YASKAWA
MOTOMAN ROBOTICS

MACHINE TENDING

NXC100 CONTROLLER

UPPER ARM CONNECTORS

FEATURES & BENEFITS

- Full 6-axis capability provides high flexibility
- Super compact body features internally routed electrical and pneumatic lines
- Microminiature PC-based controller
- ±0.03 mm (±0.001") repeatability
- Floor, wall or ceiling mounted
- Application-specific software
- MotoSim® EG simulation software (optional)
- Optional: DeviceNet, Ethernet, ControlNet, Profibus-DP

Motoman's high-speed HP3JC provides a compact, powerful solution for increasing your production

ASSEMBLY • DISPENSING • HANDLING • MACHINE TENDING

HP3JC

Payload: 3 kg

Small, Powerful and Affordable

The Motoman® HP3JC is a compact, high-speed robot that requires minimal installation space.

Its base width of only 200 mm (7.9") allows it to be mounted in confined spaces. The HP3JC has a 3 kg (6.6-lb) payload and features a large work envelope with an 804 mm (31.7") vertical reach and 532 mm (20.9") horizontal reach. Repeatability is ±0.03 mm (±0.001"). Integrated internally routed electrical and pneumatic lines reduce interference with parts or fixtures and improve cable and hose life.

The HP3JC robot offers superior performance in small part handling and assembly. It is also ideal for lab automation, inspection/testing, education, and research applications.

Advanced NXC100 Controller

The NXC100 high-performance controller features a compact footprint, Windows® CE programming pendant with color touch screen display, fast processing, easy-to-use INFORM III programming language, and robust PC architecture.

Its compact but sturdy construction minimizes footprint and allows for easy mounting (either horizontally or vertically) under conveyors, in control cabinets or in other small spaces. The NXC100 controls the robot and one optional external axis, such as a linear track, providing additional layout flexiblity.

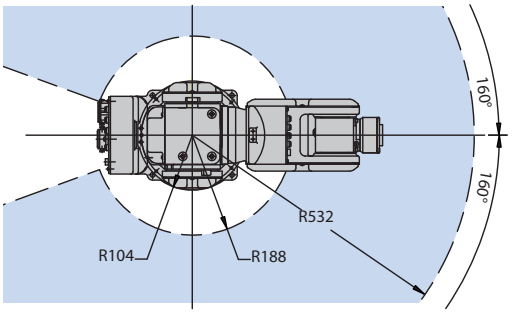
Dual-channel safety features include enhanced E-Stop functionality, integrated speed monitoring, and compliance with the ANSI/RIA R15.06-1999 safety standard.

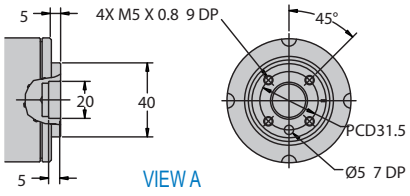
NXC100 offers the same method of interface with vision systems as the XRC and NX100 controllers – minimizing programming development time.

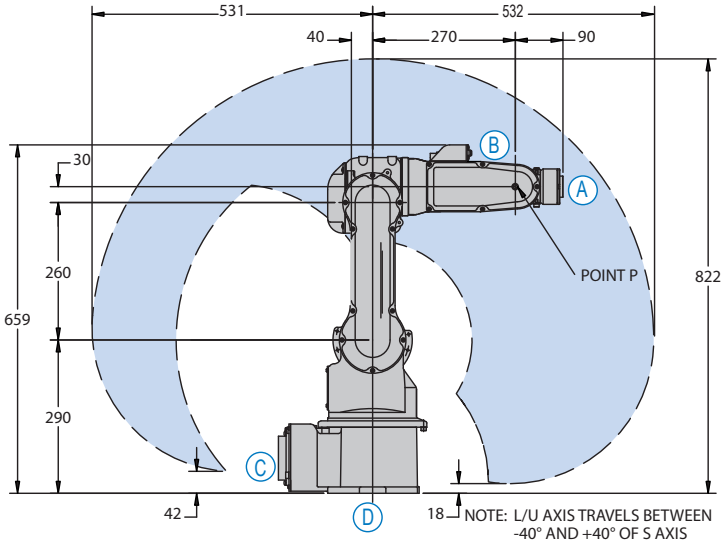
The NXC100 offers unmatched connectivity through standard Ethernet and other network options, including DeviceNet, ControlNet, Profibus-DP and EtherNet/IP.

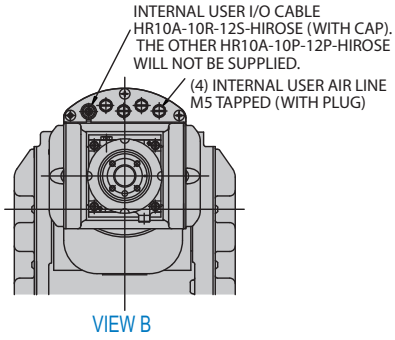
HP3JC Robot

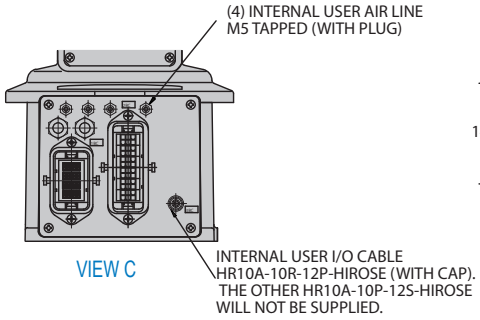
All dimensions are metric (mm) and for reference only. Please request detail drawings for all design/engineering requirements.

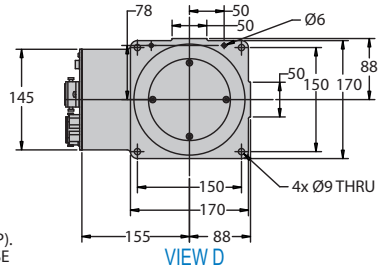












HP3JC SPECIFICATIONS

Structure		Vertical jointed-arm type
Controlled Axes		6
Payload		3 kg (6.6 lbs.)
Vertical Reach		804 mm (31.7")
Horizontal Reach		532 mm (20.9")
Repeatability		±0.03 mm (±0.001)
Maximum Motion Range	S-Axis (Turning/Sweep) S-Axis (Wall Mount) L-Axis (Lower Arm) U-Axis (Upper Arm) R-Axis (Wrist Roll) B-Axis (Bend/Pitch/Yaw) T-Axis (Wrist Twist)	±160° ±25° +90°/-85° +260°/-105° ±170° ±120° ±360°
Maximum Speed	S-Axis L-Axis U-Axis R-Axis B-Axis T-Axis	200°/s 150°/s 190°/s 300°/s 300°/s 420°/s
Approximate Mass		27 kg (59.5 lbs.)
Brakes		All axes
Power Consumption		0.5 kVA
Allowable Moment	R-Axis B-Axis T-Axis	5.39 N • m 5.39 N • m 2.94 N • m
Allowable Moment of Inertia	R-Axis B-Axis T-Axis	0.1 kg • m^2 0.1 kg • m^2 0.03 kg • m^2
Internal User I/O cable		10 conductors
Internal User Air Line		4-5 mm

NXC100 CONTROLLER SPECIFICATIONS

Structure	**Free-standing, enclosed type**
Dimensions	**485 (w) x 183 (h) x 300 (d) (19.1" x 7.2" x 11.8")**
Approximate Weight	**15 kg (33.1 lb.)**
Ambient Temperature	**During operation: 0° C (32° F) to 40° C (104° F) During transmit and storage: -10° C (14° F) to +60° C (140° F)**
Relative Humidity	**90% max. non-condensing**
Primary Power Requirements	**Single-phase, 200/220 VAC at 50/60 Hz**
Digital I/O inputs	**Standard inputs: 10 system inputs + 6 dedicated inputs + 6 user Standard outputs: 10 dedicated outputs + 4 user outputs Maximum signals: 1,024 inputs/1,024 outputs**
Position Feedback	**By absolute encoder**
Drive Units	**Servo packs for AC servo motors**
Accel/Decel	**Software servo control**
Program Memory	**60,000 steps and 10,000 instructions**
Pendant Dim. (mm)	**199 (w) x 338 (h) x 60 (d) (7.8" x 13.3" x 2.4")**
Pendant Buttons	**Teach, Play, Remote, Servo On, Start, Hold, Emergency Stop**
Concurrent I/O	**10,000 lines**
Multi Tasking	**8 concurrent jobs**
Fieldbus	**DeviceNet Master/Slave, AB RIO, Profibus, Interbus-S, M-Net, CC Link, EtherNet IP/Slave**
Ethernet	**10 Base T/100 Base TX**
E-Stop	**Controlled stop**
Safety	**Emergency Stop Pushbuttons, 3-position Enable Switch, Meets ANSI/RIA R15.06-1999 safety standard**

MOTOMAN ROBOTICS
100 AUTOMATION WAY, MIAMISBURG, OHIO 45342
TEL: 937.847.6200 ■ FAX: 937.847.6277