

# 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 polscope graphical user interface

## Performance

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
Power Consumption (average)		
Moderate operating settings	350 W	
Maximum power	585 W	
Safety	17 configurable safety functions	

## 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
Ambient 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)