

# CX8290 | Embedded PC with Arm® Cortex®-A53 and 2-port Ethernet switch

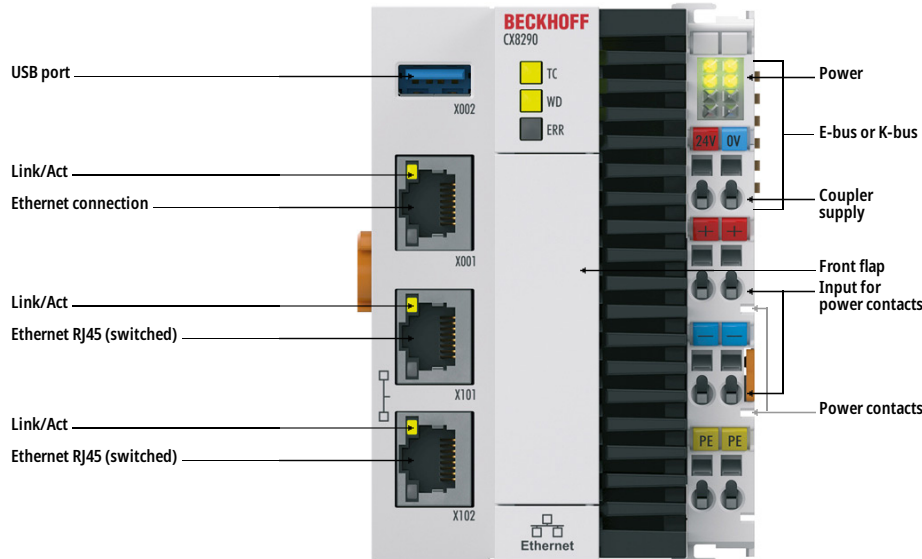
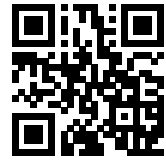


Image similar, may contain optional accessories

**i Product status:** regular delivery | estimated market release of the TwinCAT 3 runtime version from Q3 2025

The CX8290 Embedded PC is a controller with a second, switched Ethernet port. Protocols such as real-time Ethernet, ADS UDP/TCP, and EAP (EtherCAT Automation Protocol) are supported, and additional real-time protocols such as PROFINET, EtherNet/IP™, and BACnet/IP can be retrofitted via TwinCAT Functions.

The CX8290 features an Arm® Cortex®-A53 dual-core processor with 1.2 GHz. The basic configuration of the CX8290 includes a 1 Gbit Ethernet interface, a USB 3.0 interface, a 1 GB LPDDR4 RAM, and a slot for a microSD card. The microSD card is not included in the scope of delivery and must be ordered separately, taking the desired memory capacity into account.

E-bus or K-bus terminals can be attached as required; the CX8290 automatically recognizes the type of I/O system connected during the start-up phase. The control system is programmed with TwinCAT 3 via the bus interface or the additional Ethernet interface. TwinCAT 3 licenses must be ordered via the TwinCAT 3 price list.

Beckhoff RT Linux® is used as operating system.

## Product information

### Technical data

Technical data	CX8290
Processor	Arm® Cortex®-A53, 1.2 GHz
Number of cores	2

Flash memory	slot for microSD card, card not included (requires a microSD card with a minimum capacity of 16 GB)
Main memory	1 GB LPDDR4 RAM (not expandable)
1-second UPS	integrated (1 MB on microSD card)
Interfaces	1 x RJ45 10/100/1000 Mbit/s, 1 x USB 3.0, 1 x bus interface
Cooling	passive
Bus interface	2 x Ethernet RJ45 (switched, 10/100/1000 Mbit/s), optionally PROFINET (TF627x), EtherNet/IP™ (TF628x), BACnet/IP (TF8020)
Diagnostics LED	1 x TC status, 1 x WD, 1 x error
Clock	internal, capacitor-buffered real-time clock for time and date (storage capacity > 21 days)
Operating system	Beckhoff RT Linux®
Control software	TwinCAT 3 runtime (XAR) from TwinCAT 3.1 Build 4026 (XAE)
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 consumption	4 W
Max. power consumption (with loading UPS)	7.5 W
Max. power consumption E-bus/K-bus	10 W (5 V/max. 2 A)
Dimensions (W x H x D)	71 mm x 100 mm x 73 mm
Weight	approx. 220 g
Operating temperature	-25...+60°C
Storage temperature	-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 rating	IP20
Approvals/markings	CE, UL
TwinCAT 3 platform level	Economy (20); please see <a href="#">here</a> for an overview of all the TwinCAT 3 platform level

## Accessories

Accessories	
<a href="#">CX1900-0132</a>	16 GB microSD card
<a href="#">ZK1090-9191-0xxx</a>	RJ45, plug, straight, male, 8-pin – RJ45, plug, straight, male, 8-pin
<a href="#">ZK1093-9191-0xxx</a>	RJ45, plug, straight, male, 8-pin – RJ45, plug, straight, male, 8-pin

<a href="#"><u>C9900-K530,-K552,-K553,-K554</u></a>	USB cable, shielded, PVC, 1 x 2 x 28AWG + 2C 20AWG, fixed installation, black, USB A, plug, straight, male, 4-pin – USB B, plug, straight, male, 4-pin
<a href="#"><u>C9900-K569,-K570,K577</u></a>	USB cable, shielded, PVC, 2 x 2 x AWG28 + 1 x 2 AWG28 + 1 x 2 x AWG24, fixed installation, black, USB A, plug, straight, male, 9-pin – USB B, plug, straight, male, 9-pin
<a href="#"><u>BZ1xxx</u></a>	100 contact labels, various colors, pre-printed
<a href="#"><u>BZ2xxx</u></a>	100 contact labels, various colors, blank

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