

# UR3e technical details

## Specifications

|                    |   |
|--------------------|---|
| Payload            | 3 kg (6.6 lbs)  |
| Reach              | 500 mm (19.7 in)  |
| Degrees of freedom | 6 rotating joints   |
| Programming        | 12 inch touchscreen with polyscope graphical user interface |

## Performance

|  |  |               |
|--|--|---------------|
| Power, Consumption, Maximum Average  | 300 W  |               |
| Power, Consumption, Typical with moderate operating settings (approximate) | 100 W  |               |
| Safety   | 17 configurable safety functions                   |               |
| Certifications   | EN ISO 13849-1, PLd Category 3, and EN ISO 10218-1 |               |
| Force Sensing, Tool Flange   | Force, x-y-z                                       | Torque, x-y-z |
| Range  | 30.0 N   | 10.0 Nm       |
| Precision  | 2.0 N  | 0.1 Nm        |
| Accuracy   | 3.5 N  | 0.1 Nm        |

## Movement

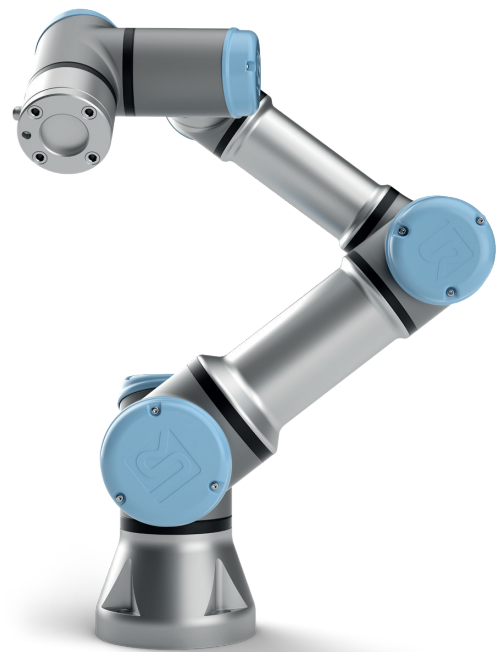
|                                 |                   |               |
|---------------------------------|-------------------|---------------|
| Pose Repeatability per ISO 9283 | ± 0.03 mm         |               |
| Axis movement                   | Working range     | Maximum speed |
| Base                            | ± 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 14644-1 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 I/O Power Supply Voltage | 12/24 V            |
| Tool I/O Power Supply         | 600 mA             |

## 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)        |
| Operating Temperature Range        | 0-50°C                    |
| Humidity                           | 90%RH (non-condensing)    |



## Control box

### Features

|                             |   |
|-----------------------------|---|
| IP classification           | IP44  |
| ISO 14644-1 Class Cleanroom | 6   |
| Operating Temperature Range | 0-50°C  |
| 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<br>Modbus TCP<br>PROFINET<br>Ethernet/IP<br>USB 2.0, 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<br>(18,7 in x 16,7 in x 10,6 in) |
| Weight                   | 12 kg (26.5 lbs)  |
| Materials                | Powder Coated Steel                                       |

## Teach pendant

### Features

|                    |                        |
|--------------------|------------------------|
| IP classification  | IP54                   |
| Humidity           | 90%RH (non-condensing) |
| Display resolution | 1280 x 800 pixels      |

### Physical

|                                 |                  |
|---------------------------------|------------------|
| Materials                       | Plastic, PP      |
| Weight including 1m of TP cable | 1,6 kg (3,5 lbs) |
| Cable length                    | 4,5 m (17,7 in)  |