

A strong combination



→ In the class of PC-based control technology, the Industrial PCs are the most powerful hardware platform. The Panel PCs are optimized for installation in the control cabinet front and offer a variety of application options. The combination of built-in Control Panel and a total of three different add-on PCs creates a wide variety of variants in terms of design, function and housing size.

Similar to the CP7xxx series Control Panels for support arm installation, the CP6xxx series built-in variant offers many display sizes and options. Both Control Panel series can be operated as detached operating and display elements. For the connection to the PC, the user has a choice: The inexpensive DVI/USB standard is suitable for distances of up to 5 m; the CP-Link connection is ideal for distances up to 100 m. In combination with the add-on PCs, the Control Panels form a complete Panel PC with high computing power. Together with the TwinCAT automation software, they offer the basis for real-time controls for PLC and motion control applications.

The Beckhoff Industrial PC family is complemented by the CP63xx, CP64xx and CP65xx Panel PCs. In contrast to the CP71xx Panel PC with IP 65 aluminum housing for support arm installation, the built-in Panel PCs are designed for installation in control cabinets or control desks. The fronts are designed as IP 65 and are dust-proof and splash-proof; the backside PC housing is designed in protection class IP 20. The housing of the built-in Control Panel is designed for harsh conditions and is machined from an aluminum block. This results in low weight, high strength and excellent resistance to environmental stresses.

The CP63xx, CP64xx and CP65xx add-on PCs complement all types of the built-in Control Panel by a full IPC. They are equipped with 10, 12, 15, 18 or 20 inch TFT display, as monitors without keys or with keyboards of various sizes. A touch screen or touch pad is optionally available. A large number of expansion options with electromechanical keys are also available. The finely scalable modular system offers the right display and the right computer kernel for all applications.

On the PC side there are three types that differ in the quantity of free slots and thus in the size of the housing. Overall, more than 150 variations of built-in Panel PCs are available.

The power part: compact, flat or universal

The most compact design is offered by the add-on PC CP63xx, which enables controls to be realized on very little space. A plug-in card motherboard for Intel Celeron or Pentium III up to 850 MHz is integrated into the housing with the dimensions of 212 x 194 x 93 mm. A free PCI slot and the room for a PC104 card are available. All PC connections are on one side of the housing.

During the development of the add-on PC CP64xx, the focus was mainly on space-saving installation. The 4-slot add-on PC CP64xx is mounted in a flat PC housing at the rear of the Control Panel. With its dimensions of 329 x 302 x 79 mm, it takes up little space inside the control cabinet. It is equipped with Intel Celeron or Pentium III up to 850 MHz on an all-in-one plug-in card motherboard with passive backplane. A PCI and a combined ISA/PCI slot are freely available for additional plug-in cards.

The focus during the conception of the add-on PC CP65xx was on system extension through a large number of free slots. The 7-slot add-on PC CP65xx is located in an ATX PC housing, which is equipped with Intel Celeron or Pentium III up to 850 MHz on an ATX motherboard. With 7 slots, of which 6 are freely available, it is universally expandable with fieldbus interface cards, network cards, interface cards, modem or ISDN adapter. The housing with

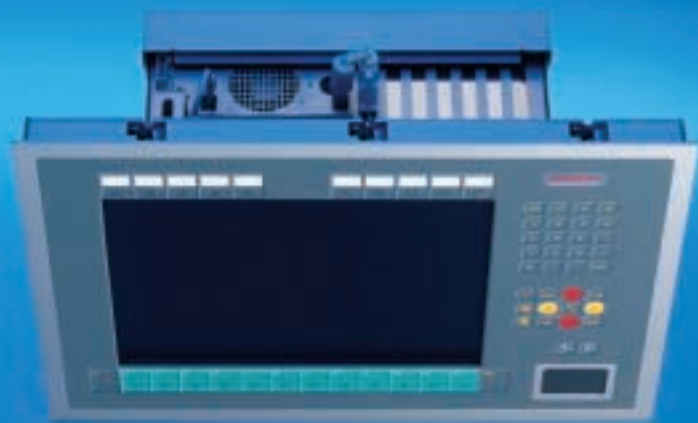
the dimensions of 333 x 308 x 165 mm contains all the connections at the top. The three PCs can additionally be equipped with a CD-ROM or CD-RW drive. The Control Panel is connected to the PC via DVI and USB. Power is supplied from the PC. The permissible operating temperature range for all built-in types is 0... 55 °C.

The display

The add-on PCs can be expanded with different TFT displays, available in sizes of 10, 12, 15 or 18 inch. The add-on PC CP65xx is additionally also available with the largest variant, the 20 inch TFT display with a resolution of 1600 x 1200 pixels. The built-in Control Panels are optionally available with touch screen or touch pad, as monitors without keyboard or with different membrane keypad models including full alphanumeric keyboards with 10 special PLC keys and 10 LEDs. Different versions of keyboard extensions with electromechanical keys are available. In harsh industrial environments, the robust membrane keypad ensures lasting compliance with protection class IP 65.

From the control cabinet wall, only 4 mm of the front of the built-in Control Panel are visible. Installation is via pull-out clamping levers, making the process very simple. There are no loose parts.

The universal built-in Panel PC CP65xx



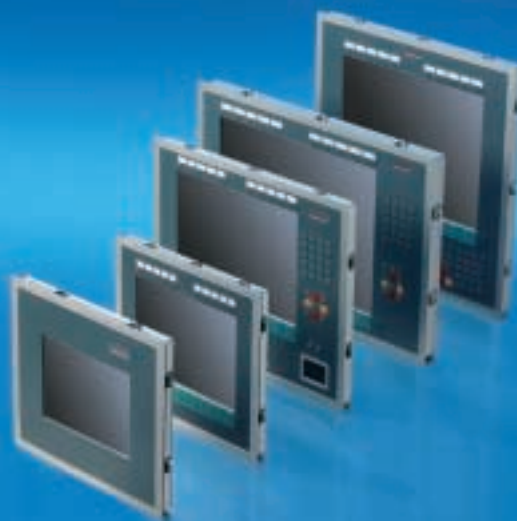
Adaptable - the customer-specific solution

The optional extension modules resemble a construction kit: Not only the membrane keypad can be customized, but also the connection of hand wheels, potentiometers, push buttons, switches, optical indicators or other components. Each variant thus becomes a unique optimized system. A housing that can be dimensioned precisely in line with the needs of the particular application according to the customer's wishes can be combined with an individually designed membrane keyboard.

Panel PC = built-in Control Panel + add-on PC



The built-in Control Panels form the front of the Panel PC



Pre-programmed growth

The range of the Panel PCs continues to grow. A further variant in the form of a panel extension through the modular CX1000 Embedded PC is in preparation. This variant additionally offers the option of installing I/Os in the form of the Beckhoff Bus Terminals directly behind the panel. In combination with the operating systems Windows CE.NET or Windows XP Embedded and the Beckhoff software PLC/NC TwinCAT CE, a wide variety of industrial application options are thus available. The basic CPU module with the dimensions of 57 x 100 x 91 mm contains an Ethernet and a RS232 interface, as well as a 266 MHz CPU that is compatible with Pentium MMX. The internal flash memory of 16 Mbyte for operating system and applications is expandable to 64 Mbyte. Further characteristics: 32 MB RAM (expandable to 128 MB), a Compact Flash type II slot for commercially available Compact Flash cards, which are today offered in sizes from 4 Mbyte up to 1 Gbyte.