

# 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	<b>Force, x-y-z</b>	<b>Torque, x-y-z</b>
	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	<b>Working range</b>	<b>Maximum speed</b>
	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)