



## UR5e Technical specification

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 100,000 UR collaborative industrial robots have been delivered to customers across industries and around the world. The e-Series of cobots brings incredible flexibility and unparalleled ease of use to your application.

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### UR5e

#### General 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
<b>Power consumption (average)</b>	
Maximum power	570 W
Moderate operating settings	200 W
Operating temperature range	Ambient temperature: 0-50°C (32-122°F)
Safety functions	20 configurable safety functions
In compliance with	EN ISO 13849-1 (PLd Category 3), EN ISO 10218-1

#### UR5e Robot Arm Performance

Force sensing, tool flange/torque sensor	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

Max TCP speed	4 m/s	
Pose repeatability per ISO 9283	± 0.03 mm	
<b>Axis movement</b>	<b>Working range</b> <b>Maximum speed</b>	
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

#### Features

IP Classification	IP54
Noise	< 67 dB(A)
Arm mounting	Any orientation
<b>I/O Ports at tool flange</b>	
Digital In	2
Digital Out	2
Analog In	2 or 1 RS-485
Power supply voltage	12/24 V
Power supply	1.5 A (Dual pin) 1 A (Single pin)

#### Physical

Footprint	Ø151 mm
Materials	Aluminum, plastic, steel
Tool flange	M8 8-pin female, EN ISO-9409-1-50-4-M6
Connector type	M8 8-pin female
Cable length (robot arm)	6 m (236 in)
Weight including cable	20.6 kg (45.4 lbs)
Humidity	≤ 90% RH (non-condensing)

#### Contact

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### Teach Pendant

#### Features

IP classification	IP54
Humidity	≤ 90% RH (non-condensing)
Display resolution	1280 x 800 pixels
<b>Physical</b>	
Materials	Plastic
Teach pendant size (W x H x D)	300 mm x 231 mm x 50 mm (11.8 in x 9.1 in x 1.97 in)
Weight	1.6 kg (3.5 lbs) including 1 m of teach pendant cable
Cable length	4.5 m (177.17 in)

#### Control Box

#### Features

IP classification	IP44
Humidity	≤ 90% RH (non-condensing)
<b>I/O Ports</b>	
Digital In	16
Digital Out	16
Analog In	2
Analog Out	2
Quadrature digital inputs	4
I/O Power Supply	24V, 2A
Industrial protocols	Modbus TCP (Client/Server) Ethernet/IP Adapter PROFINET device, PROFIsafe ROS/ROS2
Hardware interfaces	Ethernet 1 Gb/s USB 2.0 USB 3.0 Mini DisplayPort Injection Moulding Machine Interface (SPI AN-146 & Euromap-67)*
Power Source	100-240 VAC, 47-440 Hz

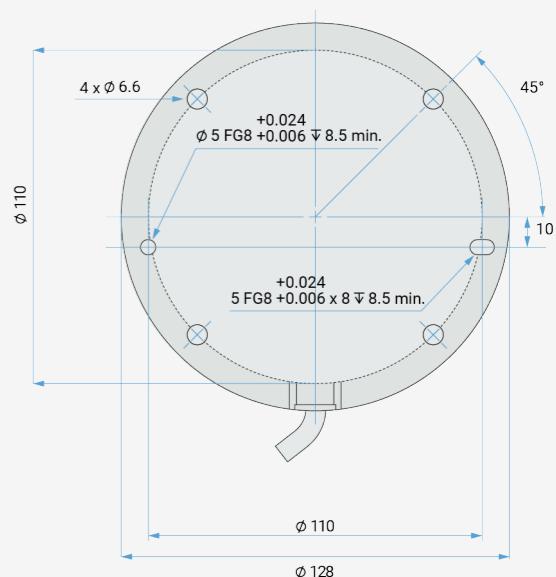
\*Only valid for OEM version.

#### Physical

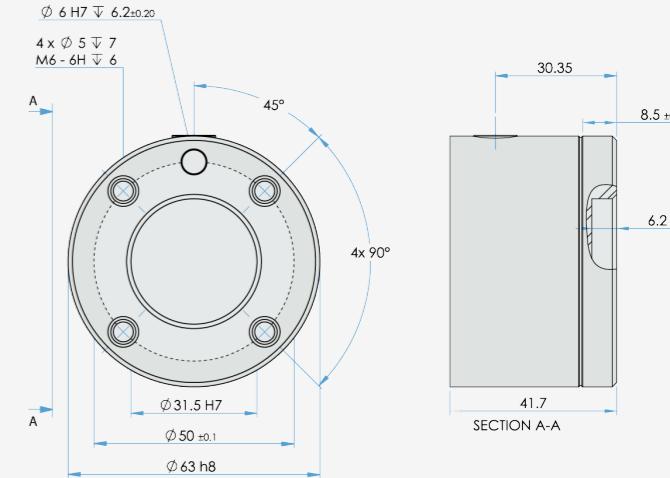
Control Box Size (W x H x D)	460 mm x 449 mm x 254 mm (18.2 in x 17.6 in x 10 in)
Weight	12 kg (26.5 lbs)
Materials	Powder coated steel

The controlbox is also available in an OEM version.

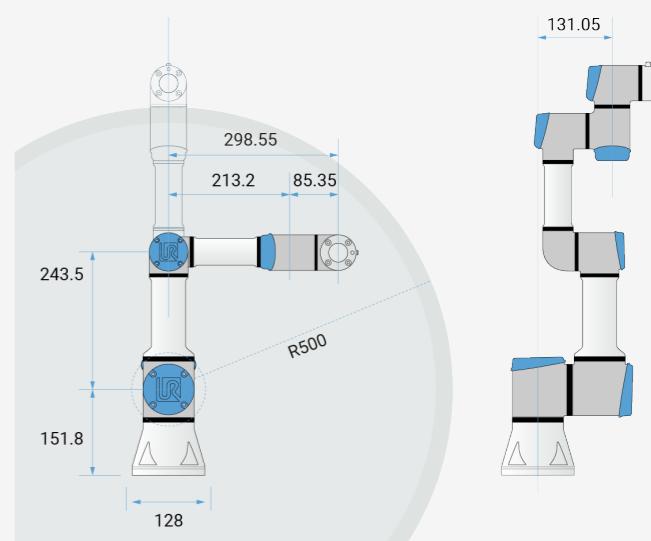
#### Interface for UR5e base flange



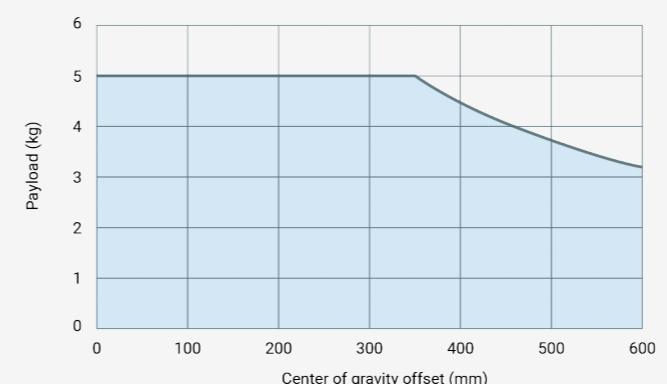
#### Tool flange for UR5e



#### Dimensions and reach of UR5e



#### UR5e payload curve



UNLESS OTHERWISE SPECIFIED:  
Dimensions are in millimeters. Tolerance ± 0,1 mm ± 0,5°