Specifications

		C8	C8L	C8XL
		C8-A701*	C8-A901*	C8-A1401*
Mounting type		Table Top*		
Degree of feedom		6		
Max. Motion Range	P point: through	711 mm	901 mm	1400 mm
Wrist flange surface	the center of J4/J5/J6	791 mm	981 mm	1480 mm
Max. operating speed	Joint #1	331°/s	294°/s	200°/s
	Joint #2	332°/s	300°/s	167°/s
	Joint #3	450°/s	360°/s	200°/s
	Joint #4	450°/s		
	Joint #5	450°/s		
	Joint #6	720°/s		
Weight(cables not included)		49 kg (IP:53 kg)	52 kg (IP:56 kg)	62 kg (IP:66 kg)
Repeatability	Joint #1-#6	±0.02 mm	±0.03 mm	±0.05 mm
Max. Motion Range	Joint #1	±240°		
	Joint #2	-158°~+65°		-135°~+55°
	Joint #3	-61°~+202°		
	Joint #4	±200°		
	Joint #5	±135°		
	Joint #6	±360°		
Payload	Rated	3 kg		
	Maximum	8 kg		
Standard cycle time*1		0.31 sec	0.35 sec	0.53 sec
		0.39 sec	0.43 sec	0.62 sec
		0.48 sec	0.50 sec	0.72 sec
Allowable moment of inertia*2	Joint #4	0.47 kg•m2		
	Joint #5	0.47 kg•m2		
	Joint #6	0.15 kg•m2		
Motor power consumption	Joint #1	1000 W		
	Joint #2	750 W		
	Joint #3	400 W		
	Joint #4	100 W		
	Joint #5	100 W		
	Joint #6	100 W		
Home		Home-return-less		
Installed wire for customer use		15 wires (D-sub), 8 pin (RJ45) Cat 5e or equivalent, 6 pin (for Force Sensor)		
Installed pneumatic tube for customer use		ø6 mm pneumatic tubes (2 tubes), Allowable pressure: 0.59 Mpa (6 kgf/cm2) (89 psi)		
Installation environment		Standard / Cleanroom model & ESD *2 / Protection model (IP67)		
Applicable Controller		RC700-A		
Safety standard		CE, KC		

*1:Cycle time based on round-trip arch motion (300mm horizontal, 25mm vertical) with 1kg payload (path coordinates optimized for maximum speed).
*2:C8/C8L comply with ISO Class 3 (ISO14644-1) and older Fes. Std. 209D Class 1 (less than 10 0.1µm particles per 28,317cm3:1cft) cleanroom standards.
C8XL complies with ISO Class 4 (ISO14644-1) and older Fes. Std. 209D Class 10 (less than 10 0.1µm particles per 28,317cm3:1cft) cleanroom standards.
*Use EPSON RC+program development software Wall and Ceiling settings when programming wall-mounted or ceiling-mounted units.

Better Products for a Better Future™

At Epson, we know that planning for the future requires a strong commitment to the environment. That is why we strive to create innovative products that are reliable, recyclable, and energy efficient. Better products that use fewer resources help ensure a better future for us all.

EPSON Robots
1650 Glenn Curtiss St., Carson, CA 90746

Tel: +1 (562) 290-5997
Fax: +1 (562) 290-5999

E-mail: info@robots.epson.com
Web: epsonrobots.com

EPSON Robots
Built to Perform

epsonrobots.com

Safety Precautions Please read associated manuals carefully before installing or using our robot products. Always use products properly per guidelines in the manuals.

EPSON®
EXCEED YOUR VISION

C8 Series
6-Axis Robots

C8 | C8L | C8XL

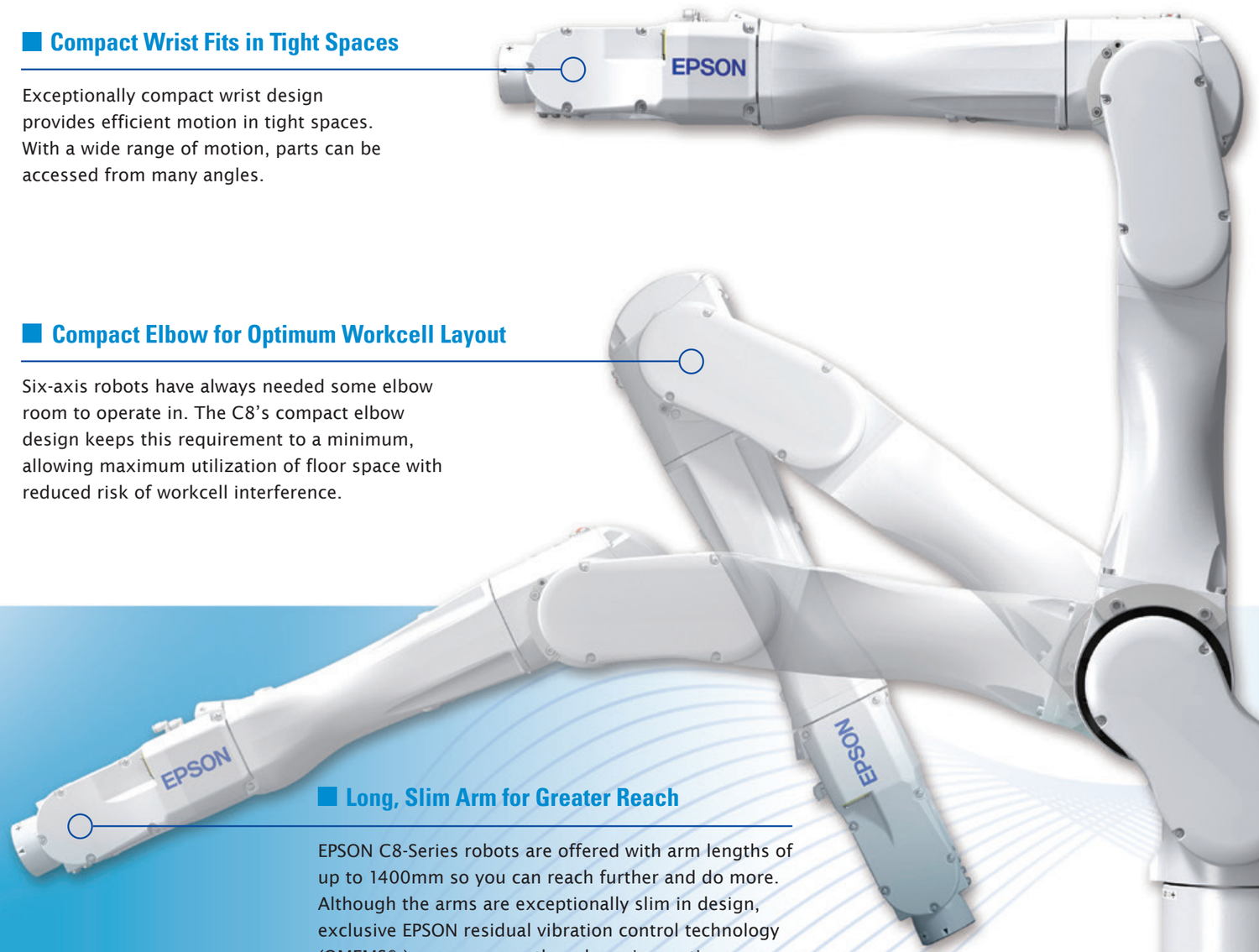
C8 Series

Compact Wrist Fits in Tight Spaces

Exceptionally compact wrist design provides efficient motion in tight spaces. With a wide range of motion, parts can be accessed from many angles.

Compact Elbow for Optimum Workcell Layout

Six-axis robots have always needed some elbow room to operate in. The C8's compact elbow design keeps this requirement to a minimum, allowing maximum utilization of floor space with reduced risk of workcell interference.



Long, Slim Arm for Greater Reach

EPSON C8-Series robots are offered with arm lengths of up to 1400mm so you can reach further and do more. Although the arms are exceptionally slim in design, exclusive EPSON residual vibration control technology (QMEMS®) ensures smooth and precise motion.

Compact Yet Powerful, with High Repeatability and Fast Speed

Exclusive Epson Technology Reduces Vibration During High-Speed Operation with Heavy Loads

The new EPSON C8-Series robots handle payloads of up to 8 Kg - double the 4Kg payload of EPSON C4-Series robots. Despite this high payload capacity, exclusive EPSON residual vibration control technology (QMEMS®) enables the slim, compact arms to operate at high speeds with minimal vibration. The increased payload capacity also enables the use of multi-headed and larger tooling as well as heavier parts.

Long, Slim Arms with up to 1400mm Reach

Weighing just 62 kg, the C8XL is one of the lightest robots in its class to offer a horizontal motion range of 1400 mm. The light, compact body is easy to mount on a stand, wall, ceiling or track for maximum workcell configuration flexibility. The slim design of the arm also minimizes interference with nearby machinery and expands the range of potential applications by enabling the robot to reach inside machines, shelves or other areas with tight spaces.

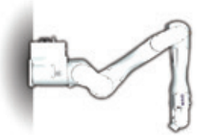
Light and Compact with a Long, Slim Arm

Enhanced workcell configuration flexibility

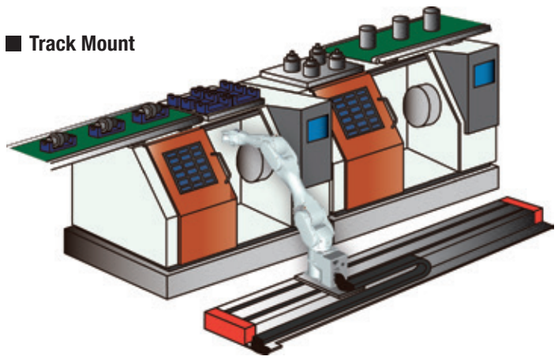
EPSON C8-Series robots are designed to be light, compact and easy to use. A small footprint of 320mm x 200mm allows easy wall, ceiling or track mounting for maximum workcell configuration flexibility. Weight is also low — at 62 kg, the C8XL is one of the lightest robots in its class — and the long, slim arms boast excellent rigidity and residual vibration control. Light and slim with a long reach, the EPSON C8-Series robots give users maximum flexibility in their production line layout.

■ Ceiling Mount

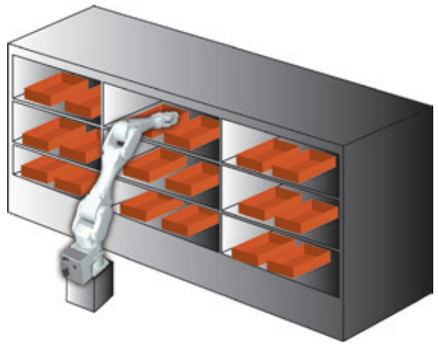
■ Wall Mount



■ Track Mount



■ Pick-and-Place for Shelfs, Racks, etc.



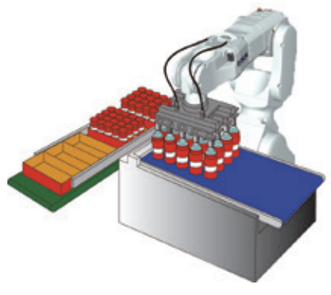
A Compact Yet Powerful Arm

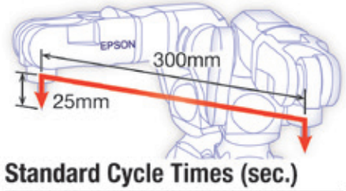
Tooling design flexibility makes the impossible possible

Compact and powerful, with high speed and low vibration even under maximum load, the EPSON C8-Series robots are up to 30% faster than the EPSON S5-Series robots. Supporting a wide range of tooling, the EPSON C8-Series robots can handle multi-headed tooling with high speed and repeatability.

■ Multi-Headed Tooling

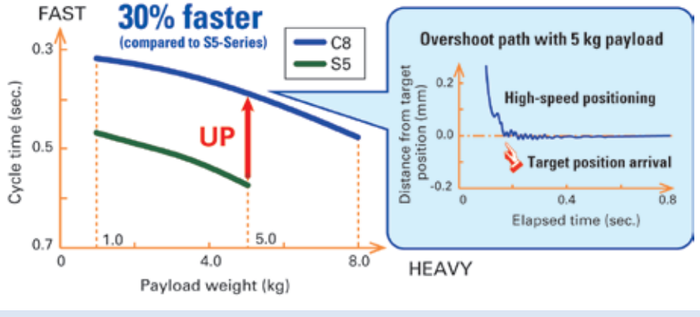
■ Multiple Parts





Standard Cycle Times (sec.)

	1kg	5kg	8kg
C8	0.31	0.39	0.48
C8L	0.35	0.43	0.50
C8XL	0.53	0.62	0.72

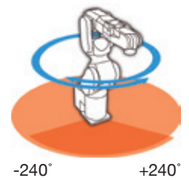


Configuration Flexibility & a Wide Working Range

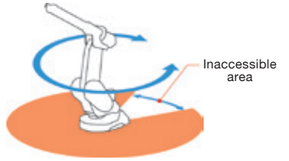
Workcell layout flexibility

Workcell layout flexibility is outstanding — with rotational mobility of ±240°, there are no dead zones.

■ C8 Series



■ Conventional Type



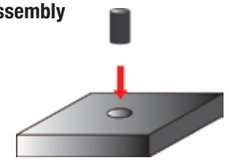
Superior Repeatability and Precise Path Control

Higher precision for higher productivity

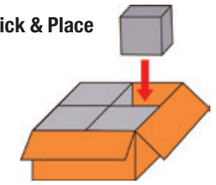
High precision and repeatability make the C8 series ideal for applications and processes that demand precise path control.

■ Sealing

■ Insertion/Assembly



■ Precise Pick & Place



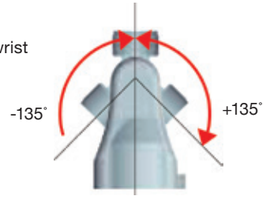
Compact, Highly Flexible Wrist

High agility makes previously impossible tasks possible

Tight spaces and long workpieces are no problem.
Workpieces can be approached from any angle.

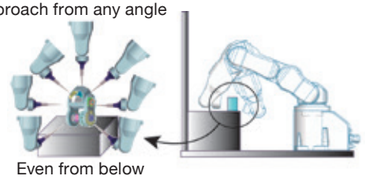
■ High rotational mobility

Best-in-class J5 wrist axis mobility



■ Workpiece Orientation Adaptability

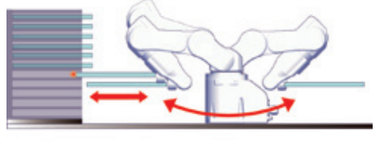
Approach from any angle



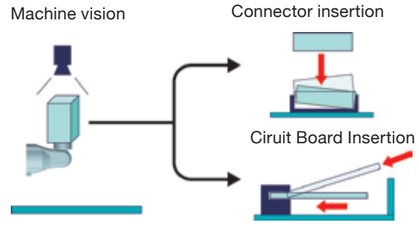
Even from below

■ Racked Workpiece Loading/Unloading

Enhanced agility reduces handling space requirements

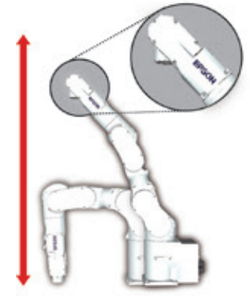


■ Precise Component Placement Machine Vision



■ Long Workpiece Handling

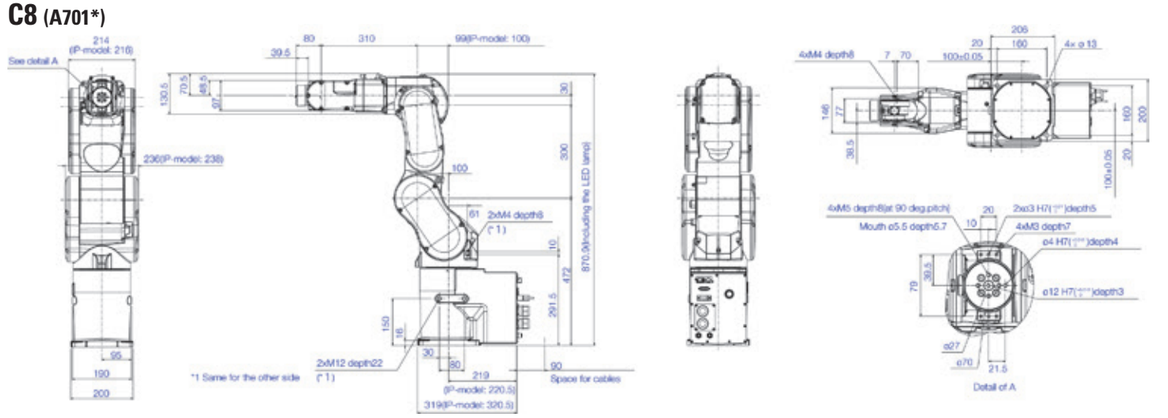
Enhanced agility allows full utilization of working height



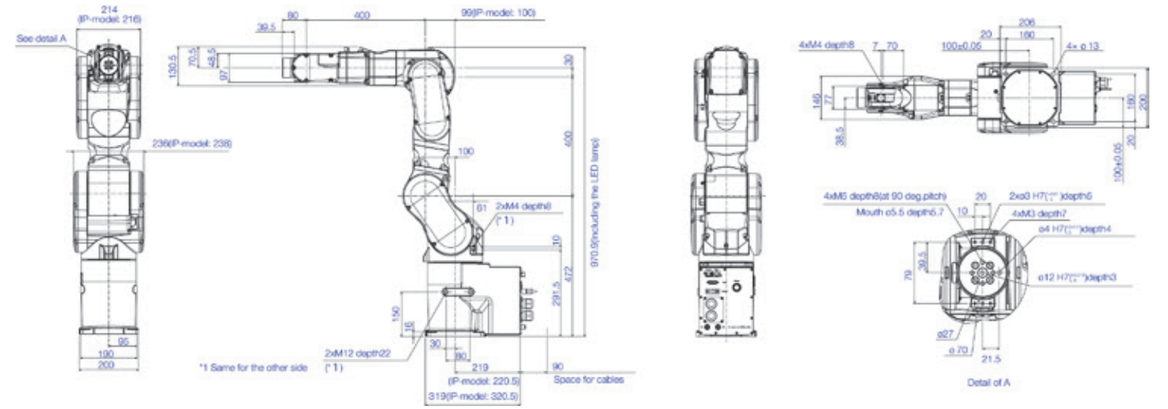
Outer Dimensions

[Unit: mm]

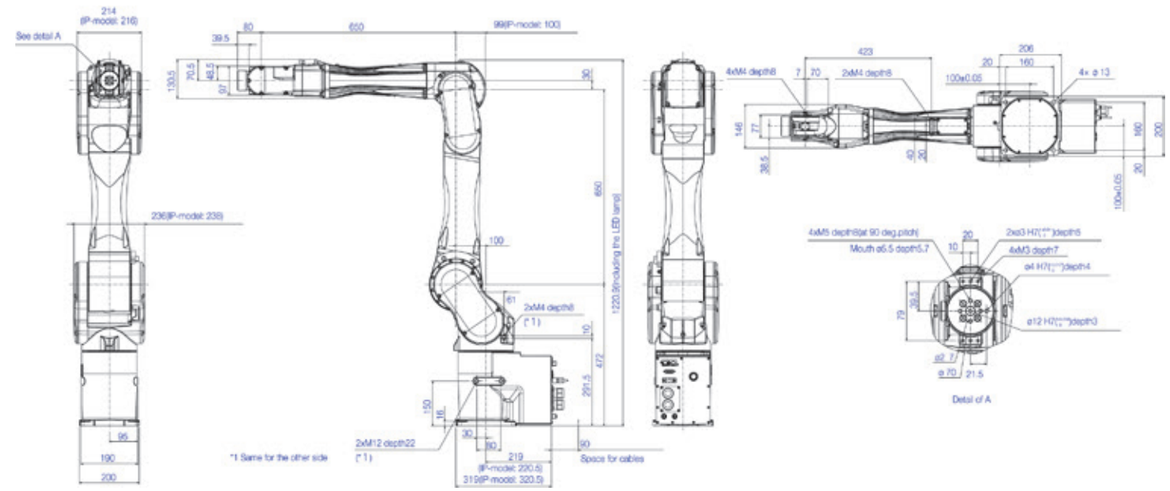
C8 (A701*)



C8L (C8-A901*)



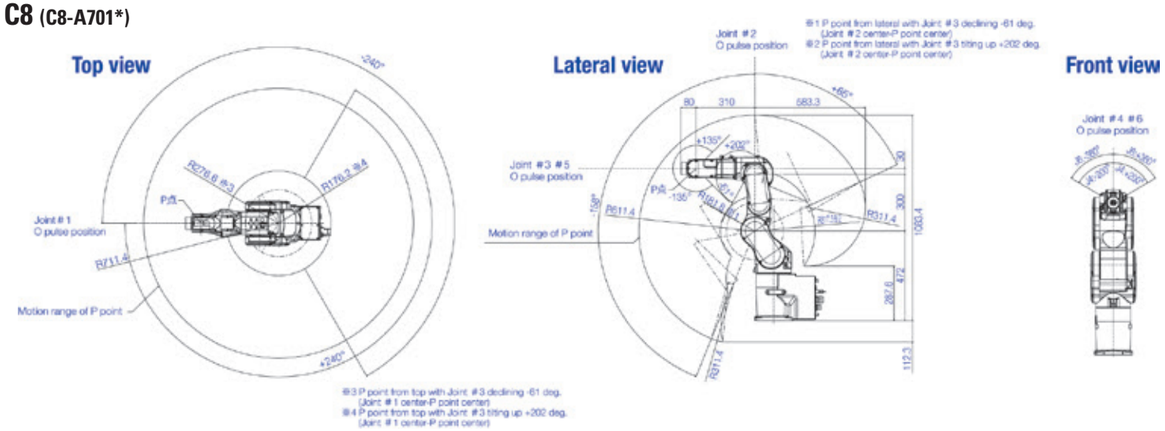
C8XL (C8-A1401*)



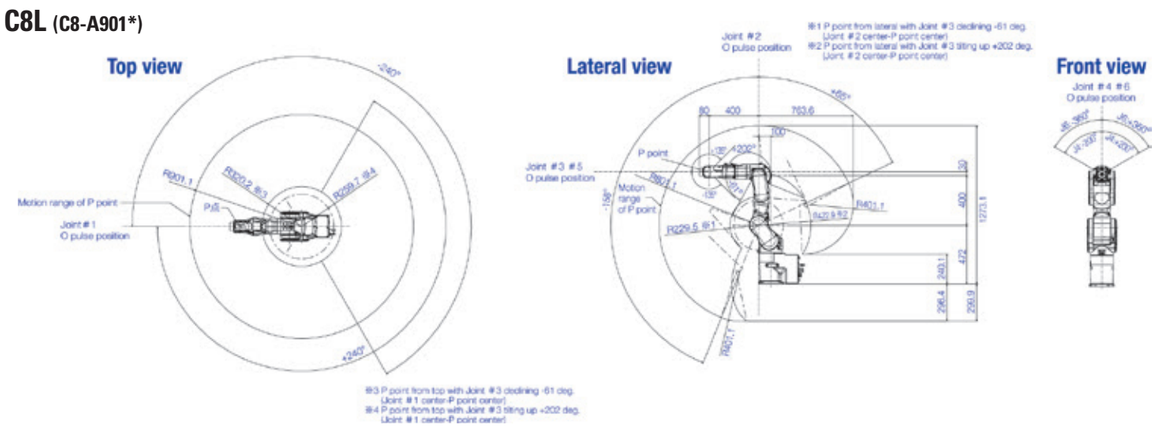
Motion Range

[Unit: mm]

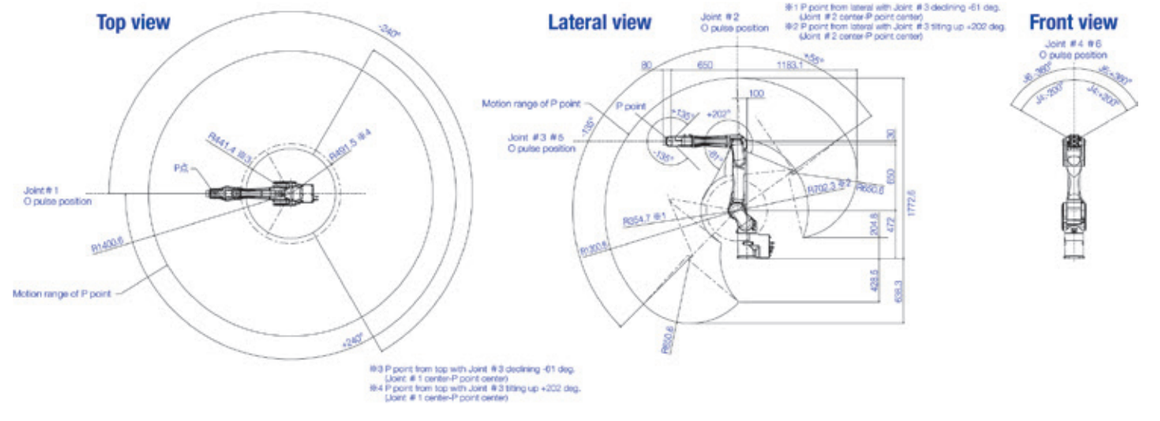
C8 (C8-A701*)



C8L (C8-A901*)



C8XL (C8-A1401*)



※3 P point from top with Joint #3 declining -61 deg.
(Joint #1 center-P point center)
※4 P point from top with Joint #3 tilting up +202 deg.
(Joint #1 center-P point center)