UNIVERSAL ROBOTS

UR10e

Technical Specification

Our most versatile robot, the UR10e delivers an impressive payload of 12.5 kg and 1300 mm reach, making it ideal for a wide range of applications.

Today, more than 75,000 UR collaborative industrial robots have been delivered to customers across industries and around the world. UR10e 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.

Updated October 2023.

UR10e

Specification

Payload	12.5 kg (27.5 lbs)
Reach	1300 mm (51.2 in)
Degrees of freedom	6 rotating joints
Programming	12 inch touchscreen with PolyScope graphical user interface

Power consumption (average)

Maximum power	615 W
Moderate operating settings	350 W
Operating temperature range	Ambient temperature: 0-50°C (32-122°F)
Safety functions	17 configurable safety functions
In compliance with	EN ISO 13849-1 (PLd Category 3) and EN ISO 10218-1

Performance

Force sensing, tool flange/torque sensor	Force, x-y-z	Torque, x-y-z
Range	100.0 N	10.0 Nm
Precision	5.0 N	0.2 Nm
Accuracy	5.5 N	0.5 Nm

Movement

Typical TCP speed	1 m/s
Pose Repeatability per ISO 9283	± 0.05 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

Features

IP classification	IP54 water protection
Noise	< 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	Aluminum, plastic, steel
Tool Flange	EN ISO-9409-1-50-4-M6
Connector type	M8	M8 8-pin
Cable length (robot arm)	6 m (236 in) 12 m (472 in) and high-flex options available.
Weight including cable	33.5 kg (73.9 lbs)
Humidity	≤ 90% RH (non-condensing)

Contact

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3-Position Enabling Teach Pendant

Features

IP classification	IP54
Included in certifications	EN ISO 10218-1 EN ISO 13849-1
Humidity	≤ 90% RH (non-condensing)
Display resolution	1280 x 800 pixels

Physical

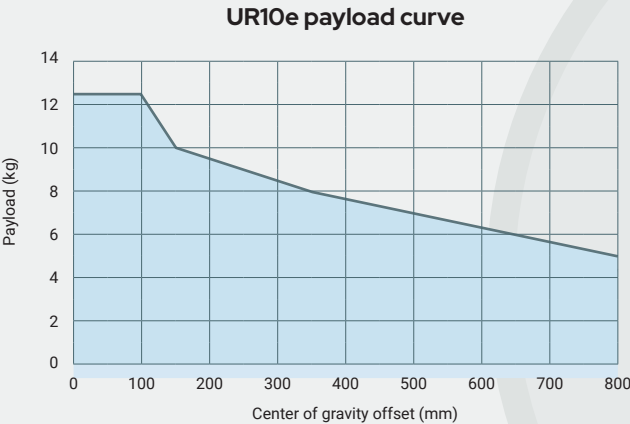|	
Materials	Plastic
Teach Pendant size (W x H x D)	300 mm x 231 mm x 50 mm (11,8 in x 9,1 in x 1,97 in)
Weight	1,8 kg (3,961 lbs) including 1 m of teach pendant cable
Cable length	4,5 m (177,17 in)

Control Box

Features

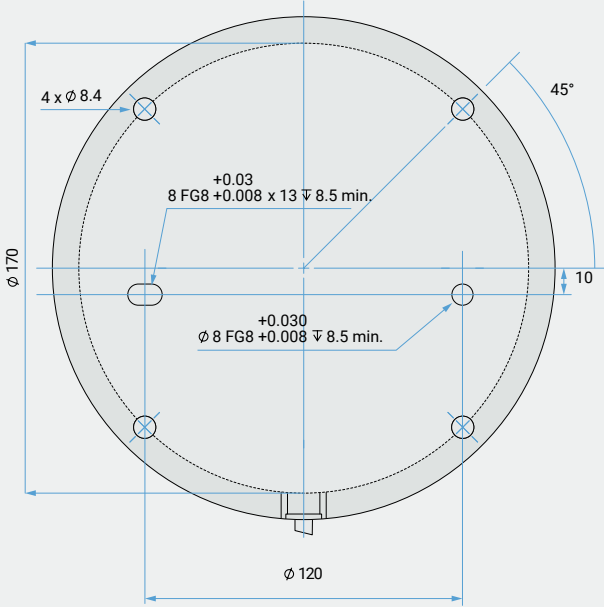|	
IP Classification	IP44
ISO 14644-1 class cleanroom	6
Operating temperature range*	0-50°C (32-122°F)
Humidity	≤ 90% RH (non-condensing)
I/O Ports	
Digital In	16
Digital Out	16
Analog In	2
Analog Out	2
Quadrature Digital Inputs	4
I/O Power Supply	24V, 2A
Communication	500 Hz Control frequency Modbus PROFINET, PROFIsafe (optional) TCP USB 2.0, USB 3.0 Ethernet/IP USB 2.0, USB 3.0 PROFINET ROS/ROS2 driver (optional, open source) Euromap-67 (optional) SPI AN-146 (optional) Injection Moulding Machine Interface (IMMI, optional)
Power Source	100-240 VAC, 47-440 Hz

Physical

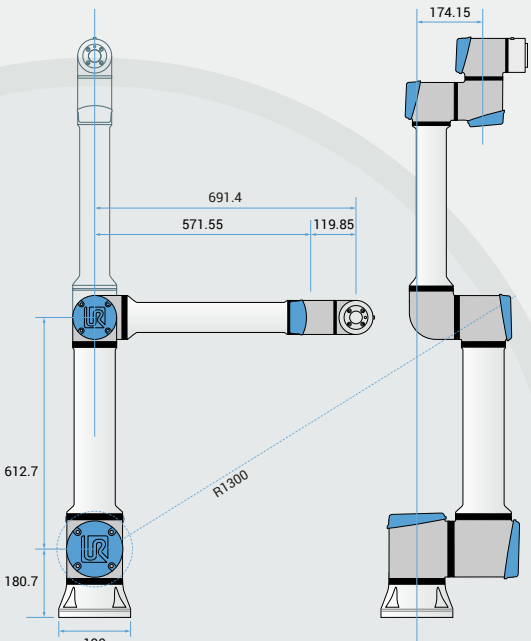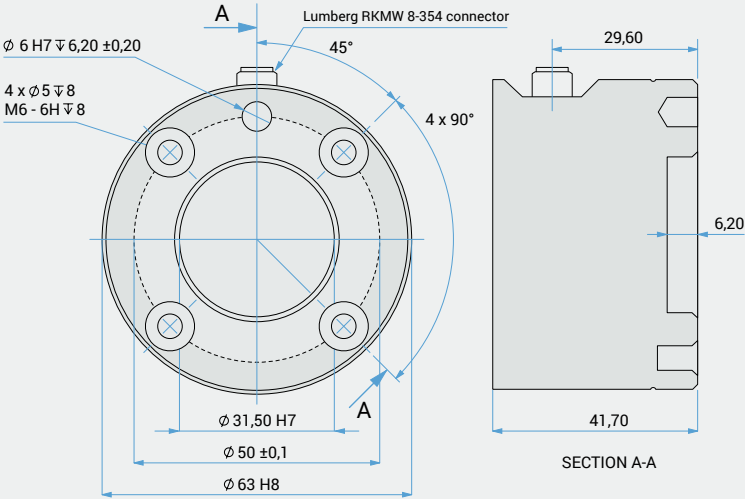|	
Control Box Size (W x H x D)	460 mm x 449 mm x 254 mm (18,2 in x 17,6 in x 10 in)
Weight	12 kg (26,5 lbs)
Materials	Powder coated steel

The control box is also available in an OEM version

Interface for UR10e base flange

Tool flange for UR3e, UR5e, UR10e and UR16e

UR10e payload curve

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