The latest YASKAWA FS100 controller generation has been specially developed for the Picking, Packing and Palletizing sectors and for all other handling applications. The development goal was "Fast, safe, open, small".
Real-time processing of sensor signals, reactions to camera information and other high-speed applications are thus made possible.
All in all, the FS100 thus exploits its superlative performance capabilities to the full in applications where high flexibility is required.
Another modern feature is the open concept of the controller which enables users to access robot interfaces and motions externally via a PC or PLC and also to develop their own applications.
Interfaces such as MotoSync and MotoPlus allow the controller to function as a slave of the higher-level controller in a line; this means that it is programmed in your customary PLC language.
The streamlined and compact design requires little space for installation, thereby saving valuable production space. The FS100 thus offers particular advantages for line builders.
It can also be combined with the high-performance DX100 controller for welding and multiple-robot applications, without the operator noticing any difference in the teach-in programming.

Key benefits

- Designed as an open controller
- Development of customized user applications
- High flexibility for variable packaging solutions
- Safe and fast
- Space-saving, streamlined and compact
- Energy-saving

MOTOMAN FS100

Industrial robot controller

YASKAWA
MOTOMAN

High performance controller FS100 for MOTOMAN-Robots

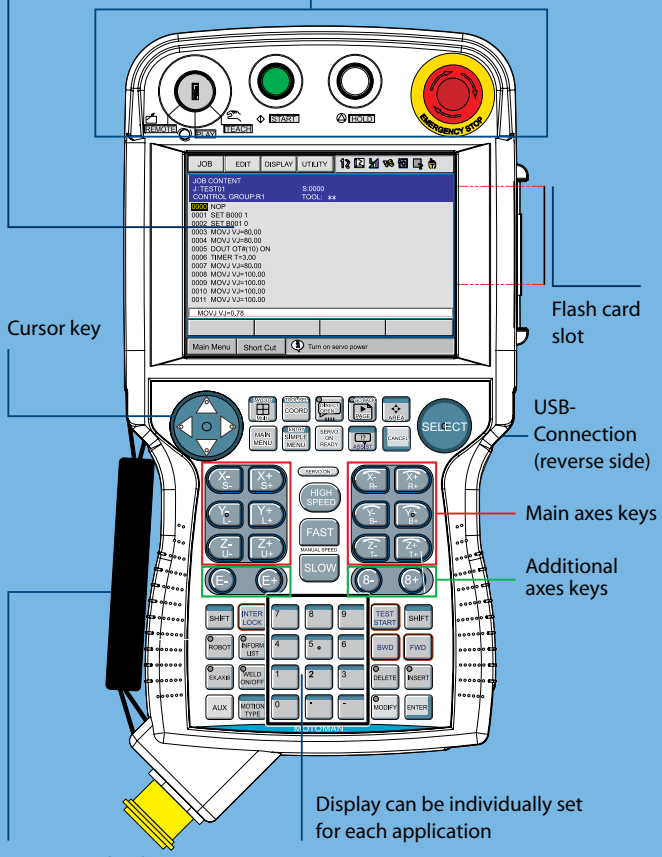
Programming pendant (PHG) ergonomical, light and easy

5,7" LCD colourdisplay

Touch screen

Windows operating system

Operation keys start/stop emergency off



- Easy and fast programming
- Several user levels – from operation to maintenance
- Help function

Open Controller

Connection of FS100 to the existing overall system with the YASKAWA software solutions

- MOTOSync
- MOTOPlus
- MOTOGSI
- Windows operating system

Advanced Robot Motion Function (ARM)

Dynamic calculation of torque and loads on the robot axes

- Extremely high path accuracy
- Optimal robot motion and velocity
- Vibration control
- Highly sensitive collision detection

Communication

Ethernet, Web (ftp, opc) Server options and all common fieldbus systems

- Easy integration into existing networks
- Remote monitoring and diagnosis of robot systems

Additional benefits

- Multitasking (free of extra charge)
- Integrated PLC
- Highest performance due to industrial PC
- Boot time: max. 50 sec.
- MTTR (Mean Time To Repair): < 5 min.
- Automatic robot calibration

Control cabinet

Dimensions	470 (W) x 200 (H) x 420 (D)
Weight	Approx. 20 kg
Protection class	IP20
Cooling system	Indirect cooling
Ambient temperature	0° to +45°C (operation) –10° to +60°C (transport and storage)
Relative humidity	Max. 90% non-condensating
Power supply	3-phase 400/415/440 VAC at 50/60 Hz or 1-phase 200/230 VAC at 50/60 Hz
Digital I/O	28 inputs/28 outputs (standard) (Expandable to 1024 inputs/1024 outputs)
Positioning system	Absolute encoder / serial interface
Program memory	10.000 steps, 1.000 instructions and 1.500 PLC steps
Interface	Profibus (Master/Slave), Ethernet IP (Master/Slave), DeviceNet (Master/Slave), CC-Link (Slave), Profinet (Master)
Color	Analog RAL 7032

TÜV CERT EN ISO 9001 Zertifikat Nr. 20 100 9864 www.tuv.at

All dimensions in mm | Technical data may be subject to change without previous notice |
Please request detailed drawings at robotics@yaskawa.eu.com – YR-FS100, A-05-2012, A-No. 157077

Maintenance

Functions	System monitor, internal maintenance clocks (e.g. Servo power-on time)
Self-diagnosis	Classifies errors and major/minor alarms and displays the data
User alarm display	Alarm messages for peripheral devices
Alarm display	Alarm messages and alarm history
I/O diagnosis	Simulated enable/disable outputs
TCP calibration	Automatic calibration of TCP (Tool Center Point)

Programming pendant

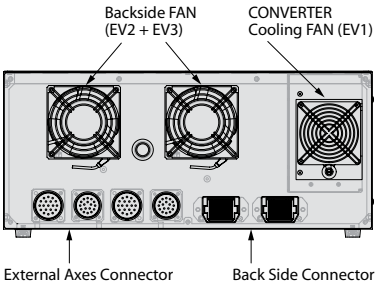
Dimensions	169 (W) x 314.5 (H) x 50 (D)
Touchscreen display	5.7" colour LCD (640 x 480 pixels)
Weight	0.986 kg
Coordinate system	Joint, Rectangular/cylindrical, Tool, User-coordinates
Speed adjustment	Fine adjustment possible during operation or teach mode
Shortcuts	Direct access keys and user selectable screen keys possible
Language	Mostly spoken languages available (worldwide)
Interface	Compact Flash card slot, USB port
Operating system	Windows CE

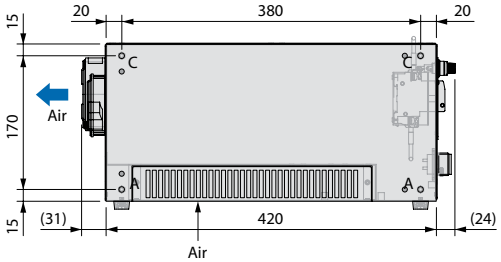
Safety features

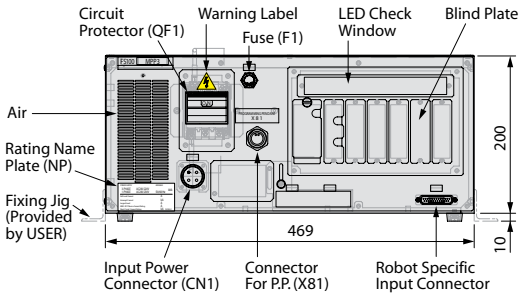
Specifications	Dual-channel safety system (Emergency stop, safety interlock), 3-position Dead-man's switch, European safety standard (ISO10218)
Collision avoidance	Collision avoidance zones and radial interference zones
Collision detection	Monitors robot axes' torque levels
Machine lock	Test-run peripheral device without robot motion possible

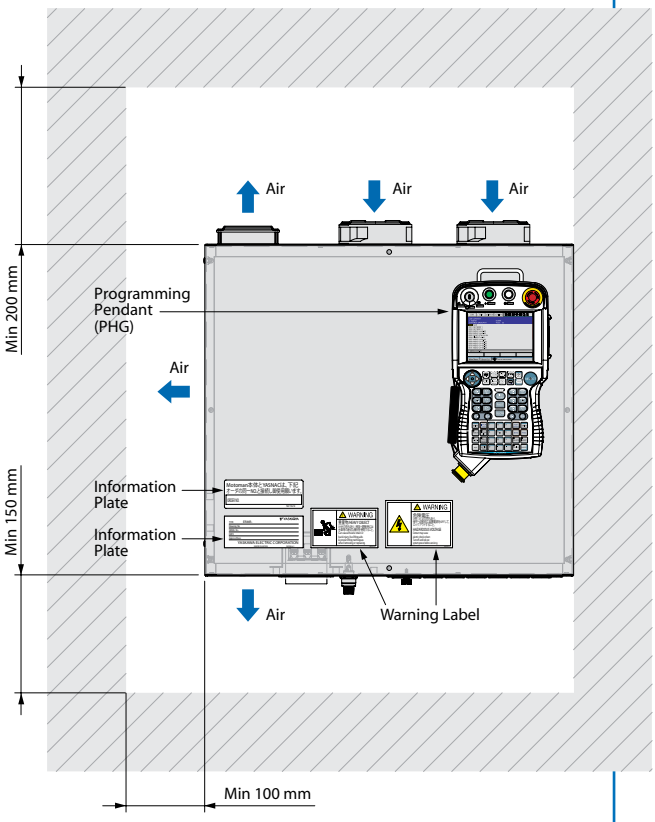
Programming

Programming language	INFORM III
Robot motion control	Joint motion, linear, circular, spline interpolation
Speed adjustement	Joint motion (% of maximum)
	Interpolation (mm/sec; cm/min; inch/min)
	Angular velocity (°/sec)









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