

# Synthis™ T6 All-in-One SCARA Robot



All-in-One Robot

Factory Automation

## Powerful, low-cost automation solution. The ultimate slide alternative.

**Easy to install; fast integration** — installs in minutes, unlike expensive, complex linear-slide systems; requires less time and money for system integration

**All-in-One solution** — includes built-in controller with power for end-of-arm tooling, in one space-saving design

**Full featured; ultra low cost** — includes the same powerful features found in Epson's high-end robots, at an incredibly affordable price

**Built-in controller** — saves critical workspace with the controller conveniently housed in the robot's base

**Easy to use** — intuitive and feature-packed Epson RC+® development software makes it easy to create powerful solutions

**Powerful arm design** — 600 mm reach, up to 6 kg payload and multi-tool capable

**Comes standard with 110 V and 220 V power** — low wattage and power consumption (no special panel or plug required)

**Built-in power for end-of-arm tooling** — eliminates the need for an external power source

**Integrated options** — vision, designed specifically for robot guidance; plus, fieldbus interface solutions; RC+ 7.0 API software for open-platform functionality; teach pendants; and customizable GUIs

**No battery required for encoder** — minimizes downtime and reduces overall cost of ownership



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## Specifications

**Mounting Type** Tabletop  
**Arm Length (Joints #1 and #2)** 600 mm  
**Payload**  
 Rated: 2 kg  
 Max.: 6 kg  
**Repeatability**  
 Joints #1 and 2: ±0.04 mm  
 Joint #3: ±0.02 mm  
 Joint #4: ±0.02 deg  
**Standard Cycle Time<sup>1</sup>** 0.49 sec  
**Max. Motion Range**  
 Joint #1: ±132 deg  
 Joint #2: ±150 deg  
 Joint #3: 200 mm  
 Joint #4: ±360 deg  
**Weight (cables not included)** 22 kg; 48.5 lb  
**Joint #4 Allowable Moment of Inertia**  
 Rated: 0.01 kg•m<sup>2</sup>  
 Max.: 0.08 kg•m<sup>2</sup>  
**Joint #3 Downward Force** 83 N  
**User Electric Lines**  
 Hand I/O: IN6/OUT4 (D-sub 15-pin)  
 User I/O: IN18/OUT12  
**User Pneumatic Lines**  
 ø6 mm x 2, ø4 mm x 1

## Other

**Power** AC 100 – 240 V  
**Power Consumption** 1.2 kVA  
**Power Cable Length** 5 m  
**Controller** Inside of manipulator  
**Safety Standard**  
 CE Mark: EMC directive, machinery directive, RoHS directive  
 ANSI/RIA R15.06-2012  
 NFPA 79 (2007 Edition)

## What's in the Box

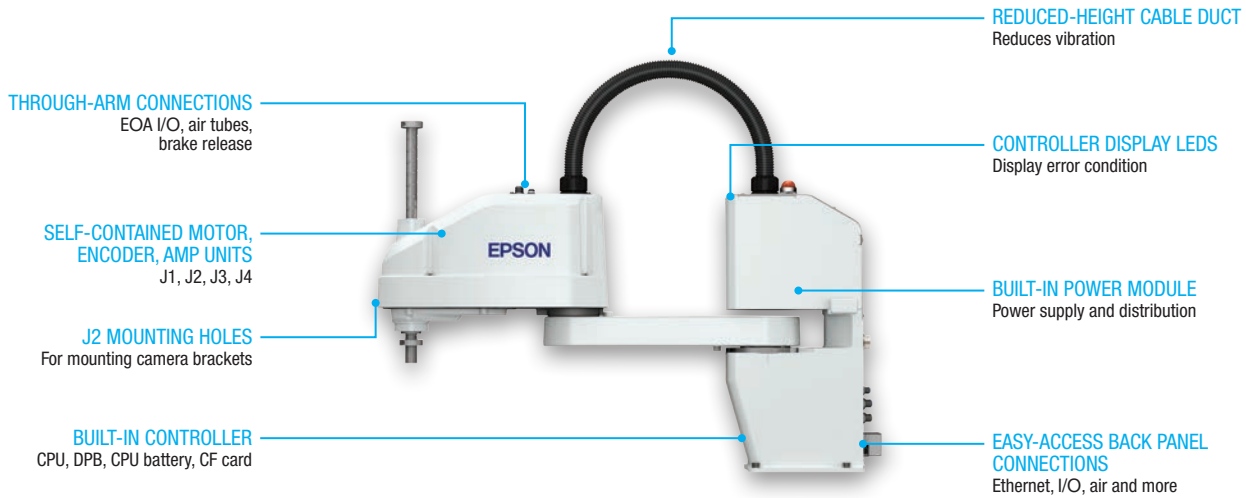
Synthis T6 robot  
 Robot power cable  
 Epson RC+ software  
 USB cable  
 E-Stop unit with cable  
 T6 Robot System Safety & Installation Manual  
 Connector set (I/O, hand I/O and safety circuit connectors)

## 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

## Ordering Information

Synthis T6 All-in-One SCARA Robot	RT6-602SS
<b>Options</b>	
Integrated Vision Guidance	
OCR (for use with Vision Guide)	R12NZ920H3
Epson RC+ 7.0 API	R12NZ900AE
GUI Builder 7.0	R12NZ900AH
External Control Point (ECP) Option	R12NZ900AF
TP3 – Teach Pendant	R12NZ900N3
TP2 – Teach Pendant	R12NZ900L9
Ethernet/IP Fieldbus I/O (Slave)	R12NZ900TH
Ethernet/IP Fieldbus I/O (Master)	R12NZ900NZ
DeviceNet Fieldbus I/O (Slave)	R12NZ900TE
DeviceNet Fieldbus I/O (Master)	R12NZ900NX
PROFINET Fieldbus I/O (Slave)	R12NZ900TG
PROFIBUS Fieldbus I/O (Slave)	R12NZ900TF
PROFIBUS Fieldbus I/O (Master)	R12NZ900NY
EtherCAT Fieldbus I/O (Slave)	R12NZ900TX
CC-Link Fieldbus I/O (Slave)	R12NZ900TD



<sup>1</sup> Cycle time based on round-trip arch motion (300 mm horizontal, 25 mm vertical) with 2 kg payload (path coordinates optimized for maximum speed).

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