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VT6L ALL-IN-ONE 6-AXIS ROBOT



The All-in-One solution that's compact and easy to use.

EPSON

With next-level technology at an incredible price, the VT6L All-in-One 6-Axis robot is ideal for a wide variety of simple applications. Delivering many of the features found in Epson's high-end robots, including powerful Epson RC+® and Epson RC+ Express development software, and integrated options such as Vision Guidance, the VT6L offers a reach of 900 mm and a payload of 6 kg. A feature-packed performer, it includes a built-in controller plus simplified cabling with a hollow end-of-arm design in a compact SlimLine structure—all at a remarkably low cost. The VT6L installs in minutes and is available with 110 V and 220 V power, or as a 48 V DC-powered version for mobile applications. Plus, there's no battery required for the encoder, reducing the overall cost of ownership.

Powerful features at an extraordinary price

VT6L ALL-IN-ONE





Compact, All-in-One Solution

With a built-in controller, this space-saving All-in-One has everything you need—and installs in minutes. Emergency Stop, I/O, USB, Ethernet and Teach Pendant are all available from the easy-access back panel.

Feature-packed at an amazing price

- All-in-One solution space-saving design with built-in controller
- Two powerful development environments Epson RC+ for full-featured, easy-to-learn programming and Epson RC+ Express for no-code, visual-based programming
- Full featured; value without compromise the same powerful features found in Epson's high-end robots at an incredibly affordable price; with a reach of 900 mm and a payload of 6 kg
- SlimLine design compact wrist pitch enables access to hard-to-reach areas in confined spaces
- Power options for stationary or mobile applications — available with 110 V and 220 V power, or as a 48 V DC-powered mobile version

- Fast, easy integration installs in minutes, requiring less time and labor expense for system integration
- Integrated Vision Guidance option designed specifically for robot guidance; makes it easy to automate simple applications when vision is required
- Simplified cabling hollow end-of-arm design makes end-of-arm tooling easier than ever
- No battery required for encoder minimizes downtime and reduces overall cost of ownership
- Application versatility ideal for machine-tool and injection-molding load/unload, pick-and-place, dispensing and mobile applications

All You Need for Your Next Automation Application

With a 900 mm reach and a 6 kg payload, the VT6L is built to handle a wide variety of applications. **Whether it's loading and unloading, packaging or a mobile application,** this full-featured performer offers the perfect solution for most simple automation and handling tasks. Its SlimLine design provides the ideal fit for factories with limited floor space, while its compact wrist enables easy access to hard-to-reach areas. In addition, its powerful tools and software allow you to create a customized system to meet the requirements for your next application.









Automation Applications

The VT6L All-in-One 6-Axis robot is extremely versatile, providing a wide range of automation possibilities:

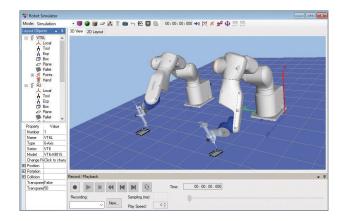
- Assembly
- Pick and place
- Material handling
- Packaging
- Kitting/Tray loading
- Machine tending
- Screw driving
- Dispensing
- Palletizing
- Lab analysis and testing
- Inspection and testing
- Finishing
- Grinding/Polishing
- Mobile applications

Development Software: Epson RC+ and Epson RC+ Express

Smart, intuitive software for Epson® robots

Epson RC+ and Epson RC+ Express offer the ultimate selection of powerful, easy-to-use features, reducing the time needed to develop automated robot solutions. Epson RC+ advanced software includes fully integrated options such as Vision Guidance, Force Guidance, Conveyor Tracking, Parts Feeding and more. Epson RC+ Express features an easy-to-learn, block-style robot teaching environment, ideal for new users with little or no coding experience.

- Software options for simple or complex applications
- S Easy-to-learn programming (Epson RC+) or no-code programming environment (Epson RC+ Express)
- 3D simulator
- Quick deployment of your robotic system



EPSON RC+

Comprehensive suite of advanced tools and features in one convenient, integrated environment.



EPSON RC+ EXPRESS

Intuitive, no-code, visual-based robot teaching environment.

Efficient hardware design

As with all Epson 6-Axis robots, the VT6L features a SlimLine design, compact wrist and large working range. Motors, amplifiers and other internal components were made by Epson to maximize performance.

Easy end-of-arm connection for electrical and pneumatic lines.

Simplified end-of-arm cabling

Hollow end-of-arm design makes end-of-arm tooling easier than ever. This unique structure reduces the typical long end-of-arm cable loop required to eliminate pinching and pulling on the tooling.

VERSATILITY

Options and Accessories

Integrated Vision Guidance

Highly regarded in the industry as simple to use with a wide variety of powerful tools, Epson Vision Systems have provided integrated robot guidance for over 25 years. Our Vision Guide software features high-performance tools in an intuitive point-and-click environment.



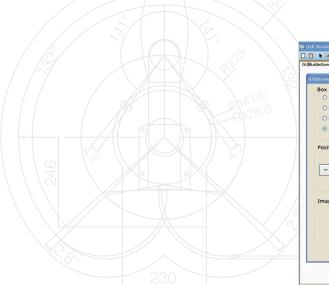
VT6L shown with mobile mounted camera for use with Epson Vision Guide.

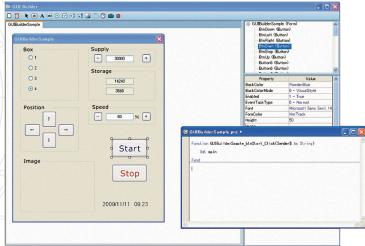
Fieldbus Interface Options

- Fieldbus I/O interfaces are used in factories worldwide to reduce cabling costs and setup time, and promote standard device usage. However, there is not one accepted Fieldbus I/O standard. That's why we offer a wide variety of options including:
 - Ethernet/IP
- PROFINET
- DeviceNet[®]
- PROFIBUS
- EtherCAT
- CC-Link

GUI Builder

- Epson's GUI Builder provides the tools necessary to create graphical user interfaces from within the Epson RC+ development environment. With the built-in GUI Builder toolset, users can work from one development environment, which helps reduce overall development time.
 - Create GUIs without Visual Studio or other third-party software tools
 - Create and debug GUI forms from your Epson RC+ project
 - Form and control events are executed as SPEL[®] + tasks





SPECIFICATIONS

Mounting Type¹ Tabletop (AC or DC), Ceiling (AC) or Wall (AC) Arm Length 920 mm

Payload

Rated: 3 kg Maximum: 6 kg

Repeatability

Joints #1-6: ±0.1 mm Standard Cycle Time² 0.60 sec

Maximum Reach P Point: Joints #1-5 Center 920 mm P Point: Joints #1-6 Flange Surface 1,000 mm

Maximum Motion Range

Joint #1: ±170° Joint #2: -160° ~ +65° (225°) Joint #3: - 51° ~ +190° (241°) Joint #4: ± 200° Joint #5: ±125° Joint #6: ± 360°

Allowable Moment of Inertia

Joint #4: 0.3 ka·m² Joint #5: 0.3 kg·m² Joint #6: 0.1 kg·m²

Brakes All axes

Standard I/O In 24/Out 16

Remote I/O In 8/Out 8 (Remote function assigned to standard I/O)

OTHER

Power AC: 100 V – 240 V Single Phase, DC: 48 V

Power Consumption AC: 1.2 kVA, DC: 1.2 kW

Power Cable Length AC: 5 m, DC: 2 m

OTHER (continued)

Weight (cables not included) 40 kg (88 lb), IP rated 42 kg (92 lb)

Controller Built-in controller

Installation Environment Standard (AC or DC), Cleanroom ISO Class 4 (AC), Protected IP67 (AC)

Safety Standard

CE Mark, EMC Directive, Machinery Directive ANSI/RIA R15.06-2012, NFPA 79 (2007 Edition)

WHAT'S INCLUDED

VT6L All-in-One 6-Axis Robot Robot power cable Epson RC+ and Epson RC+ Express development software USB cable E-Stop unit with cable VT6L Robot System Safety and Installation Manual Connector set (I/O, hand I/O and safety circuit connectors)

SUPPORT

Customer Service (562) 290-5920, service@robots epson.com

Applications Support (562) 290-5930, applications@robots.epson.com

Sales Inquiries (562) 290-5997, info@robots.epson.com

WARRANTY

Standard 15-month limited warranty, with optional extended service plans available

EPSON PREFERRED[™] PLUS EXTENDED SERVICE PLANS

Discounted plans only available for purchase at time of hardware sale.

1-Year Return for Repair EPPRBPVTR1 2-Year Return for Repair EPPRBPVTR2

Plans available for purchase any time before limited warranty expires.

1-Year Return for Repair 2-Year Return for Repair EPPRBVTR1 EPPRBVTR2

ORDERING INFORMATION

Product Name

VT6L - Standard VT6L - Cleanroom ISO Class 4 VT6L - Protected IP67 VT6L - DC 48 V

VT6L-A901SS VT6L-A901CS VT6L-A901PS VT6L-A901DS

Product Code

Options

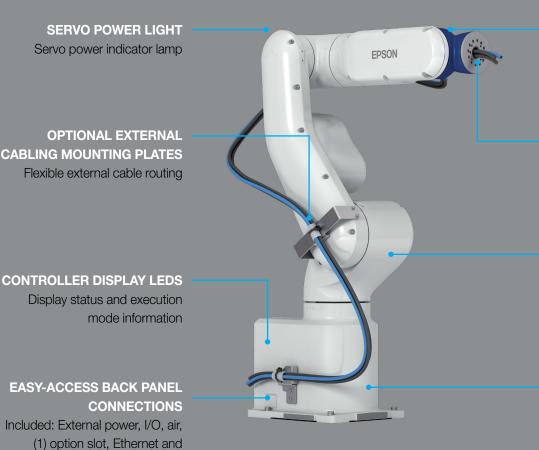
Vision Guide CV2 Available Vision Guide PV1 Available VT6L External Cable Mounting Plates R12NZ900ZW VT6L Camera Mounting Bracket OCR (for use with Vision Guide) Epson RC+ 7.0 API GUI Builder 7.0 External Control Point (ECP) Option TP3 - Teach Pendant TP2 - Teach Pendant Ethernet/IP Fieldbus I/O (Slave) Ethernet/IP Fieldbus I/O (Master) DeviceNet Fieldbus I/O (Slave) DeviceNet Fieldbus I/O (Master) PROFINET Fieldbus I/O (Slave) PROFIBUS Fieldbus I/O (Slave) PROFIBUS Fieldbus I/O (Master) EtherCAT Fieldbus I/O (Slave) CC-Link Fieldbus I/O (Slave)

R12NZ900ZZ B12N7920H3 R12NZ920AE R12NZ900AH B12NZ900AF R12NZ900N3 R12NZ900L9 B12NZ900TH R12NZ900NZ R12NZ900TE B12N7900NX R12NZ900TG R12NZ900TF B12N7900NY R12NZ900TX R12NZ900TD

1 Default software setting is "tabletop." To use the VT6L in a wall or ceiling mount configuration requires changing the model setting in Epson RC+. 2 Cycle time based on roundtrip arch motion (300 mm horizontal, 25 mm vertical) with 1 kg payload (path coordinates optimized for maximum speed).

3 See individual service plan for details

USB ports, emergency connector, TP I/F



OPTIONAL CAMERA BRACKETS

For easy mobile camera mounting

HOLLOW END-OF-ARM DESIGN Simplified cabling-minimizes cable pulling

SELF-CONTAINED MOTOR, **ENCODER, AMP UNITS** Motor, encoder and amp units in arm enclosure

BUILT-IN CONTROLLER

Controller is built into the base of the arm: CPU, DPB, CPU battery, CF card



The Epson Advantage

Leading Epson technology

- Epson is the #1 SCARA robot manufacturer in the world, with more than 300 models to choose from and over 150,000 robots sold worldwide
- We introduced the world's first folding-arm 6-Axis robot
- Epson's patented GYROPLUS Technology significantly reduces residual vibration, resulting in faster cycle times and higher precision

What you need, when you need it

- The Epson lineup features 6-Axis and SCARA robots with payloads up to 20 kg and reaches ranging from 175 mm to 1,480 mm
- S We offer a wide range of integrated options including Vision Guidance, Force Guidance, IntelliFlex™ Parts Feeding and more

Visit www.epsonrobots.com



Why Choose Epson Robots? As precision automation specialists, the Epson Robots team has been building automation products for nearly 40 years. As a 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.

Intuitive programming software

- > Epson RC+ offers a comprehensive suite of advanced tools and features in one convenient, integrated environment
- Epson RC+ Express provides an intuitive, no-code robot teaching environment for users who have little or no programming experience

Reliability you can count on

- Our team is dedicated to helping you find the best solution for your automation needs
- Epson robots are long-lasting and require little maintenance



Epson Business Solutions

Epson is a leading provider of innovative technology solutions that help businesses succeed. We partner with you to best meet your specific needs, focusing on:

- Improved productivity
- World-class customer service and support
- Cost-effective, high-quality solutions
- A commitment to the environment

Discover how Epson can help you work toward the future. www.epson.com/forbusiness

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