

# 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 Range	Force, x-y-z	Torque, x-y-z
	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
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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)
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## Features

IP classification	IP54
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ISO 14644-1 Class Cleanroom	5
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Noise	Less than 65 dB(A)
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Robot mounting	Any Orientation
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I/O ports	
Digital in	2
Digital out	2
Analog in	2

Tool I/O Power Supply Voltage	12/24 V
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Tool I/O Power Supply	2 A (Dual pin) 1 A (Single pin)
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## Physical

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

### Features

IP classification	IP44
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ISO 14644-1 Class Cleanroom	6
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Operating Temperature Range	0-50°C
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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
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Communication	500 Hz Control frequency Modbus TCP PROFINET Ethernet/IP USB 2.0, USB 3.0
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Power source	100-240VAC, 47-440Hz
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Humidity	90%RH (non-condensing)
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### Physical

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

### Features

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

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