

ROBOTICS

IRB 1410

Industrial Robot



The IRB 1410 gives you fast and reliable work cycles that boost productivity. The robot is proven in arc welding applications and provides outstanding performance and value, ensuring short payback times.

The robot has a handling capacity of 5kg at the wrist with a unique 18kg additional load for applications equipment on the upper arm. Superior levels of control and path accuracy provide excellent work quality.

The ability to adjust process speed and position means you achieve optimum manufacturing accuracy with little or no rejects.

IRB 1410 is known for its stiff and robust construction. This translates into low noise levels, long intervals between routine maintenance and long service life. The robot has a large working area and long reach. The compact design, very slim wrist and high performance operation even in difficult and restricted locations.

Adapted for arc welding

The IRB 1410 has integrated wire feed cabling and mounting holes for optimized assembly of process equipment on the arm. Easy-to-use arc welding functions are included as standard in the IRC5 robot controller are made available via the patented programming and operation interface unit - the FlexPendant.

Global service and support

For worry-free operation, ABB also offers Remote-Service, which gives remote access to equipment for monitoring and support. Moreover, ABB customers can take advantage of the company's service organization; with more than 35 years of experience in the arc welding sector, ABB provides service support in over 100 locations in 53 countries.

Main applications

- · Arc Welding
- Material Handling
- · Machine Tending

Specification

Robot version	Reach of 5th axis (m)	Handling capacity (kg)	Supple- mentary load, on axis 3 (kg)	Supple- mentary load, on axis 1 (kg)
IRB 1410	1.44	5	18	19
Number of axes				6
Protection				IP54
Mounting				Floor
Controller	IR	C5 Single C	abinet/IRC	Compact
Integrated signal supply		12	signals on	upper arm
Integrated air supply		Ma	ax. 8 bar on	upper arm

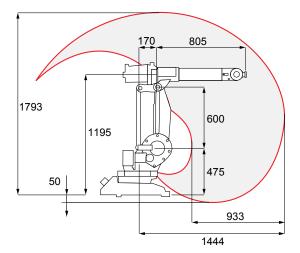
Movement

Axis movement	Working range	Velocity 3-phase power supply	Velocity 1-phase power supply
Axis 1 rotation	+170° to -170°	120°/s	105°/s
Axis 2 arm	+70° to -70°	120°/s	105°/s
Axis 3 arm	+70° to -65°	120°/s	105°/s
Axis 4 rotation	+150° to -150°	280°/s	280°/s
Axis 5 bend	+115° to -115°	280°/s	280°/s
Axis 6 turn	+300° to -300°	280°/s	280°/s

Performance (according to ISO 9283)

	IRB 1410
Max. TCP Velocity	2.10 m/s
Continuous rotation of axis	6
Position repeatability	0.025 mm

Working range



Technical information

Electrical Connections				
Supply voltage	200-600 V, 50/60 Hz			
Rated power transformer rating	4 kVA/7.8 kVA with external axes			
Physical				
Robot base	620 x 450 mm			
Robot weight	225 kg			
Environment				
Ambient temperature for m	nechanical unit			
During operation	+5°C (41°F) to +45°C (113°F)			
During transportation and storage	- 25°C (- 13°F) to + 55°C (131°F)			
During short periods (max. 24h)	up to + 70°C (158°F)			

During short periods (max. 24h)

Relative humidity Max. 95 %
Degree of protection Class D (dry) for welding, machining etc.

Noise level Max. 70 dB (A)
Emission EMC/EMI-shielded
Clean room Class 100 US Federal Standard 209e

Data and dimensions may be changed without notice.