

Powerful 32 bit controller with
integrated fieldbus and I/O interface



CX8000: PC Control redefines small controllers

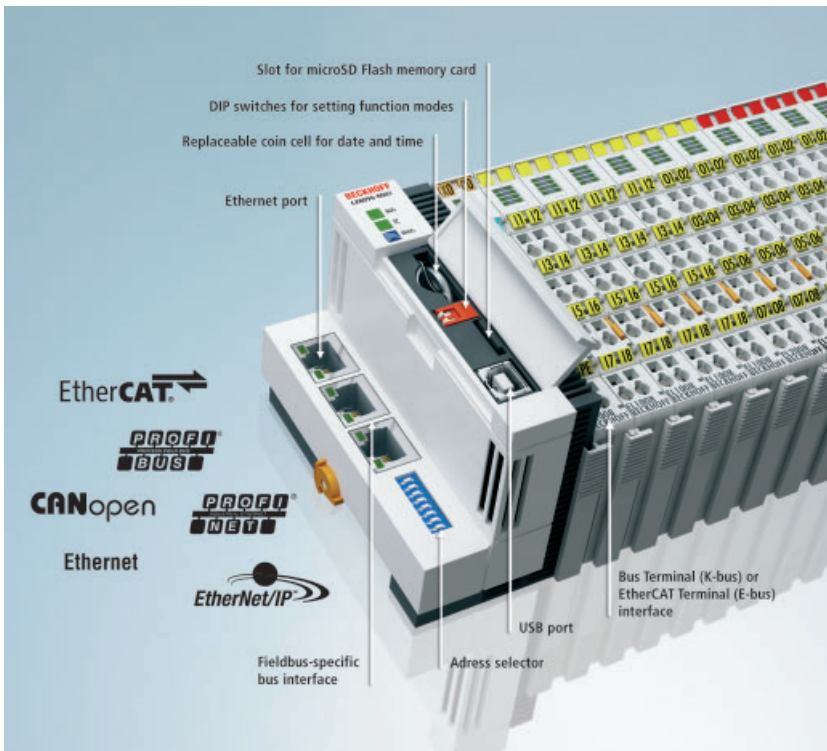
The CX8000 Embedded PC series contains a 32 bit controller with integrated fieldbus slave and can be applied universally in PLC applications. The CX8000 is currently the “smallest” PC-based controller from Beckhoff – as a result, PC Control is extending its reach into the lower categories of control. Either Bus Terminal (K-bus) or EtherCAT Terminal (E-bus) I/O systems can be directly mounted alongside the CX8000 CPU. The use of EtherCAT Terminals gives rise to further flexibility, e.g. the implementation of various topologies, the integration of lower level bus systems or simple connection to IP 67 rated I/O outside of electrical cabinets.

Within the Beckhoff controller categories, the CX8000 is positioned between the 16 bit Embedded Controllers and the CX9010 Embedded PC. The CX8000 series Embedded PCs with 400 MHz ARM CPU and microSD card as storage medium are best suited for distributed intelligence. Connection to the higher-level master controller takes place via an integrated fieldbus slave. To this end, the CX8000 series includes six versions with interfaces for PROFIBUS, CANopen, PROFINET, EtherNet/IP, EtherCAT and Ethernet. Programming and commissioning or connection to the Ethernet network takes place via an additional Ethernet interface. Programming can also be performed via the fieldbus interface. The Embedded PC versions for

PROFINET, EtherNet/IP, EtherCAT and Ethernet feature additional Ethernet interfaces with switch functions so a linear “daisy chain” topology can be established without additional hardware, which helps cut costs.

Microsoft Windows CE is used as the CX8000 operating system. In the absence of a monitor port, the operating system and its “virtual” display can only be accessed via the network. As with all other Beckhoff devices, TwinCAT software is used for system configuration and programming of the PLC functionality.

The CX8000 device family features an integrated, capacitive 1-second UPS, which in the event of a failure of the supply voltage,



Technical data:

- | CPU: 400 MHz, ARM9, 32 bit
- | flash: microSD card (1 GB, exchangeable, larger versions are also possible), 16 MB internal flash
- | RAM: 64 MB DDR2
- | interfaces:
 - 1 x Ethernet interface for programming and general network connectivity
 - 1 x fieldbus slave
 - 1 x USB device (behind the front flap)
- | real-time clock with battery (behind the front flap)
- | integrated 1-second UPS
- | I/O interfaces for Bus Terminals or EtherCAT Terminals
- | operating system: Microsoft Windows CE
- | run-time: TwinCAT PLC (pre-installed)

CX8000 Embedded PC: programmable controllers with 32 bit CPU, which serve both to execute PLC programs and to function as slave devices in a higher-level fieldbus system.

provides sufficient energy for saving remanent data. Important data can be preserved in a non-volatile manner without battery backup.

The CX8000 Embedded PC is exceptionally compact and, due to its low-power 32 bit ARM processor, consumes little energy. With its flexible fieldbus interfaces, EtherCAT connectivity and comprehensive range of PLC libraries via TwinCAT PLC, the CX8000 controller series represents a powerful and versatile new controller family.

www.beckhoff.com/CX8000

