SCORA-ER 14Pro
Mechanical Arm

A four-axis, table-top mounted, the SCORA-ER 14Pro is designed for work in industrial training facilities. This rugged and reliable robot performs light-payload assembly, handling and packaging operations with impressive speed and accuracy.

SCORA-ER 14Pro with the new state of the art USB-Pro controller facilitates PWM drive, PID control and continuous path, real-time, multi-tasking control. The programming language is facilitated by a software interface while an optional hand-held teach pendant enables direct operator manipulation of robot axes and position recording as well as other functions. The ability to simultaneously control and synchronize up to 8 axes, 16 digital inputs and 16 digital outputs enables the user to have superior real-time control of both the robot and its application environment.

Easily integrated with peripheral equipment, the SCORA-ER 14Pro system provides the foundation for both stand-alone applications as well as robotic workstations within CIM systems.

A number of components combine with the SCORA-ER 14Pro to create automated workcells that allow students to observe and study the theory and practice of robotics and automation technologies:

- Handling and packaging operations with palletizing and storage devices
- Assembly operations with automatic screw driving and gluing devices
- Quality control operations with machine vision and high-precision measurement devices

SOFTWARE
SCORBASE for USB-PRO Controller software, with Multi tasking – Up to 100 concurrent programs, in-program parameter manipulation, built in Scripting, ON line Graph with PWM and position error. SCORBASE software is included with the robot arm.

APPLICATIONS (SAMPLES)
ER14 Pro with Assembly and/or Quality control
STANDARD FEATURES
- Mechanical arm
- USB-Pro Controller
- Software CD
- USB and power cables
- Documentation for all software and hardware components
- Certified for CE safety compliance.

SPECIFICATIONS

CONTROLLER
- USB-PRO Controller (see page 19).

MECHANICAL STRUCTURE
- Horizontally articulated (SCARA), enclosed frame, 3 rotational axes and 1 translational axis

PAYLOAD CAPACITY
- 2 kg (4.4 lbs) at high speeds; 3 kg (6.6 lbs) at low speeds

REACH
- Min. 230 mm (9.06‘); Max. 500 mm (19.69‘)

AXIS MOVEMENT RANGE EFFECTIVE SPEED MAXIMUM SPEED
- Axis 1: Rotation 288° 117°/sec 158°/sec
- Axis 2: Rotation 288° 114°/sec 157°/sec
- Axis 3: Translation 182 mm 211 mm/sec 333°/sec
- Axis 4: Roll ±527° 370°/sec 475°/sec

SPEED
- 2.8 m/sec (horizontal); 0.33 m/sec (vertical)

OPERATING RADIUS
- Minimum 230 mm (9.06‘)
- Maximum 500 mm (19.69‘)

REPEATABILITY
- ±0.05 mm (±0.002‘)

POSITION FEEDBACK
- Incremental optical encoder with index pulse on each axis

HOMING
- Optical switch plus encoder index pulse on each axis

ACTUATORS
- 24Vdc servo motor on all axes

TRANSMISSION
- Harmonic drives

WEIGHT
- 30 kg (66 lbs)

ACCESSORIES
- Automatic tool changer for large robots
- Multi-purpose gripper attachment for large robots
- Pneumatic gripper for SCORA-ER 14Pro
- SCORA-ER 14Pro in Assembly/QC Station
- Teach Pendant for USB-PRO Controller

902102368
sti@sti-si.es
www.STIeducacion.com