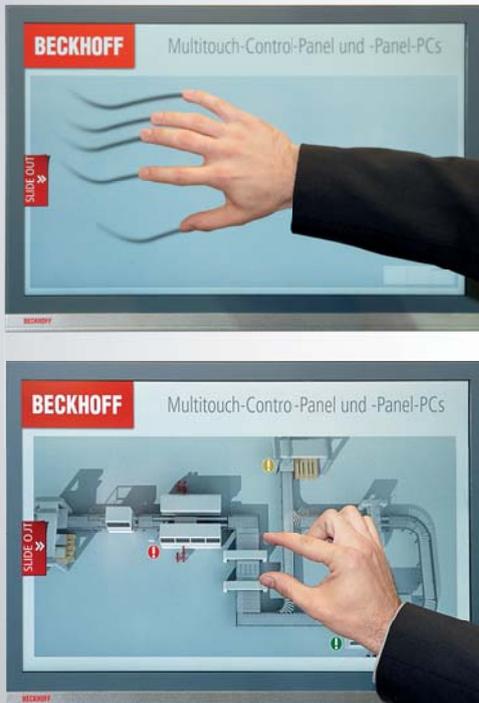




The new CP2xxx and CP3xxx Control Panel and Panel PC series

# Beckhoff multi-touch panel series offers maximum flexibility in a modern design

The new Beckhoff CP2xxx and CP3xxx Control Panel and Panel PC series feature integrated modern display technology such as multi-touch and widescreen formats. The product development also took into account conventional operating concepts, in order to cover the widest possible range of applications. The result is a highly versatile and modular panel system, leaving little to be desired in terms of format, function, size and model variety.



The new Beckhoff CP2xxx and CP3xxx Control Panel and Panel PC series with multi-touch enable innovative visualization concepts with intuitive operation and combine elegance with robust design.

In addition to the functionality and productivity of machines, their overall appearance is becoming an increasingly important sales argument. All along, the functionality and productivity of a machine were the primary needs in mind for the CP2xxx and CP3xxx series. Nevertheless, the overall appearance of a machine is becoming an increasingly important sales argument for the machine manufacturers. Therefore, there is a trend developing where modern machines are being designed by renowned industrial designers. The HMI panel, as the front end and "face" of the machine, also has to take account of this trend: a modern operating panel, including the screen interface, becomes a critical distinguishing feature in comparison with competitors' machines. Of course, a modern HMI must offer fast and intuitive operation, i.e. the operating concept must be functional, in order to reduce the setup time, e.g. during a tool change, by enabling fast adjustment of all required parameters. Authorization of the machine operator with the aid of an optional integrated RFID reader, instead of manual PIN input, can speed up the process even further. Yet not only are the design and functionality important, the HMI panel must also be robust and suitable for industrial applications.

An ideal convergence of answers to all of these demands, the new CP2xxx and CP3xxx Panel PC series, presented by Beckhoff in November 2011 at the

SPS/IPC/DRIVES fair, are an advanced operating concept with multi-touch display and timeless, elegant design. In their execution as cabinet-installed or mounting arm devices, the aluminum and stainless steel housings of the panels are extremely robust and designed for use under harsh industrial conditions. For single-touch users the new panel generation also offers significant benefits due to its optimized price-to-performance ratio: savings of up to 28% when compared with existing devices can be expected.

#### Flexibility in display size and format

The new Control Panel and Panel PC series are available in a wide range display sizes and formats. In addition to the modern widescreen formats, the classic 4:3 formats are also supported. This allows users to port their existing HMI solutions to the new devices with no additional effort. All panels are available ex factory in landscape or portrait format (horizontal/vertical), to account for the fact that the portrait format is becoming increasingly popular among industrial customers.

There are new widescreen display sizes: 7-inch (with a resolution of 800 x 480), 15.6-inch (with 1366 x 768), 18.5-inch (with 1366 x 768) and 24-inch (with the full HD resolution of 1920 x 1080). In addition, the familiar display sizes,

## Key highlights of the new Control Panel/ Panel PC series from Beckhoff:

- Display sizes from 7-inch to 24-inch
- Formats: 16:9, 4:3
- Multi-touch, e.g. for up to 5-finger touch with high resolution
- High-quality aluminum housing, milled from a solid block
- Metal perimeter protection for the display front
- LED backlight technology
- Landscape and portrait format
- Built-in and compact devices
- Control Panels with DVI/USB Extended connection
- Panel PCs with processors ranging from Intel® Celeron® to Core™ i7
- Cost-optimized panel design
- Customer-specified versions



i.e. 12-inch (800 x 600), 15-inch (1024 x 768) and 19-inch (1280 x 1024) in 4:3 format, are also available with the new product lines.

The multi-touch-capable, bright displays all feature an LED backlight. In combination with the Beckhoff controller technology, this offers several benefits: the display delivers bright, high-contrast images and is continuously dimmable. To save energy, the backlight can automatically be switched to energy-saving mode, if, for example, no touch activity is detected for 10 minutes. A good viewing angle ensures that the image is also clearly visible when viewed from the side.

### **Elegant, industrial design**

Beckhoff first introduced the principle of milling the panel housings from a solid aluminum block with their first Control Panel generation back in 1998. This successful concept is also the basis for the new panel series and offers many benefits: low weight, high strength, environmental resistance, versatile processing options, and full recyclability. Since no forming tools are used, Beckhoff is able to respond flexibly to customer requests with low production runs. The

production process guarantees high process safety, i.e. the housings are always manufactured in consistently high quality.

The low depth and narrow housing edges make the CP2xxx and CP3xxx device series particularly elegant. Due to the fact that they are made of aluminum and stainless steel they are robust and suitable for industrial applications. A narrow, circumferential metal impact protector reliably protects the touch screen surface or the display against mechanical destruction. In addition, the all-glass surface offers maximum resistance to environmental influences. Beyond that, the new panel series fulfill the well-known Beckhoff quality criteria, such as long-term availability and high temperature resilience.

### **Modern multi-finger operation for industrial applications**

Multi-finger touch screens are becoming increasingly popular thanks to smartphones, Windows 7 and various other consumer electronics technologies. Familiar functions from the world of touch pads, such as zooming, scrolling, object turning, flicks, etc. are now also usable for industrial applications with the Beckhoff multi-touch panels. In order to ensure industrial compatibility,



The new Control Panel and Panel PC series are available in various display sizes and formats. In addition to the modern widescreen formats, the classic 4:3 formats are also supported.

Beckhoff uses the Projective Capacitive Touch screen (PCT) technology in its multi-touch panel series. The high touch-point density enables accurate, safe and fast operation with fast response times for real-time inputs. Even a 'flowing' touch operation in minute steps is possible without screen jitter. An anti-reflective glass pane is used for the display front. Five-finger touch mode and automation solutions with 2-hand operation are equally possible. The integrated touch controller enables the sensitivity of the touch surface to be parameterized such that it can be handled with work gloves (e.g. latex gloves). The touch controller also prevents incorrect operation, e.g. through water drops or the ball of the thumb; these are intelligently detected and eliminated.

Single-touch mode can be set via the Windows operating system for applications where multi-touch is not required. The multi-touch function requires Windows 7 or higher.

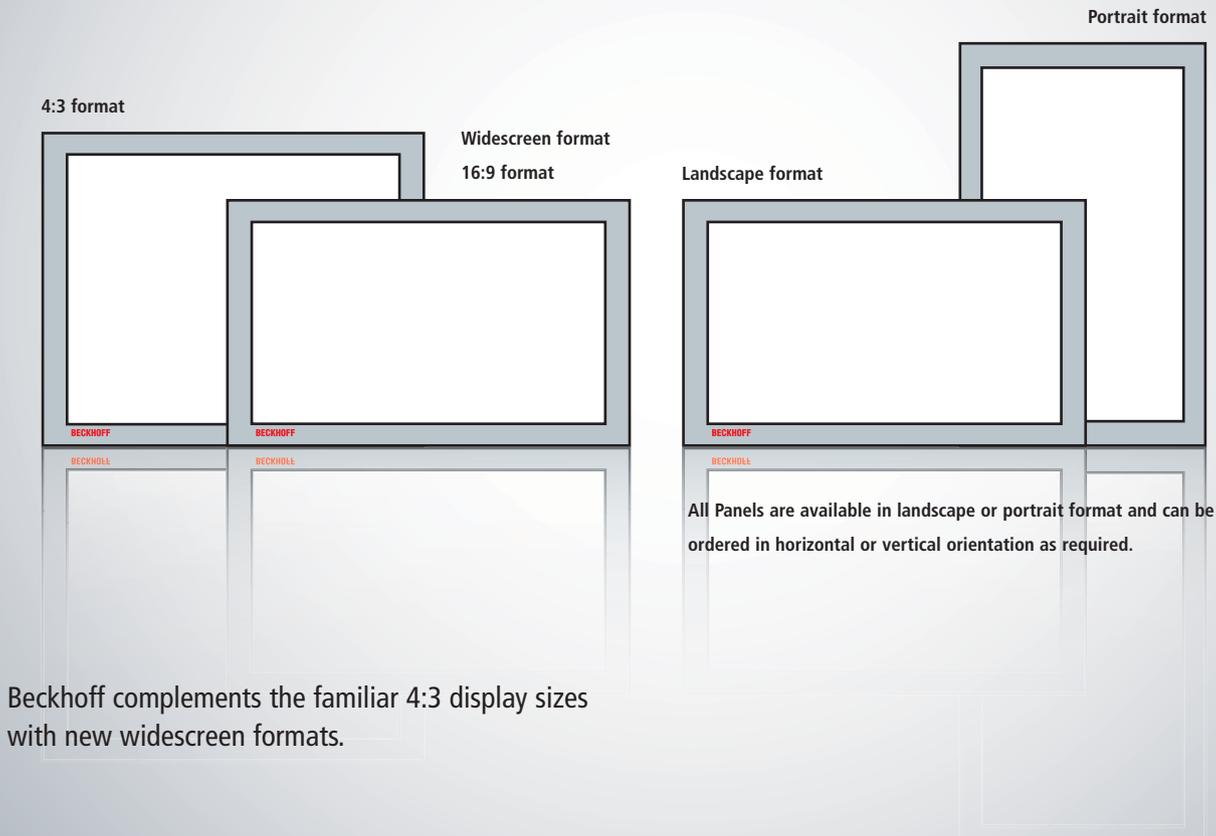
#### **Flexible variants from mounting arm Panel to built-in Panel PC**

The new panel series are conceived both for control cabinet installation and for installation on a mounting arm. The CP2xxx built-in Panel series is implemented

with IP 65 protection at the front and IP 20 at the rear. The CP3xxx Control Panels for mounting arm installation offer all-round IP 65 protection. The mounting arm design has been tried and tested over many years in the popular Beckhoff CP72xx Control Panel series. The housing design is very slender and offers high functionality, including turning and tilting functionality. The CP29xx and CP39xx series use the well-known DVI/USB Extended Technology from Beckhoff and can be operated up to 50 m away from the Industrial PC. The new device series feature USB 2.0 for fast data transmission rates.

#### **Panel PC with the latest processor generation**

The built-in devices of the CP22xx series can be equipped with the latest Intel® processor generation from the 32 nm range with the code name Sandy Bridge – better known as Intel® Core™ i3, Core™ i5 and Core™ i7 of the second generation. The processors with improved on-board graphics and new CPU architecture offer more processing power. The Panel PCs offer the basis for further efficiency improvements in PC-based control technology. The multi-core processors can be used exceptionally well,



Beckhoff complements the familiar 4:3 display sizes with new widescreen formats.

particularly when combination with TwinCAT 3, the latest version of automation software from Beckhoff, which was specially developed for multi-core processors.

#### Options and custom extensions

The industrial multi-touch solution makes electromechanical buttons unnecessary. The customizable function keys are integrated in the operating software. Electromechanical buttons such as emergency stop buttons, joysticks, key switches or other elements are still offered as custom extensions. Customer-specific adaptations with regard to design, key extensions or RFID increase the degree of flexibility of the multi-touch series. The comprehensive application expertise, which in the past has been realized in custom solutions, can also be integrated in the new multi-touch panel series. For enhanced functionality electromechanical buttons, switches, key switches, potentiometers, membrane keys or ring-illuminated short-stroke keys can not only be connected via the

USB port, but also via EtherCAT or other fieldbuses, or directly in the TwinCAT environment, if required. In order to avoid complex wiring, the emergency stop switch can be integrated via TwinSAFE, the programmable safety solution from Beckhoff.

A USB port at the front is offered as standard, enabling direct connection of storage media, a keypad or a mouse (for commissioning). USB can also be integrated in the rear panel or in the mounting arm, in order to enable permanent connection of a scanner or similar devices, for example.

Future plans include the CP32xx Panel PC series for mounting arm installation with Intel® Core™ processors, CP27xx and CP37xx with Intel® Atom™ processors and CP26xx and CP36xx devices with ARM processors. Considering all these impressive characteristics, the Beckhoff multi-touch panels not only fascinate multi-touch users, they above all solve real world industrial challenges.

Further Information:

[www.beckhoff.com/Multitouch](http://www.beckhoff.com/Multitouch)

Estimated market release:

2<sup>nd</sup> quarter 2012