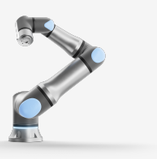
UNIVERSAL ROBOTS
A Teradyne Robotics Company

October 2026

UR Series

Robot Arm Specification







Robot Arm Specification	UR8 Long	UR15	UR18	UR20	UR30
Payload	8 kg / 17.6 lbs 10 kg / 22 lbs with boundary conditions according to the manual.	15 kg / 33.1 lbs 17.5 kg / 38.58 lbs with boundary conditions according to the manual.	18 kg / 39.7 lbs	20 kg / 44.1 lbs 25 kg / 55.1 lbs with boundary conditions according to the manual.	30 kg / 66.1 lbs 35 kg / 77.2 lbs with boundary conditions according to the manual.
Reach	1750 mm / 68.9 in	1300 mm / 51.18 in	950 mm / 37.4 in	1750 mm / 68.9 in	1300 mm / 51.18 in
Degrees of freedom	6 rotating joints				
Programming	12 inch touchscreen with PolyScope graphical user interface				
Power consumption					
Maximum power	615 W	550 W	570 W	750 W	750 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**	**Force, x-y-z**	**Torque, x-y-z**
Range	± 150.0 N	± 10.0 Nm	± 150.0 N	± 10.0 Nm	± 150.0 N	± 10.0 Nm	± 200.0 N	± 20.0 Nm	± 200.0 N	± 20.0 Nm
Precision	± 7.5 N	± 0.2 Nm	± 7.5 N	± 0.2 Nm	± 7.5 N	± 0.2 Nm	± 5.5 N	± 0.2 Nm	± 5.5 N	± 0.2 Nm
Accuracy	± 8.3 N	± 0.5 Nm	± 8.3 N	± 0.5 Nm	± 8.3 N	± 0.5 Nm	± 10.0 N	± 0.1 Nm	± 10.0 N	± 1.0 Nm

Movement

Maximum TCP speed	5 m/s		5 m/s		4 m/s		5 m/s		4 m/s	
Pose Repeatability per ISO 9283	± 0.08 mm		± 0.05 mm		± 0.05 mm		± 0.1 mm		± 0.1 mm	
Axis movement	**Working range**	**Maximum speed**	**Working range**	**Maximum speed**	**Working range**	**Maximum speed**	**Working range**	**Maximum speed**	**Working range**	**Maximum speed**
Base	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 120°/s	± 360°	± 120°/s
Shoulder	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 180°/s	± 360°	± 120°/s	± 360°	± 120°/s
Elbow	± 360°	± 240°/s	± 360°	± 240°/s	± 360°	± 240°/s	± 360°	± 150°/s	± 360°	± 150°/s
Wrist 1	± 360°	± 300°/s	± 360°	± 300°/s	± 360°	± 300°/s	± 360°	± 210°/s	± 360°	± 210°/s
Wrist 2	± 360°	± 300°/s	± 360°	± 300°/s	± 360°	± 300°/s	± 360°	± 210°/s	± 360°	± 210°/s
Wrist 3	± 360°	± 300°/s	± 360°	± 300°/s	± 360°	± 300°/s	± 360°	± 210°/s	± 360°	± 210°/s

Features

IP Classification	IP65				
Noise	< 67 dB(A)	< 67 dB(A)	< 67 dB(A)	< 65 dB(A)	< 65 dB(A)
Arm mounting	Any orientation				
I/O Ports					
Digital In	2	2	2	2	2
Digital Out	2	2	2	2	2
Analog In / Communication	2	2	2	2	2
Tool I/O power supply voltage	12/24V				
Tool I/O power supply	2 A (Dual pin) 1 A (Single pin)	2 A (Dual pin) 1 A (Single pin)	2 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	Ø204 mm	Ø204 mm	Ø204 mm	Ø245 mm	Ø245 mm
Materials	Aluminium, plastic, steel				
Tool flange interface	EN ISO-9409-1-50-4-M6	EN ISO-9409-1-50-4-M6	EN ISO-9409-1-50-4-M6	EN ISO-9409-1-80-6-M8	EN ISO-9409-1-80-6-M8
Connector type	M8 8-pin female				
Cable length (robot arm)	6 m / 236 in				
Weight without cable	44.7 kg / 98.5 lb	40.7 kg / 89.73 lbs	39,2 kg / 86.42 lbs	64 kg / 141.1 lbs	63.5 kg / 140.0 lbs
Humidity	≤ 90% RH (non-condensing)				

UR Series - Technical Specifications

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CB 5.6 (PolyScope X, PolyScope 5)



OEM 5.6 (PolyScope X, PolyScope 5)

Control Box Specification

Features

Robot types	UR 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) ≤



Standard



3PE

Teach Pendant Specification

Features

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	**Teach Pendant**	☐ Standard ☐ 3PE
Software	PolyScope X PolyScope 5	**Cable**	☐ 1 m ☐ 6 m ☐ 12 m
Control Box	☐ CB 5.6 ☐ OEM CB 5.6	**UR Care Service Plan**	☐ UR Care Plus ☐ UR Care Premium ☐ UR Care Customized

Contact

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UR Series - Technical Specifications