UNIVERSAL ROBOTS
A Teradyne Robotics Company

October 2026

e-Series
Robot Arm Specification






	UR3e	UR7e	UR12e	UR16e
Payload	3 kg / 6.6 lbs	7.5 kg / 16.5 lbs	12.5 kg / 27.6 lbs	16 kg / 35.3 lbs
Reach	500 mm / 19.7 in	850 mm / 33.5 in	1300 mm / 51.2 in	900 mm / 35.4 in
Degrees of freedom	6 rotating joints			
Programming	12 inch touchscreen with PolyScope graphical user interface			
Power consumption				
Maximum power	300 W	570 W	615 W	585 W
Operating temperature range	Ambient temperature: 0-50 °C / 32-122 °F			
Safety functions	23 configurable safety functions			
In compliance with	EN ISO 13849-1 (PLd category 3) and EN ISO 10218-1			

Performance

Force sensing, tool flange/torque sensor	**Force, x-y-z**	**Torque, x-y-z**	**Force, x-y-z**	**Torque, x-y-z**	**Force, x-y-z**	**Torque, x-y-z**	**Force, x-y-z**	**Torque, x-y-z**
Range	± 30.0 N	± 10.0 Nm	± 50.0 N	± 10.0 Nm	± 100.0 N	± 10.0 Nm	± 160.0 N	± 10.0 Nm
Precision	± 2.0 N	± 0.1 Nm	± 3.5 N	± 0.2 Nm	± 5.0 N	± 0.2 Nm	± 5.0 N	± 0.2 Nm
Accuracy	± 3.5 N	± 0.1 Nm	± 4.0 N	± 0.3 Nm	± 5.5 N	± 0.5 Nm	± 5.5 N	± 0.5 Nm

Movement

Maximum TCP speed	3 m/s		4 m/s		4 m/s		3 m/s	
Pose Repeatability per ISO 9283	± 0.03 mm		± 0.03 mm		± 0.05 mm		± 0.05 mm	
Axis movement	**Working range**	**Maximum speed**	**Working range**	**Maximum speed**	**Working range**	**Maximum speed**	**Working range**	**Maximum speed**
Base	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 120°/s	± 360°	± 120°/s
Shoulder	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 120°/s	± 360°	± 120°/s
Elbow	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s
Wrist 1	± 360°	± 360°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s
Wrist 2	± 360°	± 360°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s
Wrist 3	Infinite	± 360°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s

Features

IP Classification	IP54			
Noise	< 60 dB(A)	< 65 dB(A)	< 65 dB(A)	< 65 dB(A)
Arm mounting	Any orientation			
I/O Ports				
Digital In	2	2	2	2
Digital Out	2	2	2	2
Analog In	2	2	2	2
Tool I/O power supply voltage	12/24V			
Tool I/O power supply	600 mA	1.5 A (Dual pin) 1 A (Single pin)	2 A (Dual pin) 1 A (Single pin)	2 A (Dual pin) 1 A (Single pin)

Physical

Footprint	Ø128 mm	Ø151 mm	<Ø190 mm	Ø190 mm
Materials	Aluminium, plastic, steel			
Tool flange interface	M8 8-pin female, EN ISO-9409-1-50-4-M6			
Connector type	M8 8-pin female			
Cable length (robot arm)	6 m / 236 in			
Weight including cable	11.2 kg / 24.7 lbs	20.6 kg / 45.4 lbs	33.5 kg / 73.9 lbs	33.1 kg / 73 lbs
Humidity	≤ 90% RH (non-condensing)			

e-Series - Technical Specifications

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Control Box Specification

Features

	CB 5.5 (PolyScope 5) CB 5.6 (PolyScope X)	CB 5.5 (PolyScope 5) CB 5.6 (PolyScope X)
Robot types	e-Series, UR Series	e-Series, UR Series
Software compatibility	PolyScope X, PolyScope 5	PolyScope X, PolyScope 5
IP Classification	IP44	IP20
Cleanroom classification ISO 14644-1	6	6
Operating temperature range	0-50 °C / 32-122 °F	0-50 °C / 32-122 °F
I/O Ports		
Digital In	16	16
Digital Out	16	16
Analog In	2	2
Analog Out	2	2
Quadrature Digital inputs	4	4
I/O Power supply	24V, 2A	24V, 2A
Industrial protocols	Modbus TCP (Client/Server) Ethernet/IP Adapter PROFINET device/PROFIsafe ROS/ROS2	Modbus TCP (Client/Server) Ethernet/IP Adapter PROFINET device/PROFIsafe ROS/ROS2
Hardware interfaces	Ethernet 1 Gb/s USB 2.0, USB 3.0 Mini DisplayPort Injection Molding Machine Interface (SPI AN-146 & Euromap-67)	Ethernet 1 Gb/s USB 2.0, USB 3.0 Mini DisplayPort Injection Molding Machine Interface (SPI AN-146 & Euromap-67)

Physical

Control Box size (W x H x D)	460 mm x 449 mm x 254 mm / 18.2 in x 17.6 in x 10 in	451 mm x 168 mm x 150 mm / 17.6 in x 6.6 in x 5.9 in
Weight	12 kg / 26.5 lbs	AC model: 4.7 kg / 10.4 lbs DC model: 4.3 kg / 9.48 lbs
Power supply output	1500 W	1500 W
Materials	Powder coated steel	Aluminium
Humidity	≤ 90% RH (non-condensing) ≤	≤ 90% RH (non-condensing) ≤





Teach Pendant Specification

Features

	Standard	3PE
Robot types	e-Series (standard)	e-Series (optional), UR Series (standard)
IP Classification	EN ISO 10218-1 EN ISO 13849-1	EN ISO 10218-1 EN ISO 13849-1
Humidity	≤ 90% RH (non-condensing)	≤ 90% RH (non-condensing)
Display resolution	1280 x 800 pixels	1280 x 800 pixels
Freedrive	1 button	2 buttons to support for ambidextrous operation

Physical

Materials	Plastic (PC/ASA)	Plastic (PC/ASA)
Teach Pendant size (W x H x D)	300 mm x 231 mm x 50 mm / 11.8 in x 9.1 in x 1.97 in	300 mm x 231 mm x 50 mm / 11.8 in x 9.1 in x 1.97 in
Weight (including 1 m Teach Pendant cable)	1.6 kg / 3.5 lbs	1.8 kg / 3.968 lbs
Cable length (Teach Pendant)	4.5 m / 177.17 in	4.5 m / 177.17 in

Long and short cable options



Standard Robot Cable



High Flex Robot Cable

Power cable	Material	Color	Length	Diameter	Gross Weight	e-Series	UR Series
700-3xx-xx	PVC	Black	6 m / 236.22 in	Country specific	0.75 kg / 1.7 lbs	●	●

Standard Robot Cable

200145	PVC	Black	1 m / 39.37 in	12.1 mm / 0.48 in	0.4 kg / 1 lbs	○	○
200146	PVC	Black	2 m / 78.74 in	12.1 mm / 0.48 in	0.6 kg / 1.3 lbs	○	○
165100	PVC	Black	6 m / 236.22 in	12.1 mm / 0.48 in	2 kg / 4.4 lbs	●	-
165101	PVC	Black	12 m / 472.44 in	12.1 mm / 0.48 in	3.25 kg / 7.17 lbs	○	-

High Flex Robot Cable

166100	PVC	Blue	6 m / 236.22 in	13.4 mm / 0.53 in	2.3 kg / 5.07 lbs	○	-
166101	PVC	Blue	12 m / 472.44 in	13.4 mm / 0.53 in	4.5 kg / 9.92 lbs	○	-
200113	PVC	Blue	6 m / 236.22 in	14.6 mm / 0.57 in	2.3 kg / 5.07 lbs	-	●
200114	PVC	Blue	12 m / 472.44 in	14.6 mm / 0.57 in	4.5 kg / 9.92 lbs	-	○

● Standard ○ Optional - Not applicable

What's in the box?

Select the setup that fits you

Solution				☐ Standard ☐ OEM
Robot	**UR Series** ☐ UR8 Long ☐ UR15 ☐ UR18 ☐ UR20 ☐ UR30	**e-Series** ☐ UR3e ☐ UR7e ☐ UR12e ☐ UR16e	**Teach Pendant**	☐ Standard ☐ 3PE
Software	☐ PolyScope X ☐ PolyScope 5		**Cable**	☐ 1 m ☐ 6 m ☐ 12 m
Control Box	☐ CB 5.5 ☐ CB 5.6 ☐ OEM CB 5.5 ☐ OEM CB 5.6		**UR Care Service Plan**	☐ UR Care Plus ☐ UR Care Premium ☐ UR Care Customized

Contact

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