



UFACTORY 850

Technical Specification

A 6-axis collaborative robot with an 850 mm reach, the longest in the UFACTORY range. Delivers ± 0.02 mm repeatability and high stability for precision welding, smooth camera movement, and high-density pick-and-place operations.



SPECIFICATIONS	
Payload	5 kg
Reach	850 mm
Degrees of freedom	6
Repeatability	± 0.02 mm
Maximum TCP speed	1 m/s
Robot arm weight	20 kg

PERFORMANCE	
Operating temperature range	0–50 °C / 32–122 °F
Power consumption	Typical: 240 W; Maximum: 1,000 W
Power supply input	48 VDC, 20.8 A

PHYSICAL	
Footprint	Ø 190 mm
Materials	Aluminum, carbon fiber
Base mounting pattern	4 x M8

FEATURES	
Arm mounting	Any orientation

TOOL FLANGE	
Tool flange I/O	TI x 2; TO x 2; T-AI x 2; RS-485 x 1
Communication protocol	Modbus RTU

SOFTWARE AND COMPLIANCE	
Operating system support	Windows 10 or later; macOS 10.10 or later; Ubuntu 20.04 LTS or later
Development support	ROS and ROS 2 packages; Python and C++ SDKs
Control software	UFACTORY Studio (web-based control software hosted on the control box)
Warranty & support	1-year limited warranty; lifetime technical support
Certifications	CE certified

AXIS MOVEMENT	
Maximum joint speed	180°/s
Joint 1 range	$\pm 360^\circ$
Joint 2 range	-132° to +132°
Joint 3 range	-242° to +3.5°
Joint 4 range	$\pm 360^\circ$
Joint 5 range	-124° to +124°
Joint 6 range	$\pm 360^\circ$

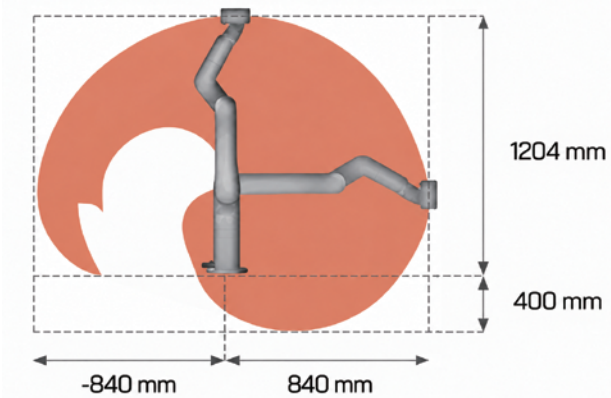
CONTROL BOX SPECIFICATIONS		
	AC Control Box	DC Control Box
Power input	100–240 VAC, 47–63 Hz	48–72 VDC
Power output	48 VDC, 1,000 W max.	48 VDC, 960 W max.
Weight	3.8 kg	2.5 kg
Dimensions (L x W x H)	269 x 178 x 86 mm	209 x 176 x 82 mm
Control box I/O	8 x CI, 8 x CO, 8 x DI, 8 x DO, 2 x AI, 2 x AO	
Hardware interfaces	Ethernet; RS-485 master x 1; RS-485 slave x 1	
Warranty & support	1-year limited warranty; lifetime technical support	



Dimensions, Reach and Interfaces

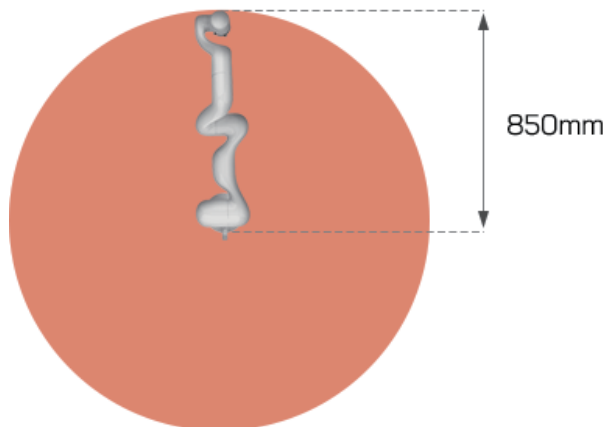
Dimensions and reach - side view

Working range diagrams are provided for safety assessment purposes only.

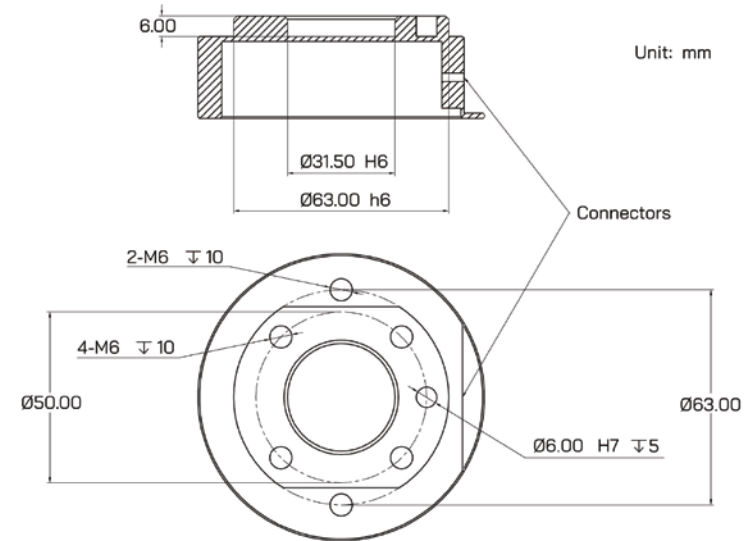


Dimensions and reach - top view

Working range diagrams are provided for safety assessment purposes only.



Tool flange



Base flange

