TOP REASONS TO BUY

- Dexterity to perform complex tasks; dual 7-axis arms work together or independently
- Slim design optimizes space; provides “human-like” flexibility and range of motion, even in tight spaces
- Simplified tooling reduces cost
- Can be used in environments that are hazardous to humans
- Labor savings justifies capital investment

Slim, Dual-Arm Robot with “Human-Like” Flexibility

- Powerful actuator-based design provides “human-like” flexibility and fast acceleration.
- Superior dexterity and best-in-class wrist characteristics make slim, dual-arm robot ideally suited for assembly, part transfer, machine tending, packaging and other handling tasks that formerly could only be done by people.
- Highly flexible; 15 axes of motion (7 axes per arm, plus a single axis for base rotation).
- Internally routed cables and hoses (6 - air, 12 - electric) reduce interference and maintenance, and also make programming easier.
- 20 kg payload per arm; 910 mm horizontal reach per arm; 1,820 mm vertical reach per arm; ±0.1 mm repeatability.
- Both robot arms can work together on one task to double the payload or handle heavy, unwieldy objects. Two arms can perform simultaneous independent operations.

Payload: 20 kg/arm

The SDA20D is a dual-arm, 15-axis robot designed for complex assembly and material handling applications. Both arms can work together dramatically simplifying end-of-arm tooling. Designed with patented servo actuators, all cables are routed through the arms.

DX100 Controller

- Patented multiple robot control supports up to 8 robots/72 axes.
- Windows® CE programming pendant with color touch screen and USB interface.
- Faster processing speeds for smoother interpolation. Quicker I/O response. Accelerated Ethernet communication.
- Extensive I/O suite includes integral PLC and touch screen HMI, 2,048 I/O and graphical ladder editor.
- Supports all major fieldbus networks, including EtherNet/IP, DeviceNet, Profinet-DP and many others.
- Compliant to ANSI/RIA R15.06-1999 and other relevant ISO and CSA safety standards. Optional Category 3 functional safety unit.
SDA20D ROBOT

SDA20D SPECIFICATIONS

Structure: Articulated
Mounting: Floor
Controlled Axes: 15 (7 axes per arm plus base rotation)
Payload: 20 kg (44.1 lbs) per arm
Horizontal Reach per Arm: 910 mm (35.8"
Horizontal Reach (P-point to P-point): 2,590 mm (102"
Vertical Reach: 1,820 mm (71.7"
Repeatability: ±0.1 mm (±0.004"

Maximum Motion Range
- Rotation-Axis (Wrist): ±180°
- S-Axis (Lifting): ±180°
- L-Axis (Lower Arm): ±110°
- E-Axis (Elbow): ±170°
- U-Axis (Upper Arm): ±130°
- R-Axis (Upper Arm Twist): ±180°
- B-Axis (Wrist Pitch/View): ±110°
- T-Axis (Wrist Twist): ±180°

Maximum Speed
- Rotation-Axis (Wrist): 125°/s
- S-Axis (Lifting): 130°/s
- L-Axis (Lower Arm): 130°/s
- E-Axis (Elbow): 170°/s
- U-Axis (Upper Arm): 170°/s
- R-Axis (Upper Arm Twist): 200°/s
- B-Axis (Wrist Pitch/View): 200°/s
- T-Axis (Wrist Twist): 400°/s

Approximate Mass: 380 kg (837.9 lbs)

Power Rating: 4.4 kW

Allowable Moment
- R-Axis: 58.8 N·m
- B-Axis: 58.8 N·m
- T-Axis: 29.4 N·m

Allowable Moment of Inertia
- R-Axis: 4 kg·m²
- B-Axis: 4 kg·m²
- T-Axis: 2 kg·m²

* Ceiling mounting available with successful application review

DX100 CONTROLLER SPECIFICATIONS

Dimensions (mm): 1,200 (w) x 1,000 (h) x 650 (d) (47.2" x 39.4" x 25.6"
Approximate Mass: 250 kg max. (551.3 lbs)
Cooling System: Indirect cooling
Ambient Temperature: During operation: 0° to 45° C (32° to 113° F)
During transit and storage: -10° to 60° C (14° to 140° F)
Relative Humidity: 90% max. non-condensing
Primary Power Requirements: 3-phase, 240/480/575 VAC at 50/60 Hz
Digital I/O: Standard I/O: 40 inputs/40 outputs consisting of 16 system inputs/16 system outputs, 24 user inputs/24 user outputs
32 Transistor Outputs, 8 Relay Outputs
Max. I/O (optional): 2,048 inputs and 2,048 outputs
Position Feedback: By absolute encoder
Program Memory: JOB: 200,000 steps, 10,000 instructions
CIO Ladder Standard: 15,000 steps Expanded: 20,000 steps
Pendant Dim. (mm): 169 (w) x 314.5 (h) x 50 (d) (6.7" x 12.4" x 2.0"
Pendant Weight: 9.98 kg (21.2 lbs)
Interface: One Compact Flash slot; One USB Port (1.1)
Pendant Playback Buttons: Teach/Play/Remote Keyswitch selector Servo On, Start, Hold, and Emergency Stop Buttons
Programming Language: INFORM III, menu-driven programming
Maintenance Functions: Displays troubleshooting for alarms, predicts reducer wear
Number of Robots/Axes: Up to 8 robots, 72 axes
Multi Tasking: Up to 16 concurrent jobs, 4 system jobs
Fieldbus: DeviceNet Master/Slave, AB RIO, Profinet, Interbus-S, M-Net, CC Link, EtherNet/IP Slave
Ethernet: 10 Base T/100 Base TX

** See DX100 Controller data sheet (DS-399) for complete specifications