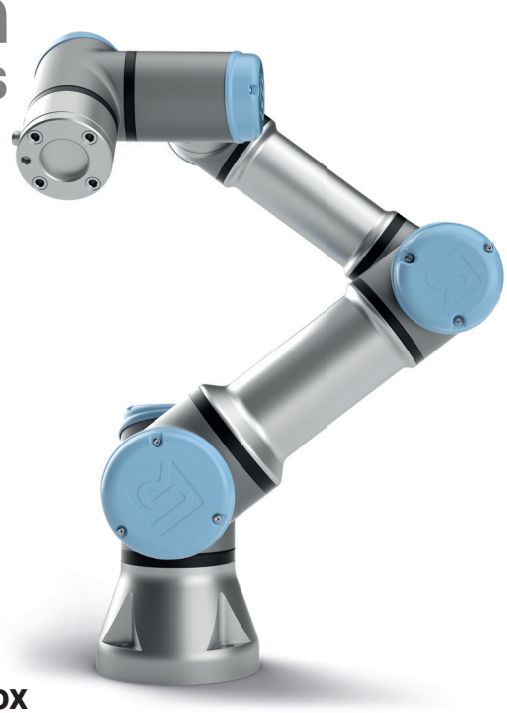
In-Position Technologies
www.iptech1.com

UR3e technical details



Performance

Power consumption	Approx. 100 W using a typical program
Collaboration operation	17 advanced adjustable safety functions incl. elbow monitoring. Remote Control according to ISO 10218
Certifications	EN ISO 13849-1, Cat.3, PL d, and EN ISO 10218-1

F/T Sensor - Force, x-y-z		F/T Sensor - Torque, x-y-z	
Range	30 N	Range	10 Nm
Resolution	1.0 N	Resolution	0.02 Nm
Accuracy	3.5 N	Accuracy	0.10 Nm

Ambient temperature range	0-50°C*
Humidity	90% RH (non-condensing)

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°/Sec.
Shoulder	± 360°	±180°/Sec.
Elbow	± 360°	±180°/Sec.
Wrist 1	± 360°	±360°/Sec.
Wrist 2	± 360°	±360°/Sec.
Wrist 3	Infinite	±360°/Sec.
Typical TCP speed		1 m/Sec./ 39.4 in/Sec.

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 Analog out 0 UART interface (9.6k-5Mbps)
I/O power supply in tool	12V/24V 600mA continuous, 2A for shorter periods

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 a high continuous joint speed, ambient temperature is reduced

Control box

Features

IP classification	IP44
ISO Class Cleanroom	6
Ambient temperature range	0-50°C
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	100-240 VAC, 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	Max 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 1m of TP cable	1.6 kg / 3.5 lbs
Cable length	4.5 m / 177.17 in

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