

IRB 910INV

Ceiling-mounted SCARA increases assembly flexibility



Fast, cost-effective and, because it's from ABB, accurate. The ceiling-mounted SCARA offers space savings and increased assembly flexibility.

Ceiling-mounted SCARA increases the working area

ABB's new ceiling-mounted IRB 910INV robot is designed to increase the space efficiency and flexibility of each cell and support the performance of complex tasks even in confined spaces. By mounting the IRB 910INV on the ceiling, manufacturers can increase the space efficiency and flexibility of each cell and do more complex tasks even in confined spaces. Moreover, the IRB 910INV robot can collaborate with other robots and machines, substantially boosting productivity.

Best-in-class motion control for faster cycle times

Powered by an ABB OmniCore™ controller, the IRB 910INV robot offers the best-in-class motion control for repeatable point-to-point accuracy during pick-and-place, assembly, and testing applications. This includes electronics small parts assembly tasks such as screw driving, component inserting or mounting, and automated quality control inspections.

IP54 and Cleanroom ISO 1 are available options. IRB 910INV is ISO 14644-1 certified for use in cleanroom applications in, for example, the semiconductor industry.

Delivers excellent performance and comprehensive functionalities

When designing the IRB 910INV robot, ABB wanted to emphasize speed and accuracy. Although small in size, the ceiling-mounted IRB 910INV robot offers the same high performance and functionalities as other ABB small robots, specifically, superior path control, accuracy, and a small footprint.

Key Benefits

- Ceiling-mounted SCARA offers space savings and increased flexibility
- Class-leading repeatable accuracy with ABB's superior motion control
- Fast cycle times for increased throughput and productivity
- Equipped with up to 16 I/O for more sophisticated/complex applications

Main applications

- Assembly & Testing
- Material handling
- Picking & Placing
- Screw driving
- Rubber insertion

Specification

Robot version	Reach (m)	Payload (kg)	Armload (kg)
IRB 910INV-3/0.35	0.35	3	-
IRB 910INV-6/0.55	0.55	6	-
Number of axes	4		
Protection	Standard: IP30 ¹ . Option IP54		
Cleanroom	Option: ISO1		
Mounting	Inverted		
Controller	OmniCore E10, C30, C90XT		
Integrated signal and power supply	8 signals on outer arm ²		
Integrated air supply	4 air on outer arm (Max. 6 Bar) ²		
Integrated ethernet	1 Gbit/s port ²		

¹ Ballscrew area: IP20

² Optional

Performance (according to ISO 9283)

	IRB 910INV-3/0.35	IRB 910INV-6/0.55
Pose repeatability (mm)	0.01	0.01
Linear path repeatability (mm)	0.06	0.05
Pose stabilization time within 0.1 mm of the position	0.61	1.05

Performance

	IRB 910INV-3/0.35	IRB 910INV-6/0.55
1 kg picking cycle	0.35 s	0.40 s

Physical

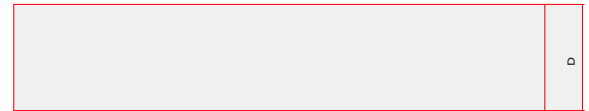
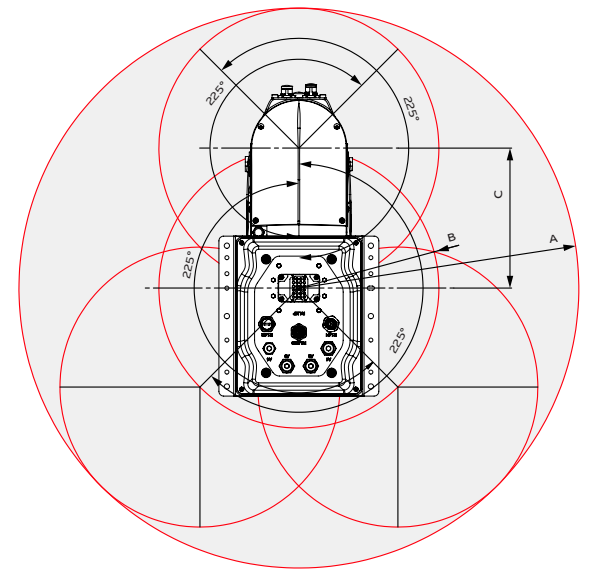
Dimensions robot base	200 x 200 mm
Weight IRB 910INV-3/0.35	19 kg
Weight IRB 910INV-6/0.55	22 kg

Movement, IRB 910INV-3/0.35

Axis movement	Working range	Axis max speed
Axis 1	-225° to 225°	672°/s
Axis 2	-225° to 225°	748°/s
Axis 3	-140 mm to 0 mm	1.1m/s
Axis 4	-720° to 720°	3000°/s

	IRB 910INV-3/0.35	IRB 910INV-6/0.55
A (mm)	R350	R550
B (mm)	R175	R275
C (mm)	175	275
D (mm)	140	190

IRB 910INV-3/0.35 and IRB 910INV-6/0.55, working range



Movement, IRB 910INV-6/0.55

Axis movement	Working range	Axis max speed
Axis 1	-225° to 225°	420°/s
Axis 2	-225° to 225°	780°/s
Axis 3	-190 mm to 0 mm	1.1m/s
Axis 4	-720° to 720°	3000°/s

Specifications subject to change without notice.