EPSON®

DISTRIBUTED BY:
Air-Oil Systems, Inc.
AUTOMATION SOLUTIONS
753 WAMBOLD ROAD SOUDERTON, PA 18964-2715
215.721.9595 800.333.5520 FAX 215.721.7666
www.airoil.com

New

Epson LS20C SCARA Robot



Maximum Payload (kg): 20 kg

4 | 8 | 20

Product Highlights

- High performance, flexibility and value
- Fast cycle times with patented GYROPLUS technology
- Easy-to-use, powerful Epson RC+ software
- Designed for reliability
- Accelerate application development with optional integrated solutions

Overview

Advanced capabilities. Scalable expansion. Exceptional value.

Built upon four decades of expertise in implementing automation in our own manufacturing, LS-C Series SCARA robots are designed to deliver powerful performance and flexibility in a compact footprint at a remarkable value.

Engineered to meet unique automation needs, the LS20C offers multiple arm configurations and an 800 mm or 1,000 mm reach to accomplish the most demanding tasks with ultra high precision—all at an affordable price. Its innovative, compact design easily integrates into cleanroom (ISO4)[1] environments and handles payloads of up to 20 kg from a conveniently small form factor. The LS20C also features GYROPLUS™ vibration reduction technology that helps optimize workcell throughput by enabling smooth motions and fast settling times. Combined with SafeSense™ technology, which can potentially remove the need for physical safety barriers with a proper risk assessment, users can reduce the footprint and overall cost of their robot automation system.

Designed for ease of use, Epson RC+® development software works seamlessly with the LS20C to create powerful automation solutions and offers integrated options to simplify the most complex applications. Fully integrated, optional solutions—including vision guidance, part feeding, force guidance, conveyor tracking and fieldbus—accelerate the development of workcell applications, helping to save valuable time and money. The Epson RC+ Solutions Platform allows for seamless expansion of third-party solutions, benefiting both developers and end users.

- **High performance, flexibility and value**— high throughput with heavy payloads and multiple arm configurations to accomplish the most demanding assembly needs—all at an affordable price
- **Fast cycle times**— high acceleration, smooth motion and fast settling times help maximize throughput with proprietary GYROPLUS vibration reduction system, plus no ringing or overshoot[2]
- **Ultimate ease of use**— intuitive and feature-packed Epson RC+ development software helps create powerful solutions with a simple user interface, integrated debugger and advanced 3D simulator
- **Designed for reliability**— innovative, compact design handles heavy workloads at fast speeds and ultra high precision within a small footprint
- **Low total cost of ownership**— includes features that help reduce support and installation costs: batteryless encoders, a built-in Ethernet cable, Epson RC+ software and a rich suite of safety features
- **Accelerate the development of workcell applications**— fully integrated, optional solutions include vision guidance, part feeding, force guidance, conveyor tracking and fieldbus; Epson RC+ Solutions Platform allows for seamless expansion of third-party solutions, benefiting developers and end users
- **Increase user interaction without sacrificing productivity**— SafeSense technology's standard and advanced safety features, with a proper risk assessment, help allow for increased productivity and worker protection while potentially minimizing workcell footprint due to the reduction of physical barriers
- **Minimize the workcell space requirement with an optimized robot footprint**— 800 mm or 1,000 mm reach available
- **Built for demanding environments**— Standard and Cleanroom (ISO4)[1] models available
- **World-class service and support**— with four decades of automation experience, Epson provides support for your automation needs through its dedicated application and service teams

Eco Features

- RoHS compliant
- Epson America, Inc. is a SmartWay® Transport Partner[3]

What's In The Box:

- L20C robot and RC800A controller
- E-Stop unit with cable and connector
- Cable with flying leads for controller E-Stop/Safety connection
- Connector set (I/O, hand I/O and safety circuit connectors)

Specifications

Core Specifications:

Arm Length / Reach:
Joint #1 + Joint #2:
- LS20C804x: 800 mm
- LS20CA04x: 1,000 mm

Repeatability:
- Joints #1, #2: ±0.025 mm
- Joint #3: ±0.01 mm
- Joint #4: ±0.01 deg

Payload (Kg):
Rated: 10.0 kg
Max: 20.0 kg

Cycle Time:
- LS20C804x: 0.373 sec
- LS20CA04x: 0.413 sec

Motion Range:
- Joint #1: ±132 deg
- Joint #2: ±152 deg
- Joint #3: 420 mm (390 mm Clean)
- Joint #4: ±360 deg

Allowable Moment of Inertia:
Rated: 0.05 $kg \cdot m^2$
Max: 1.00 $kg \cdot m^2$

Mounting Configurations:
Tabletop

Other Specifications:

Power Consumption:
2.4 kVa

Installation Environment:
Standard/Cleanroom (ISO 4)^2

Controller:
RC800A

User Lines:
Electric: 15-pin (D-sub), 9-pin (D-sub), RJ45
Pneumatic: ø8 mm x 2, ø6 mm x 2

Weight:
- LS20C804x: 48 kg
- LS20CA04x: 51 kg

Robot Cables:
3 m/5 m/10 m

Safety Regulations:
TUV-certified to meet ISO 10218-1
UL 1740
CSA Z434
ISO 13849

Power:
AC 200 V – 240 V single phase

Options:

Robot Options:
- Vision Guide
- IntelliFlex™ Feeders
- Force Guide
- Conveyor Tracking
- Teach Pendant

Software Options:
- Epson RC+ API 8.0
- GUI Builder 8.0
- Fieldbus Master
- Fieldbus Slave (EtherNet/IPTM, EtherCAT®, PROFINET, PROFIBUS, CC-Link®)
- External Control Point (ECP) 8.0
- Epson OPC UA for Robotics

Robotics Facets:

Type, Robotics Facets:
SCARA Robots

Robot Series:
SCARA LS-Series

Payload (Max.):
20

Arm Length / Reach:
800

Cycle Time:
0.373

Installation Environment:
Cleanroom
Standard
Tabletop Mount

DISTRIBUTED BY:
Air-Oil Systems, Inc.
AUTOMATION SOLUTIONS
753 WAMBOLD ROAD SOUDERTON, PA 18964-2715
215.721.9595 800.333.5520 FAX 215.721.7666
www.airoil.com