

# UR5e technical details

## Specifications

Payload	5 kg (11 lbs)
Reach	850 mm (33.5 in)
Degrees of freedom	6 rotating joints
Programming	12 inch touchscreen with polyscope graphical user interface

## Performance

Power, Consumption, Maximum Average	570 W	
Power, Consumption, Typical with moderate operating settings (approximate)	200 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	50.0 N	10.0 Nm
Precision	3.5 N	0.2 Nm
Accuracy	4.0 N	0.3 Nm

## Movement

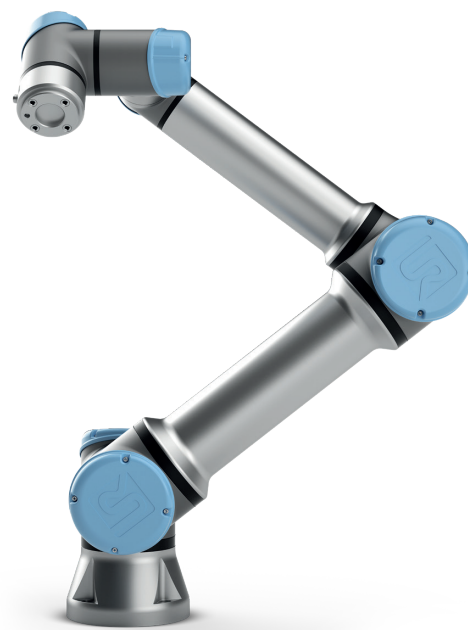
Pose Repeatability per ISO 9283	± 0.03 mm	
Axis movement	Working range	Maximum speed
Base	± 360°	± 180°/s
Shoulder	± 360°	± 180°/s
Elbow	± 360°	± 180°/s
Wrist 1	± 360°	± 180°/s
Wrist 2	± 360°	± 180°/s
Wrist 3	± 360°	± 180°/s
Typical TCP speed	1 m/s (39.4 in/s)	

## 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	1.5 A (Dual pin) 1 A (Single pin)

## Physical

Footprint	Ø 149 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	20.6 kg (45.4 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)