



FS100

ROBOT / SYSTEM CONTROLLER

KEY FEATURES

- Powerful controller for high-performance applications
- Open software architecture and open communications
- Small footprint saves space
- Energy savings
- Compliant to safety standards

POWERFUL

- 2-4 times faster than DX200 controller.
- Designed for packaging, small parts handling and assembly robots with payloads of 20 kg and under.
- Compatible with integrated MotoSight™ 2D vision (optional).
- Improved communication speeds and functionality.
- High-speed I/O response and high-resolution timers.
- Supports a wide range of communication networks.
- External axis support:

Robot Axes	External Axes Available
4	one or two
5	one or two
6	one or two
7	one
15	one

- Inputs can be used with either NPN or PNP devices. NPN outputs are standard, but can be changed to PNP if desired.

OPEN SOFTWARE

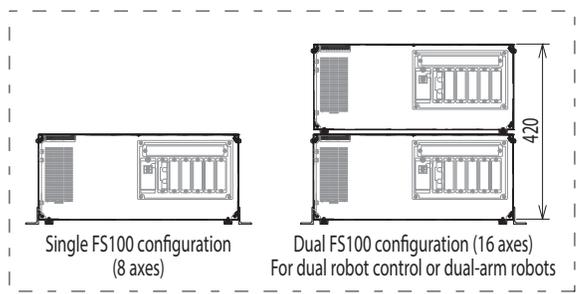
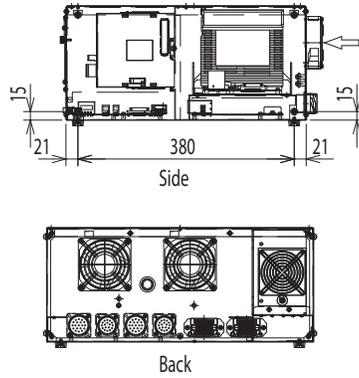
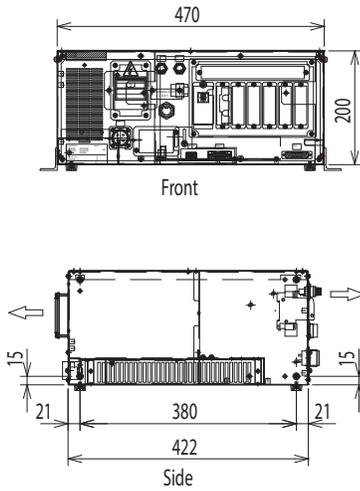
- Open architecture enables software customization in widely accepted environments such as C, C++, C# and .NET.
- Supports optional MotoPlus™ and MotomanSync™ software environments.
- Uses similar programming pendant hardware as DX200 controller, providing a consistent programming interface.
- Supports customization of programming pendant screens using C++ and C#.

AVAILABLE MODELS

MHJ	MPK2F
MH3F	MYS450F
MH5F	MYS650LF
MH5LF	MYS850LF
MH6F	SIA5F
MH6F-10	SIA10F
MH12F	SIA20F
HP20F	SDA5F*
MPP3S	SDA10F*
MPP3H	SDA20F*

* Requires dual-size controller

FS100 CONTROLLER



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

STANDARD I/O AND COMMUNICATIONS

- 16 inputs and 16 outputs
- EtherNet 10 Base T / 100 Base TX

I/O EXPANSION AND COMMUNICATIONS

- EtherNet/IP
- DeviceNet
- Profibus-DP
- CC-Link
- Analog outputs

OFFLINE PROGRAMMING OPTIONS

- FS100 software pendant
- MotoCom
- MotoSim EG / MotoSim EG-VRC
- Ladder Editor 32
- MotoCalV EG

OPTIONS

- Top Hat Cover
- IP54 Enclosure
- Dual Robot Control

CONTROLLER

Nominal Dimensions (mm)*	Single Controller: 470 mm (w) x 200 mm (h) x 420 mm (d) (18.5" x 7.9" x 16.5") Dual Controller: 470 mm (w) x 420 mm (h) x 420 mm (d) (18.5" x 16.5" x 16.5")
Approximate Mass	Single Controller: 20 kg (44.1 lbs) Dual Controller: 48 kg (106 lbs)
Cooling System	Direct cooling
Ambient Temperature	During operation: 0° to 40° C (32° to 104° F) During transit and storage: -10° to 60° C (14° to 140° F)
Relative Humidity	90% max. non-condensing
Primary Power Requirements	Single-phase or 3-phase power, 200/230 VAC at 50/60 Hz Heavy duty cycle external axis use may require 3-phase power (MPP3, MPK2, MH6F, MH6F-10, HP20F require 3-phase)
External Transformer (optional)	For 480/575 VAC installations
Digital I/O	System I/O: 12 inputs/12 outputs User I/O: 16 inputs/16 outputs Max. I/O (optional): 156 inputs and 156 outputs
Position Feedback	Absolute encoder
Program Memory	JOB: 10,000 steps, 1,000 instructions CIO Ladder: 1,500 steps
Number of Robots/Axes	Up to 2 robots, 16 axes maximum
Multi Tasking	Up to 6 concurrent jobs, 1 system job
Fieldbus	All common networks supported
Ethernet	10 Base T/100 Base TX
Safety	Dual-channel Emergency Stop Pushbuttons, 3-position Enable Switch, Manual Brake Release
Cabinet Rating	IP20

* There is not sufficient space inside the FS100 controller to mount electrical breakout cards, power supplies or other electrical devices. During assembly, these components will be mounted to the top of the FS100 on a bracket, but can be removed and located elsewhere if desired. If it's desired keep these interfaces mounted to the top of the controller, the top hat cover option should be used which adds 293 mm (11.5") to the height of the controller.

Note: Use DX200 controller for arc welding applications.

PENDANT

Pendant Dimensions (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, MotoPlus SDK (C language) – optional
Maintenance Functions	Displays troubleshooting for alarms

Note: FS100 controlled robots can be purchased without a programming pendant, but having one onsite at each installation is required to support safe operation and troubleshooting. .

YASKAWA

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