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
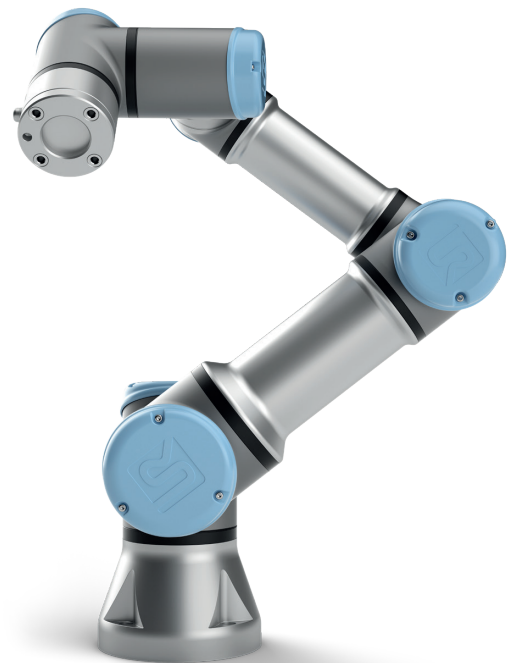
Payload	3 kg / 6.6 lbs
Reach	500 mm / 19.7 in
Degrees of freedom	6 rotating joints DOF
Programming	Polyscope graphical user interface on 12 inch touchscreen with mounting

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

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

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

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