DATASHEET / BROCHURE

Epson SCARA GX1-C 225mm Series



A versatile SCARA robot that offers the ideal solution for complex tasks in the most confined spaces.

The GX1-C Series was designed for work where a hundredth of a millimetre matters, such as electronic manufacturing or precision mechanical work processes. Ultralight due to its high-strength aluminium design, and at the same time compact and powerful.

Compact high performance

GX1-C Series SCARA robots offer performance among the best in the industry, with outstanding range of motion, and maximum footprint efficiency. Cycle times can be as low as 0.29 seconds, while a high duty cycle permits fast cycles even during extended use. A unique high-rigidity arm design means very low residual vibration, with smooth start and stop motion, even at high speeds.

Extensive configuration options

The GX1-C Series offers a range of configuration options including arm lengths of 175mm and 225mm, as well as both three and four-axis models, and units designed for sensitive clean-room applications such as hard-drive assembly.

Outstanding versatility

SCARA GX1-C Series robots are used in a huge range of industries, from assembling automotive components, mobile phones and computer parts, to creating medical equipment and packaging medications, not to mention lab automation and scientific analysis.

KEY FEATURES

- Compact, precise SCARA robot
 Designed for pinpoint accuracy in very small workspaces
- Extensive configuration options
 Two arm lengths and axis types available as well as clean room options
- Short cycle times
 Cycle times can be as low as 0.29 seconds, even during extended use
- Fully integrated
 Complete Epson solution including robot, controller and software
- Versatile and flexible
 An ideal solution for applications from automotive to pharmaceutical



PRODUCT SPECIFICATIONS

GENERAL

Product weight 8 kg

Development Environment EPSON RC+ 8.0 Basic, EPSON RC+ 8.0 Lite, EPSON RC+ 8.0 Premium, EPSON RC+ 8.0

Standard

Programming Language Epson SPEL+ (multitasking possible)

Design SCARA (4 axis robot)

Safety features AC power supply voltage reduction detection, Motor overload detection, Irregular motor

torque (out-of-control Manipulator) detection, Dynamic brake, emergency stop switch, Fan error detection, CPU irregularity detection, Low power mode, Memory check-sum error detection, Motor speed error detection, over-voltage, Overheat detection at the Motor Driver Module, Positioning overflow - servo error - detection, Relay welding detection, Safety door

input, Speed overflow - servo error - detection, Temperature error detection

Hardware Options Expansion I/O (24/16, up to 4 additional cards), Fieldbus I/O master (DeviceNet, Profi bus,

Ethernet/IP, 1 additional card each possible), Fieldbus I/O slave (DeviceNet, ProfiNet, ProfiBus, CC-Link, Ethernet/IP, EtherCAT, 1 additional card each possible), Pulse generating

(4 channels per card, up to 4 additional cads), RS-232C (2 channels per card, up to 2 additional cards). Teach pendant, operator pendant

Software Options Conveyor Tracking, Conveyor Tracking, VB Guide, GUI Builder, Security Option, Epson RC+

8.x API License, Epson RC+ 8.x Conveyor Tracking License, Epson RC+ 8.x Express Advanced License, Epson RC+ 8.x External Control Point License, Epson RC+ 8.x Fieldbus Master License, Epson RC+ 8.x GUI Builder License, Epson RC+ 8.x OCR License, Epson RC+ 8.x OPC UA for Robotics Part1 License, Epson RC+ 8.x Part Feeding License, Epson RC+ 8.x Safety Function License (SLS/SLP), Epson RC+ 8.x Vision Guide License, Force Sensing

Payload nom.0.5 kg, max.1 kg

Reach horizontal 225 mm

Reach Vertical J3:100 mm

Reach Orientation J4: +/-360 °

Repeatability Horizontal +/-0.008 mm

Repeatability Vertical J3: +/-0.01 mm

Repeatability Orientation J4: +/-0.01 °

Max. range of operation J1: +/-125 °, J2: +/-140 °, J4: +/-360 °, J3: +/-100 mm

Max. Operating Speed J1 + J2: +/-3,000 mm/s, J3: +/-1,200 mm/s, J4: +/-3,000 °/s

Moment of Inertia nom.0.0003 kg*m², max.0.004 kg*m²
User Wires Electric 1x D-Sub 9 pin, 1x D-Sub 15 pin

Z-axis Ø Outside:8 mm Insertion force 50 N

Controller RC800-A
Mounting option Pedestal
Cleanroom protection class ISO 3 & ESD
IP protection class IP20

Power and signal cable 3m, 5m, 10m, 20m

Certifications Machinery Directive: EN 60204-1, EMC Directive: EN 55011, CE Mark, KCs Mark, NRTL (TÜV

Süd), ISO 10218 (TÜV Süd)

Power/Voltage 200-240V AC Single Phase

Power Consumption 0.5 kVA

WHAT'S IN THE BOX

- Epson robot and controller
- Installation/safety manual

For further information please contact your local Epson office or visit www.epson-europe.com

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^{*} Warranty offers are not available for all countries. Please contact your local Epson representative.