

EPSON Medical / Pharmaceutical Robots

Designed for Automation in VHP Gas Sterilized Environments

EPSON®
EXCEED YOUR VISION

Resistant to Vaporized Hydrogen Peroxide (VHP®) Gas

Exterior parts are treated with corrosion-resistant coating. Special material is used to seal components to enable long life and chemical-resistant performance. C3-V robots are designed for use in VHP® gas sterilized environments. They are built to withstand exposure to chemical solutions and detergents from mild-acid to mild-alkaline.

Sanitary-Design: Prevents/Reduces Foreign Substances on Arm

Smooth surface design makes C3-V robots easy to clean.

Safe Material

Safe coating material,*1 which is also used for kitchen utensils, is used for exterior parts. For oil seal lubrication, food-grade grease*2 is used. Also, wrist axis material is stainless, which reduces the risk of contamination by foreign substances.

*1 Material approved by FDA (U.S. Food and Drug Administration) for contact with food

*2 NSF H1 Grade

Compact and Slim Design

Compact and slim design makes it easy to install C3-V robots in a sealed environment such as inside an isolator.



Example Applications

• Sterile Preparations

C3-V robots are built for use in sterile preparation lines for filling syringes, samples, or vials. They can be used to transport syringes to production lines or sort prefilled syringes into a pallet.

• Sterile Isolator

C3-V robots are used for a variety of transportation tasks in an isolator and then cleaned by VHP®.

• Aseptic Clean Room

C3-V robots are also used for a variety of transportation tasks in cleanrooms which require periodic cleaning by VHP®.

• Highly Active Drugs

C3-V robots are used in sealed environments to manufacture highly pharmacologically-active anticancer drugs or steroid drugs. With an IP67-grade water/dust proofing, the C3-V robots can be cleaned with chemical solutions.



The Best Just Got Better

EPSON C3-A601V (C3-V) Specifications

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EPSON ROBOT MODEL		C3-A601V (C3-V)
Configuration		Articulated 6 Axis
Mounting Configurations		Table Top, Ceiling
Payload (Rated/Max)		1 kg / 2.5 kg
Repeatability		+/-0.02 mm
Motion Range	J1	+/-170 deg (without stopper +/-180 deg)
	J2	-160 deg ~ +65 deg
	J3	-50 deg ~ +210 deg
	J4	+/-200 deg
	J5	+/-130 deg
	J6	+/-360 deg
Horizontal Reach	to mounting face	690 mm
	to wrist center	605 mm
Arm Length		250 (lower arm) / 255 (upper arm)
Arm Offset		J1 : 100 mm
Wrist Length		73mm
Speed	J1	450 deg/sec
	J2	450 deg/sec
	J3	514 deg/sec
	J4	553 deg/sec
	J5	553 deg/sec
	J6	720 deg/sec
Cycle Time	1kg payload	0.45 sec or less
Allowable Moment	J4	4.41 N*m
	J5	4.41 N*m
	J6	2.94 N*m
Allowable Moment of Inertia	J4	0.15 kg*m ²
	J5	0.15 kg*m ²
	J6	0.10 kg*m ²
Motor Ratings	Axis 1	400 watts
	Axis 2	400 watts
	Axis 3	150 watts
	Axis 4	50 watts
	Axis 5	50 watts
	Axis 6	50 watts
Environment		VHP®: 300-1000ppm (VHP® no condensation) Cleaning Fluid: pH4.5 ~ 8.5 Cleanroom Rating: ISO 4 Environmental Protection: IP67
Weight		35 kg
User Lines	Electric	9 pin-round shape connector
	Air	4 pneumatic tubes (Φ4mm)
Brakes		All axes
Safety Regulations		Machinery Directive : ISO10218,EN60204-1 EMC Directive : EN55011,EN61000-6-2 Low voltage Directive : EN60204-1,EN60950 RoHS : 2002/95/EC ANSI/RIA : R15.06-1999 JIS B 8433
Options		Brake Release Box
Available Controllers		Micro PowerDrive RC180 PC Based Controller RC620+

**Available
with 2 Different
Controllers**



**Micro PowerDrive
RC180**



**PC Based Controller
RC620+**

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*1 Specifications are subject to change without notice.

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