

Applications

- Arc Welding
- Assembly
- Dispensing
- Material Handling
- Machine Loading/ Unloading

Performer-SV3

Lightweight, Affordable, General Purpose Robot

Performer-SV3 is the ultimate solution in Intelitek's line of industrial training robots. The system combines a 6-axis controller developed in partnership with Yaskawa with the Japanese manufacturer's popular Motoman SV3 robot arm.

Weighing only 30 kg (66.2 lb), the compact SV3 robot is an ideal low-cost solution for small part handling and packaging applications. The SV3 is also ideal for small part welding.

The fully articulated, six-axis robot features a 3 kg (6.6 lb) payload capacity, a reach of 677 mm (26.6"), and a repeatability of ± 0.03 mm (± 0.001 "). With its small footprint, the SV3 robot can easily be mounted on a table or other mounting platform. The SV3 moves at speeds faster than comparable robots, up to 400° per second at the wrist (T-axis).

The SV3 robot's compact controller, the ACL Controller-BRC, can easily fit under a table or in other confined space, or it can be rack-mounted. The controller's 32-bit microcontrollers provide high performance and flexibility for the SV3 robot.

The ACL-Win software provides access to the controller's multi-tasking environment and its vast capabilities. The intuitive and dialog-driven interface enables novices to easily learn how to program and operate the robotic system. This sophisticated software also gives advanced users the tools required for developing and integrating multiple-program applications.

A portable terminal enables direct operation and control of the robot. This teach pendant connects to the robot controller, enabling it to move the robot, record positions, run programs, and perform other functions. The teach pendant is equipped with an emergency stop push button and a deadman switch.

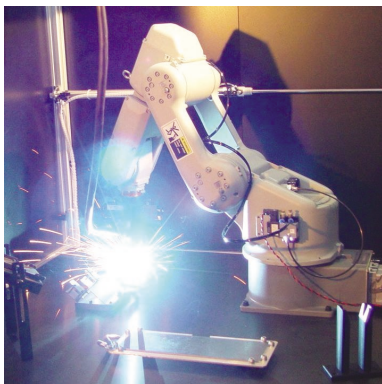


SV3 Robot Arm Specifications

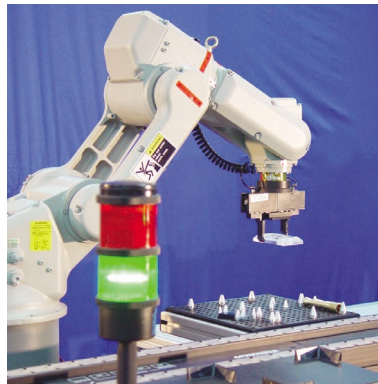
Operation Mode	Vertically articulated
Degrees of Freedom	6
Payload	3 kg
Reach	677 mm
Repeatability	±0.03 mm
Motion Range	
S-axis (turning)	±170°
L-axis (lower arm)	+ 150°, - 45°
U-axis (upper arm)	+ 190°, - 70°
R-axis (wrist)	±180°
B-axis (wrist pitch/yaw)	±135°
T-axis (wrist twist)	±350°
Maximum Speed	
S-axis	3.66 rad/s, 210°/s
L-axis	2.97 rad/s, 170°/s
U-axis	3.93 rad/s, 225°/s
R-axis	5.23 rad/s, 300°/s
B-axis	5.23 rad/s, 300°/s
T-axis	7.33 rad/s, 420°/s
Allowable Moment	
R-axis	5.39 N·m (0.55 kgf·m)
B-axis	5.39 N·m (0.55 kgf·m)
T-axis	2.94 N·m (0.3 kgf·m)
Allowable Inertia (CD²/4)	
R-axis	0.1 kg·m ²
B-axis	0.1 kg·m ²
T-axis	0.03 kg·m ²
Mass	30 kg
Ambient Conditions	
Temperature	0° - 45°
Humidity	20 - 80% RH (non-condensing)
Vibration	Less than 0.5 G

Controller-BRC Specifications

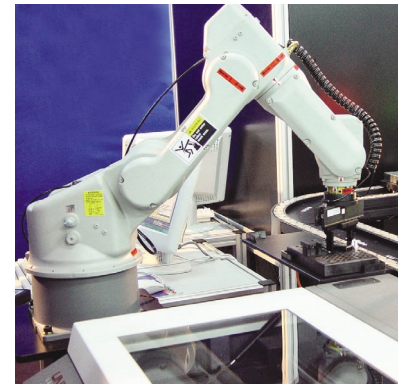
Case	Free-standing, enclosed frame
Weight	17 kg
Dimensions	W=289 mm H=433 mm D=317 mm
Cooling	Indirect
Operating Temp.	0° - 40°
Relative Humidity	Less than 90%; non-condensing
AC Power Input	200 - 230V AC; +10%,-15%; 50 Hz or 60Hz
Grounding	Less than 100 Ohm
Communication	2 RS232 channels
Inputs/Outputs	16 inputs optically insulated, 5 mA4 relays output 500 mA, normally open contact12 insulated transistor output 24 V, 50 mA, optional additional 32 input, 32 output.
Motor Driver	AC Servos
Position Feedback Devices	Absolute encoder, 16 bits/turn resolution (Return to Home or Homing not required)
Number of Axes	6
Acceleration	S-curve profile (smooth acceleration)
User Memory	400 programs; 5000 program lines; 7000 positions (standard configuration)
Programming Language	ACL-Win: Advanced Control Language. Full multi- tasking, up to 40 concurrent tasks for robot and cell control; Provides wide set of instructions for trajectory and torque control. Automatic programs for Restart; Emergency; Background Safety
Program Editing	On-line and off-line by ACL-Win software
Axis Servo Control	Fully digital with absolute encoder and brake control; 0.125μ position loop; Emergency stop (limit switches, emergency switch, errors); Control parameters in EEPROM of each axis driver
Trajectory Control	PTP, Joint, linear and circular interpolation; Continuous path with all movement combinations; On-the-fly change of speed, acceleration and trajectory
Torque Control	User definable upper and lower torque limits (value and sign)
Teach Pendant (optional)	Jogging, teaching positions, testing trajectory, running programs; 25 multifunction keys; 4 line display; Emergency and Dead Man switches



Welding



Assembly



Machine Tending

Specifications are subject to change without prior notice.

cat#100883 rev.C

intelitek ▶▶

444 East Industrial Park Drive, Manchester, NH 03109-5317, USA
 Tel: (603) 625-8600, (800) 777-6268 Fax: (603) 625-2137
 email: info@intelitek.com website: www.intelitek.com