

Beckhoff C69xx Industrial PC
for control cabinet installation

Status LEDs

Lithium battery

Compact Flash disk

Front cover

Optional IDE hard disk, 2 1/2"

Replaceable fan tray
(C6925 is fanless)



Aluminum housing with 3 1/2" motherboard for Intel® Celeron® M or Pentium® M up to 1.8 GHz

Power supply
(UPS can be integrated as an option)

On-board dual Ethernet adapter
1 x 10/100BASE-T and
1 x 100/1000BASE-T connector

4 USB 2.0 ports

On-board graphic adapter, Intel Extreme Graphic, DVI-I connection

1 serial interface RS232

Free mini PCI slot,
e.g. for fieldbus cards

High performance with slimline design



→ The C6920 and C6925 Industrial PCs with robust, ultra-compact aluminum housing are designed for control cabinet installation. The control cabinet PCs are equipped with the latest processor in processor technology, offering maximum performance: The C69xx series utilize 3 1/2 inch motherboards from Beckhoff which are suitable for Intel® Celeron® M or Pentium® M processors up to 1.8 GHz.

The new generation of Beckhoff PCs is equipped with two independent Ethernet interfaces as standard, enabling clear separation of automation and IT applications. While the 100 Mbit Ethernet port offers optimum performance for all EtherCAT control tasks, a Gigabit port is available for connecting the higher-level network.

The main difference between the different types of the C69xx Industrial PC series is in processor power and cooling arrangements. Internal cooling fins are used in both Industrial PCs. The PCs can be operated at ambient temperatures of up to 55 °C:

- | The C6925 with 1 GHz Intel® Celeron® M ULV processor is a fanless model.
- | The C6920 with 1.5 GHz Intel® Celeron® M or 1.8 GHz Intel® Pentium® M processor has an additional fan tray on the underside of the case.



Industrial PC C6920

- | **Industrial PC** for space-saving installation in the control cabinet
- | **Intel® Celeron® M 1.5 GHz processor**
(optional Intel® Pentium® M 1.8 GHz)
- | 3 1/2 inch motherboard for Intel® Celeron® M or Pentium® M
- | 1 mini PCI slot free
- | 256 MB DDR RAM, expandable up to 2 GB
- | on-board graphic adapter, Intel Extreme Graphic, DVI-I connection
- | on-board dual Ethernet adapter with 1 x 10/100BASE-T and 1 x 100/1000BASE-T connector
- | Compact Flash socket in the front
- | 64 MB Compact Flash type 1, extended temperature range (optionally larger memory)
- | optional IDE hard disk, 2 1/2", 40 GB
- | 1 serial RS232 interface, 4 USB 2.0 ports
- | 24 V DC power supply unit (optionally with UPS, integrated in power supply unit)
- | Microsoft Windows CE operating system (optionally Windows XP or Windows XP Embedded)
- | lithium battery accessible from the front
- | **fan tray containing fans with dual ball bearings and speed monitoring, replaceable from the front**
- | protection class IP 20
- | operating temperature 0 to 55 °C
- | **small dimensions (W x H x D) 65 x 231 x 116 mm, without mounting plate**



Industrial PC C6925

- | **fanless Industrial PC** for space-saving installation in the control cabinet
- | **Intel® Celeron® M ULV, 1.0 GHz processor**
- | 3 1/2 inch motherboard for Intel® Celeron® M or Pentium® M
- | 1 mini PCI slot free
- | 256 MB DDR RAM, expandable up to 2 GB
- | on-board graphic adapter, Intel Extreme Graphic, DVI-I connection
- | on-board dual Ethernet adapter with 1 x 10/100BASE-T and 1 x 100/1000BASE-T connector
- | Compact Flash socket in the front
- | 64 MB Compact Flash type 1, extended temperature range (larger flash memory options available)
- | optional IDE hard disk, 2 1/2", 40 GB
- | 1 serial RS232 interface, 4 USB 2.0 ports
- | 24 V DC power supply unit (optionally with UPS, integrated in power supply unit)
- | Microsoft Windows CE operating system (optionally Windows XP or Windows XP Embedded)
- | lithium battery accessible from the front
- | **passive cooling without fan through cooling fins**
- | protection class IP 20
- | operating temperature 0 to 55 °C
- | **small dimensions (W x H x D) 65 x 208 x 116 mm, without mounting plate**



Roland van Mark, IPC Marketing at Beckhoff, comments on the new C69xx IPC series: "Customers often ask why Beckhoff develops and produces its own motherboards, given that Industrial PCs can be built very successfully with boards from Asia. The answer lies in form factor of the C69xx. An independent motherboard design enables us to adapt the form factors of the boards depending on technical requirements. Users therefore receive a product that has been optimized in several respects. The C69xx control cabinet PCs consistently follow the trend of Ethernet-based automation. They feature two independent Ethernet ports. In addition, the free mini PCI slot offers the option of implementing a "traditional" fieldbus. The freely accessible storage media (CF and/or HDD) consistently follow customer requirements. The C6925 version has no rotating parts, which is a significant advantage for applications in dusty environments. Beckhoff will continue to develop its own motherboards for future IPC generations in order to strengthen its position as a pioneer in market-oriented IPC solutions."

The basic configuration features a flash disk, thereby creating a PC without moving parts. The flash disk, an optional hard disk, and the CMOS battery are easily accessible by users via the front cover. In addition, a 2 1/2" hard disk or a second flash disk can be integrated behind the front cover. All connections are also located at the front: power supply, 2 x Ethernet, 1 x serial RS232 interface, 4 x USB 2.0 port, 1 x DVI-I connection, and the optional fieldbus interface.

The RAM (256 MB DDR RAM as standard) can be expanded up to 2 GB. Windows XP, XP Embedded or Windows CE are available as operating systems. The C69xx series Industrial PCs are supplied with a 24 V DC power supply unit, optionally with integrated uninterruptible power supply (UPS).

The C69xx features a free mini PCI slot for extensions. The Beckhoff mini PCI fieldbus cards for PROFIBUS, CANopen, DeviceNet, SERCOS interface, or a further Ethernet card may be used for applications with traditional fieldbus systems (see text in box).

→ www.beckhoff.com/C69xx



The main difference between the different types of the C69xx Industrial PC series is in processor power and cooling arrangements. Internal cooling fins are used in both Industrial PCs. The PCs can be operated at ambient temperatures of up to 55 °C: For additional cooling, the C6920 (left) features a fan tray containing fans with dual ball bearings and speed monitoring. The C6925 (right) is fanless.

Fieldbus extension through mini PCI interface

The new generation of Beckhoff Industrial PCs, including the C69xx control cabinet PCs and the CP62xx/CP66xx Control Panel PCs, are extremely compact. With each device featuring 2 Ethernet ports, they represent high-performance Industrial PCs for Ethernet and EtherCAT-based control applications. The IPCs can optionally be extended with mini PCI cards, or with fieldbus technology.

The C69xx features a free mini PCI slot for extensions. The Beckhoff mini PCI fieldbus cards for PROFIBUS (FC3151), CANopen (FC5151), DeviceNet (FC5251), SERCOS interface (FC7551), or a further Ethernet card (FC9051) may be used. Like the standard PCI cards from Beckhoff, the interfaces are optimized for the fastest controllers and real-time tasks.