



## UR12e

### General 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 |
| <b>Power consumption (average)</b> |                                                             |
| Maximum power                      | 615 W                                                       |
| Moderate operating settings        | 350 W                                                       |
| Operating temperature range        | Ambient temperature:<br>0-50 °C (32-122 °F)                 |
| Safety functions                   | 21 configurable safety functions                            |
| In compliance with                 | EN ISO 13849-1 (PLd Category 3),<br>EN ISO 10218-1          |

## UR12e Robot Arm

### 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

|                                 |                      |                      |
|---------------------------------|----------------------|----------------------|
| Maximum TCP speed               | 4 m/s                |                      |
| Pose repeatability per ISO 9283 | ± 0.05 mm            |                      |
| <b>Axis movement</b>            | <b>Working range</b> | <b>Maximum speed</b> |
| Base                            | ± 360°               | ± 120°/s             |
| Shoulder                        | ± 360°               | ± 120°/s             |
| Elbow                           | ± 360°               | ± 180°/s             |
| Wrist 1                         | ± 360°               | ± 180°/s             |
| Wrist 2                         | ± 360°               | ± 180°/s             |
| Wrist 3                         | ± 360°               | ± 180°/s             |



## UR12e

## Technical specification

Our most versatile robot, the UR12e delivers an impressive payload of 12.5 kg and 1300 mm reach, making it ideal for a wide range of applications.

Today, more than 100,000 UR collaborative industrial robots have been delivered to customers across industries and around the world. The e-Series of cobots brings incredible flexibility and unparalleled ease of use to your application.

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### Features

|                                 |                                  |
|---------------------------------|----------------------------------|
| IP Classification               | IP54                             |
| Noise                           | < 65 dB(A)                       |
| Arm mounting                    | Any orientation                  |
| <b>I/O Ports at tool flange</b> |                                  |
| Digital In                      | 2                                |
| Digital Out                     | 2                                |
| Analog In                       | 2                                |
| Power supply voltage            | 12/24 V                          |
| Power supply                    | 2 A (Dual pin), 1 A (Single pin) |

### Physical

|                          |                                           |
|--------------------------|-------------------------------------------|
| Footprint                | Ø190 mm                                   |
| Materials                | Aluminum, plastic, steel                  |
| Tool flange              | M8 8-pin female,<br>EN ISO-9409-1-50-4-M6 |
| Connector type           | M8 8-pin female                           |
| Cable length (robot arm) | 6 m (236 in)                              |
| Weight including cable   | 33.5 kg (73.9 lbs)                        |
| Humidity                 | ≤ 90% RH (non-condensing)                 |

## Contact

|                                                                |                                                                                                                                                                  |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Teach Pendant

### Features

|                    |                           |
|--------------------|---------------------------|
| IP classification  | IP54                      |
| 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<br>(11.8 in x 9.1 in x 1.97 in) |
| Weight                         | 1.6 kg (3.5 lbs) including 1 m of teach pendant cable   |
| Cable length                   | 4.5 m (177.17 in)                                       |

## Control Box

### Features

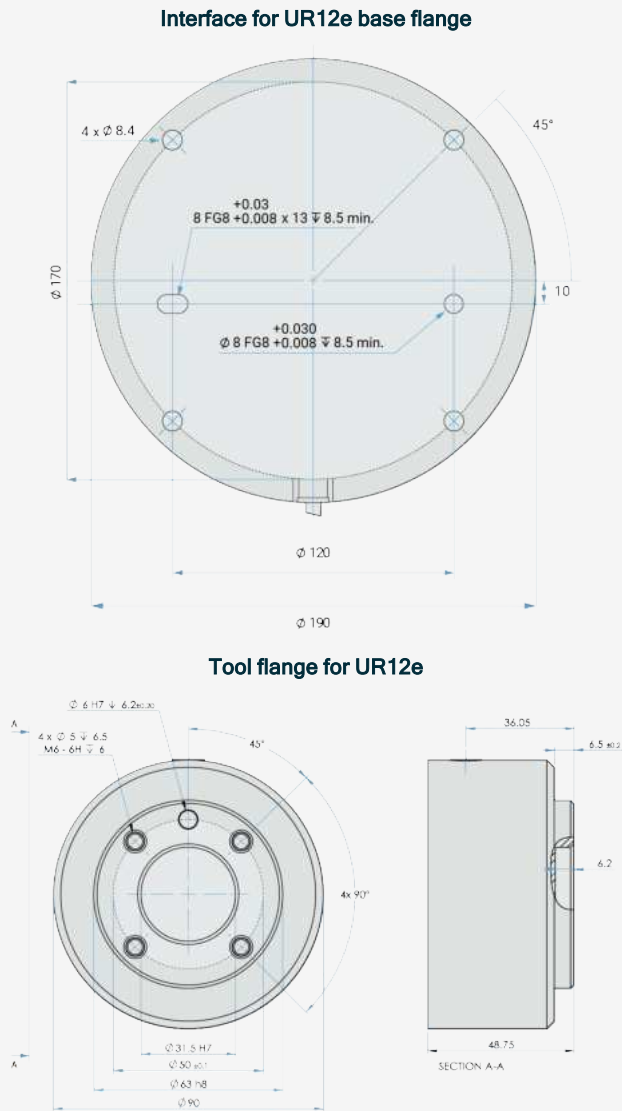
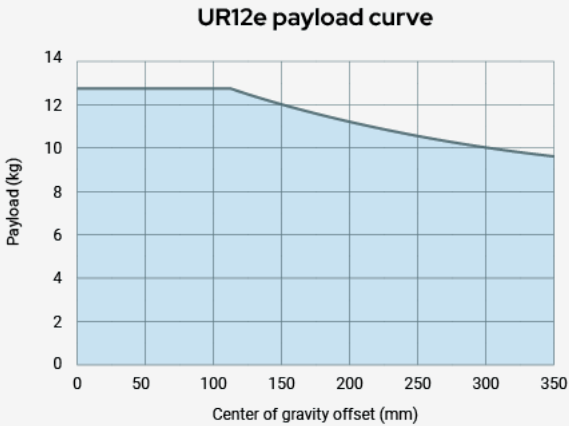
|                           |                                                                                                                                                                                                                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP classification         | IP44                                                                                                                                                                                                                             |
| Humidity                  | ≤ 90% RH (non-condensing)                                                                                                                                                                                                        |
| <b>I/O Ports</b>          |                                                                                                                                                                                                                                  |
| Digital In                | 16                                                                                                                                                                                                                               |
| Digital Out               | 16                                                                                                                                                                                                                               |
| Analog In                 | 2                                                                                                                                                                                                                                |
| Analog Out                | 2                                                                                                                                                                                                                                |
| Quadrature digital inputs | 4                                                                                                                                                                                                                                |
| I/O Power Supply          | 24V, 2A                                                                                                                                                                                                                          |
| Industrial protocols      | Modbus TCP (Client/Server)<br>Ethernet/IP Adapter<br>PROFINET device, PROFINET safe<br>ROS/ROS2<br><br>Ethernet 1 Gb/s<br>USB 2.0 USB 3.0<br>Mini DisplayPort<br>Injection Moulding Machine Interface (SPI AN-146 & Euromap-67)* |
| Power Source              | 100-240 VAC, 47-440 Hz                                                                                                                                                                                                           |

\*Only valid for OEM version.

### Physical

|                              |                                                         |
|------------------------------|---------------------------------------------------------|
| Control Box Size (W x H x D) | 460 mm x 449 mm x 254 mm<br>(18.2 in x 17.6 in x 10 in) |
| Weight                       | 12 kg (26.5 lbs)                                        |
| Materials                    | Powder coated steel                                     |

The controlbox is also available in an OEM version.



### Dimensions and reach UR12e

