Industrial PC accessories





CU8800, CU8850, C9900-E270 | USB Extended, the USB 1.1 extension

The USB specification allows a distance of 5 m between the PC and the USB devices. A further 5 m of cable can be added by using a USB hub. In the construction of machines and plants, larger distances must be bridged without having to insert a USB hub every 5 m. The CU8800 USB Extender sends the USB signal via a CAT 5 cable that can be up to 50 m long to the CU8850 USB Extended receiver or the CP69xx or CP79xx Control Panels, which convert the signal back to USB. The USB Extender boxes are designed for DIN rail mounting. The CU8800 transmitter is supplied with power by the PC via USB. The CU8850 receiver has an integrated 24 V DC power supply unit. Data rates of up to 12 Mbit/s can be transmitted.

Technical data	CU8800 USB Extender Tx	CU8850 USB Extender Rx
	USB Extended transmitter box	USB Extended receiver box
	1 USB input with USB B socket to be connected	1 USB Extended input with RJ45 socket for up
	to the PC in maximum 1 m distance	to 50 m CAT 5 cable
	1 USB Extended output with RJ45 socket for up	1 USB output with USB A socket to be connected
	to 50 m CAT 5 cable	to an USB device in maximum 5 m distance
	-	quick error analysing with diagnostic LEDs
	plastic housing for DIN rail installation	plastic housing for DIN rail installation
	USB transfer rate up to 12 Mbit/s for USB 1.1, downwards co	mpatible to USB 1.0
	protection class IP 20	protection class IP 20
	operating temperature 055 °C	operating temperature 055 °C
	dimensions (W x H x D) 34 x 98 x 77 mm (1.3" x 3.9" x 3")	dimensions (W x H x D) 34 x 98 x 77 mm (1.3" x 3.9" x 3")
	power supply via USB	24 V DC power supply

Technical data	C9900-E270 USB Extender Tx PCIe module
	USB Extended transmitter module
	1 USB Extended output with RJ45 socket for up to 50 m CAT 5 cable for connecting a Control Panel with
DVI/USB Extended interface CP69xx or CP79xx	
	for ex factory mounting in PCs with Beckhoff PCIe module slot
	USB transfer rate up to 12 Mbit/s according to USB 1.1



CU8801, CU8851, C9900-E271 | USB Extended 2.0, the USB 2.0 extension

The CP29xx-0000 multi-touch built-in panels and the CP39xx-0000 multi-touch panels for mounting arm installation can be operated up to 50 m away from the PC. The CU8801 USB Extended 2.0 transmitter box is connected to the PC via USB, or the C9900-E271 PCIe module for USB Extended 2.0 is installed in the PC. A CAT 5 cable for USB Extended 2.0 and a DVI cable transfer the data to the Control Panel. The 24 V supply voltage is directly connected at the Control Panel.

The CU8851 USB Extended receiver box is used for applications without Control Panel together with CU8801 or the C9900-E271 PCIe module for USB Extended 2.0, in order to extend USB 2.0 to 50 m.

Technical data	CU8801 USB Extender 2.0 Tx	CU8851 USB Extender 2.0 Rx
	USB Extended 2.0 transmitter box	USB Extended 2.0 receiver box
	1 USB input with USB B socket to be connected to	1 USB Extended 2.0 input with RJ45 socket
	the PC in maximum 1 m distance	for up to 50 m CAT 5 cable
	1 USB Extended 2.0 output with RJ45 socket	1 USB output with USB A socket to be connected to
	for up to 50 m CAT 5 cable	an USB device in maximum 5 m distance
	-	quick error analysing with diagnostic LEDs
	plastic housing for DIN rail installation	plastic housing for DIN rail installation
	USB transfer rate up to 480 Mbit/s for USB 2.0	USB transfer rate up to 480 Mbit/s for USB 2.0
	protection class IP 20	protection class IP 20
	operating temperature 055 °C	operating temperature 055 °C
	dimensions (W x H x D) 34 x 98 x 77 mm (1.3" x 3.9" x 3")	dimensions (W x H x D) 34 x 98 x 77 mm (1.3" x 3.9" x 3")
	power supply via USB	24 V DC power supply

Technical data	C9900-E271 USB Extender 2.0 Tx PCIe module
	USB Extended 2.0 transmitter module
	1 USB Extended 2.0 output with RJ45 socket for up to 50 m CAT 5 cable for connecting a Control Panel with
DVI/USB Extended 2.0 interface CP29xx-0000 or CP39xx-0000	
	for ex factory mounting in PCs with Beckhoff PCIe module slot
	USB transfer rate up to 480 Mbit/s according to USB 2.0



CU8802, CU8803, C9900-E276 | CP-Link 4 transmitter modules

With CP-Link 4 operating panels can be located up to 100 m away from the Industrial PC. The single-cable solution can be used to transfer video signals, USB 2.0 and the power supply in a Cat. 6_A cable, thus reducing cable and installation costs. A further benefit is the use of purely passive displays. The CP-Link 4 technology is supported by the new Beckhoff multi-touch panel series CP29xx-0010 (builtin version) and CP39xx-0010 (mounting arm version).

CP-Link 4 – The Two Cable Display Link

The CP29xx-0010 multitouch built-in panels and the CP39xx-0010 multi-touch panels for mounting arm installation can be operated up to 100 m away from the PC. CP-Link 4 – The Two Cable Display Link – transfers DVI and USB together via a Cat. 6_A cable. The CU8802 CP-Link 4 transmitter box is connected to the PC via DVI and USB, or else the C9900-E276 PCIe module for CP-Link 4 is installed in the PC.

CP-Link 4 – The One Cable Display Link

The power supply for the Control Panel can also be provided via CP-Link 4 – The One Cable Display Link. The CU8803 CP-Link 4 transmitter box is used instead of the CU8802 or the PCIe module. The Control Panel remains unchanged. The CU8803 transmitter box provides power to the Control Panel via the Cat. 6_A cable, which also transfers DVI and USB. The power supply socket of the panel is not used.

Technical data	CU8802 Transmitter box for CP-Link 4 –	CU8803 Transmitter box for CP-Link 4 –
	The Two Cable Display Link	The One Cable Display Link
	CP-Link 4 Extender Tx for connecting a Control Panel with	CP-Link 4 Extender Tx for connecting a Control Panel with
	CP-Link 4 interface CP29xx-0010 or CP39xx-0010	CP-Link 4 interface CP29xx-0010 or CP39xx-0010
	1 USB input with USB B socket to be connected to the PC	1 USB input with USB B socket to be connected to the PC
	in maximum 1 m distance	in maximum 1 m distance
	1 DVI input with DVI-D socket to be connected to the PC	1 DVI input with DVI-D socket to be connected to the PC
	in maximum 1 m distance	in maximum 1 m distance
	1 CP-Link 4 output with RJ45 socket for up to 100 m	1 CP-Link 4 output with RJ45 socket for up to 100 m
	Cat.6A cable for connecting a Control Panel with CP-Link 4	Cat.6 _A cable for connecting a Control Panel with CP-Link 4
	interface CP29xx-0010 or CP39xx-0010	interface CP29xx-0010 or CP39xx-0010
	power supply for the Control Panel with connection	power supply of the Control Panel with CU8803 via the
	of 24 V at the Control Panel	Cat.6A cable
	metal housing for DIN rail installation	metal housing for DIN rail installation
	CP-Link 4 transfers USB 2.0 with 100 Mbit/s and DVI.	CP-Link 4 transfers USB 2.0 with 100 Mbit/s and DVI.
	24 V input for power supply of the CU8802 transmitter box	24 V input for power supply of the CU8803 transmitter box
		and the Control Panel
	protection class IP 20	protection class IP 20
	operating temperature 055 °C	operating temperature 055 °C
	dimensions (W x H x D) 45 x 100 x 80 mm	dimensions (W x H x D) 84 x 100 x 80 mm
	(1.8" x 3.9" x 3.1")	(3" x 3.9" x 3.1")
	1 m USB connecting cable	1 m USB connecting cable
	1 m DVI connecting cable	1 m DVI connecting cable

Technical data	C9900-E276 PCIe module for CP-Link 4 – The Two Cable Display Link
CP-Link 4 Extender Tx PCIe module	
	CP-Link 4 transmitter module for ex factory installation in PCs with Beckhoff PCIe module slots
	1 CP-Link 4 output with RJ45 socket for up to 100 m Cat.6A cable for connecting a Control Panel with CP-Link 4
	interface CP29xx-0010 or CP39xx-0010
	CP-Link 4 transfers USB 2.0 with 100 Mbit/s and DVI.
	power supply for the Control Panel with connection of 24 V at the Control Panel

▶ www.beckhoff.com/CP-Link4

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CU8006, C9900-E277

CU8006 | 4-port USB 3.0 hub

The CU8006 DIN rail-mount USB hub has four ports and supports the USB 3.0 data transfer rate of up to 5 Gbit/s, but is also compatible with slower USB standards. USB 3.0 devices can be connected at a distance of up to 3 m. Connection to USB 2.0 devices is possible with 5-m cables. An 1-m USB cable is provided for connecting the USB hub with the PC. 3-m USB 3.0 cables are permitted between PC and CU8006.

> 24 V DC power supply 1 m USB connecting cable

C9900-E277	USB	3.0	PCle	module

The C9900-E277 PCIe module for USB 3.0 has two ports and supports the USB 3.0 data transfer rate of up to 5 Gbit/s, but is also compatible with slower USB standards. PCIe modules can be used in 3½-inch motherboard Beckhoff PCs with a PCIe module slot. The C9900-E277 USB module can also be plugged in later. USB 3.0 devices can be connected at a distance of up to 3 m. Connection to USB 2.0 devices is possible with 5-m cables.

Technical data	CU8006 4-port USB 3.0 hub
	1 USB 3.0 input with USB B socket
	4 USB 3.0 outputs with USB A socket
	delivers up to 1 A supply current at each USB port
	USB transfer rate up to 5 Gbit/s, compatible to all USB standards
	plastic housing for DIN rail installation
	protection class IP 20
	operating temperature 055 °C
	dimensions (W x H x D) 34 x 98 x 77 mm (1.3" x 3.9" x 3")

Technical data	C9900-E277 USB 3.0 PCle module
2-port USB 3.0 interfaces	
	delivers up to 1 A supply current at each USB port
	USB transfer rate up to 5 Gbit/s for USB 3.0
	compatible to all USB standards



CU8810 | DVI splitter with USB extender for CP69xx and CP79xx

A common application in machine and plant construction is the simultaneous display of a PC screen on several monitors. Up to four CP69xx or CP79xx DVI/USB Control Panels can be connected to a PC via the CU8810 DVI splitter. Thanks to DVI/USB extension technology, the Control Panels can each be connected at distances of 50 m from the DVI splitter. PCs with two DVI outputs, which are configured as extended desktops, generate two different screen contents. Both DVI outputs can be fed into the DVI splitter. Using DIP switches, the four DVI outputs can each be assigned to one of the two DVI inputs, so that the Control Panels show either the left or the right half of the desktop, as selected.



Technical data	CU8810 DVI splitter for CP69xx and CP79xx
	metal housing for DIN rail installation
	compact industrial design
	2 DVI-D inputs
	4 DVI-D outputs
	assignment of the 4 DVI outputs to the 2 inputs freely configurable via DIP switches
	DVI inputs and outputs with full DVI data range up to 1.65 Gbit/s
	unused DVI input and outputs can be switched off to save energy
	1 USB input with USB B socket
	4-port USB hub with 4 USB Extended outputs as RJ45 connectors
	USB transfer rate up to 12 Mbit/s for USB 1.1, downwards compatible to USB 1.0
	protection class IP 20
	operating temperature 055 °C
	dimensions (W x H x D) 146.5 x 100 x 38 mm (5.8" x 4" x 1.5")
	24 V DC power supply

CU8815 | DVI splitter

A common application in machine and plant construction is the simultaneous display of a PC screen on several monitors. Up to four CP29xx, CP39xx, CP68xx, CP69xx, CP79xx or CP79xx DVI/USB Control Panels can be connected to a PC via the CU8815 DVI splitter. PCs with two DVI outputs, which are configured as extended desktops, generate two different screen contents. Both DVI outputs can be fed into the DVI splitter. Using DIP switches, the four DVI outputs can each be assigned to one of the two DVI inputs, so that the Control Panels show either the left or the right half of the desktop, as selected.



Technical data	CU8815 DVI splitter without USB extender
	metal housing for DIN rail installation
	compact industrial design
	2 DVI-D inputs
	4 DVI-D outputs
	assignment of the 4 DVI outputs to the 2 inputs freely configurable via DIP switches
	DVI inputs and outputs with full DVI data range up to 1.65 Gbit/s
	unused DVI input and outputs can be switched off to save energy
	protection class IP 20
	operating temperature 055 °C
	dimensions (W x H x D) 146.5 x 100 x 38 mm (5.8" x 4" x 1.5")
	24 V DC power supply

CU8870 | USB Compact Flash slot

The CU8870 offers a Compact Flash socket with USB connector. The Compact Flash cards are hot-plug capable in the CU8870 and can hence be plugged and unplugged like removable data storage devices for exchanging data with other PCs during operation. Together with the CU8800 and the CU8850, this CF socket can be mounted on a DIN rail at a distance of up to 50 m from the PC.



Technical data	CU8870 USB Compact Flash slot
	Compact Flash slot for CF cards type I and II
	front LED indicators for PWR (power), LOCK (read only) and CF access
	1 USB 2.0 input with USB B socket
	USB transfer rate up to 480 Mbit/s, compatible to all USB standards
	plastic housing for DIN rail installation
	protection class IP 20
	operating temperature 055 °C
	dimensions (W x H x D) 34 x 98 x 77 mm (1.3" x 3.9" x 3")
	power supply via USB

CU8871 | USB CFast slot

The CU8871 offers a CFast socket with USB connector in a compact housing for DIN rail mounting. CFast cards are used in the industrial environment as data memory for process and control data. The CFast cards are hot-plug capable in the CU8871 and can hence be plugged and unplugged like removable data storage devices for exchanging data with other PCs during operation. The USB 3.0 connection offers the highest data transfer rate possible with a CFast card, but the CFast adapter can also be connected to PCs with a USB 2.0 interface. Power is also supplied via USB. Status LEDs indicate whether the CU8871 is connected, signal data accesses and provide information as to whether a CFast card is inserted.



Technical data	CU8871 USB CFast slot
	CFast slot
	front LED indicators for PWR (power), LOCK (only read permission) and CFast (access)
	1 USB 3.0 input with USB B socket
	compatible to all USB standards
	plastic housing for DIN rail installation
	protection class IP 20
	operating temperature 055 °C
	dimensions (W x H x D) 34 x 98 x 77 mm (1.3" x 3.9" x 3")
	power supply via USB
	1 m USB connecting cable

CU8880 | Ethernet controller with USB input

With the CU8880 USB-to-LAN adapter, Industrial PCs can be extended with an additional industrially-suited and independent Ethernet interface. The CU8880 is used for necessary IT communication. It is not suitable for EtherCAT or real-time Ethernet communication. However, the on-board Ethernet interfaces of the respective Industrial PCs are available for this. Drivers for the USB-to-LAN adapter are available for Windows XP, Windows 7 as well as Windows Embedded Standard.



Technical data	CU8880 Ethernet controller with USB input
	Ethernet controller box
	1 USB 2.0 input with USB B socket
	1 Ethernet interface with 1 x 10/100BASE-T connector RJ45
	not suitable for real-time Ethernet or EtherCAT
	plastic housing for DIN rail installation
	protection class IP 20
	operating temperature 055 °C
	dimensions (W x H x D) 34 x 98 x 77 mm (1.3" x 3.9" x 3")
	power supply via USB

C9900-H3xx | USB sticks

USB sticks are used for data exchange between PCs or for data backup. For data backup operating system and application programs of a PC are saved as an image on a USB stick once the PC has been configured. In the event of a data loss on the PC the data can be restored from the USB stick.

As a data backup device the USB stick must be able to store the data reliably and for many years. In contrast to USB sticks with MLC or TLC flash memory, the high-quality SLC flash memory in the Beckhoff USB stick ensures long-term data integrity.



Ordering information	USB sticks
С9900-Н356	4 GB USB stick, USB 3.0
С9900-Н359	8 GB USB stick, USB 3.0
С9900-Н376	16 GB USB stick, USB 3.0
Ordering information	USB sticks with Beckhoff Service Tool (BST)
С9900-Н357	4 GB USB stick, USB 3.0, with Beckhoff Service Tool (BST) for backup and update of Windows CE
	or Windows Embedded Standard for x86 compatible PCs BST requires USB 2.0 or higher.
С9900-Н360	8 GB USB stick, USB 3.0, with Beckhoff Service Tool (BST) for backup and update of Windows CE
	or Windows Embedded Standard for x86 compatible PCs BST requires USB 2.0 or higher.
Ordering information	USB sticks with Beckhoff Service Tool (BST) and Acronis® Backup & Recovery
С9900-Н371	4 GB USB stick, USB 3.0, with Beckhoff Service Tool (BST) for backup and update of Windows CE or Windows
	Embedded Standard for x86 compatible PCs, incl. Acronis Backup & Recovery, BST requires USB 2.0 or higher
С9900-Н372	8 GB USB stick, USB 3.0, with Beckhoff Service Tool (BST) for backup and update of Windows x86 compatible PCs,
	incl. Acronis Backup & Recovery, BST requires USB 2.0 or higher
С9900-Н377	16 GB USB stick, USB 3.0, with Beckhoff Service Tool (BST) for backup and update of Windows for x86 compatible PCs,
	incl. Acronis Backup & Recovery, BST requires USB 2.0 or higher



FC9062 | PCIe module

The compact PC expansion card with industrial form factor

Beckhoff PCIe modules are highly integrated PCI Express plug-in cards and follow the trend towards ever smaller PCs. The function of PC plug-in cards is integrated in a compact format that is suitable for harsh industrial environments.

Compared with PCI or PCIe plug-in cards, which require a special card holder in the Industrial PC, the Beckhoff PCIe module is a industrially compatible plug-in card that is firmly screwed to the inside of the PC via the plug connector bracket. The PCIe modules can be retrofitted on site without special PC knowledge. The PC housing does not have to be opened. The 3½-inch motherboard offers four PCI Express lanes to be distributed to the PCIe module slots or standard plug-in card slots. The result are PCs with module slots and/ or slots for plug-in cards. A PCIe module is connected to the motherboard via one PCI Express lane with a data transfer rate of 5 Gigabit. A module can therefore provide two Gigabit Ethernet interfaces, for example. The FC9062 module complements the Panel PCs CP22xx and CP62xx as well as the control cabinet PCs C5210, C6515, C6525 and C6930 with two Gigabit Ethernet ports. If two modules are used, these PCs have a total of six Ethernet interfaces, while the Mini PCI slot continues to be available for a seventh Ethernet port or a fieldbus interface for PROFIBUS, CANopen, DeviceNet or SERCOS. If only one of the two module slots is equipped with a PCIe module, the second slot is available for feeding motherboard interfaces such as COM ports, USB or sound out of the PC. The connection for a Mini PCI card can also be fed out through the module slots, even if the basic configuration of the PC, e.g. the C6515, does not allow for Mini PCI fieldbus cards.

Ordering information FC9062 PCI Express module gigabit Ethernet PC module for PCs with Beckhoff PCIe module slots, 2-channel, PCI Express x1 bus



C9900-U33x | Battery pack

All Industrial PCs can be equipped with a 24 V power supply unit and an integrated UPS. The UPS supplies the PC with power if the mains power fails. This allows data to be saved on the hard disk or Flash, after which the PC can be shut down properly. A battery pack, which serves as the energy storage device, is mounted on a DIN rail outside the PC.

Rated at 3.4 Ah, the maintenance-free C9900-U330 24 V battery pack offers a very high nominal capacity in a compact package. With its rated capacity of 1.3 Ah, the very compact 24 V C9900-U332 battery pack is designed for PCs with Intel[®] Atom[™] processor.

Technical data	C9900-U330	C9900-U332
	battery pack for PCs with 24 V power supply with intergrat	ed UPS
	metal housing for mounting on norm rail TS35x15 2.3	metal housing for mounting on norm rail TS35x15 2.3
	24 V nominal voltage	24 V nominal voltage
	3.4 Ah nominal capacity (20 h discharge)	1.3 Ah nominal capacity (20 h discharge)
	two 12 V batteries in series connection	two 12 V batteries in series connection
	VRLA AGM Technology = valve regulated lead acid batterie	es with glass fiber mat inside the separator
	(VRLA = valve regulated lead acid, AGM = absorbed glass mat technology)	
	maintenance-free	maintenance-free
	9 A fuse by PTC element	9 A fuse by PTC element
	operating temperature 050 °C	operating temperature 050 °C
	weight 3.3 kg (7.3 lbs)	weight 2.1 kg (4.63 lbs)
	dimensions (W x H x D)	dimensions (W x H x D)
	157 x 70 x 175 mm (6.2" x 2.8" x 6.9")	68.7 x 106.6 x 143.8 mm (4.2" x 2.8" x 5.66")



C9900-E2xx | Slotbox for extending Industrial PCs with two plug-in card slots

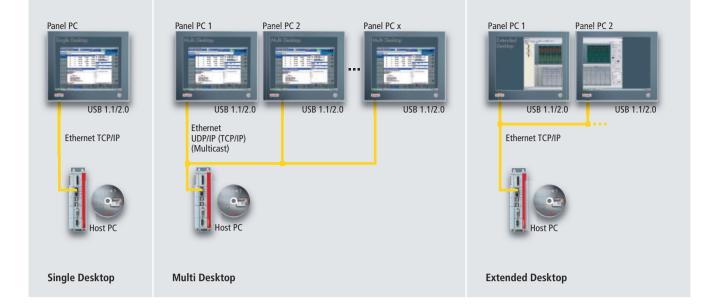
The slotbox makes PCI Express and PCI slots available outside the IPC as well. The PCI Express bus is fed via a plug connector and cable to a slotbox located up to 7 m (23-ft) away. Users can use the installation space in the control cabinet flexibly and locate further plug-in cards locally. Both PCI and PCI Express card slots are available by using different versions of the slotbox. The slotbox is made of sturdy aluminium and ideal for use in industrial environments.



PCIe module C9900-E239 for installation in the PC

C9900-E2xx	С9900-Е249	C9900-E250	C9900-E251
Technical data	fanless aluminium housing for control	cabinet installation	
	2 slots for up to 190 mm long plug-in o	cards	
	all connectors on the top	all connectors on the top	all connectors on the top
	PCIe x1 input for connection with an Ir	ndustrial PC with PCIe module C9900-E236	5 or -E239
	7 m max. distance between Industrial F	PC and slotbox	
	1 PCI and 1 PCIe x1 slot	2 PCIe x1 slots	2 PCI slots
	IP 20	IP 20	IP 20
	operating temperature 055 °C	operating temperature 055 °C	operating temperature 055 °C
	weight without plug-in cards 1.7 kg	weight without plug-in cards 1.7 kg	weight without plug-in cards 1.7 kg
	dimensions (W x H x D) 94 x 222 x 132 mm (3.7" x 8.7" x 5.2") without mounting plate		
	24 V DC power supply	24 V DC power supply	24 V DC power supply
C9900-E23x	PCIe modules		
С9900-Е236	PCIe modules with external PCIe x1 co	PCIe modules with external PCIe x1 connector for CP22xx, CP62xx, C5210 or C65xx with PCIe module slot	
C9900-E239	PCIe modules with external PCIe x1 co	nnector for C6930	
С9900-К50х	Connection cables for the slotbox		
С9900-К501	connecting cable PCIe x1 external, 1 m		
С9900-К502	connecting cable PCIe x1 external, 3 m		
С9900-К503	connecting cable PCIe x1 external, 5 m		
С9900-К504	connecting cable PCIe x1 external, 7 m		

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CP-Link 3 | Ethernet- and IP protocol-based desktop transfer software

CP-Link 3 transfers the desktop of a PC via Ethernet to several Panel PCs and the operator mouse and keyboard entries to the host PC. The screen contents are captured by a virtual graphic adapter in the host PC and sent using Ethernet to one or more Panel PCs with Windows operating systems (CE, XP, Windows 7 or Windows Embedded Standard). Networking can be done using cost-effective standard Ethernet cables (CAT 5) which are suitable for drag chains.

Since the data and image transfer are based on TCP/IP, the operating and display functions can be extended using the Internet. Panel PCs can be integrated using the Internet via VPN (Virtual Private Network). A VPN service must be available for the Internet security functions.

Keyboard entries, touch screen and special key functions are transferred from the client to the host PC via Virtual USB. USB devices connected to a Panel PC appear in the host PC like locally plugged-in devices and can be used in the normal way.

Virtual USB emulates a USB root hub in the host PC. If a USB device is plugged into a Panel PC, then the virtual hub logs the device on to the operating system of the host PC and transparently transmits the ensuing communication. For the operating system, the USB device behaves as though it was directly connected to the PC. Virtual USB transfers the standards USB 1.1 and USB 2.0. As communication takes place using 100 Mbit/s Ethernet, the USB 2.0 transmission performance (480 Mbit/s) is restricted.

Additional input/output devices on the Panel PCs, such as rotary switches, buttons, etc., are read in by the host PC using an additional communication channel. Printers and webcams, which are connected to a Panel PC by means of USB, can be used from the host PC.

The scope of delivery for CP-Link 3 includes host and client software. The host PC may have Windows XP, Windows 7 or Windows Embedded Standard installed. Panel PCs with Windows CE, Windows XP, Windows 7 or Windows Embedded Standard are used as clients. As the application software (PLC/NC, HMI, etc.), once started, runs on the host PC, any necessary software licenses are only payable once for the host PC. The client Panel PCs only receive image data. Apart from the operating system and CP-Link 3, no other software license is required for the clients. Even for PCs with more than one graphics card only one license per application software is necessary. For host PCs of other vendors an upgrade license is required.

The CP-Link 3 software is available in three versions:

- Single Desktop
- Multi Desktop
- Extended Desktop

License upgrades are available for third-party host PCs.

▶ www.beckhoff.com/CP-Link3

Single Desktop

A Panel PC is connected with a host PC via Ethernet and shows the image of the host PC. Communication takes place using TCP/IP.

Keyboard entries, touch screen and special key functions are transferred from the client to the host PC via Virtual USB. USB devices connected to a Panel PC appear in the host PC just like locally connected devices.

Ordering information	CP-Link 3 Single Desktop
	Ethernet and IP protocol-based desktop transfer software CP-Link 3
	transfers the desktop of a PC via Ethernet to one Panel PC
	transmission of mouse and keyboard inputs of the client user to the host PC
	connection by Ethernet or Internet, TCP/IP
	1 virtual graphic adapter
	Virtual USB
	USB devices connected at the client are found by the host PC like a local USB device.
	1 client controllable
	The client shows the screen of the host PC.
	host software for PCs with Windows XP, Windows 7 or
	Windows Embedded Standard
	client software for Beckhoff Panel PCs with Windows CE, Windows XP,
	Windows 7 or Windows Embedded Standard

Multi Desktop

Several Panel PCs are connected with a PC via Ethernet and display the image of the host PC. All connected client Panel PCs show the same image.

Communication takes place using TCP/IP (up to 10 Panel PCs) or via UDP Multicast (up to 255 Panel PCs). The benefit of Multicast lies in the fact that messages can be transferred to several Panel PCs simultaneously without the transmitter bandwidth multiplying by the number of receivers.

Ordering information	CP-Link 3 Multi Desktop
	Ethernet and IP protocol-based desktop transfer software CP-Link 3
	transfers the desktop of a PC via Ethernet to Panel PCs
	transmission of mouse and keyboard inputs of client users to the host PC
	connection by Ethernet or Internet, TCP/IP or UDP/IP (Multicast)
	1 virtual graphic adapter
	Virtual USB
	USB devices connected at a client are found by the host PC like a local USB device.
	Up to 255 clients are controllable in UDP/IP mode, up to 10 clients in TCP/IP mode.
	All clients show the same picture, the screen of the host PC.
	The input devices can be locked at any client by TwinCAT-PLC or via application
	programming interface (API)
	host software for PCs with Windows XP, Windows 7 or
	Windows Embedded Standard
	client software for Beckhoff Panel PCs with Windows CE, Windows XP,
	Windows 7 or Windows Embedded Standard

Extended Desktop

One or several virtual graphic adapters are used to extend the host PC desktop. The program windows of the application software can be moved to additional monitors covered by the extended desktop. Applications may be started on a specific monitor. The desktop can be extended to up to 9 monitors. CP-Link 3 can transfer the data via Ethernet to several client Panel PCs.

The mouse and keyboard entries of individual clients can be locked via TwinCAT PLC or a software interface (API), in order to prevent interference between several users.

Ordering information	CP-Link 3 Extended Desktop
	Ethernet and IP protocol-based desktop transfer software CP-Link 3
	transfers up to 9 screens of the extended desktop of a PC via Ethernet to Panel PCs
	transmission of mouse and keyboard inputs of client users to the host PC
	connection via Ethernet or Internet, TCP/IP or UDP/IP (Multicast)
	Up to 9 virtual graphic adapters extend the desktop of the host PC.
	Virtual USB
	USB devices connected at a client are found by the host PC like a local USB device.
	Up to 255 clients are controllable in UDP/IP mode, up to 10 clients in TCP/IP mode.
	Each client shows 1 of maximally 9 screens of the extended desktop of the host PC
	The input devices can be locked at any client by TwinCAT PLC or via application programming interface (API).
	Applications are allocable to one of the additional screens of the extended
	desktop.
	host software for PCs with Windows XP, Windows 7 or
	Windows Embedded Standard
	client software for Beckhoff Panel PCs with Windows CE, Windows XP,
	Windows 7 or Windows Embedded Standard