



## CP32xx-0010 | "Economy" Panel PC



**i Product status:** Regular delivery (not recommended for new projects)

With the CP32xx series, a high-end Panel PC with multi-touch can be used directly in the field. The devices in a slender aluminium housing feature complete IP 65 protection and are designed for mounting arm installation. The Panel PCs offer maximum computing power with processors of the latest generation, such as Intel® Celeron®, Pentium® or Core™ i3/i5/i7.

A choice of seven different multi-touch TFT displays, in sizes between 12-inch and 24-inch and 4:3, 5:4 or widescreen 16:9 formats, are available. Cooling is achieved by means of cooling fins on the outer wall as well as fans inside the closed housing. The operating temperature range is 0 to 45 °C.

### Direct mounting arm installation

The Panel PC features an integrated rotatable and tiltable mounting arm adapter for a 48 mm diameter mounting arm tube. There is a choice of attaching the mounting arm from above or below. The connecting cables are laid through the mounting arm.

### Scalable performance

The Industrial PC connections (up to six) with IP 65 connectors are positioned in the large wiring space and are easily accessible. The wiring area can be opened easily without dismantling the device from the mounting arm, offering fast access to the IP 65 connectors for power supply, Ethernet and optional fieldbus or USB. Prefabricated cables in various lengths are available for all connections.

### Highest data availability and data security

The C32xx series Panel PCs are supplied with a 24 V power supply unit, optionally with integrated uninterruptible power supply (UPS). A battery pack can be connected externally and installed on a DIN rail in the control cabinet.

The CP32xx Panel PCs are equipped with one or two hard disks, SSDs or CFast cards or combinations thereof. With the on-board RAID controller, two same hard disks, SSDs or CFast cards can be mirrored.

## Accessibility of the components

The data media and the lithium battery of the system clock are accessible from the rear under the cover.

## Flexible expansion options

There is a PCI slot in the CP32xx. A factory-fitted FC9062 PCIe module with two additional Ethernet ports can be added. NOVRAM is also available as PCIe module for fail-safe data storage.

## Advantage at the very core: the Beckhoff Industrial PCs

Beckhoff is a pioneer in PC-based automation technology and has been developing and producing its own PC hardware since 1986. The technology know-how that has grown over the past decades is incorporated today into all Beckhoff Industrial PCs. Their principle feature is the use of state-of-the-art components and processors of the highest performance class. Combined with a high in-house production depth, including proprietary motherboard production, long-term component availability, extremely flexible configuration and customer-specific adaptations, Beckhoff presents itself today as one of the world's leading Industrial PC manufacturers.

## Product information

### Technical Data

| Technical data                 | CP32xx-0010  | Options   |
|--------------------------------|--|---|
| Device type                    | Multi-touch Panel PC   |   |
| Housing                        | aluminium housing for mounting arm installation  |   |
| Mounting arm adapter           | rotatable and tiltable mounting arm adapter for Rittal and Rolec mounting arm systems with 48 mm tube                                      | from bottom<br>from top                                 |
| Wiring area                    | for up to 6 IP 65 connectors, 4 of these are free  |   |
| Slots for hard disk/flash      | 1 slot for 2½-inch hard disk/SSD, 1 slot for CFast   | 2 slots for CFast or 2 slots for 2½-inch hard disk/SSD  |
| Cooling                        | passive through heat sink structure, internal fan for equal heat distribution to all housing walls   |   |
| Free space for air circulation | 20 cm (7.9") around the PC required  |   |
| Protection class               | IP 65  |   |
| Operating temperature          | 0...45 °C  |   |
| Display size/resolution        | 12" 800 x 600, 12.1" 1280 x 800, 15" 1024 x 768, 15.6" 1366 x 768, 18.5" 1366 x 768, 19" 1280 x 1024, 21.5" 1920 x 1080 or 24" 1920 x 1080 |   |
| Touch screen                   | multi-finger touch screen  |   |
| Processor                      | Intel® Celeron® 2000E 2.2 GHz, 2 cores (TC3: 50)   | up to Intel® Core™ i7-4700EQ 2.4 GHz, 4 cores (TC3: 80) |

|                  |  |   |
|------------------|--|---|
| Motherboard      | 3½-inch motherboard for 4th generation Intel® Celeron®, Core™ i3/i5/i7 |   |
| PCIe/PCI slots   | –  | 1 PCIe module slot  |
| Memory           | 2 GB DDR3L RAM   | up to 16 GB DDR3L RAM   |
| Ethernet         | 2 x 100/1000BASE-T on-board  |   |
| RAID             | on-board SATA RAID 1 controller  |   |
| Hard disks/flash | hard disk, 2½-inch, 320 GB   | SSD, CFast  |
| Interfaces       | 1 x Ethernet 100/1000BASE-T Harting PushPull                           |   |
| Power supply     | 24 V DC  | UPS   |
| Operating system | –  | Windows 7, Windows Embedded Standard 7, Windows 10 IoT Enterprise |

## Ordering Information

| CP32xx-0010 | Multi-touch Panel PCs                                    |
|-------------|--|
| CP3212-0010 | 12-inch display 800 x 600, multi-finger touch screen     |
| CP3215-0010 | 15-inch display 1024 x 768, multi-finger touch screen    |
| CP3216-0010 | 15.6-inch display 1366 x 768, multi-finger touch screen  |
| CP3218-0010 | 18.5-inch display 1366 x 768, multi-finger touch screen  |
| CP3219-0010 | 19-inch display 1280 x 1024, multi-finger touch screen   |
| CP3221-0010 | 21.5-inch display 1920 x 1080, multi-finger touch screen |
| CP3224-0010 | 24-inch display 1920 x 1080, multi-finger touch screen   |

## Options

| Options    | CP37xx-0020   |
|------------|---|
| C9900-C562 | processor 4th generation Intel® Core™ i3 4100E, 2.4 GHz, 2 cores (TC3: 60), instead of Intel® Celeron® 2000E 2.2 GHz (TC3: 50)  |
| C9900-C570 | processor 4th generation Intel® Core™ i3 4110E, 2.6 GHz, 2 cores (TC3: 60), instead of Intel® Celeron® 2000E 2.2 GHz (TC3: 50)  |
| C9900-C563 | processor 4th generation Intel® Core™ i5 4400E, 2.7 GHz, 2 cores (TC3: 70), instead of Intel® Celeron® 2000E 2.2 GHz (TC3: 50)  |
| C9900-C571 | processor 4th generation Intel® Core™ i5 4410E, 2.9 GHz, 2 cores (TC3: 70), instead of Intel® Celeron® 2000E 2.2 GHz (TC3: 50)  |
| C9900-C564 | processor 4th generation Intel® Core™ i7 4700EQ, 2.4 GHz, 4 cores (TC3: 80), instead of Intel® Celeron® 2000E 2.2 GHz (TC3: 50) |
| C9900-R257 | memory extension to 4 GB DDR3L RAM, instead of 2 GB, requires a 64 bit operating system or only 3 GB are addressable            |
| C9900-R258 | memory extension to 8 GB DDR3L RAM, instead of 2 GB, requires a 64 bit operating system   |
| C9900-R259 | memory extension to 16 GB DDR3L RAM, instead of 2 GB, requires a 64 bit operating system  |

|            |  |
|------------|--|
| C9900-B519 | 1 PCIe module slot integrated inside CP32xx or CP37xx, to plug-in Beckhoff PCIe modules  |
| C9900-E282 | 2 IP 65 connectors in the wiring area of a CP32xx, led out with PCIe module FC9062. 2 gigabit Ethernet interfaces. Harting push-pull Ethernet sockets. Requires a PCIe module slot C9900-B519  |
| C9900-M184 | mounting arm adapter for Panel PC CP32xx or CP37xx, for Rittal and Rolec mounting arm systems with 48 mm tube from bottom instead of from top  |
| C9900-R230 | memory module NOVRAM for fail-safe storage of process data, 128 kB, Mini PCI plug-in card  |
| C9900-R231 | memory module NOVRAM for fail-safe storage of process data, 256 kB, Mini PCI plug-in card  |
| C9900-R232 | memory module NOVRAM for fail-safe storage of process data, 512 kB, Mini PCI plug-in card  |
| C9900-E185 | IP 65 connector in the wiring area of a CP32xx, CP37xx, CPX37xx or CP72xx for the second on-board Ethernet adapter, Harting push-pull Ethernet socket  |
| C9900-E186 | IP 65 connector M12 in the wiring area of a CP32xx, CP37xx or CP72xx for one serial interface RS232  |
| C9900-E248 | IP 65 connector M12 in the wiring area of a CP32xx, CP37xx or CP72xx for one serial interface RS422, optically linked, overload protection. Configuration as a full duplex end point: echo on, auto send off, always send on, auto receive off, always receive on, termination on    |
| C9900-E261 | IP 65 connector M12 in the wiring area of a CP32xx, CP37xx or CP72xx for one serial interface RS485, optically linked, overload protection. Configuration as an end point without echo: echo off, auto send on, always send off, auto receive on, always receive off, termination on |
| C9900-D191 | PC with 2 slots for 2½-inch hard disks or SSDs, instead of 1 slot for a hard disk or SSD and 1 slot for CFast  |
| C9900-H145 | additional hard disk, 2½-inch, 320 GB  |
| C9900-H749 | solid-state disk SSD, 3D flash, 2½-inch, 240 GB  |
| C9900-H745 | solid-state disk SSD, 3D flash, 2½-inch, 480 GB  |
| C9900-H759 | solid-state disk SSD, 3D flash, 2½-inch, 960 GB  |
| C9900-H750 | solid-state disk SSD, 3D flash, 2½-inch, 240 GB, instead of 2½-inch hard disk  |
| C9900-H746 | solid-state disk SSD, 3D flash, 2½-inch, 480 GB, instead of 2½-inch hard disk  |
| C9900-H760 | solid-state disk SSD, 3D flash, 2½-inch, 960 GB, instead of 2½-inch hard disk  |
| C9900-D190 | 2 slots for CFast cards, instead of 1 slot for a 2½-inch hard disk or SSD and 1 slot for CFast   |
| C9900-H583 | 40 GB CFast card, 3D flash, extended temperature range   |
| C9900-H587 | 80 GB CFast card, 3D flash, extended temperature range   |
| C9900-H624 | 160 GB CFast card, 3D flash, extended temperature range  |
| C9900-H584 | 40 GB CFast card, 3D flash, extended temperature range, instead of 2½-inch hard disk   |
| C9900-H588 | 80 GB CFast card, 3D flash, extended temperature range, instead of 2½-inch hard disk   |
| C9900-H625 | 160 GB CFast card, 3D flash, extended temperature range, instead of 2½-inch hard disk  |
| C9900-U209 | uninterruptible power supply UPS, integrated into the 24 V power supply, without battery   |

| Options    | To connect a keyboard to the PC, e.g. at commissioning, one of the following USB sockets is required:                 |
|------------|---|
| C9900-E279 | 1-port USB 3.0 connector with IP 65 screw cap in the sidewall of the CP32xx or CP37xx from version -0010              |
| C9900-E283 | IP 65 connector in the wiring area of a CP32xx, CP37xx or CP72xx for a USB 3.0 port, Harting push-pull USB 3.0 socket |
| C9900-E187 | IP 65 connector M12 in the wiring area of a CP32xx, CP37xx or CP72xx for one USB 2.0 port                             |
| C9900-E190 | USB-A in the wiring area of a CP32xx, CP37xx or CP72xx for one USB 2.0 port, including covering cap IP 65             |
| C9900-E304 | USB A socket in the wiring area of a CP32xx or CP37xx for one USB 3.0 port, including covering cap IP 65              |

## Accessories

| Accessories |  |
|-------------|--|
| C9900-K271  | power supply cable IP 65 for CP32xx, CP37xx or CP72xx, length 5 m, assembled, M23 connector, screw type, 8 wires, second end open  |
| C9900-K275  | power supply cable IP 65 for CP32xx and CP37xx or CP72xx, length 5 m, 12 wires: 24 V plus, 24 V minus, battery plus and battery minus each 2 x 1 mm <sup>2</sup> for low voltage drop, assembled, M23 connector, screw type, second end open |
| C9900-K272  | power supply cable IP 65 for CP32xx, CP37xx or CP72xx, length 10 m, assembled, M23 connector, screw type, 8 wires, second end open   |
| C9900-K276  | power supply cable IP 65 for CP32xx, CP37xx or CP72xx, length 10 m, 12 wires: 24 V plus, 24 V minus, battery plus and battery minus each 2 x 1 mm <sup>2</sup> for low voltage drop, assembled, M23 connector, screw type, second end open   |
| C9900-K277  | power supply cable IP 65 for CP32xx, CP37xx or CP72xx, length 20 m, 12 wires: 24 V plus, 24 V minus, battery plus and battery minus each 2 x 1 mm <sup>2</sup> for low voltage drop, assembled, M23 connector, screw type, second end open   |
| C9900-K281  | network cable for CP32xx, CP37xx, CPX37xx and CP72xx, length 3 m, assembled, Harting push-pull Ethernet connector IP 65, second end RJ45, IP 20  |
| C9900-K282  | network cable for CP32xx, CP37xx, CPX37xx and CP72xx, length 5 m, assembled, Harting push-pull Ethernet connector IP 65, second end RJ45, IP 20  |
| C9900-K283  | network cable for CP32xx, CP37xx, CPX37xx and CP72xx, length 10 m, assembled, Harting push-pull Ethernet connector IP 65, second end RJ45, IP 20   |
| C9900-K284  | network cable for CP32xx, CP37xx, CPX37xx and CP72xx, length 15 m, assembled, Harting push-pull Ethernet connector IP 65, second end RJ45, IP 20   |
| C9900-K285  | network cable for CP32xx, CP37xx, CPX37xx and CP72xx, length 20 m, assembled, Harting push-pull Ethernet connector IP 65, second end RJ45, IP 20   |
| C9900-K286  | network cable for CP32xx, CP37xx, CPX37xx and CP72xx, length 30 m, assembled, Harting push-pull Ethernet connector IP 65, second end RJ45, IP 20   |
| C9900-K287  | network cable for CP32xx, CP37xx, CPX37xx and CP72xx, length 40 m, assembled, Harting push-pull Ethernet connector IP 65, second end RJ45, IP 20   |
| C9900-K288  | network cable for CP32xx, CP37xx, CPX37xx and CP72xx, length 50 m, assembled, Harting push-pull Ethernet connector IP 65, second end RJ45, IP 20   |

|            |  |
|------------|--|
| C9900-K291 | USB 2.0 cable for CP32xx, CP37xx or CP72xx, length 3 m, assembled, M12 connector IP 65, screw type, 4-pin, second end USB B connector                    |
| C9900-K292 | USB 2.0 cable for CP32xx, CP37xx or CP72xx, length 5 m, assembled, M12 connector IP 65, screw type, 4-pin, second end USB B connector                    |
| C9900-K306 | USB 3.0 cable for CP32xx, CP37xx or CP72xx, length 3 m, assembled, Harting push-pull USB 3.0 connector IP 65, second end USB-B connector IP 20           |
| C9900-K295 | serial interface cable RS232 for CP32xx, CP37xx or CP72xx, length 3 m, assembled, M12 connector IP 65, screw type, 12-pin, second end D-sub, 9-pin plug  |
| C9900-K296 | serial interface cable RS232 for CP32xx, CP37xx or CP72xx, length 5 m, assembled, M12 connector IP 65, screw type, 12-pin, second end D-sub, 9-pin plug  |
| C9900-K297 | serial interface cable RS232 for CP32xx, CP37xx or CP72xx, length 10 m, assembled, M12 connector IP 65, screw type, 12-pin, second end D-sub, 9-pin plug |

---