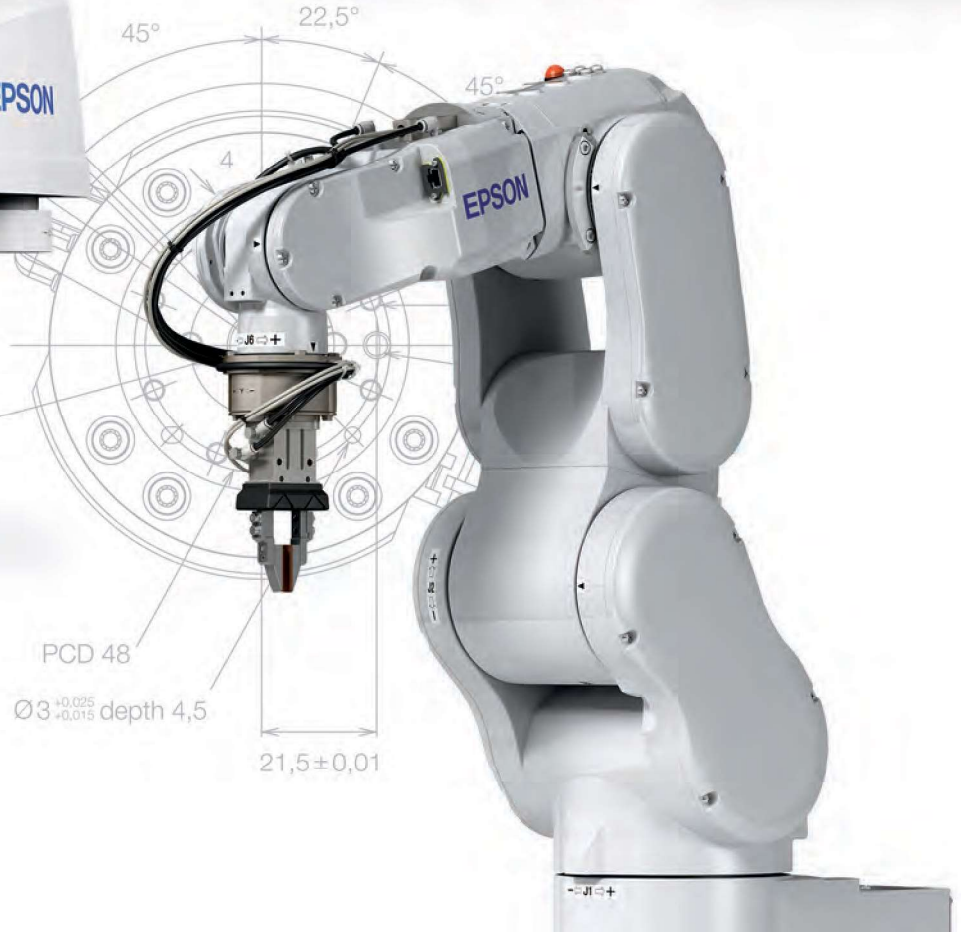
EPSON®
EXCEED YOUR VISION

ROBOT SPECIFICATIONS 2023 CATALOG



Why Epson® Robots?

As precision automation specialists, the Epson Robots team has been building automation products for nearly four decades. An industry leader in small-parts-assembly applications, we've introduced many firsts. As a result, our innovative products are hard at work in thousands of manufacturing facilities throughout the world.

1 Leading Epson technology

- Epson is the #1 SCARA robot manufacturer in the world
- We introduced the world's first folding-arm 6-Axis robot
- Specialized integrated motion sensors help reduce vibration and increase performance

2 What you need, when you need it

- The Epson lineup features 6-Axis and SCARA robots with payloads up to 20 kg and a reach ranging from 175 mm to 1,480 mm
- We offer a wide range of fully integrated options including vision guidance, conveyor tracking, flexible parts feeding, force guidance and more

3 Intuitive programming software

- Epson RC+® software is extremely user-friendly, making automation setup fast and easy
- It includes time-saving features such as wizards, templates, smart tools and more

4 Reliability you can count on

- Dedicated to helping you find the best solution for your automation needs
- Epson robots are long-lasting and require little maintenance
- Over 150,000 robots sold worldwide

1982	1986	1994	1997	2001	2009	2009	2016	2017	2019	2022
	INDUSTRY FIRST	INDUSTRY FIRST	INDUSTRY FIRST	INDUSTRY FIRST		INDUSTRY FIRST	INDUSTRY FIRST			
Epson SCARA robots introduced	ISO Class 1 cleanroom robots	Microsoft® Windows® OS support	Compact (under 500 mm reach) SCARA robot introduced PC-based robot controller	Wall/ceiling-mount SCARA robots	Compact, high-speed C3 6-Axis robot	Ceiling-mount RS3 SCARA robot with 360° rotation introduced	N2 6-Axis robot with folding-arm design introduced	Ultra low-cost T3 All-in-One SCARA robot with built-in controller introduced	Ultra low-cost VT6L All-in-One 6-Axis robot with built-in controller introduced	GX-Series high-power-density SCARA robots introduced

INDUSTRY FIRST
Anti-static robots

C-Series

With exceptional flexibility and a slim, compact design, C-Series robots provide an innovative solution for 6-Axis applications. Their small footprint makes them ideal for factories that need to save space. And their long arms enable them to access hard-to-reach areas in the workplace.

C-SERIES

6-AXIS ROBOTS

C4

Compact robots with high repeatability and fast cycle times

C8

Powerful robots with long reach and heavy payloads

C12

High-performance robots with heavy payload and second-generation GYROPLUS Technology

C-SERIES SPECIFICATIONS

		C4	C8	C12
Arm length		600/900 mm	700/900/1,400 mm	1,400 mm
Repeatability	Joints #1 – #6	±0.020/±0.030 mm	±0.020/±0.030/±0.050 mm	±0.050 mm
Payload	Rated	1 kg	3 kg	3 kg
	Maximum	4 kg (5 kg with arm-downward positioning)	8 kg	12 kg
Standard cycle time[1]		0.37/0.47 sec	0.31/0.35/0.53 sec	0.50 sec
Installation environments		Standard/Cleanroom ISO Class 3 and 4 with ESD	Standard/Cleanroom ISO Class 3 and 4 with ESD/Protected IP67	Standard/Cleanroom ISO Class 4 with ESD
Available controllers		RC700A		

1 Cycle time based on round-trip arch motion (300 mm horizontal, 25 mm vertical) with 1 kg payload (path coordinates optimized for maximum speed).

C4

Scan Here for CAD Drawings

High speed and exceptional flexibility

- Arm lengths of 600 and 900 mm
- Payloads up to 4 kg
- Slim design and compact wrist—fits in tight spaces
- Cleanroom ISO Class 3 models available

SPECIFICATIONS

		C4-A601 (C4)		C4-A901 (C4L)	
Mounting type		Tabletop	Ceiling	Tabletop	Ceiling
Degree of freedom		6			
Arm length	**P Point: through the center of J4/J5/J6**	600 mm		900 mm	
Wrist flange surface		665 mm		965 mm	
Weight (cables not included)		27 kg		29 kg	
Repeatability	**Joints #1 – #6**	±0.020 mm		±0.030 mm	
Max. motion range	**Joint #1**	±170 deg			
	Joint #2	-160 ~ +65 deg			
	Joint #3	-51 ~ +225 deg			
	Joint #4	±200 deg			
	Joint #5	±135 deg			
	Joint #6	±360 deg			
Payload	**Rated**	1 kg			
	Maximum	4 kg			
Standard cycle time[1]		0.37 sec		0.47 sec	
Allowable moment of inertia[2]	**Joint #4**	0.150 kg•m^2			
	Joint #5	0.150 kg•m^2			
	Joint #6	0.100 kg•m^2			
Electric lines		9-Pin (D-Sub)			
Pneumatic lines		Φ4 mm × 4			
Installation environments		Standard/Cleanroom ISO Class 3 with ESD			
Available controllers		RC700A			
Safety standards		CE Mark: EMC Directive, Machinery Directive, RoHS Directive UL1740 ANSI/RIA R15.06 NFPA 79			

1 Cycle time based on round-trip arch motion (300 mm horizontal, 25 mm vertical) with 1 kg payload (path coordinates optimized for maximum speed).
2 If the center of gravity is at the center of each arm. If the center of gravity is not at the center of each arm, set the eccentric quantity using the INERTIA command.

C8/C12

Scan Here for CAD Drawings

Long reach and heavy payload

- Arm lengths of 700, 900 and 1,400 mm
- Payloads up to 12 kg
- Slim design and compact wrist—fits in tight spaces
- Cleanroom ISO Class 3 (C8/C8L) and Class 4 (C8XL/C12XL) models available

SPECIFICATIONS

		C8-A701 (C8)	C8-A901 (C8L)	C8-A1401 (C8XL)	C12XL-A1401 (C12XL)
Mounting type		Tabletop/Ceiling/Wall			Tabletop
Degree of freedom		6			
Arm length	P Point: through the center of J4/J5/J6	711 mm	901 mm	1,400 mm	1,400 mm
Wrist flange surface		791 mm	981 mm	1,480 mm	1,480 mm
Weight (cables not included)		49 kg (Protected: 53 kg)	52 kg (Protected: 56 kg)	62 kg (Protected: 66 kg)	63 kg
Repeatability	Joints #1 – #6	±0.02 mm	±0.03 mm	±0.05 mm	±0.05 mm
Max. motion range	Joint #1	±240 deg			
	Joint #2	-158 ~ +65 deg		-135 ~ +55 deg	
	Joint #3	-61 ~ +202 deg			
	Joint #4	±200 deg			
	Joint #5	±135 deg			
	Joint #6	±360 deg			
Payload	Rated	3 kg			
	Maximum	8 kg			12 kg
Standard cycle time[1]		0.31 sec	0.35 sec	0.53 sec	0.50 sec
Allowable moment of inertia[2]	Joint #4	0.470 kg•m^2			0.700 kg•m^2
	Joint #5	0.470 kg•m^2			0.700 kg•m^2
	Joint #6	0.150 kg•m^2			0.200 kg•m^2
Electric lines		15-Pin (D-Sub), 8-Pin (RJ45), 6-Pin (for Force Sensor)			
Pneumatic lines		Φ6 mm x 2			
Installation environments		Standard/Cleanroom ISO Class 3 with ESD/Protected IP67			Standard/Cleanroom ISO Class 4 with ESD
Available controllers		RC700A			
Safety standards		CE Mark: EMC Directive, Machinery Directive, RoHS Directive UL1740 ANSI/RIA R15.06 NFPA 79			CE Mark: EMC Directive, Machinery Directive, RoHS Directive ANSI/RIA R15.06 NFPA 79

1 Cycle time based on round-trip arch motion (300 mm horizontal, 25 mm vertical) with 1 kg payload (path coordinates optimized for maximum speed).
2 If the center of gravity is at the center of each arm. If the center of gravity is not at the center of each arm, set the eccentric quantity using the INERTIA command.