The Universal Robots Advantage

Do more, achieve more, grow more. As a market leader, Universal Robots sets the benchmark for how businesses use collaborative robot technology with fast set-up, unlimited flexibility, easy programming, safe and collaborative operation, and fast payback.

With its ability to handle more payload, the UR16e frees employees from dull, dangerous work – enabling them to focus on tasks requiring human creativity, for improved morale and job satisfaction.

From empowering people to helping manufacturers grow through automation, our robots enable manufacturers to do more. Whether you deploy a single Universal Robots e-Series robot or several, you’re assured of greater efficiency, productivity, and profitability. It’s why Universal Robots is the most trusted name in robotics.

Automate heavy-duty material handling and CNC machine tending applications, including multi-part handling, with precision. With its 16 kg payload, the UR16e helps reduce the costs, injuries, and downtime associated with heavy part handling. A small footprint and 900 mm reach make the UR16e ideal for tight spaces while delivering robust operation.

Increase productivity by deploying multiple robots, at the same time and for different tasks, across a single factory. The UR16e robot performs a wide range of tasks, including those that couldn’t be automated before, and is easily deployed from one manufacturing line or work cell to another.

Explore more at www.urrobots.com/UR16e
## UR16e technical details

### Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payload</td>
<td>16 kg (35.3 lbs)</td>
</tr>
<tr>
<td>Reach</td>
<td>900 mm (35.4 in)</td>
</tr>
<tr>
<td>Degrees of freedom</td>
<td>6 rotating joints</td>
</tr>
<tr>
<td>Programming</td>
<td>12 inch touchscreen with polyscope graphical user interface</td>
</tr>
</tbody>
</table>

### Performance

<table>
<thead>
<tr>
<th>Performance Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power, Consumption, Maximum Average</td>
<td>585 W</td>
</tr>
<tr>
<td>Power, Consumption, Typical with moderate operating settings (approximate)</td>
<td>350 W</td>
</tr>
<tr>
<td>Safety</td>
<td>17 configurable safety functions</td>
</tr>
<tr>
<td>Certifications</td>
<td>EN ISO 13849-1, PLe Category 3, and EN ISO 10218-1</td>
</tr>
<tr>
<td>Force Sensing, Tool Flange Range</td>
<td>Force, x-y-z 160.0 N 10.0 Nm, Torque, x-y-z 5.0 N 0.2 Nm, 5.5 N 0.5 Nm</td>
</tr>
<tr>
<td>Movement</td>
<td>Pose Repeatability ± 0.05 mm</td>
</tr>
<tr>
<td>Axis movement</td>
<td>Working range Base ± 360°, Shoulder ± 360°, Elbow ± 360°, Wrist 1 ± 360°, Wrist 2 ± 360°, Wrist 3 ± 360°, Maximum speed ± 120°/s, ± 180°/s, ± 180°/s</td>
</tr>
<tr>
<td>Typical TCP speed</td>
<td>1 m/s (39.4 in/s)</td>
</tr>
</tbody>
</table>

### Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP classification</td>
<td>IP54</td>
</tr>
<tr>
<td>ISO 14644-1 Class Cleanroom</td>
<td>5</td>
</tr>
<tr>
<td>Noise</td>
<td>Less than 65 dB(A)</td>
</tr>
<tr>
<td>Robot mounting</td>
<td>Any Orientation</td>
</tr>
<tr>
<td>I/O ports</td>
<td>Digital in 16, Digital out 16, Analog in 2, Analog out 2, Quadrature Digital Inputs 4</td>
</tr>
<tr>
<td>Tool I/O Power Supply Voltage</td>
<td>12/24 V</td>
</tr>
<tr>
<td>Tool I/O Power Supply</td>
<td>2 A (Dual pin) 1 A (Single pin)</td>
</tr>
</tbody>
</table>

### Control box

#### Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP classification</td>
<td>IP44</td>
</tr>
<tr>
<td>ISO 14644-1 Class Cleanroom</td>
<td>6</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>0-50°C</td>
</tr>
<tr>
<td>I/O ports</td>
<td>Digital in 16, Digital out 16, Analog in 2, Analog out 2, Quadrature Digital Inputs 4</td>
</tr>
<tr>
<td>I/O power supply</td>
<td>24V 2A</td>
</tr>
<tr>
<td>Communication</td>
<td>500 Hz Control frequency, Modbus TCP, PROFINET, Ethernet/IP, USB 2.0, USB 3.0</td>
</tr>
<tr>
<td>Power source</td>
<td>100-240VAC, 47-440Hz</td>
</tr>
<tr>
<td>Humidity</td>
<td>90%RH (non-condensing)</td>
</tr>
</tbody>
</table>

### Physical

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control box size (WxHxD)</td>
<td>475 mm x 423 mm x 268 mm (18.7 in x 16.7 in x 10.6 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>12 kg (26.5 lbs)</td>
</tr>
<tr>
<td>Materials</td>
<td>Powder Coated Steel</td>
</tr>
</tbody>
</table>

### Teach pendant

#### Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP classification</td>
<td>IP54</td>
</tr>
<tr>
<td>Humidity</td>
<td>90%RH (non-condensing)</td>
</tr>
<tr>
<td>Display resolution</td>
<td>1280 x 800 pixels</td>
</tr>
</tbody>
</table>

#### Physical

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td>Plastic, PP</td>
</tr>
<tr>
<td>Weight including 1m of TP cable</td>
<td>1.6 kg (3.5 lbs)</td>
</tr>
<tr>
<td>Cable length</td>
<td>4.5 m (177.17 in)</td>
</tr>
</tbody>
</table>