

# UR5e Technical Specifications

The UR5e brings ultimate flexibility to medium-duty applications with a payload of up to 5 kg and a reach of 850 mm.

Today, more than 50,000 UR collaborative industrial robots have been delivered to customers across industries and around the world. UR5e is one of four e-Series cobots, each with a different payload and reach combination. e-Series brings incredible flexibility and unparalleled ease of use to your application.

## Contact

Universal Robots USA, Inc.  
5430 Data Court  
Ann Arbor, Michigan 48108  
United States

+1 844-462-6268  
ur.na@universal-robots.com  
universal-robots.com

## UR5e Specification

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 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

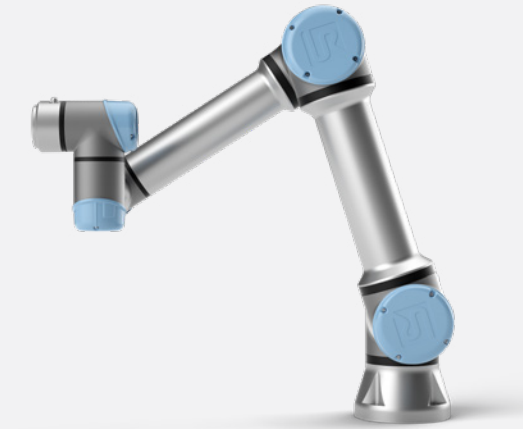
Pose Repeatability per ISO 9283	± 0.03 mm	
Axis movement	Working range	Maximum speed
Base	± 360°	± 180°/s
Shoulder	± 360°	± 180°/s
Elbow	± 360°	± 180°/s
Wrist 1	± 360°	± 180°/s
Wrist 2	± 360°	± 180°/s
Wrist 3	± 360°	± 180°/s
Typical TCP speed	1 m/s (39.4 in/s)	

## 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) cable included. 12 m (472 in) and high-flex options available.
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
Humidity	90%RH (non-condensing)
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

## Physical

Control box size (W x H x D)	460 mm x 449 mm x 254 mm (18.2 in x 17.6 in x 10 in)
Weight	12 kg (26.5 lbs)
Materials	Powder Coated Steel

The control box is also available in an OEM version.

## Teach Pendant

### Features

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

### Physical

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

The teach pendant is also available in a 3PE option.