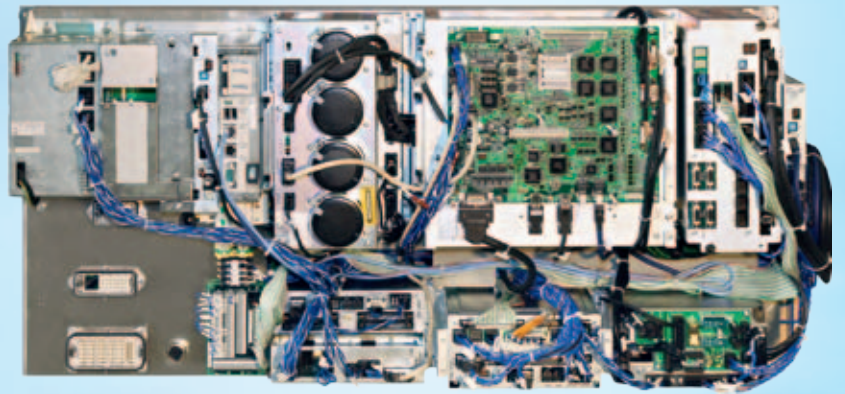


The MOTOMAN DXI100 Controller from YASKAWA (Integrated Controller) is a fully-fledged robot controller without a cabinet. Due to its extremely compact design the controller offers the user optimal design freedom with the conceptional layout of an automation cell. As with conventional control cabinets, all controller components of the DXI100 are mounted on a stable aluminum plate.

The MOTOMAN DXI100 controller conforms to the Low Voltage Directive and to the EMC Directive (EN61000-6-2 and EN61000-6-4).



### Why a controller without an cabinet or control cabinet?

- Space in the automation cell is too limited for a separate control cabinet
- Complete control system mounted in one special, integrated control cabinet
- With installation in an appropriate cabinet, ingress more than protection class IP54 can be achieved
- Mounting in:
  - Machine frames
  - Existing control cabinets

## MOTOMAN DXI100

Controller without cabinet, flexible and easy to integrate

 **YASKAWA**

# High performance controller DXI100 for MOTOMAN-Robots

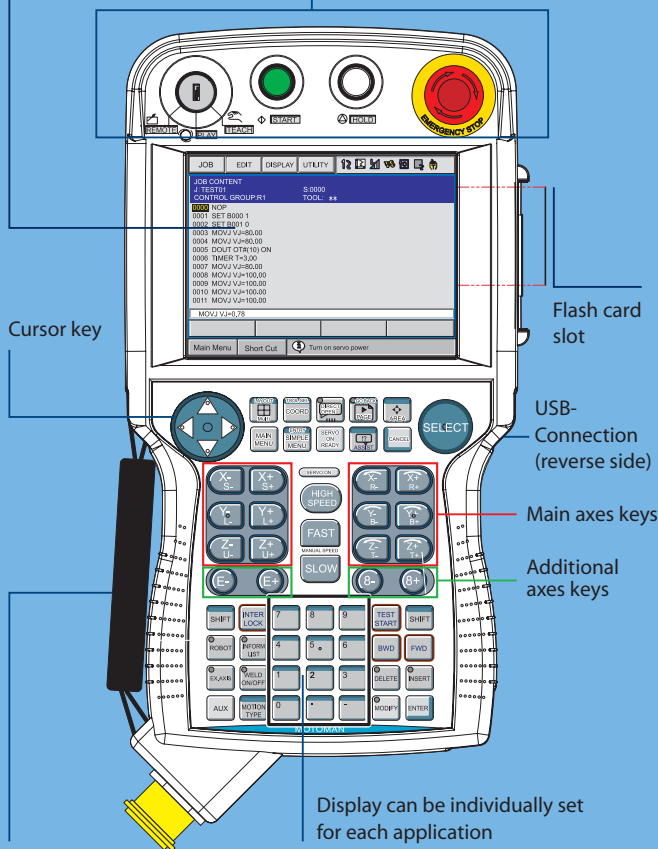
## Programming pendant (PHG) ergonomic, light and easy

5,7" LCD colourdisplay

Touch screen

Windows operating system

Operation keys start/stop emergency off



Cursor key

Flash card slot

USB-Connection (reverse side)

Main axes keys

Additional axes keys

Display can be individually set for each application

3 position dead man switch (rear side not visible)

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

## Multi-Robot-Synchronization function

Real time synchronization of up to eight robots and external axes (max. 72 axes)

- Jigless working possible
- Enables high density robot layouts
- Reduced cycle time

## Advanced-Robot-Motion function (ARM)

Dynamic calculation of robot axis torque and load

- High performance path accuracy
- Optimized robot motion and speed
- Vibration control
- Highly sensitive collision detection

## Communication features

Built-in Ethernet, Web (ftp, opc) server options and fieldbus support of the 15 most common brands on the market

- Easy to connect to existing networks
- Remote monitoring and diagnosis of robot systems

## Further features

- Multitasking
- Internal SPS
- High performance by industrial PC
- Boot time max. 50 sec
- MTTR (Mean Time To Repair): < 5 min.
- Automatic zero calibration

### 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



Technical Data

Dimensions	1065 (W) x 510 (H) x 284,5 (D)
Mass	ca. 50 kg (approx.)
Cooling System	Provided by the customer, required according to mounting position
Operating Temperature	0° to 45° temperature control is the responsibility of the OEM / System Integrator
Relative Humidity	90% max. (non-condensing)
Input Power Supply	400 VAC, 3 phase, 50 Hz (with external transformer, dimensions: 250(W) x 280(H) x 150(D))
Digital I/O	40 inputs / 40 outputs (standard) (expandable to 2048 inputs / 2048 outputs)
Analog Outputs	40 channels (option)
Positioning System	Absolute encoder / serial interface
Program Memory	200,000 steps, 10000 instructions and 15000 PLC steps
Interface	Ethernet

Funktionsübersicht

- Mounting / installation customized to automation cell
- Optional mounting control cabinets made from stainless steel or with cabinet ingress protection class IP54
- Specially developed for picking and packing lines as well as other handling applications\*
- Space saving installation (70% in comparison to DX100)
- All components easily accessible and exchangeable
- Available for all MOTOMAN robot models with the exception of the SDA series
- External axes optional
- Horizontal or vertical mounting
- DXI100 requires an enclosure

\* not designed for welding applications

Maintenance

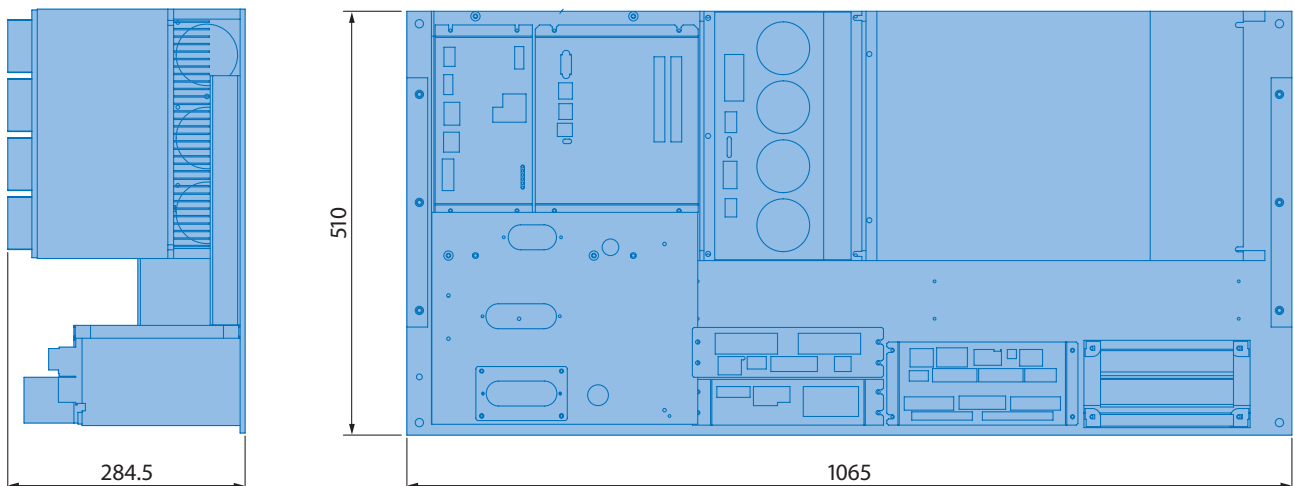
Functions	System monitor, internal maintenance clocks (e.g. Servo power-on time)
Self-diagnosis	Classifies errors and major/minor alarms and displays the data
User alarm display	Alarm messages for peripheral devices
Alarm display	Alarm messages and alarm history
I/O diagnosis	Simulated enable/disable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

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 adjustment	Joint motion (% of maximum)  Interpolation (mm/sec; cm/min; inch/min)  Angular velocity (°/sec)



**YASKAWA**  
Headquarters

YASKAWA Europe GmbH  
Robotics Division  
Yaskawastraße 1  
D-85391 Allershausen  
Tel. +49 (0) 8166/90-0  
Fax +49 (0) 8166/90-103

YASKAWA Academy and  
sales office Frankfurt

YASKAWA Europe GmbH  
Robotics Division  
Hauptstraße 185  
D-65760 Eschborn  
Tel. +49 (0) 6196/77725-0  
Fax +49 (0) 6196/77725-39

## YASKAWA Group

A YASKAWA Austria  
Schwechat/Wien +43(0)1-707-9324-15

CZ YASKAWA Czech s.r.o.  
Rudná u Prahy +420-257-941-718

E YASKAWA Ibérica, S.L.  
Gavà/Barcelona +34-93-6303478

F YASKAWA France SARL  
Saint-Aignan-de-Grand-Lieu  
+33-2-40131919

FIN YASKAWA Finland Oy  
Turku +358-(0)-403000600

GB YASKAWA UK Ltd.  
Banbury +44-1295-272755

I YASKAWA Italia s.r.l.  
Torino +39-011-9005833

IL YASKAWA Europe Technology Ltd.  
Rosh Ha'ayin +972-3-9004114

NL YASKAWA Benelux B.V.  
EB Son +31-40-2895500

RUS YASKAWA Nordic AB  
Moskva +46-480-417-800

SE YASKAWA Nordic AB  
Torsås +46-480-417-800

SI YASKAWA Slovenia  
Ribnica +386-1-8372-410

TR YASKAWA Türkiye  
Şerifali Mah. Barbaros Cad. No: 24  
Ümraniye, İstanbul +90-216-5273450

ZA YASKAWA Southern Africa (PTY) Ltd  
Johannesburg +27-11-6083182

## Distributors

BG Kammarton Bulgaria Ltd.  
Sofia +359-02-926-6060

CH Messer Eutectic Castolin Switzerland S.A.  
Dällikon +41-44-847-17-17

DK Robotcenter Danmark  
Løsning +45 7022 2477

EE RKR Seadmed OÜ  
Tallinn/Estonia +372-68-35-235

GR Gizelis Robotics  
Nea Kifissia +30-2106251455

H Flexman Robotics Kft  
Budapest +36-30-9510065

LT Profibus UAB  
Panevezys +370-45-518575

N Optimove as  
Lierstranda +47-32240600

PL Integrator RHC Sp. z o.o.  
Torun +48-56-6519710

RO Sam Robotics srl  
Timisoara +40-720-279-866



[www.yaskawa.eu.com](http://www.yaskawa.eu.com)  
[robotics@yaskawa.eu.com](mailto:robotics@yaskawa.eu.com)

Technical data may be subject to change without previous notice.