Join		Joint #5	±135 deg			
Maximum 3 kg		Joint #6	±360 deg			
Standard cycle time	Payload	Rated	1 kg			
Allowable moment of inertia Joint #4 0.15 kg·m2 Joint #5 Joint #6 0.1 kg·m2 Motor power consumption Joint #1 Joint #2 400 W Joint #3 150 W Joint #4 50 W Joint #5 Joint #5 50 W Joint #5 Joint #6 50 W Joint #6 Standard/Cleanroom ² & ESD Available controllers RC180, RC620+		Maximum	3 kg			
Solit So	Standard cycle time ¹		0.37 sec			
Joint #6	Allowable moment	* *	0.15 kg•m2			
Motor power consumption Joint #1 400 W Joint #2 400 W Joint #3 150 W Joint #4 50 W Joint #5 50 W Joint #6 50 W Electric lines 9Pin (D-Sub) Pneumatic lines Φ4mm×4 Installation environment Standard/Cleanroom² & ESD Available controllers RC180, RC620+	of inertia		0.15 kg•m2			
Joint #2		Joint #6	0.1 kg•m2			
Joint #3 150 W Joint #4 50 W Joint #5 50 W Joint #6 50 W Flectric lines 9Pin (D-Sub) Pneumatic lines 04mm×4 Installation environment Standard/Cleanroom ² & ESD Available controllers RC180, RC620+	Motor power consumption		**			
Joint #4 50 W Joint #5 50 W Joint #6 50 W Electric lines 9Pin (D-Sub) Pneumatic lines Φ4mm×4 Installation environment Standard/Cleanroom² & ESD Available controllers RC180, RC620+		Joint #2				
Joint #5 50 W Joint #6 50 W Electric lines 9Pin (D-Sub) Pneumatic lines 04mm×4 Installation environment Standard/Cleanroom² & ESD Available controllers RC180, RC620+		Joint #3	· · · · · · · · · · · · · · · · · · ·			
Joint #6 50 W		Joint #4	· · ·			
Electric lines 9Pin (D-Sub) Pneumatic lines \$\Omega 4\text{mm} \times 4 Installation environment \$\Standard/Cleanroom^2 & ESD Available controllers RC180, RC620+		Joint #5	****			
Pneumatic lines Ф4mm×4 Installation environment Standard/Cleanroom² & ESD Available controllers RC180, RC620+		Joint #6				
Installation environment Standard/Cleanroom² & ESD Available controllers RC180, RC620+	Electric lines					
Available controllers RC180, RC620+	Pneumatic lines					
	Installation environment		Standard/Cleanroom ² & ESD			
Safety standards CE, ANSI/RIA15.06-2012	Available controllers					
	Safety standards		CE, ANSI/RIA15.06-2012			

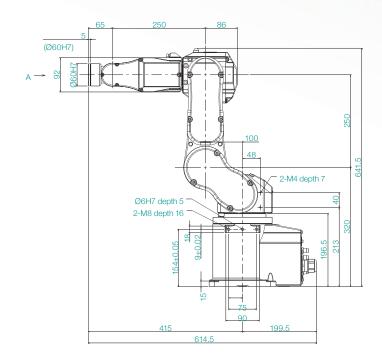
¹ Cycle time based on round-trip arch motion (300mm horizontal, 25mm vertical) with 1kg payload (path coordinates optimized for maximum speed).

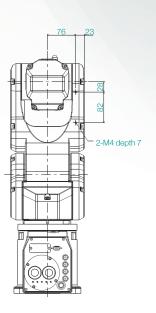


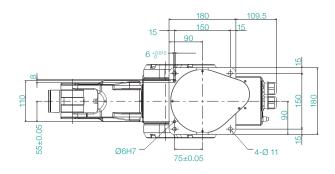
 $^{2\} Complies\ with ISO\ Class\ 3\ (ISO14644-1)\ and\ older\ Class\ 10\ (less\ than\ 100.1\ \mu m\ particles\ per\ 28,317cm^3:1cft)\ clean room\ standards.$





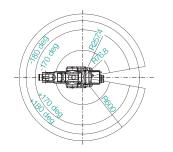




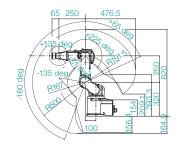


■ Motion Range

Top View



Lateral View



Front View

