

# OmniCore™ Controllers

A new era of flexible and digital robot control



Unrivaled on the factory floor. Every OmniCore™ controller delivers the ultimate value in flexibility, connectivity, and performance.

### A new era is here

ABB's OmniCore robot controller family is the first significant step towards preparing customers for a new era in manufacturing. ABB's robot controller family offers broadest motion control options and more tailored solutions for the connected Factory of the Future. To power the diverse manufacturing needs of the factory of the future, manufacturers need a controller that delivers unsurpassed flexibility, connectivity, and performance. Every controller in this product family is designed to deliver these capabilities and meet the diverse needs robot users today expect.

### The best made even better

OmniCore C30 builds on our heritage of best-in-class motion control and path accuracy, but in a 50% smaller footprint for maximum installation flexibility and floor space utilization. The new OmniCore C90XT extends the comprehensive OmniCore controller family bringing all the benefits of their best-in-class motion control and path accuracy to harsh environments. The C90XT is a rugged yet compact controller with full IP54-rated protection enabling it to be installed in close proximity to dirty, wet and dusty processes.

XT stands for 'Extra Tough'. The controller also offers extra internal space to support process-related equipment for communication, conveyor tracking and external axis, while its lean format enables it to be installed in tight spaces. C90XT is the smallest high protection class robot controller in the industry, all wrapped in a small powerful package for maximum flexibility.

### The industry's most versatile and powerful controller

In addition to increasing mounting flexibility, ABB's OmniCore controller also increases flexibility to incorporate the latest digital technologies. The controller is versatile and expandable, and can be equipped with the industry's most versatile range of additional offerings, such as fieldbus protocols, vision solutions, and force control.

### The most intuitive RobotWare 7 and FlexPendant

The controller comes with ABB's powerful yet intuitive operating system, RobotWare 7. It incorporates new features and functions making the robots more capable than ever and it's accessed through a newly designed, powerful and intuitive new FlexPendant.



01 OmniCore C30  
02 OmniCore C30 including desktop kit & FlexPendant  
03 OmniCore C90XT

### OmniCore Controller Family

- Significant size reduction and flexible mounting possibilities
- Best-in-class motion control and path accuracy
- Modern simplified user interface on totally new powerful intuitive FlexPendant
- Built-in SafeMove2, ABB's safety solution to save floor space and facilitate collaborative applications
- Impressive versatile offering including wide variety of fieldbuses, vision systems and sensors
- Built-in connectivity to the ABB Ability™ digital platform and connected services

### OmniCore C30

- Small in a big way!
- Extensive integration possibilities
- Desktop version for elegant cable management for easy integration
- Rack mounting kit for installation in standard 19" cabinets
- Mounting kit to install vertically without compromising cooling featuring hanging brackets at the rear

### OmniCore C90XT

- Ruggedized IP54 enclosure for harsh environments
- Small and powerful for maximum flexibility
- Including space for built-in process integration
- Optional extension box for process equipment

### New FlexPendant

- Modern, intuitive and powerful
- Large multi-touch display with standard gestures such as pinch, swipe and tap
- Hot swappable. Unplug during operation and share among several robots
- Extensive customization possibilities

### OmniCore controllers

#### Electrical Connections

	C30 & C30 Desktop kit	C90XT
Voltage	Single phase 220/230 V, 50-60 Hz	220/230 VAC, 1 phase
Voltage, IRB 14050	Single phase 100-230 V, 50-60 Hz	

#### Environment

	C30 & C30 Desktop kit	C90XT
Ambient temperature	5-45°C	5-45°C
Relative humidity	Max. 95% non condensing	Max. 95% non condensing
Level of protection	IP20	IP54

#### Physical

	C30	C30 Desktop kit	C90XT
Dimensions (WxDxH) (mm)	449x443x170	509x514x193	500x355x520
Weight (kg)	24	28	46
C90XT - Extension box 500x350x295 mm (kg)			25

### FlexPendant

#### Functions

Graphical multi-touch 8" color screen  
Joystick  
Hot-swappable- add/remove during operation  
Membrane keyboard with 12 buttons  
USB 3.0 support

#### Safety functions

Emergency stop  
3-position enabling switch (dual circuit)  
Hold-to-run 100% manual speed button