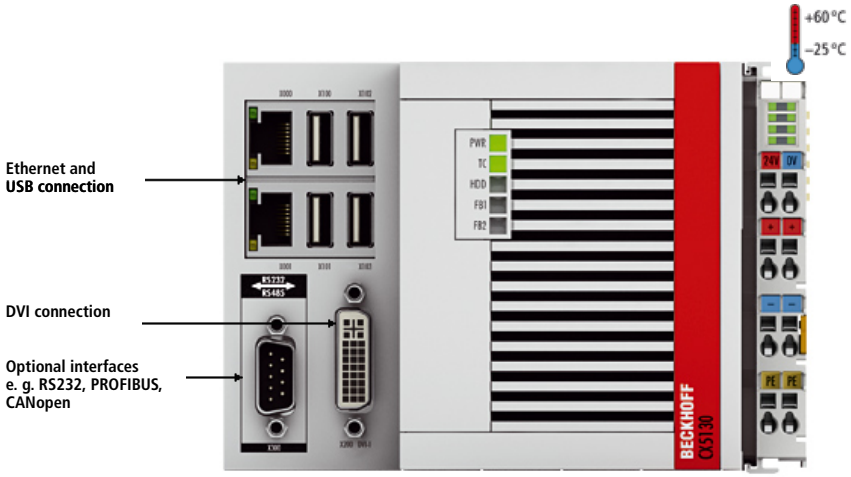

CX5130 | Embedded PC with Intel® Atom™ processor

The CX5130 has an Intel® Atom™ multi-core processor with a clock rate of 1.75 GHz. This makes genuine multi-core technology possible in the Embedded PC segment. The hardware interfaces in this new series are oriented and implemented identically to those of the existing CX5000 series. Two independent, Gigabit-capable Ethernet interfaces as well as four USB 2.0 and a DVI-I interface are available. A multitude of further connection options and gateway functions is created by an option interface, which can be pre-equipped ex factory, as well as the I/O level, which can optionally consist of either E-bus or K-bus terminals.

The CX5130 is characterised by low power consumption and fanless design.

Depending on the installed TwinCAT runtime environment, the CX5130 can be used for implementing PLC or PLC/Motion Control projects with or without visualisation. The execution of Motion Control applications with interpolating axis movements is also possible.

The extended operating temperature range from -25 to +60 °C enables the use in climatically demanding environments.

Like the CX5000, the CX5100 series has a compact design; a modular device with extension modules like in the CX2000 series is not available.

Order identifier

The order identifier is derived as follows:

CX5130-01ST

- 0 = no TwinCAT
- 1 = with TwinCAT 2 PLC runtime
- 2 = with TwinCAT 2 NC PTP runtime
- 3 = with TwinCAT 2 NC I runtime
- 5 = TwinCAT 3 runtime (XAR)

- 0 = no operating system
- 1 = operating system Windows Embedded Compact 7
- 2 = operating system Windows Embedded Standard 7 P 32 bit
- 3 = operating system Windows Embedded Standard 7 P 64 bit
- 4 = Windows 10 IoT Enterprise LTSB 32 bit
- 5 = Windows 10 IoT Enterprise LTSB 64 bit

Since not all combinations make sense, the table "Ordering information" contains a breakdown of the permissible combinations.

Optional interfaces:

CX5130-N020	= audio interface
CX5130-N030	= RS232, D-sub plug
CX5130-N031	= RS422/RS485, D-sub socket
CX5130-M310	= PROFIBUS master, D-sub socket, 9-pin
CX5130-B310	= PROFIBUS slave, D-sub socket, 9-pin
CX5130-M510	= CANopen master, D-sub plug, 9-pin
CX5130-B510	= CANopen slave, D-sub plug, 9-pin
CX5130-M930	= PROFINET RT, controller
CX5130-B930	= PROFINET RT, device, Ethernet (2 x RJ45 switch)
CX5130-B931	= PROFINET IRT, device, Ethernet (2 x RJ45 switch)
CX5130-B950	= EtherNet/IP slave, Ethernet (2 x RJ45 switch)
CX5130-B110	= EtherCAT slave, EtherCAT IN and OUT (2 x RJ45)

Technical data	CX5130
Processor	Intel® Atom™ E3827, 1.75 GHz
Number of cores	2
Flash memory	slot for CFast card and for microSD card (cards are not included)
Internal main memory	4 GB DDR3 RAM (not expandable)
Persistent memory	integrated 1-second UPS (1 MB on CFast card)
Interfaces	2 x RJ45, 10/100/1000 Mbit/s, DVI-I, 4 x USB 2.0, 1 x optional interface
Diagnostics LED	1 x power, 1 x TC status, 1 x flash access, 2 x bus status
Clock	internal battery-backed clock for time and date (battery exchangeable)
Operating system	Microsoft Windows Embedded Compact 7, Microsoft Windows Embedded Standard 7 P or Microsoft Windows 10 IoT Enterprise LTSB
Control software	TwinCAT 2 runtime TwinCAT 3 runtime (XAR)
I/O connection	E-bus or K-bus, automatic recognition
Power supply	24 V DC (-15 %/+20 %)
Current supply E-bus/K-bus	2 A
Max. power loss	11 W (including the system interfaces)
Dimensions (W x H x D)	142 mm x 100 mm x 92 mm
Weight	approx. 960 g
Operating/storage temperature	-25…+60 °C/-40…+85 °C
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protection class	IP 20
Approvals	CE, UL, Ex, IECEx
TC3 performance class	performance (40); please see here for an overview of all the TwinCAT 3 performance classes

Ordering information	no operating system	Windows Embedded Compact 7	Windows Embedded Standard 7 P 32 bit	Windows Embedded Standard 7 P 64 bit	Windows 10 IoT Enterprise LTSB 32 bit	Windows 10 IoT Enterprise LTSB 64 bit	no TwinCAT	TwinCAT 2 PLC runtime	TwinCAT 2 NC PTP runtime	TwinCAT 2 NC I runtime	Twi 3 run (XA
CX5130-0100	x	–	–	–	–	–	x	–	–	–	–
CX5130-0110	–	x	–	–	–	–	x	–	–	–	–
CX5130-0111	–	x	–	–	–	–	–	x	–	–	–
CX5130-0112	–	x	–	–	–	–	–	–	x	–	–
CX5130-0113	–	x	–	–	–	–	–	–	–	x	–
CX5130-0115	–	x	–	–	–	–	–	–	–	–	x
CX5130-0120	–	–	x	–	–	–	x	–	–	–	–
CX5130-0121	–	–	x	–	–	–	–	x	–	–	–
CX5130-0122	–	–	x	–	–	–	–	–	x	–	–
CX5130-0123	–	–	x	–	–	–	–	–	–	x	–
CX5130-0125	–	–	x	–	–	–	–	–	–	–	x
CX5130-0130	–	–	–	x	–	–	x	–	–	–	–
CX5130-0135	–	–	–	x	–	–	–	–	–	–	x
CX5130-0140	–	–	–	–	x	–	x	–	–	–	–
CX5130-0141	–	–	–	–	x	–	–	x	–	–	–
CX5130-0142	–	–	–	–	x	–	–	–	x	–	–
CX5130-0143	–	–	–	–	x	–	–	–	–	x	–
CX5130-0150	–	–	–	–	–	x	x	–	–	–	–
CX5130-0155	–	–	–	–	–	x	–	–	–	–	x

Accessories	
CX1900-0101	DVI-to-VGA passive adaptor for connecting a standard desktop VGA monitor to the CX system (singles out the VGA signals of the DVI-I interface).
CX2900-00xx	CFast cards: 2, 4, 8, 16, 32 GB CFast card
CX2900-0107	Device modification for CX5120, CX5130, CX5140 and CX9020 Embedded PCs according to the requirements for ATEX and IECEx certification. The modification is mandatory for the usage of CX5120, CX5130, CX5140 and CX9020 in hazardous areas, Zone 2/22. It includes the modification and repositioning of the device label as well as a mounting bracket installed ex works for mechanical locking of the connectors. Product labeling: ATEX: II 3 G Ex nA IIC T4 Gc and II 3 D Ex tc IIIC T135 °C Dc IECEx: Ex nA IIC T4 Gc and Ex tc IIIC T135 °C Dc Read the device documentation for use in hazardous areas carefully.

Optional interfaces	
CX5130-N010	DVI-D interface, additional DVI-D port for clone or extended desktop operation
CX5130-N011	DisplayPort interface, additional DisplayPort for clone or extended desktop operation
CX5130-N020	audio interface, 3 x 3.5 mm jack sockets, Line In, Mic In, Line Out or 5.1 Surround
CX5130-N030	RS232 interface, D-sub plug, 9-pin*
CX5130-N031	RS485 interface, D-sub socket, 9-pin, configuration as an end point, without echo, termination on*
CX5130-N031-0001	RS485 interface, D-sub socket, 9-pin, configuration as an end point, with echo, termination on
CX5130-N031-0002	RS485 interface, D-sub socket, 9-pin, configuration as drop point, without echo, termination off
CX5130-N031-0003	RS485 interface, D-sub socket, 9-pin, configuration as drop point, with echo, termination off
CX5130-N031-0004	RS422 interface, D-sub socket, 9-pin, configuration as full duplex end point, termination on
CX5130-B110	EtherCAT slave interface, EtherCAT IN and OUT (2 x RJ45)
CX5130-M310	PROFIBUS master interface, D-sub socket, 9-pin
CX5130-B310	PROFIBUS slave interface, D-sub socket, 9-pin
CX5130-M510	CANopen master interface, D-sub plug, 9-pin
CX5130-B510	CANopen slave interface, D-sub plug, 9-pin
CX5130-M930	PROFINET RT, controller interface, Ethernet (2 x RJ45)
CX5130-B930	PROFINET RT, device interface, Ethernet (2 x RJ45 switched)
CX5130-B931	PROFINET IRT, device interface, Ethernet (2 x RJ45 switched), in combination with TwinCAT 3 only
CX5130-B950	EtherNet/IP slave interface, Ethernet (2 x RJ45 switched)

Product announcement	CX5130-B931, CX5130-B950: estimated market release on request

*Not available for Microsoft Windows 10 IoT Enterprise (LTSB).