

ABOUT EPSON

Epson Factory Automation belongs to the leading companies for high-tech robot systems which are appreciated worldwide for their renowned reliability. As well as Epson 6-axis robots, SCARA robots and the Epson Spider with overhead mounting and controllers make up the product line.

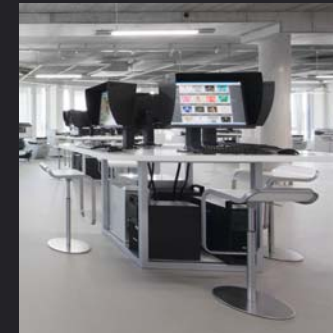
Technological leader

- In-house research and development department for automation processes
- One of the world's most comprehensive SCARA model ranges
- **1982**
First freely available Epson SCARA robot in Japan
- **1986**
The world's first cleanroom robot of class 1
- **1997**
First PC-based controller
- **2008**
Inventor of the SCARA G3 robot with left and right arm orientation
- **2009**
Inventor of the Spider: a one-of-a-kind SCARA robot with 450° envelope

Pre and after sales support

- Feasibility studies for maximum planning and project security
- Support during planning and implementation
- Introductory seminars, programming, maintenance or operator trainings
- Inspection and individual maintenance concepts
- Hotline service, on site repair service
- Central spare part stocking

EPSON INDUSTRY SOLUTIONS CENTRE — WHERE WE FIND YOUR SOLUTION!



See all Epson robots in action. Our experts help you to set up, simulate and optimise your automation application in a workshop cell. The cell can be controlled and networked with all standard fieldbus systems. In addition, we provide up-to-date peripheral equipment such as a Vision and Conveyor Tracking system.

Epson Deutschland GmbH

Factory Automation Division
Otto-Hahn-Straße 4
40670 Meerbusch

Phone: +49 2159 5381800
Fax: +49 2159 5383170
E-mail: robot.infos@epson.de
www.epson.de/robots

Would you like to arrange an appointment?

Call us at
+49 2159 5381800

or write us an e-mail at
robot.infos@epson.de

Epson America Inc.
www.robots.epson.com

Seiko Epson Corp
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EPSON 6-AXIS ROBOT PROSIX C4, C4L

NEW

OUR C4 SERIES

**FASTER.
SLIMMER.
STRONGER.**



EPSON®
EXCEED YOUR VISION

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EXCEED YOUR VISION

THE COMPARATIVE OF GOOD? BETTER!

As one of the pioneers in robotics, we can't let go – the development of new features and the continual optimisation of our robot systems.

Always striving for added value: more efficiency for your application.

Voilà, here are the new Epson 6-axis robots: the ProSix C4 and its big brother, the ProSix C4L.

The new Epson ProSix C4L has a reach of 900mm, but thanks to the particularly slim arm design, it doesn't take up much space. This makes it unbeatable in its class in terms of space optimisation!

The Epson ProSix C4 offers better performance. Here, the lifting capacity was able to be raised to 4 kg; still, the robot is just as light and compact as its predecessor.

Lighter materials in close quarters – ideal for handling

Epson ProSix C4
Reach 600mm
Loading capacity 4/5* kg

*Possible in special conditions
(see manual)



A first for robotics!
Vibration control thanks to Epson QMEMS® sensor technology**.

They are the first of their kind: Our 6-axis robots ProSix C4 and C4L utilise the revolutionary Epson QMEMS® sensor technology, which drastically reduces the vibrations of the kinematics.

This makes it possible to improve production speeds while keeping a consistently stable level of quality during assembly tasks. Whether start speeds are high or deceleration is heavy – strength lies in peace for performance data which appeared unachievable until now.

**QMEMS is a portmanteau of "Quartz", a crystalline material with excellent characteristics like exceptional frequency stability and high precision, as well as a micro-electronic

mechanism system ("MEMS"). QMEMS is a registered trademark of the Seiko Epson Corporation.



Suitable for smaller loads requiring far reaches

Epson ProSix C4L
Reach 900mm
Loading capacity 4/5* kg

4 **MOBILITY**
KEEPS COSTS DOWN

The new 6-axis robots ProSix C4 and C4L are part of the successful Epson ProSix series, so that you can get the full potential out of your plant.

The round envelope makes them ideally suited for complex handling of parts or assembly. With their mobility and slim robot design, they are perfectly suited for tight workspaces. Limited interfering contours reduce the risk of collision if there are several robots working in one cell.

That's what we call efficiency!

Thanks to the innovative, special joint geometry developed by Epson, axis 5 allows a rotation axis of $\pm 135^\circ$.

This leads to much greater freedom of movement.

Limited interfering contours due to its slim robot design and integrated media feed-through – lead to maximum plant reliability, simple commissioning and low maintenance costs.



ROBOT DESIGN

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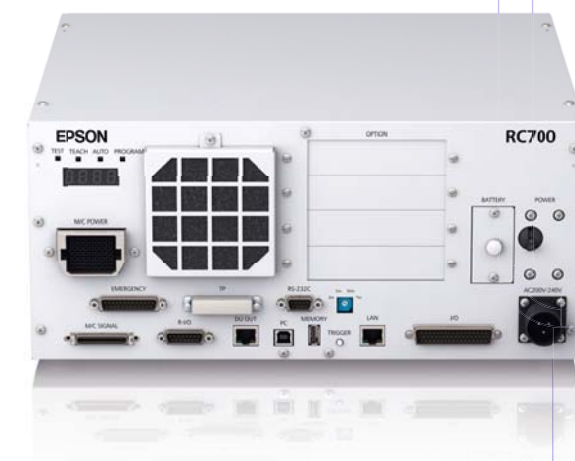


Flick flack of axes 2 and 3

Thanks to the ability of axes 2 and 3 to double back on themselves, you can design your production cells flexibly while saving space. This even allows reduced cycle times.

The new Epson RC700 controller

Extremely compact, exceedingly economical and with a remarkable package of services – the new cell controller RC700 can communicate with all common fieldbus systems and is open for connecting to further controllers, sensors, actuators and conveyor belts.



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VERSIONS OF THE EPSON PROSIX C4

	C4	C4L
Design	Vertical joint arm	Vertical joint arm
Carrying capacity nom./max.	4/5*kg	4/5*kg
Reach	P-point 600 mm max. 665 mm	P-point 900 mm max. 965 mm
Repeatability	+/-0.02 mm	+/-0.03 mm
Permitted moment of inertia	J4 0.15 kg*m² J5 0.15 kg*m² J6 0.10 kg*m²	J4 0.15 kg*m² J5 0.15 kg*m² J6 0.10 kg*m²
User cabling	electric D-sub connection for 1 x 9-pin plug pneumatic connections for compressed air 4 x Ø 4 mm	electric D-sub connection for 1 x 9-pin plug pneumatic connections for compressed air 4 x Ø 4 mm
Weight	27 kg	29 kg
Controller	RC700	RC700
Assembly	Base/Cover both also sunk	Base/Cover both also sunk
Surrounding condition	Cleanroom class ISO 3 & ESD Protection class IP40	Cleanroom class ISO 3 & ESD Protection class IP40

J1 = axis 1
J2 = axis 2

J3 = axis 3
J4 = axis 4

J5 = axis 5
J6 = axis 6

* Possible in special conditions
(see manual)

Scope of delivery

- Epson robot and controller
- Epson RC+ program DVD including simulation software
- 2 sets of mounting brackets for the robot controller
- 3 m mains and signal cable
- 3 m mains cable for the robot controller
- emergency stop connector
- connector for standard I/O
- connector set for user cabling
- 2 sets of air connections (each with 4 x straight and 4 x 90° angled)
- Manuals on CD
- Installation/safety manual

Manipulator options

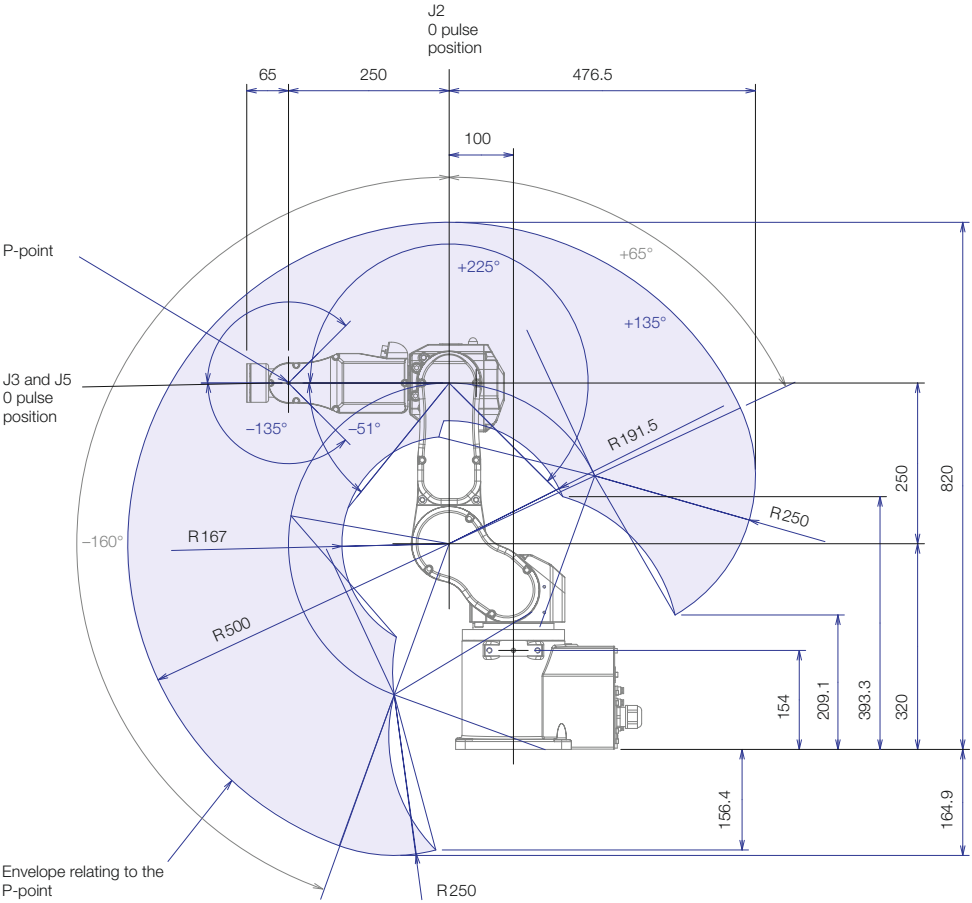
- Longer power and signalling cables (5 m/10 m)
- Brake release unit
- Assembly bracket

Assembly

The Epson 6-axis robots ProSix C4 and ProSix C4L can be flexibly installed depending on their application. As well as floor and ceiling mounting, sunk installation is also possible. Due to the removal of the plug and the cable duct, the envelope is used optimally.

TECHNICAL DATA C4

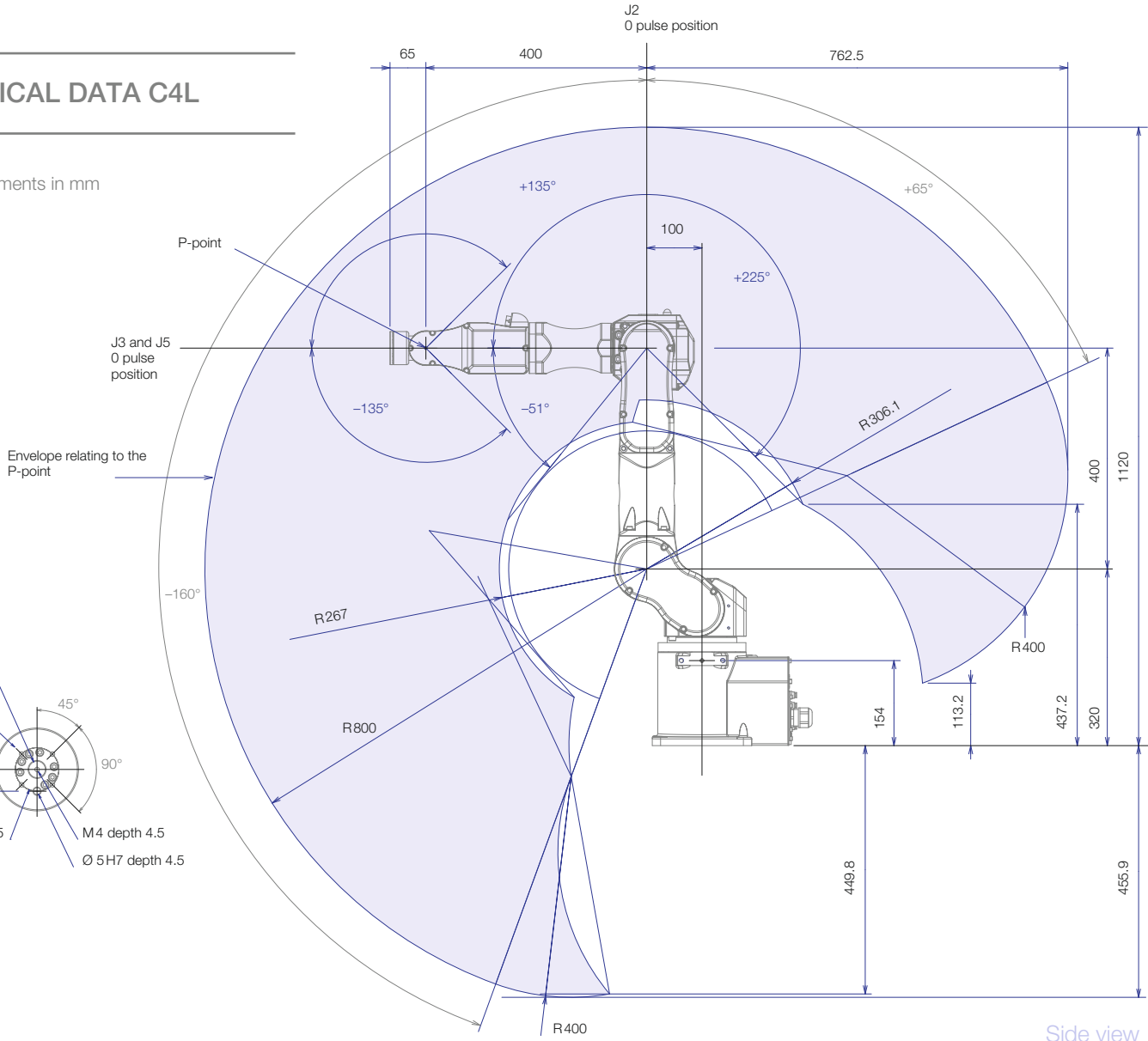
All measurements in mm



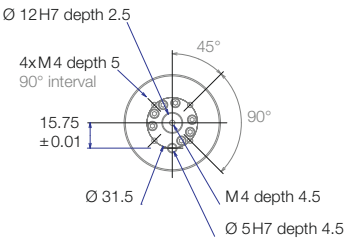
Side view

TECHNICAL DATA C4L

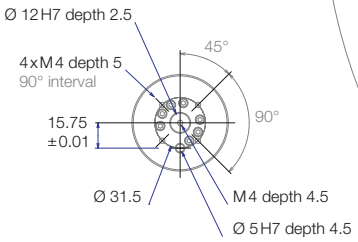
All measurements in mm



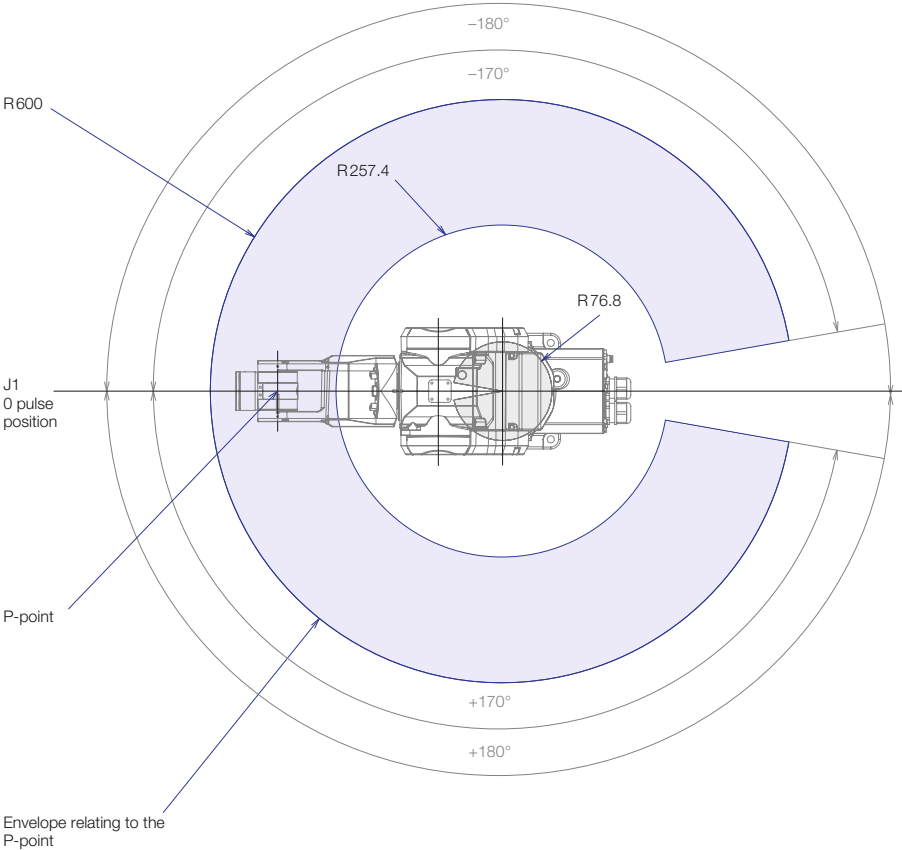
Side view



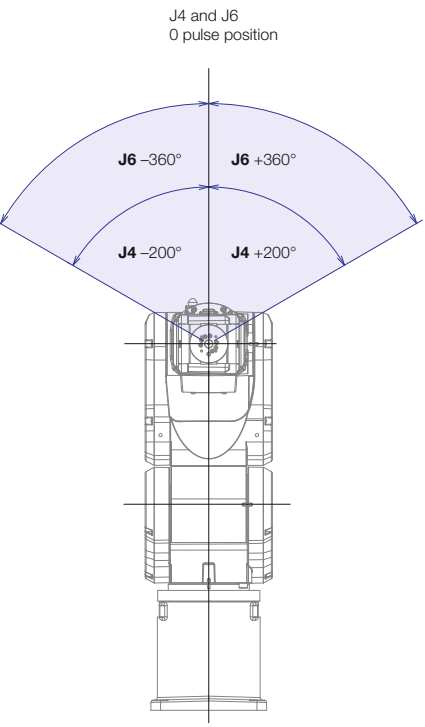
Flange



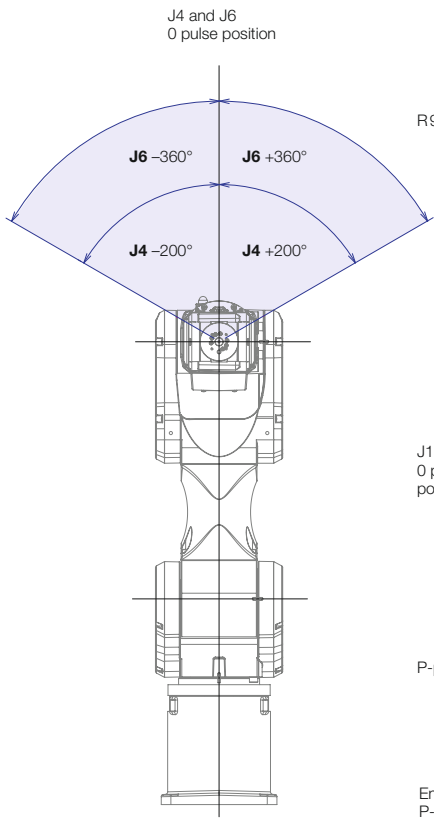
Flange



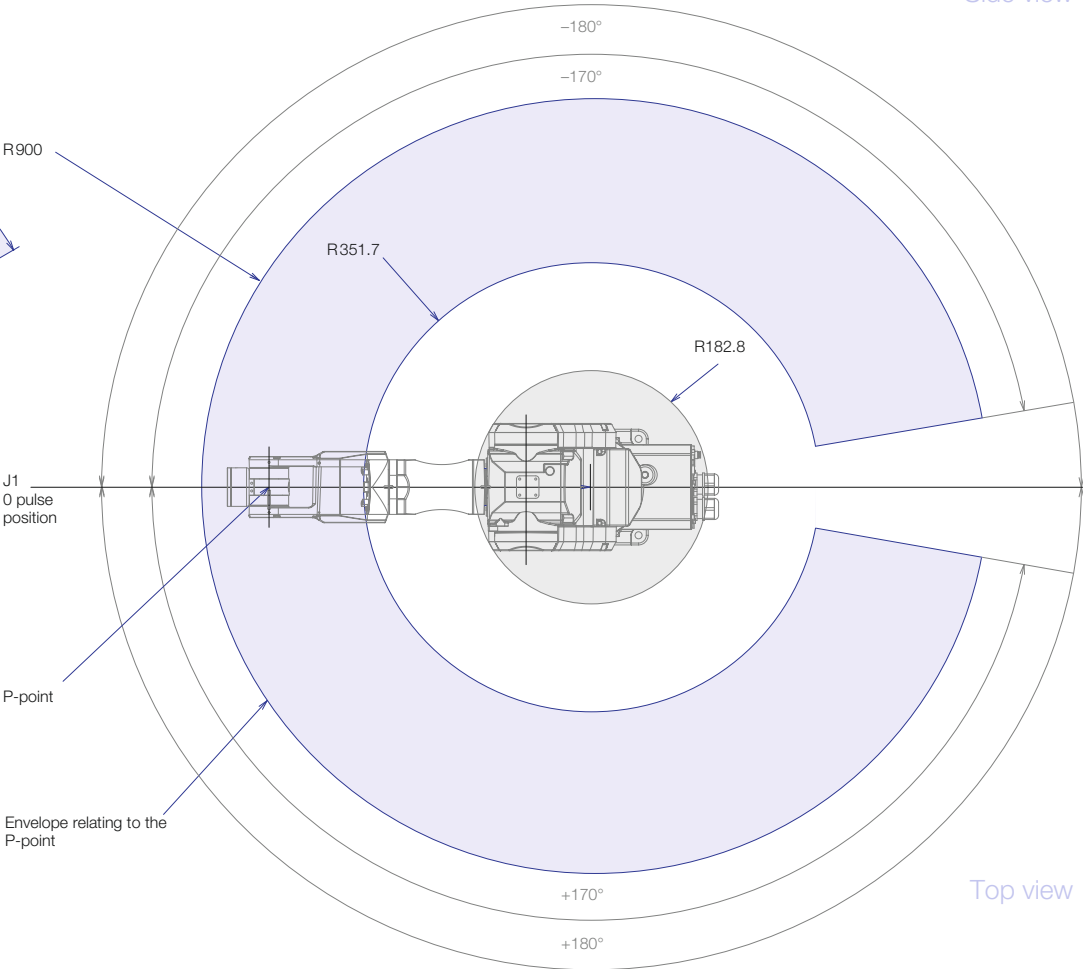
Top view



Front view



Front view



Top view