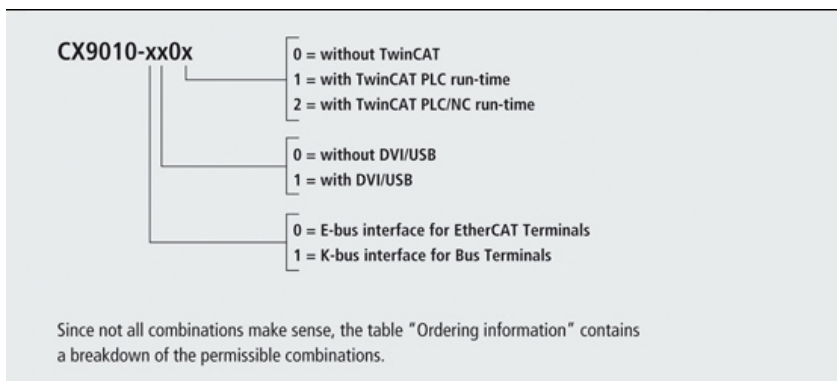


CX9010 | Basic CPU module

The CX9010 is a compact, DIN rail-mountable Ethernet controller with Intel® IXP420 with XScale® technology and 533 MHz clock frequency. The connection for the Beckhoff I/O systems is directly integrated in the CPU module. The CX9010 is available in two basic versions: one version for Bus Terminals with K-bus, the other one for EtherCAT Terminals with E-bus. The CX9010 comprises the CPU, the internal flash memory, the main memory (RAM) and NOVRAM as non-volatile memory. Two Ethernet RJ 45 interfaces are also part of the basic configuration. These interfaces are connected to an internal switch and offer a simple option for creating a line topology without the need for additional Ethernet switches.

A memory medium in Compact Flash format I and II is available as an optional module. The operating system is Microsoft Windows CE. The TwinCAT automation software transforms a CX9010 system into a powerful PLC and Motion Control system that can be operated with or without visualisation. Further system interfaces can be connected to the CPU module ex factory. The CX9010-N010 option can be connected to Beckhoff Control Panels or standard monitors with DVI or VGA input via the DVI or USB interfaces. Devices such as printer, scanner, mouse, keyboard, mass storage, CD-RW, etc. can be connected via the USB 2.0 interfaces. The module CX9010-N030 offers two serial RS232 interfaces with a maximum transfer speed of 115 kbaud. These two interfaces can be implemented as RS422/RS485, in which case they are identified as CX9010-N031.

The order identifier of the basic CPU module is derived as follows:



Technical data	CX9010-0x0x	CX9010-1x0x
Processor	Intel® IXP420 with XScale® technology, clock frequency 533 MHz	
Flash memory	32 MB Flash (internal, not expandable)	
Internal main memory	128 MB RAM (internal, not expandable)	
Interfaces	2 x RJ 45 (Ethernet, internal switch), 10/100 Mbit/s	
Diagnostics LED	1 x power, 2 x LAN, 1 x L/A, 1 x flash access	1 x power, 2 x LAN, 1 x K-bus, 1 x flash access
Clock	internal battery-backed clock for time and date (battery exchangeable)	
Operating system	Microsoft Windows CE	
Control software	TwinCAT CE PLC runtime or TwinCAT CE NC PTP runtime	
Power supply	24 V DC (-15 %/+20 %)	
Dielectric strength	500 V (supply/internal electronics)	
I/O connection	E-bus (EtherCAT Terminals)	K-bus (Bus Terminals)
NOVRAM	128 kbytes	
I/O-DPRAM	–	4 kbytes
Current supply I/O terminals	2 A	
Max. power loss	6 W (including the system interfaces CX9010-xxxx)	

Dimensions (W x H x D)	58 mm x 100 mm x 91 mm
Weight	approx. 375 g
Operating/storage temperature	0...+50 °C/-25...+85 °C
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27/29
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protection class	IP 20
TC3 performance class	economy plus (30); please see here for an overview of all the TwinCAT 3 performance classes

Ordering information	E-bus	K-bus	DVI/USB	no TwinCAT	TwinCAT PLC runtime	TwinCAT NC runtime
CX9010-0000	x	–	–	x	–	–
CX9010-0001	x	–	–	–	x	–
CX9010-0002	x	–	–	–	x	x
CX9010-0100	x	–	x	x	–	–
CX9010-0101	x	–	x	–	x	–
CX9010-0102	x	–	x	–	x	x
CX9010-1000	–	x	–	x	–	–
CX9010-1001	–	x	–	–	x	–
CX9010-1002	–	x	–	–	x	x
CX9010-1100	–	x	x	x	–	–
CX9010-1101	–	x	x	–	x	–
CX9010-1102	–	x	x	–	x	x