

LADDER EDITOR



MULTIPLE PROCESSES



INTEGRATED CONNECTORS



# DA9IC

ASSEMBLY • HANDLING • MACHINE TENDING

**Payload: 9 kg/arm**

## FEATURES & BENEFITS

- Unmatched dual-arm capability
- Specifically designed for multiple-process applications
- Minimal footprint with “double” envelope
- $\pm 0.1$  mm ( $\pm 0.004$ ") repeatability
- NXC100 controller is integrated into robot base
- Same programming language as all NX100-series robots
- MotoSim® EG simulation software (optional)
- IP65-rated arms (optional)

### **Small, Powerful and Affordable**

The Motoman® DA9IC is a unique dual-arm robot that features coordinated and independent control of up to 11 axes of motion (12 axes with optional linear track). Its compact size, wide working envelope and internally routed electrical and pneumatic lines make the DA9IC robot ideally suited to perform multiple processes with small work pieces. It features a 9 kg (19.85-lb) payload per arm with a maximum horizontal reach of 1,512 mm (59.5") and a repeatability of  $\pm 0.1$  mm (0.004").

The DA9IC robot can be mounted on an optional linear track to provide extreme layout flexibility and increase the size of the work envelope. Multiple DA9IC robots can be installed on one track.

### **Advanced NXC100 Controller**

The NXC100 controller is built into the base of the manipulator and requires no additional installation space. Simply connect the power supply

and programming pendant, and the manipulator is ready to move.

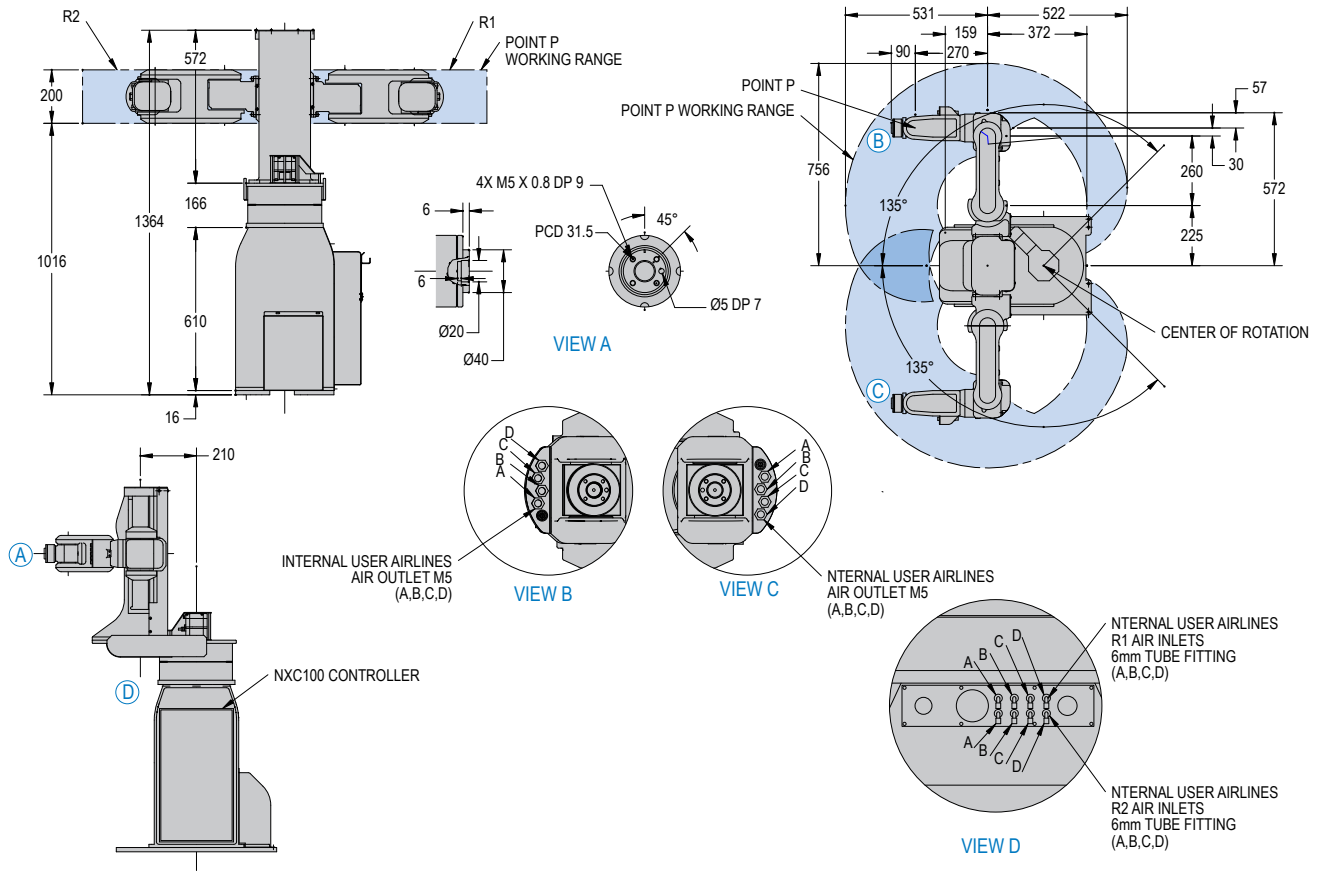
The high-performance NXC100 controller features a Windows® CE programming pendant, fast processing, easy-to-use INFORM III programming language, and robust PC architecture.

The programming pendant features a color touch-screen display, unmatched memory capacity, 60,000 stops (taught points), 10,000 INFORM III Job Instructions and 10,000 Ladder (Concurrent I/O) Instructions.

Dual-channel safety features include enhanced E-Stop functionality, integrated speed monitoring, and compliance with ANSI/RIA R15.06-1999 safety standards.

NXC100 offers the same method of interface with vision systems as the NX100 and XRC controllers – minimizing programming development time.

The NXC100 offers unmatched connectivity through standard Ethernet and other network options, including DeviceNet, ControlNet, Profibus-DP and EtherNet/IP.



DA9IC SPECIFICATIONS		
<b>Structure</b>	Horizontally articulated	
<b>Controlled Axes</b>	11 (12 with optional linear track)	
<b>Payload</b>	9 kg (19.8 lbs)/arm	
<b>Vertical Reach</b>	200 mm (7.9")	
<b>Horizontal Reach</b>	1,512 mm (59.5")	
<b>Repeatability</b>	±0.1 mm (±0.004")	
<b>Maximum Motion Range</b>	Linear Track (optional)	Per customer order
	S-Axis (Turning)	±135°
	L-Axis (Lower Arm)	+110°/-75°
	U-Axis (Upper Arm)	+175°/-55°
	B-Axis (Bend/Pitch/Yaw)	±120°
	T-Axis (Wrist Twist)	±360°
	Elevating Axis	±100 mm
<b>Maximum Speed</b>	Linear Track	1,000 mm/s
	S-Axis	200 mm/s
	L-Axis	150°/s
	U-Axis	190°/s
	B-Axis	300°/s
	T-Axis	420°/s
	Elevating Axis	180°/s
<b>Approximate Mass</b>	190 kg (419 lbs) (excluding linear track)	
<b>Power Consumption</b>	1 kVA	
<b>Allowable Moment</b>	B-Axis	N/A
	T-Axis	2.94 N · m
<b>Allowable Moment of Inertia</b>	B-Axis	0.6 kg · m <sup>2</sup>
	T-Axis	0.03 kg · m <sup>2</sup>
<b>Internal User Electrical Cable</b>	10 conductors per arm	
<b>Internal User Air Hose</b>	(4) 6-mm tubes per arm	

NXC100 CONTROLLER SPECIFICATIONS*	
<b>Structure</b>	Integrated into base of manipulator
<b>Ambient Temperature</b>	During operation: 0° C (32° F) to 40° C (104° F) During transit and storage: -10° C (14° F) to 60° C (140° F)
<b>Relative Humidity</b>	90% max. non-condensing
<b>Primary Power Requirements</b>	Single-phase, 200/240 VAC at 50/60 Hz
<b>Digital I/O</b>	Standard inputs: 10 system inputs + 6 dedicated inputs + 6 user inputs Standard outputs: 10 dedicated outputs + 4 user outputs Expandable to: 1,024 inputs/1,024 outputs
<b>Position Feedback</b>	By absolute encoder
<b>Drive Units</b>	Servo packs for AC servo motors
<b>Accel/Decel</b>	Software servo control
<b>Program Memory</b>	60,000 steps and 10,000 instructions
<b>Pendant Dim. (mm)</b>	199 (w) x 338 (h) x 60 (d) (7.8" x 13.3" x 2.4")
<b>Pendant Buttons</b>	Teach, Play, Remote, Servo On, Start, Hold, Emergency Stop
<b>Concurrent I/O</b>	10,000 lines
<b>Multi Tasking</b>	8 concurrent jobs
<b>Fieldbus</b>	DeviceNet Master/Slave, AB RIO, Profibus, Interbus-S, M-Net, CC Link, EtherNet IP/Slave
<b>Ethernet</b>	10 Base T/100 Base TX
<b>E-Stop</b>	Controlled stop
<b>Safety</b>	Dual-channel Emergency Stop Pushbuttons, 3-position Deadman Meets ANSI/RIA R15.06-1999 safety standards

\*See NXC100 Controller data sheet (DS-265) for complete specifications