

e-Series Universal Robots



*Built-in
Force/ Torque
sensor*

*17 safety functions,
all EN ISO 13849-1,
Cat.3, PL d, certified
by TÜV NORD*

*Full EN ISO 10218-1
Compliance, certified
by TÜV NORD*

*Easily
replaceable
joints*



- *Intuitive programming flow*
- *Light and responsive teach pendant
Thin cable and wide screen*
- *Customizable stopping time and stopping distance*

Optimize with human-robot collaboration

Productivity • Adaptability • Reliability



UNIVERSAL ROBOTS

| Technical Specifications | UR3e | UR5e | UR10e |
|--------------------------|--|--|--|
| Weight | 11.2 kg | 20.6 kg | 33.5 kg |
| Payload | 3 kg | 5 kg | 10 kg |
| Reach (mm) | 500 mm | 850 mm | 1300 mm |
| F/T Sensor Force XYZ | | | |
| Range | 10 N | 50 N | 100 N |
| Resolution | 1 N | 2.5 N | 2 N |
| Accuracy | 3.5 N | 4 N | 5.5 N |
| F/T Sensor Torque XYZ | | | |
| Range | 10 Nm | | |
| Resolution | 0.02 Nm | 0.04 Nm | 0.02 Nm |
| Accuracy | 0.1 Nm | 0.3 Nm | 0.6 Nm |
| Joint Ranges | +/-360°; Infinite rotation on end joint | | +/-360° |
| Speed | All wrist joints: 360°/sec. Tool: Typical 1 m/s. / 39.4 in/s. Other joints: 180°/sec. | All joints: 180°/sec. Tool: Typical 1 m/s. / 39.4 in/s. | Base & Shoulder: 120°/sec. Elbow, Wrist 1, Wrist 2, Wrist 3: 180°/sec Tool: Typical 1m/s..39.4 in/s |
| Repeatability | ± 0.03 mm | | ± 0.05 mm |
| Footprint | Ø128 mm | Ø149 mm | Ø190 mm |
| Degrees of Freedom | 6 Rotating Joints | | |
| Control box size (WxHxD) | 475 mm x 423 mm x 268 mm | | |
| I/O Ports (WxHxD) | | Control box | Tool Conn |
| | Digital in | 16 | 2 |
| | Digital out | 16 | 2 |
| | Analog in | 2 | 2 |
| | Analog out | 2 | - |
| I/O power supply (WxHxD) | 24V 2A in control box and 12V / 24V 600mA in tool | | |
| Communication | TCP/IP 100 Mbit: IEEE 802.3u, 100BASE-TX Ethernet socket & Modbus TCP in control box and RS485 in tool | | |
| Programming | Polyscope graphical user interface on 12" touchscreen with mounting | | |
| Noise | Comparatively noiseless | | |
| IP Classification | IP54 | | |
| Power Consumption | Approx. 100 watts | Approx. 200 watts | Approx. 350 watts |
| Collaboration Operation | 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 | | |
| Materials | Aluminium, Plastic, Steel | | |
| Temperature | The robot can work in a temperature range of 0-50° C* | | |
| Power Supply | 100-240 VAC, 50-60 Hz | | |
| Cabling | Cable between robot and control box (6 m) | | |

* At high continuous joint speed, ambient temperature is reduced

URe-Series



Unique Features of URe and its benefits

The e-Series cobots exemplify productivity, adaptability and reliability. Equipped with intuitive programming and versatile use, the e-Series is able to complement production regardless of the industry, company size or product nature.

Built with the future in mind, the e-Series is designed to grow in capability taking on new tasks and finding new uses. The e-Series can trailblaze into the future and take robotic automation beyond what can be done today.

Easy Programming The intuitive 3D-interface allows to become a robot programmer even without prior experience. A user friendly and intuitive teach pendant allow operators to program a cobot by moving its arms to the desired waypoints, or simply using drag-and-drop functions on a touchscreen tablet. Even the most complex tasks can be taught to the cobot with Universal Robots' Integrated Force Torque Sensor. Highly sensitive to even the slightest movements, the sensor enables the cobots to be programmed with precision for tasks where accuracy is of paramount importance.

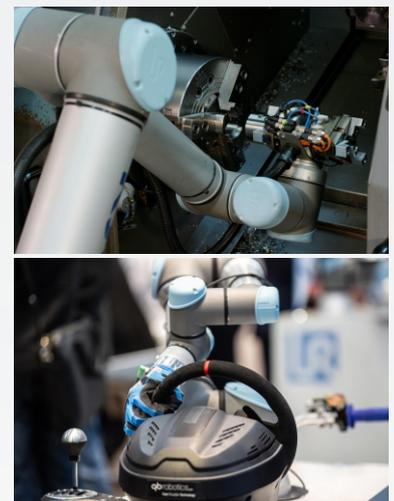
Fast Set-up Reduce robot deployment time from weeks to hours. The cobots do not require special electrical installations and can be connected to any regular power outlet. An intuitive user interface enables easy set-up, installation and integration into the production line.

Universal Robots+ products ensure hassle-free integration to maximize productivity by plug and produce. The robots also come with 32 industrial I/O connectors (24 volt) and Ethernet connectivity.

Flexible Explore the possibilities of robotic deployment with the cobots - lightweight, space saving and easy to re-deploy to multiple applications without changing production layouts. They can be moved between tasks quickly and can reuse programs for recurrent tasks, giving the flexibility to automate multiple manual tasks within one production facility with just one cobot. The e-Series' is supported by a range of end-effectors and software to meet every configuration and application need.

Safe & Collaborative The cobots are able to take over strenuous tasks in dangerous or dull environments. With the safety features, you can fuse the best of human ingenuity with robot competency for accelerated productivity and growth.

Fast Payback Universal Robots brings all the advantages of advanced robotic automation and collaborative robots without any of the traditional added costs associated with robot programming, set-up and safety guarding. Robotic automation is now an option for small and medium enterprises, small batch production runs and other set-ups where traditional solutions may be too expensive.



Machine Building Components
Assembly Line & Workplaces
Material Handling Solutions
Robotic Solutions
Special Purpose Machines

ALSTRUT
POSSIBILITIES UNLIMITED

Alstrut India Private Limited
267 Kilpauk Garden Road
Chennai 600 010, India

+91-44-4294-9000

ur@alstrut.com

www.alstrut.com

