UR16e From Universal Robots Built to Do More

Presenting the UR16e

Built to do more, the UR16e delivers an impressive 16 kg of payload for a wide range of heavy-duty applications. Designed and built by Universal Robots, the market leader in cobots, the UR16e is easily integrated into existing production environments.

Automate heavy-duty material handling and CNC machine tending applications, including multi-part handling, with precision. With its 16 kg payload, the UR16e helps reduce the costs, injuries, and downtime associated with heavy part handling. A small footprint and 900 mm reach make the UR16e ideal for tight spaces while delivering robust operation.

Increase productivity by deploying multiple robots, at the same time and for different tasks, across a single factory. The UR16e robot performs a wide range of tasks, including those that couldn't be automated before, and is easily deployed from one manufacturing line or work cell to another.

The Universal Robots Advantage

Do more, achieve more, grow more. As a market leader, Universal Robots sets the benchmark for how businesses use collaborative robot technology with fast set-up, unlimited flexibility, easy programming, safe and collaborative operation, and fast payback.

With its ability to handle more payload, the UR16e frees employees from dull, dangerous work – enabling them to focus on tasks requiring human creativity, for improved morale and job satisfaction.

From empowering people to helping manufacturers grow through automation, our robots enable manufacturers to do more. Whether you deploy a single Universal Robots e-Series robot or several, you're assured of greater efficiency, productivity, and profitability. It's why Universal Robots is the most trusted name in robotics.

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UR16e technical details

Specifications

Payload	16 kg (35.3 lbs)
Reach	900 mm (35.4 in)
Degrees of freedom	6 rotating joints
Programming	12 inch touchscreen with polyscope graphical user interface

Performance

Power, Consumption, Maximum Average	585 W
Power, Consumption, Typical with moderate operating settings (approximate)	350 W
Safety	17 configurable safety functions
Certifications	EN ISO 13849-1, PLd Category 3, and EN ISO 10218-1

Force Sensing, Tool Flange	Force, x-y-z	Torque, x-y-z
Range	160.0 N	10.0 Nm
Precision	5.0 N	0.2 Nm
Accuracy	5.5 N	0.5 Nm

Movement

Pose Repeatability per ISO 9283	± 0.05 mm

Axis movement	Working range	Maximum speed
Base	± 360°	± 120°/s
Shoulder	± 360°	± 120°/s
Elbow	± 360°	± 180°/s
Wrist 1	± 360°	± 180°/s
Wrist 2	± 360°	± 180°/s
Wrist 3	± 360°	± 180°/s

Typical TCP speed	1 m/s (39.4 in/s)

Features

IP classification	IP54
ISO 14644-1 Class Cleanroom	5
Noise	Less than 65 dB(A)
Robot mounting	Any Orientation
I/O ports	
Digital in	2
Digital out	2
Analog in	2
Tool I/O Power Supply Voltage	12/24 V
Tool I/O Power Supply	2 A (Dual pin) 1 A (Single pin)

Physical

Footprint	Ø 190 mm
Materials	Aluminium, Plastic, Steel
Tool (end-effector) connector type	M8	M8 8-pin
Cable length robot arm	6 m (236 in)
Weight including cable	33.1 kg (73 lbs)
Operating Temperature Range	0-50°C
Humidity	90%RH (non-condensing)
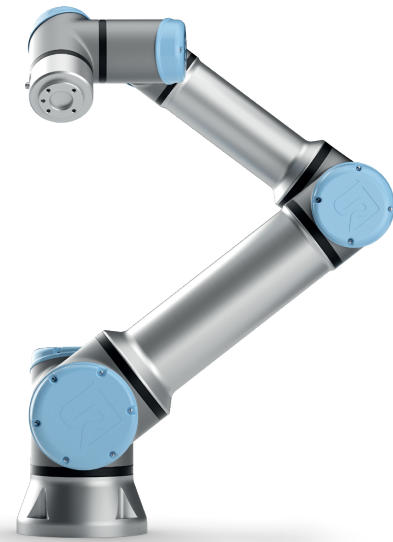
Control box

Features

IP classification	IP44
ISO 14644-1 Class Cleanroom	6
Operating Temperature Range	0-50°C
I/O ports	
Digital in	16
Digital out	16
Analog in	2
Analog out	2
Quadrature Digital Inputs	4
I/O power supply	24V 2A
Communication	500 Hz Control frequency Modbus TCP PROFINET Ethernet/IP USB 2.0, USB 3.0
Power source	100-240VAC, 47-440Hz
Humidity	90%RH (non-condensing)

Physical

Control box size (WxHxD)	475 mm x 423 mm x 268 mm (18.7 in x 16.7 in x 10.6 in)
Weight	12 kg (26.5 lbs)
Materials	Powder Coated Steel

Teach pendant

Features

IP classification	IP54
Humidity	90%RH (non-condensing)
Display resolution	1280 x 800 pixels

Physical

Materials	Plastic, PP
Weight including 1m of TP cable	1.6 kg (3.5 lbs)
Cable length	4.5 m (177.17 in)

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