

IRB 910SC

SCARA



The IRB 910SC (SCARA) is fast, cost-effective and, because it's from ABB, accurate. In designing its Selective Compliance Articulated Robot Arm (SCARA), or IRB 910SC, ABB has delivered a single arm robot capable of operating in a confined footprint. ABB's SCARA is ideal for the Small Parts Assembly, Material Handling and parts inspection.

Variants

With a maximum payload of 6 kg, the IRB 910SC is available in three configurations (IRB 910SC – 3/0.45, IRB 910SC – 3/0.55m, and IRB 910SC – 3/0.65.).

All are modular by design, with different linking arm lengths and have individual reaches of 450 mm, 550 mm and 650 mm, respectively.

All members of the SCARA family are tabletop mountable.

Applications

ABB's SCARA family is designed for a variety of general-purpose applications such as tray kitting, component placement, machine loading/unloading and assembly.

These applications require fast, repeatable and articulate point-to-point movements such as palletizing, depalletizing, machine loading/unloading and assembly.

ABB's SCARA family is ideal for customers requiring

rapid cycle times, high precision and high reliability for their Small Part Assembly applications and for laboratory automation and prescription drug dispensing.

Features

- Table top mountable
- Ease of integration
- Custom interfaces
- Modular design

Customer benefits

- Short cycle times which achieved by high speed
- High precision which is achieved by superior motion control
- Superb reliability due to reuse and standard proven components.

Specification

Robot version	Reach (m)	Payload (kg)*
IRB 910SC-3/0.45	0.45	Rated: 3, Max: 6
IRB 910SC-3/0.55	0.55	Rated: 3, Max: 6
IRB 910SC-3/0.65	0.65	Rated: 3, Max: 6
Number of axes	4	
Protection	IP20	
Mounting	Table	
Controller	IRC5 Compact	
Integrated signal	10 signals on wrist	
Integrated air supply	4 air on wrist (5 bar)	

*Armload is included in the max payload.

Performance (according to ISO 9283)

Robot version	IRB 910SC-3/0.45	IRB 910SC-3/0.55	IRB 910SC-3/0.65
1 kg picking cycle	0.380 s	0.370 s	0.385 s
Max TCP Velocity	6.2 m/s	6.9 m/s	7.6 m/s
Max TCP Acceleration	65 m/s	60 m/s	55 m/s
Acceleration time 0-1m/s	0.04 s	0.05 s	0.06 s
Axis 3 (Z stroke) down force	250 N	250 N	250 N
Position repeatability			
Axis 1 + Axis 2 (mm)	±0.015	±0.015	±0.015
Axis 3 (mm)	±0.01	±0.01	±0.01
Axis 4 (°)	±0.005	±0.005	±0.005

Technical information

Electrical Connections

Supply voltage	200-600 V, 50/60Hz
Transformer rating	3.0 kVA
Power consumption	220 W

Physical

Footprint	160 x 160 mm
Weight IRB 910SC-3/0.45	24.5 kg
Weight IRB 910SC-3/0.55	25 kg
Weight IRB 910SC-3/0.65	25.5 kg

Environment

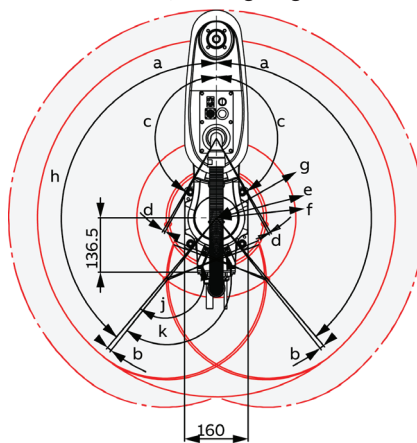
Ambient temperature for mechanical unit	
Manipulator during operation	+ 5°C (41°F) to + 45°C (113°F)
Complete robot during transportation and storage	- 25°C (-13°F) to + 55°C (131°F)
For short periods (not exceeding 24 hours)	up to + 70°C (158°F)
Relative humidity	Max. 95% at constant temperature
Noise level	< 70 dB

Data and dimensions may be changed without notice.

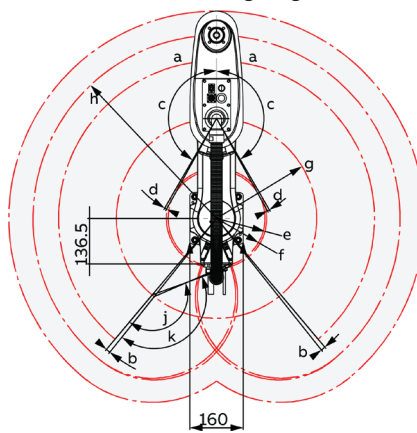
Movement

Axis movement	Working range	Axis max speed
Axis 1 Rotation	-140° to +140°	3/0.45: 6.13 m/s 3/0.55: 6.86 m/s 3/0.65: 7.58 m/s
Axis 2 Rotation	-150° to +150°	
Axis 3 Linear	-180 mm to 0 mm	1.02 m/s
Axis 4 Rotation	Default: -400° to +400° Maximum revolutions: -864 to +864	2400 °/s

IRB 910SC-3/0.45, working range



IRB 910SC-3/0.55, working range



IRB 910SC-3/0.65, working range

