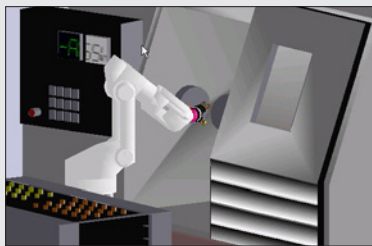


MACHINE TENDING



DXM100 CONTROLLER



MOTOSIM® EG OFF-LINE PROGRAMMING

TOP REASONS TO BUY

- Compact design allows maximum performance using minimal floor space
- Yields extraordinary production results while requiring minimal capital investment
- Offers superior performance in material handling, machine tending, assembly, dispensing and welding applications



MH5S MH5LS

ASSEMBLY • DISPENSING • HANDLING
MACHINE TENDING • WELDING

Payload: 5 kg

The MH5S and MH5LS models are compact and powerful robots designed for arc welding, small parts assembly and material handling. The DXM100 is a powerful industrial controller for the most demanding applications.

The new “slim arm” design reduces potential interference between the robot tooling and upper arm. This new design also improves the B-axis range of motion and shortens the distance between the B-axis and the T-axis mounting flange.

Compact, Powerful and Economical

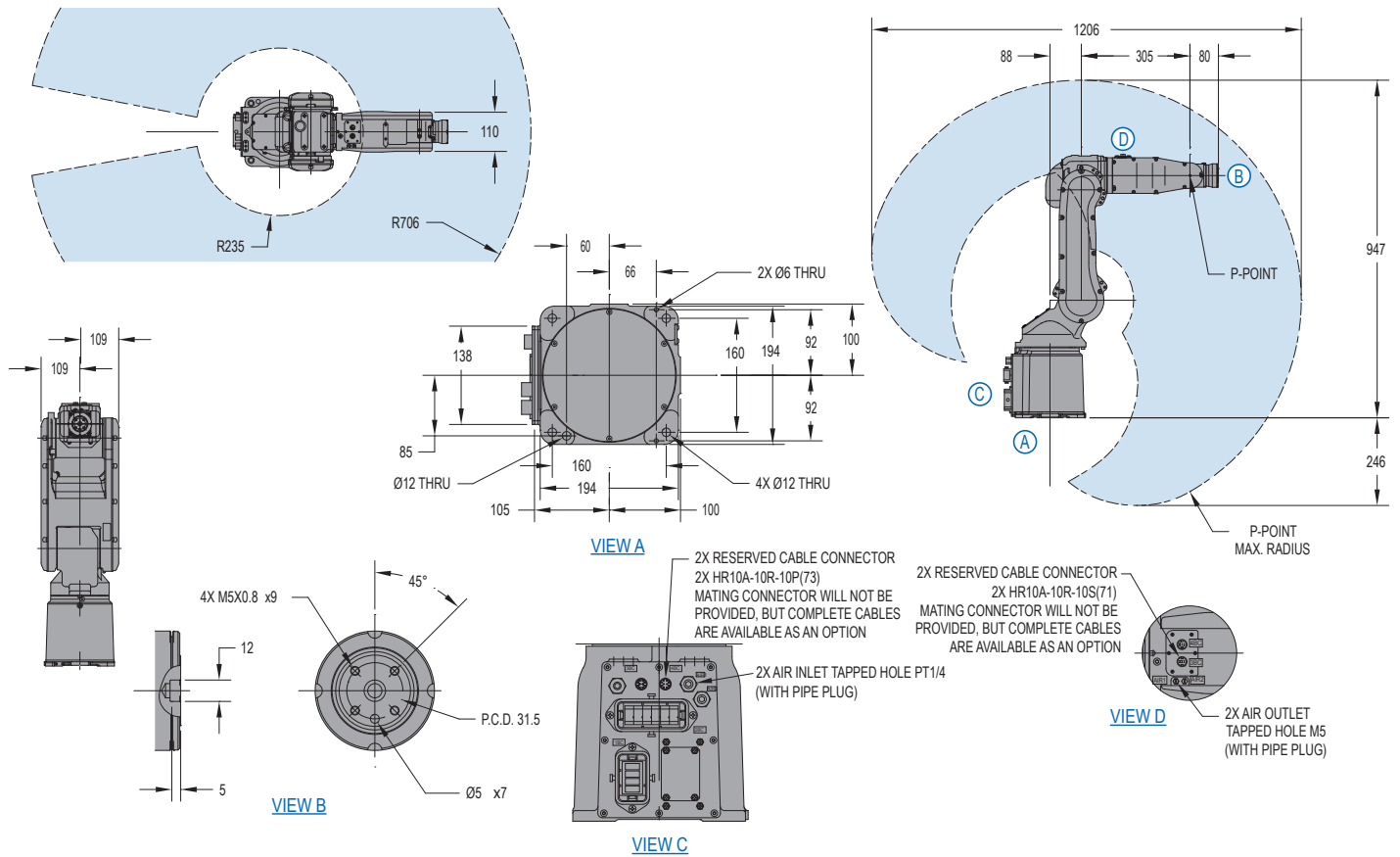
- MH5S model: 706 mm reach; ± 0.02 mm repeatability. Widest work envelope in its class.
- MH5LS extended-reach model: 895 mm reach; ± 0.03 mm repeatability. For applications requiring a larger work envelope.
- 5 kg payload. High moment ratings provide increased carrying capacity.
- Robot adjusts performance based on load. Effective for payloads less than 1 kg.
- Small footprint and minimal interference radius (179 mm) maximizes floorspace utilization.
- Floor-, wall- or ceiling-mounted options. Brakes on all axes.
- Compact design and built-in collision avoidance features with multiple robot control allow up to eight robots to be used together to optimize productivity.
- Internally routed cables and hoses maximize system reliability.
- User utility connections on top of the upper arm for better cable management.

DXM100 Controller

- Smaller-size DXM100 controller provides layout flexibility.
- 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, Profibus-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.

MH5S/MH5LS ROBOTS

MH5S robot (YR-MH5S-A00) shown
All dimensions are metric (mm) and for reference only. Please request detail drawings for all design/engineering requirements.



ROBOT SPECIFICATIONS

Robot	MH5S	MH5LS	
Structure	Vertical jointed-arm type	Vertical jointed-arm type	
Controlled Axes	6	6	
Payload	5 kg (11 lbs)	5 kg (11 lbs)	
Vertical Reach	1,193 mm (47")	1,560 mm (61.4")	
Horizontal Reach	706 mm (27.8")	895 mm (35.2")	
Repeatability	±0.02 mm (±0.0008")	±0.03 mm (±0.001")	
Maximum Motion Range	S-Axis (Turning/Sweep)	±170°	±170°
	L-Axis (Lower Arm)	+150°/-65°	+150°/-65°
	U-Axis (Upper Arm)	+255°/-136°	+255°/-138°
	R-Axis (Wrist Roll)	±190°	±190°
	B-Axis (Bend/Pitch/Yaw)	±135°	±135°
	T-Axis (Wrist Twist)	±360°	±360°
Maximum Speed	S-Axis	376°/s	270°/s
	L-Axis	350°/s	280°/s
	U-Axis	400°/s	300°/s
	R-Axis	450°/s	450°/s
	B-Axis	450°/s	450°/s
	T-Axis	720°/s	720°/s
Approximate Mass	27 kg (59.5 lbs)	29 kg (63.9 lbs)	
Brakes	All axes	All axes	
Power Consumption	1 kVA	1 kVA	
Allowable Moment	R-Axis	12 N • m	12 N • m
	B-Axis	12 N • m	12 N • m
	T-Axis	7 N • m	7 N • m
Allowable Moment of Inertia	R-Axis	0.3 kg • m ²	0.3 kg • m ²
	B-Axis	0.3 kg • m ²	0.3 kg • m ²
	T-Axis	0.1 kg • m ²	0.1 kg • m ²
Internal Electric Cable	3 BC 10 Conductors 4 BC 6 Conductors	3 BC 10 Conductors 4 BC 6 Conductors	
Internal Air Hose	2 – 1/4" PT Connections	2 – 1/4" PT Connections	

DXM100 CONTROLLER SPECIFICATIONS*

Dimensions (mm)**	800 (w) x 600 (h) x 650 (d) (31.5" x 23.6" 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 NPN-Standard PNP-Optional 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")
Pendant Weight	.998 kg (2.2 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
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, Profibus, Interbus-S, M-Net, CC Link, EtherNet IP/Slave
Ethernet	10 Base T/100 Base TX
Safety	Dual-channel Emergency Stop Pushbuttons, 3-position Enable Switch, Manual Brake Release Meets ANSI/RIA R15.06-1999, ANSI/RIA/ISO 10218-1-2007 and CSA Z434-03

*See DX100 Controller data sheet (DS-399) for complete specifications
**Also available with full-size DX100 controller

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