

UR3e technical details

Performance

Power consumption Approx. 100 W using a typical program

Safety System All 17 advanced adjustable safety functions incl. elbow monitoring certified to Cat.3, PL d. Remote Control according to ISO 10218

Certifications by TUV Nord EN ISO 13849-1, Cat.3, PL d, and full EN ISO 10218-1

F/T Sensor - Force, x-y-z

Range 30 N

Resolution 1.0 N

Accuracy 3.5 N

F/T Sensor - Torque, x-y-z

Range 10 Nm

Resolution 0.02 Nm

Accuracy 0.10 Nm

Specification

Payload 3 kg / 6.6 lbs

Reach 500 mm / 19.7 in

Degrees of freedom 6 rotating joints DOF

Programming Polyscope graphical user interface on 12 inch touchscreen with mounting

Movement

Pose Repeatability +/- 0.03 mm, with payload, per ISO 9283

Axis movement robot arm Working range Maximum speed

Base ± 360° ± 180°/s

Shoulder ± 360° ± 180°/s

Elbow ± 360° ± 180°/s

Wrist 1 ± 360° ± 360°/s

Wrist 2 ± 360° ± 360°/s

Wrist 3 Infinite ± 360°/s

Typical TCP speed 1 m/s / 39.4 in/s

Features

IP classification IP54

ISO Class Cleanroom 5

Noise Less than 60 dB(A)

Robot mounting Any Orientation

I/O ports Digital in 2
 Digital out 2
 Analog in 2
 Tool communication RS-485

I/O power supply in tool 12V/24V 600mA continuous, 2A peak

Ambient temperature range 0-50°C*

Humidity 90%RH (non-condensing)

Physical

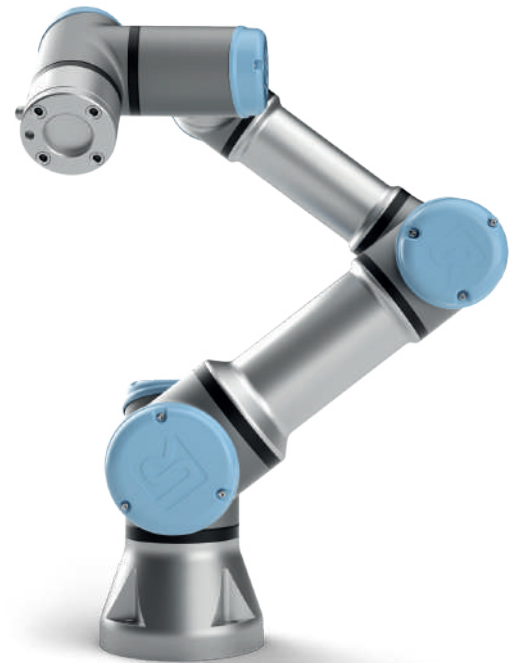
Footprint Ø 128 mm

Materials Aluminium, Plastic, Steel

Tool (end-effector) connector type M8 | M8 8-pin

Cable length robot arm 6 m / 236 in

Weight including cable 11.2 kg / 24.7 lbs



Control box

Features

IP classification IP44

ISO Class Cleanroom 6

Ambient temperature range 0-50°

I/O ports Digital in 16
 Digital out 16
 Analog in 2
 Analog out 2
 500 Hz control, 4 separated
 high speed quadrature digital inputs

I/O power supply 24V 2A

Communication Control frequency: 500 Hz
 ModbusTCP. 500 Hz signal frequency
 ProfiNet and EthernetIP. 500 Hz signal frequency
 USB ports: 1 USB 2.0, 1 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 13 kg / 28.7 lbs

Materials Steel

Teach pendant

Features

IP classification IP54

Humidity 90%RH (non-condensing)

Display resolution 1280 x 800 pixels

Physical

Materials Plastic

Weight including 1 m of TP cable 1.6 kg / 3.5 lbs

Cable length 4.5 m / 177.17 in

* The robot can work in a temperature range of 0-50°C. At high continuous joint speeds the maximum allowed ambient temperature is reduced.