

EPSON INDUSTRY SOLUTIONS CENTER – WE'LL FIND YOUR SOLUTION!



Experience all our Epson robots in action. In a workshop cell you can build, simulate and improve your automation application with help from our experts. The cell can be controlled and networked using all conventional fieldbus systems. In addition we can supply you with modern peripherals such as a vision and conveyor tracking system.

WOULD YOU LIKE TO ARRANGE
AN APPOINTMENT?

CALL US AT
+49 2159 538 1800

OR SEND AN E-MAIL TO
info.rs@epson.de

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KEEP IT SIMPLE. BUT SMART. THE EPSON LS SERIES

COMPLETE
from 10,000
Euro plus VAT
Also available in clean room
versions



Epson America Inc.
<http://epsonrobots.com>

Seiko Epson Corp
<http://global.epson.com/products/robots/>

Epson China Co, Ltd.
www.epson.com.cn/robots/

EPSON®
EXCEED YOUR VISION

EPSON®
EXCEED YOUR VISION

REDUCED TO THE ESSENTIALS

As powerful as you need them to be. As cost-effective as you would like them to be. The Epson LS series impresses both with its performance, as well as with its extremely low acquisition and operating costs.

You can obtain an Epson LS including control from just 10,000 Euro. Thus a worthwhile investment for a 4 axis robot, in areas which, up till now, were reserved for linear systems or other – less flexible – machines.

Advantages at a glance

- low acquisition and operating costs
- includes RC90 control and simulation software
- fully versatile: more flexible than linear systems
- reliable and durable

ADVANCED EPSON LS SERIES

Correctness is guaranteed.

The three LS models vary in load capacity and range. Each robot is also additionally available in a **clean room version**.

PACKAGE

- Epson robots and control
- 1 Epson RC+ program CD including simulator
- 2 mounting bracket sets for the RC90 robot control
- 1 set of 3 m motor and signal cables
- 1 emergency stop plug
- 1 standard I/O plug
- 1 plug set for user cabling
- 1 backup disk for the RC90 robot control
- 1 USB programming cable (RC90)
- Manuals on CD
- 1 Installation/safety manual

OPTIONS

Longer power and signal cable
5m/10m
450.00 Euro/520.00 Euro

Tool adapter
for easy end effector
installation to Z axis
400.00 Euro



EPSON LS3-401S

Load capacity: 3 kg
Range: 400 mm
Price plus VAT: from 10,000 Euro



EPSON LS6-602S

Load capacity: 6 kg
Range: 600 mm
Price plus VAT: from 13,000 Euro

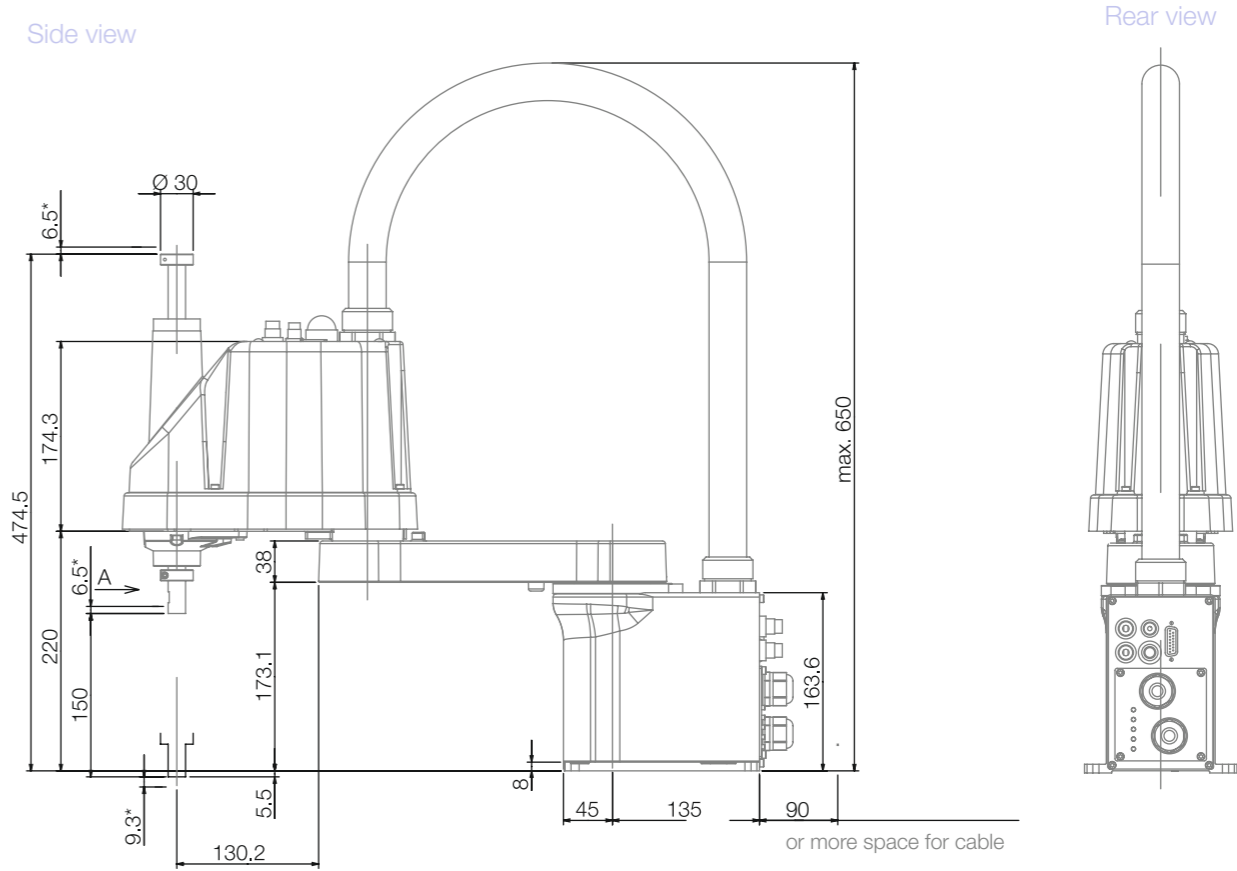
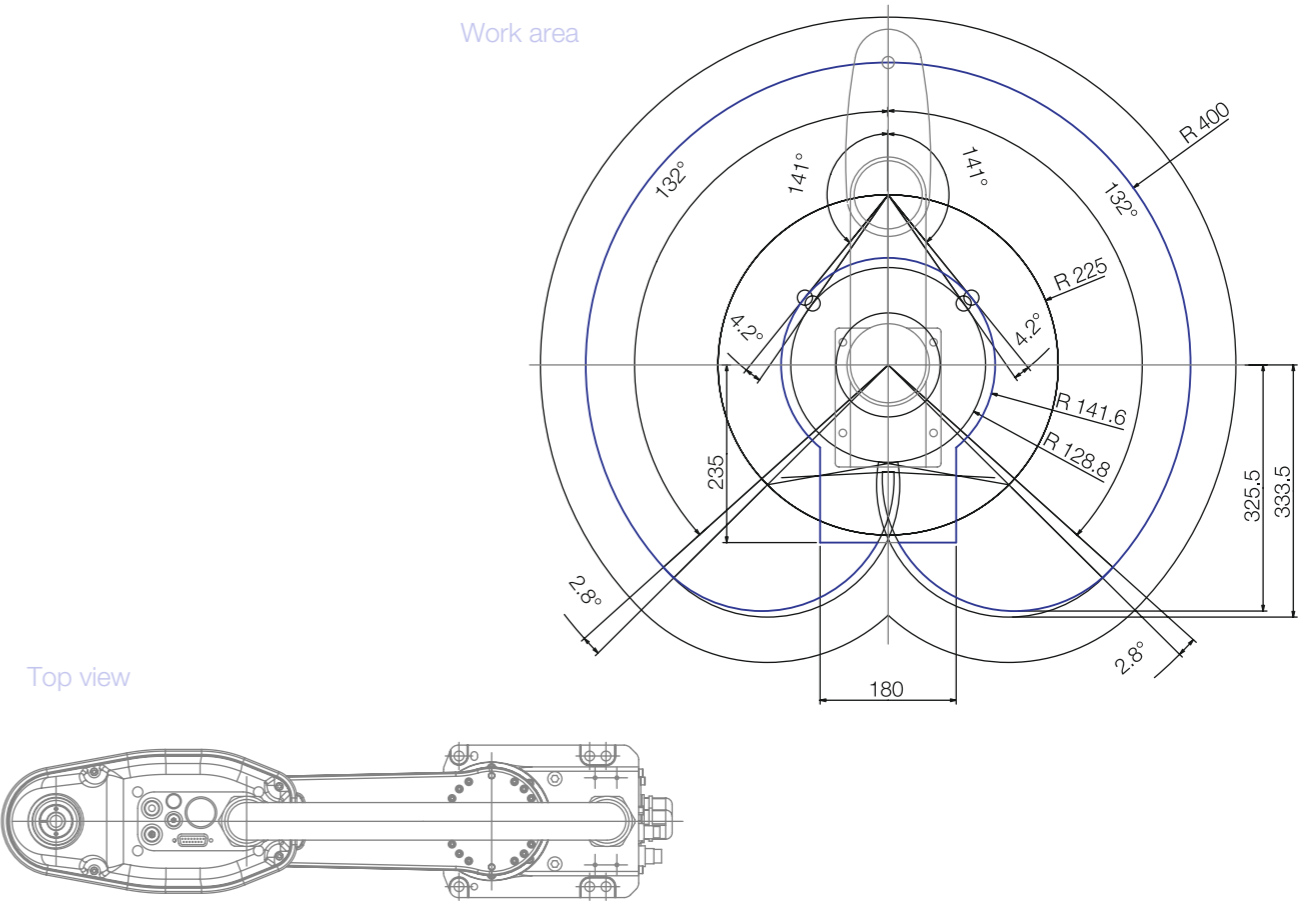


EPSON LS20-A04S

Load capacity: 20 kg
Range: 1,000 mm
Price plus VAT: from 18,500 Euro

DESIGNS OF THE SCARA LIGHT LS3

SCARA LIGHT LS3-401S	
Design	4 axis
Load capacity	3kg
Horizontal range	400mm
Vertical range	150mm
Arm length	J1 225 mm + J2 175mm
Range orientation	J4 +/-360°
Horizontal repeatability	J1, J2 +/-0.01 mm
Vertical repeatability	J3 +/-0.01 mm
Orientation repeatability	J4 +/-0.01°
Maximum work area	J1 +/-132°, J2 +/-141° J3 150mm, J4 +/-360°
Maximum axis speed	J1, J2 6,000mm/s J3 1,100mm/s, J4 2,600°/s
Permissible moment of inertia	nom. 0.005kg*m² max. 0.05kg*m²
Permanent press-in force	100N
Electrical user cabling	1 D-sub (15-pin)
Pneumatic user cabling	3 (1 x Ø 4mm and 2 x Ø 6mm)
Installation type	Floor
External/internal Z axis	Ø 16 h7 / Ø 11 mm
Clean room option	ISO 4
Power and signal cable	3m
Certificates	RoHS Directive: 2002/92/EC ANSI/RIA: R15.06-1999 NFPA 79 (2007 Edition) CSA/CAN Z434-03 (February 2003) EC Machine Directive 2006/42/EC
Weight	14kg
Price plus VAT	from 10,000.00 Euro

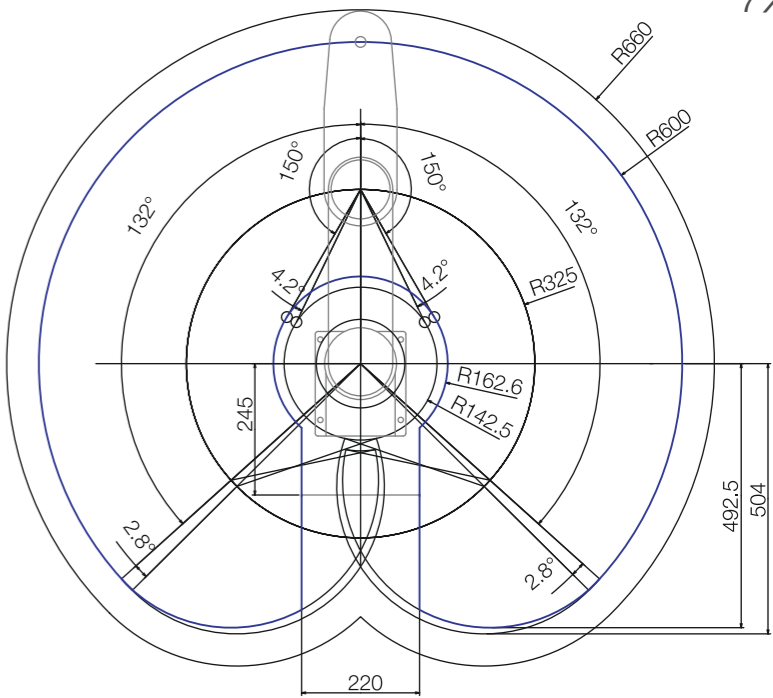


DESIGNS OF THE SCARA LIGHT LS6

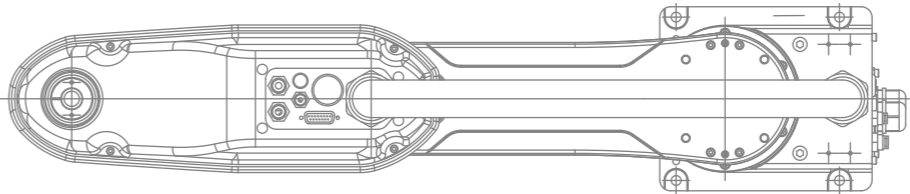
SCARA LIGHT LS6-602S	
Design	4 axis
Load capacity	6 kg
Horizontal range	600 mm
Vertical range	200 mm
Arm length	J1 325 mm + J2 275 mm
Range orientation	J4 +/-360°
Horizontal repeatability	J1, J2 +/-0.02 mm
Vertical repeatability	J3 +/-0.01 mm
Orientation repeatability	J4 +/-0.01°
Maximum work area	J1 +/-132°, J2 +/-150° J3 200 mm, J4 +/-360°
Maximum axis speed	J1, J2 6,800 mm/s J3 1,100 mm/s, J4 2,000°/s
Permissible moment of inertia	nom. 0.001 kg*m² max. 0.12 kg*m²
Permanent press-in force	100 N
Electrical user cabling	1 D-sub (15-pin)
Pneumatic user cabling	3 (1 x Ø 4 mm and 2 x Ø 6 mm)
Installation type	Floor
External/internal Z axis	Ø 20 h7 / Ø 14 mm
Clean room option	ISO 4
Power and signal cable	3 m
Certificates	RoHS Directive: 2002/92/EC ANSI/RIA: R15.06-1999 NFPA 79 (2007 Edition) CSA/CAN Z434-03 (February 2003) EC Machine Directive 2006/42/EC
Weight	17 kg
Price plus VAT	from 13,000.00 Euro



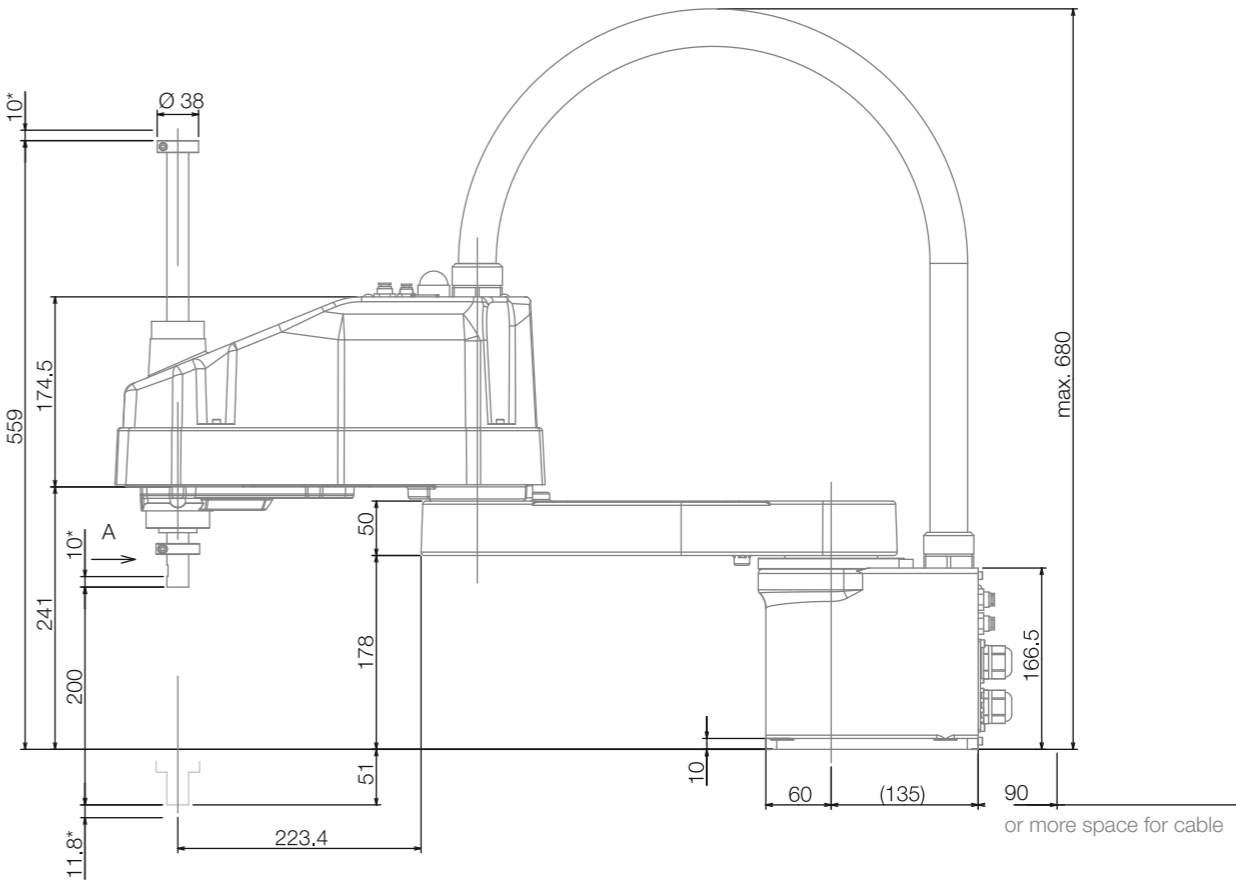
Work area



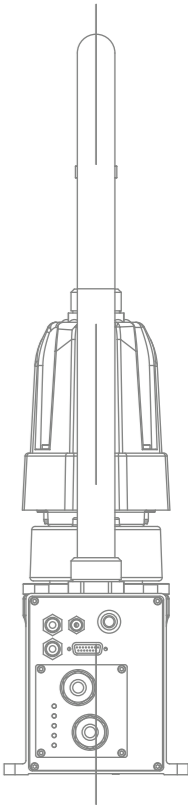
Top view



Side view



Rear view

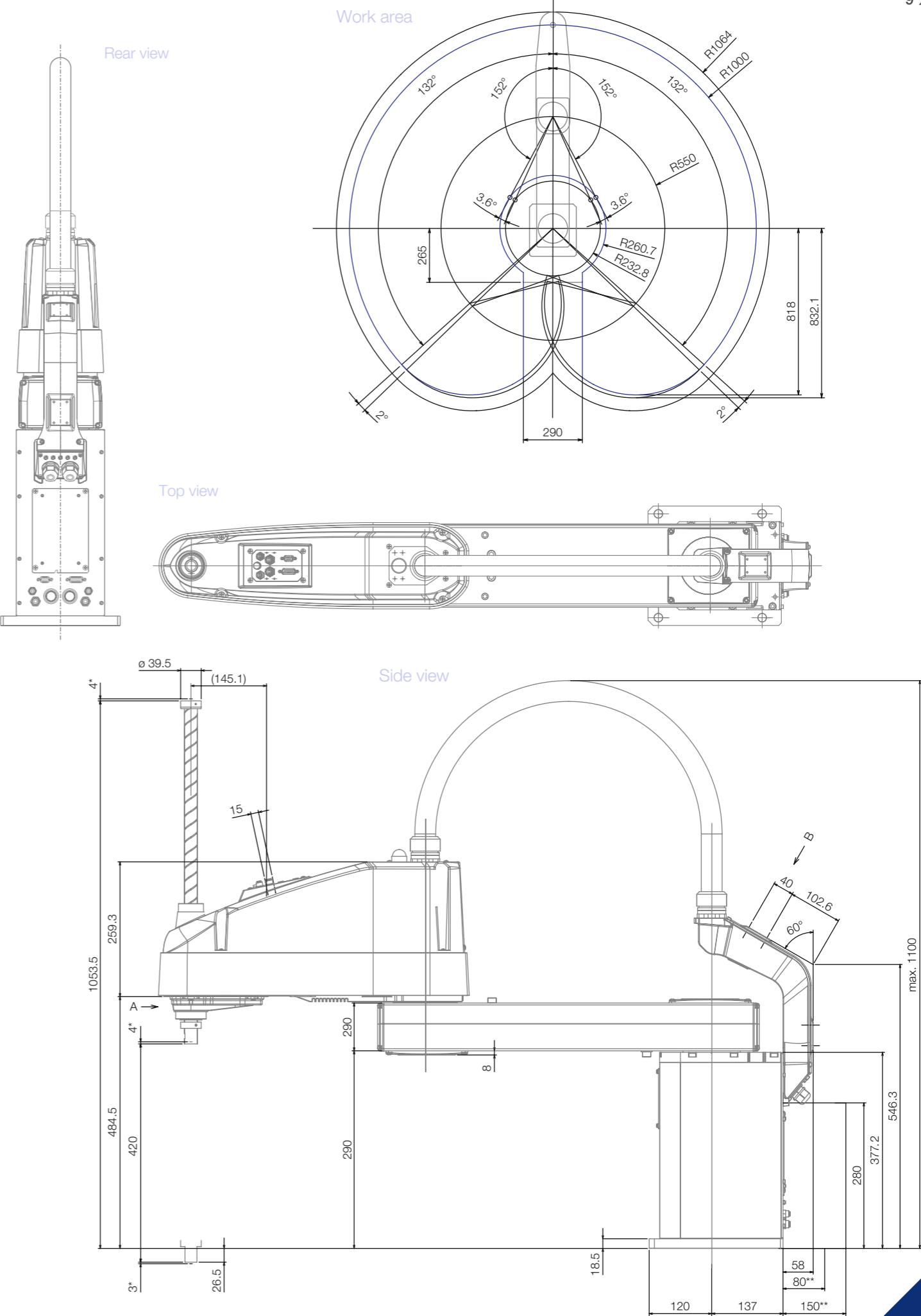


* mechanical stopper

DESIGNS OF THE SCARA LIGHT LS20

SCARA LIGHT LS20-A04S	
Design	4 axis
Load capacity	20kg
Horizontal range	1,000mm
Vertical range	420mm
Arm length	J1 550mm + J2 450mm
Range orientation	J4 +/-360°
Horizontal repeatability	J1, J2 +/-0.025mm
Vertical repeatability	J3 +/-0.01 mm
Orientation repeatability	J4 +/-0.01°
Maximum work area	J1 +/-132°, J2 +/-152° J3 420mm, J4 +/-360°
Maximum axis speed	J1, J2 11,250mm/s J3 2,020mm/s, J4 1,400°/s
Permissible moment of inertia	nom. 0.05kg*m² max. 0.45kg*m²
Permanent press-in force	250N
Electrical user cabling	1 D-sub (9-pin), 1 D-sub (15-pin)
Pneumatic user cabling	4 (2x Ø 4mm and 2x Ø 6mm)
Installation type	Floor
External/internal Z axis	Ø 25 h7 / Ø 18mm
Clean room option	ISO 4
Power and signal cable	3m
Certificates	RoHS Directive: 2002/92/EC ANSI/RIA: R15.06-2012 NFPA 79 (2007 Edition) CSA/CAN Z434-03 (February 2003) CE Marking - Machinery, Low Voltage, EMC Directive
Weight	50kg
Price plus VAT	from 18,500.00 Euro

J1 = Axis 1 J2 = Axis 2 J3 = Axis 3 J4 = Axis 4



*mechanical stopper **or more space for cable

A TRUE SPACE-SAVING MIRACLE: RC90 CONTROL

The small, intelligent solution is already included in the Epson LS package. Its compact dimensions make the RC90 ideal for small work cells and it can also be installed in a control cabinet.

Flexible application as slave or master

The Epson RC90 can be operated as a stand-alone or integrated system, as a slave within a network, or as a master to control multiple robots and peripheral devices. It has **serial interfaces, expansion I/O cards, and an Ethernet port**. Should you require additional inputs and outputs, you can expand your system cost-effectively and flexibly to suit your needs.



TP2 MOBILE OPERATING UNIT
900.00 Euro



I/O EXPANSION

- I/O expansion card
810.00 Euro
- I/O expansion cable kit
360.00 Euro (block + cable)
- I/O expansion kit
1,750.00 Euro (card + block + cable)



RS-232C SERIAL INTER-FACE

320.00 Euro

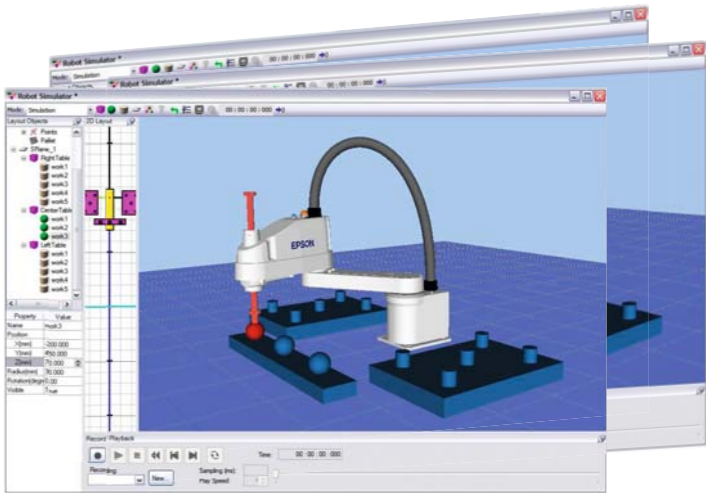


FIELD BUS CARDS

- Slave**
Profibus, ProfiNet, DeviceNet, CC-Link, EtherCat
770.00 Euro each
- Ethernet/IP
920.00 Euro
- Master**
Profibus, DeviceNet, Ethernet/IP
1,700.00 Euro each

All prices
excluding
VAT

Thanks to its intuitive Windows control interface, open structure and integral image processing, programming applications is incredibly easy and quick. This is further supported by the special Epson-developed SPEL+ script language, which is very easy to learn. Its range of commands enables you to program a very wide range of robot motions – from a simple pick & place application to complex multi-manipulator line control.



The Epson RC+ Simulator allows you to carry out risk-free testing, comparison, and process visualisation, before actual robot implementation.

Integrated software tools for the Epson RC+ 7.0 development environment

- COMMAND**
One-line command editor
- COMPILER**
Program checking (syntax, definition, value range, and many more)
- DEBUGGER**
Program with stop points / step mode
- DLL FUNCTIONS**
Access to external DLL functions
- EDITOR**
Create SPEL+ programs:
Online help, syntax check, label lists, detection and colour display of keywords, parameters and comments, parameter list, definition jump
- ERROR TEXT EDITOR**
Creation of your own, application-specific, error messages
- FILE MANAGEMENT**
Create and access files and databases (Excel, Access, SQL)
- IO LABEL EDITOR**
Edit names for I/O / markers / field bus I/O for the data sizes bit, byte, and word
- IO MONITOR**
Display the status of I/O / markers / field bus I/O for the data sizes bit, byte, and word. You can create special user displays.
- MACRO EDITOR**
Create a SPEL+ program as a programming aid
- ROBOT MANAGER**
Contains all information and control elements relevant to robots – inserted in clear windows: Set-up, edit points, loop parameters, tool and robot coordinate systems, load capacity and moment of inertia. The robot trip points can be used to switch motors on and off, complete a reset or complete a home run.
- STACK EDITOR**
Display the program branches
- SYSTEM HISTORY**
Record errors, events and warnings (diagnostics)
- TASK MANAGER**
Display called multi-tasks, traps, and their statuses, display current program line
- VARIABLE EDITOR**
Display / Edit current variable values
- MAINTENANCE MANAGER**
Create / Load / Display backups, controller reset
- SIMULATOR**
Plan and visualise processes, validate programs

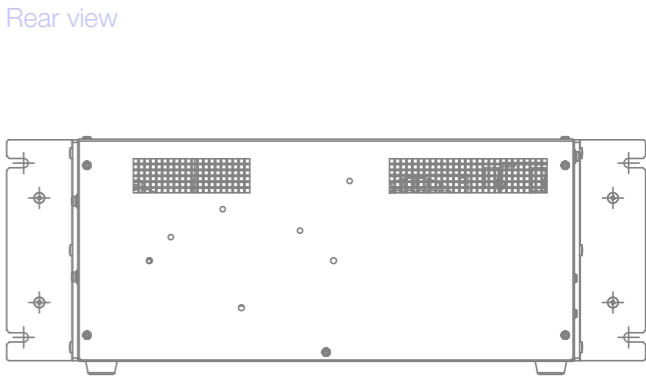
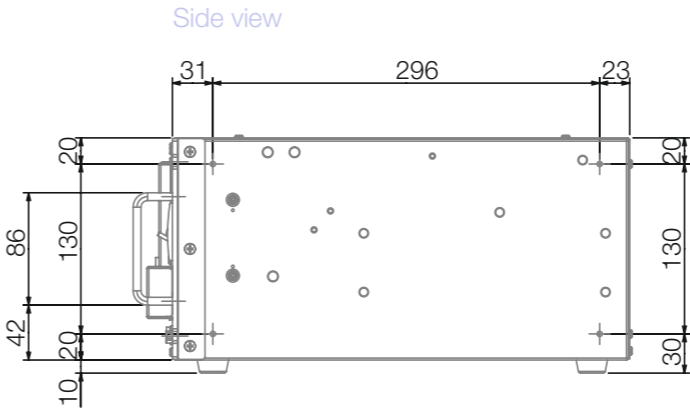
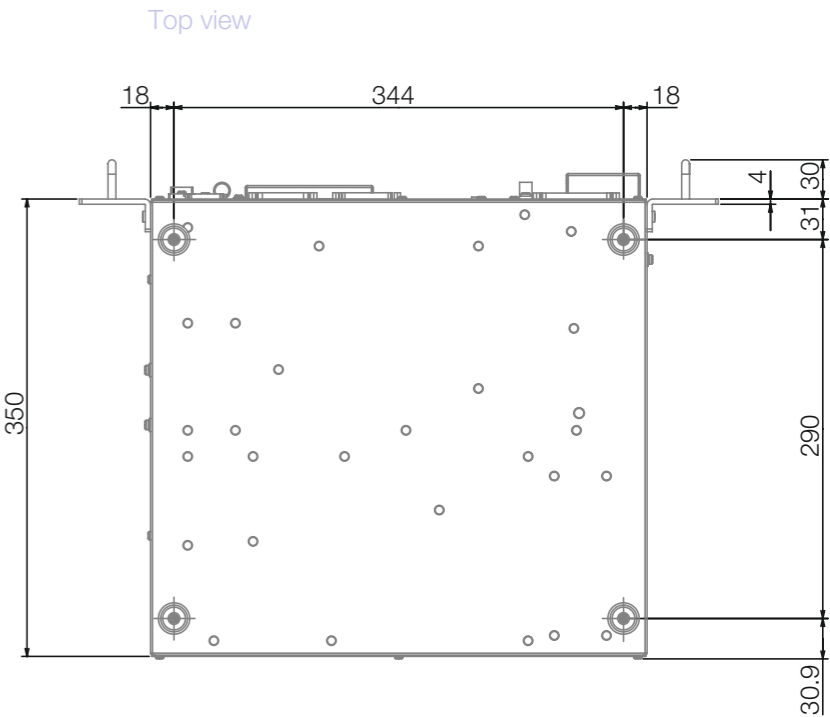
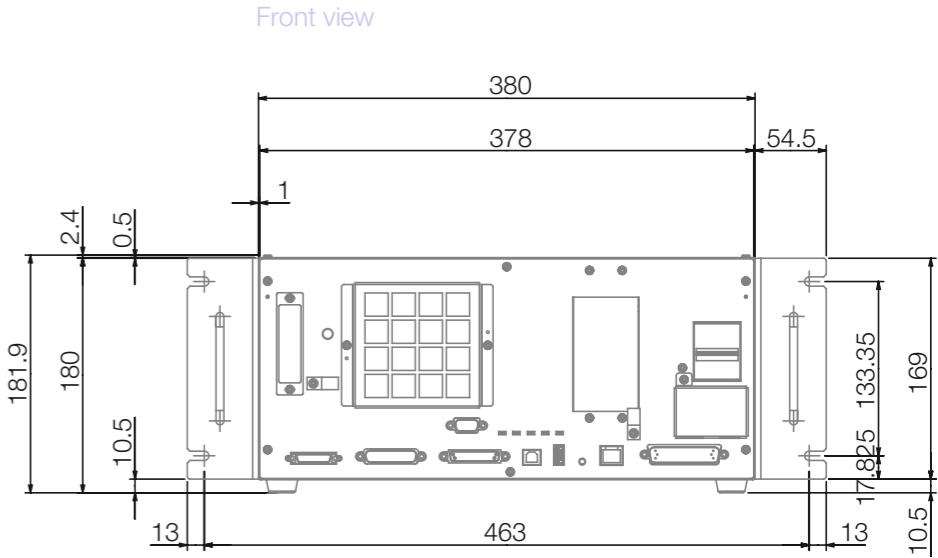
Software options

- CONVEYOR TRACKING**
Synchronise position with conveyor running
- EXTERNAL CONTROL POINT (ECP)**
ECP allows you to guide the workpiece contour easily and precisely along an external point.
- FORCE SENSING**
Real-time robot force measurement
- GUI BUILDER**
For the fast, easy creation of your own user interface based on the Epson SPEL+ programming language
- OPTICAL CHARACTER RECOGNITION (OCR)**
OCR (Optical Character Recognition) reliably detects fonts and symbols and checks printing – even under challenging conditions.
- PG MOTION SYSTEM**
Read conveyor speeds via encoders
- RC+ API**
RC+ API enables you to integrate your application in external software, develop user interfaces, and use databases.
- SECURITY OPTION**
Increased security through user management and usage control
- VISION GUIDE 7.0**
Powerful Epson image processing system

EVERYTHING UNDER CONTROL AND IN VIEW – RC90 CONTROL



RC90 CONTROL	
Ports	1x USB memory, 1x USB device 1x 10/100 base T-Ethernet 24/16 standard I/O channels – 8/8 as remote RS-232C Standard 1x channel
CPU	32-bit microprocessor
Hardware option	Teach Pendant 2
Expansion card options	I/O expansion 24/16, 2 additional cards possible I/O slave field bus cards EtherCat, DeviceNet, Profibus, ProfiNet, CC-Link, Ethernet/IP, 1 additional card of each type possible I/O fieldbus master cards Profibus, DeviceNet, Ethernet/IP, 1 additional card of each type possible RS-232C serial interface 2 channels per card, 2 additional cards possible
Software options	RC+ API 7.0 previously VB Guide External Control Point Motion (ECP) GUI Builder
Development environment	Epson RC+ 7.0
Programming language	Epson SPEL+ multitasking-capable
Connection values	AC 200 V to AC 240 V, one-phase 50/60 Hz
Power consumption	up to 2,500 VA – depending on manipulator model
Ambient temperature	5-40°C
Relative humidity	20% to 80% – non-condensing
Safety equipment	Emergency Stop button, safety door entry, low power mode, generator brake Error detection Encoder cable break Detectors Motor overload, motor speed error, irregular motor torque (manipulator out of control), overheating of a motor driver module, positioning overrun – servo error, speed overrun – servo error, CPU error, memory checksum error, relay drop-out, excess voltage, mains voltage outage, temperature deviation, fan error
Certifications	CE ANSI RIA R15.06-1999 EC Machinery Directive 2006/42/EC
Dimensions	380 x 350 x 180 mm
Price plus VAT	included in SCARA Light price



If you plan to send your system to the USA or Asia, you will generally require a NPN version RC90 Epson control. Should you require this version, please note this on your order. Control retrofit is not possible. Send this an e-mail at: robot.infos@epson.de

SO YOUR PRODUCTION RUNS AT FULL CAPACITY

EPSON ROBOT SYSTEMS: ACCURATE, FAST, AND COMPLETELY RELIABLE.

Our robots palletise, saw, mill, drill, grind, install, assemble, and build together. They work with precision and at breathtaking speeds, in these and many other applications – often up to 24 hours a day.

Our product range includes one of the most comprehensive SCARA model ranges world-wide, 6-axis robots, controls, and software.

REALISE THE FULL POTENTIAL OF YOUR EPSON ROBOT SYSTEMS

We offer a comprehensive **pre- and after-sales support programme** as a service. This includes:

- Feasibility studies for maximum planning and project security
- Support during planning and implementation
- Introductory seminars, programming/maintenance courses, operator training
- Inspection and customised maintenance designs
- Hotline service, on site repair service
- Central spare part stocking



EPSON SPIDER ROBOT

The cost-effective wonder: Due to its unique construction, the Epson Spider reaches every corner of its working area, and unprecedented cycle times.



EPSON SCARA ROBOTS

Precise work even at high speeds, compact and powerful. Epson has the largest SCARA robots model range worldwide – with over 300 versions.



EPSON CONTROLS

High performance in the smallest of spaces. The Epson controls are based on a robust, integrated system, and can control manipulators and peripheral devices.



EPSON 6-AXIS ROBOT

Flexibility through rotary-designed axes. Thanks to unprecedented point and path accuracy, complex work processes can be accomplished with precision.