

P-Rob Eco Datasheet



Property	Value
Mass	16 kg (arm only)
Payload	5 kg
Mounting Position	any (floor, wall, ceiling)
Reach	900 mm
Degrees of Freedom	6
Power Input	100–240 V, 50/60 Hz, 12 A max. 22–50 V DC on request
Power Consumption (Average)	< 200 W
Joint Ranges	Axis 1: $\pm 185^\circ$
	Axis 2: $-108^\circ/+135^\circ$
	Axis 3: $-116^\circ/+143^\circ$
	Axis 4: $\pm 185^\circ$
	Axis 5: $\pm 160^\circ$
	Axis 6: endless
Joint Velocities	180°/s for all joints
Cartesian Velocity	up to 1000 mm/s
Position Repeatability	lower than ± 0.1 mm
Control Box	Control box with main controller, power supply, safety system, I/Os, Ethernet switch. Optional industrial computer for user application on request. Smaller OEM control box on request.
Robot Control Software	Intuitive user software myP with web-based GUI, manual teach-in, collision detection and Python-based programming. Separate documentation available.

Control Interfaces		TCP JSON (1 kHz), TCP Modbus (100 Hz), ROS
Safety Features		Collision detection, emergency stop, safeguard stop, safely reduced speed
Interfaces at the Control Box	Ethernet	1x RJ45 on back panel, 2x RJ45 on integrated switch
	USB	1x USB 3.0, 1x USB 2.0
	HDMI	1x
	Serial	2x RS-232, 1x RS-485
	I/O Power	24 V DC, 5 A
	Digital I/O	24x, configurable as input or output
	Analog I/O	8x, configurable as input (voltage or current) or output (voltage)
	Safety I/O	2x emergency stop, 2x safeguard stop, 1x safe speed input, 1x emergency stop indicator output (all redundant with PL=d)
	User Line	4x (30 AWG, 2 twisted pairs, 30 V, 1 A)
Interfaces at the End Effector	I/O Power	12 V / 24 V DC, 800 mA
	Digital I/O	5x, configurable as input or output
	Analog I/O	2x, configurable as input (voltage or current) or output (voltage)
	Ethernet*	Cat 5 (PoE on request)
	Air tube*	2x 4 mm. (Internal 3 mm air tubes from base to end effector.)
	Userline	4x (30 AWG, 2 twisted pairs, 30 V, 1 A)
Standards		Declaration of incorporation according to the European machinery directive in conformity with ISO 12100, ISO 10218-1 and ISO 13849. Many safety features that enable applications in accordance with ISO TS 15066.
IP Classification		IP 54
Working Temperature		0–40 °C
Air Humidity		Up to 90% relative humidity (non-condensing)
Human Interface		5 operating buttons at tool flange
End-Tool Interface		ISO 9409-1 (size 50-4-M6)
LED Status Ring		Indicating the status of the robot
Extensions		DIN rail (35 mm) in the control box for integration of customer devices (valves, relays, etc.)

*Connector placed on link between J5 and J6

