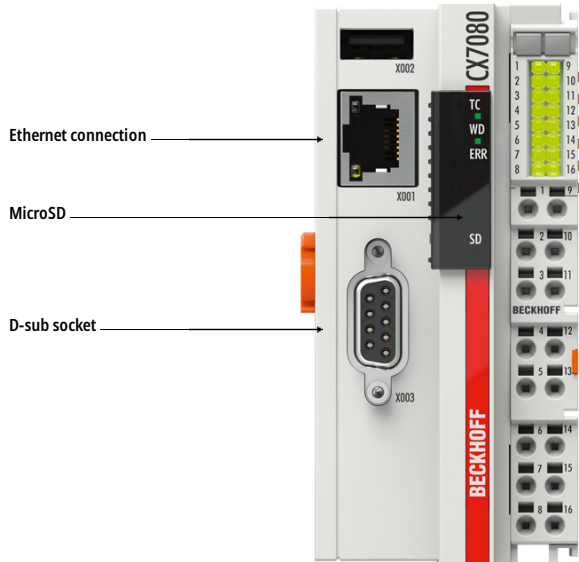


CX7080 | Embedded PC for RS232/RS485



i Product status: Regular delivery | due to high demand, deliveries are currently only possible after contacting us

The CX7080 Embedded PC has an ARM Cortex™-M7 single-core processor with 480 MHz. In the basic configuration, the CX7080 has a slot for a microSD card and an Ethernet interface. As a special feature, the CX7000 series has eight integrated multi-functional inputs as well as four integrated multi-functional outputs. In addition, the CX7080 offers two serial interfaces, one with RS232 and one with RS485 physics. Both serial interfaces are on the D-sub socket.

E-bus or K-bus terminals can be attached as required; the CX7080 automatically recognizes the type of I/O system connected during the start-up phase. The control system is programmed with TwinCAT 3 via the Ethernet interface.

Product information

Technical Data

Technical data	CX7080
Processor	ARM Cortex™-M7, 480 MHz
Number of cores	1
Flash memory	512 MB microSD (optionally 1 GB, 2 GB, 4 GB or 8 GB)
Main memory	32 MB SDR (internal, not expandable)
Number of inputs	8 multi-functional inputs (24 V DC)
Number of outputs	4 multi-functional outputs (24 V DC, 0.5 A, 1-wire technique)
Persistent memory	4 KB NOVRAM integrated
Interfaces	1 x RJ45 10/100 Mbit/s, 1 x USB 2.0, 1 x bus interface

Bus interface	D-sub socket, 9-pin, 1 x RS232, 1 x RS485
Data transfer rates	9600...115200 baud
Diagnostics LED	1x TC status, 1x WD, 1x error, 1x flash access
Clock	internal, capacitor-buffered real-time clock for time and date (storage capacity > 21 days)
Operating system	TC/RTOS
Control software	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	1.5 A
Max. power consumption	< 2,0 W (max. 12 W with E-bus/ K-bus)
Dimensions (W x H x D)	49 mm x 100 mm x 73 mm
Weight	142 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/markings	CE
Included TwinCAT 3 Function	TC1000 TwinCAT 3 ADS, TC1100 TwinCAT 3 I/O, TC1200 TwinCAT 3 PLC, TF4100 TwinCAT 3 Controller Toolbox, TF4110 TwinCAT 3 Temperature Controller, TF6255 TwinCAT 3 Modbus RTU, TF6340 TwinCAT 3 Serial Communication
TwinCAT 3 platform level	Basic (10), not yet available; please see here for an overview of all the TwinCAT 3 platform level

Technical data	Multi-functional I/Os Digital input
Connection technology	1-wire
Nominal voltage	24 V DC (-15 %/+20 %)
Specification	EN 61131-2, type 3
"0" signal voltage	-3...+5 V
"1" signal voltage	11...30 V
Input filter	configurable, default: 3ms, min.: 10 µs

Technical data	Multi-functional I/Os Digital output
Connection technology	1-wire
Nominal voltage	24 V DC (-15 %/+20 %)
Load type	ohmic, inductive, lamp load
Switching times	TON: typ. 20 µs, TOFF: 10 µs

Short-circuit current	typ. < 2 A
Breaking energy	< 150 mJ/channel

Technical data	Multi-functional I/Os Counter
Connection technology	1 x up/down counter, 1 x up or down counter
Nominal voltage	24 V DC (-15 %/+20 %)
Specification	EN 61131-2, type 3
"0" signal voltage	-3...+5 V
"1" signal voltage	11...30 V
Counting frequency	up/down counter: 20 kHz, up counter: 150 kHz
Counter depth	32 bit
Max. output current	24 V/0.5 A (short-circuit proof)
Special features	set counter value, switch output, reload value

Technical data	Multi-functional I/Os Encoder
Technology	incremental encoder interface
Nominal voltage	24 V DC (-15 %/+20 %)
Specification	EN 61131-2, type 3
Encoder connection	1 x A, B: 24 V single-ended connection
Additional inputs	latch input, 24 V DC
Counting frequency	250 kHz
Counter depth	32 bit
Quadrature decoder	4-fold evaluation
Max. output current	24 V/0.5 A (short-circuit proof)
Special features	latch function, software gate, set counter value, switch output, reload value

Technical data	Multi-functional I/Os Analog input
Number of inputs	2
Technology	single-ended
Signal voltage	0...10 V
Internal resistance	500 kΩ
Input filter limit frequency	2 kHz
Resolution	12 bit (16 bit presentation)
Measuring error	< ±0.3 % (relative to full scale value)

Technical data	Multi-functional I/Os Pulse width modulation
Connection technology	PWM output

Number of outputs	2
Nominal voltage	24 V DC (-15 %/+20 %)
Load type	ohmic, inductive, lamp load
Max. output current	24 V/0.5 A (short-circuit proof)
Frequency	15 Hz - 100 kHz
Duty factor	0...100 % (TON > 20 ns, TOFF > 200 ns)
Short-circuit current	typ. < 2 A
Special features	separate frequency can be set for each channel

Ordering Information

Ordering information	
CX7080	RS232/RS485 Embedded PC

Options

Options	
CX1900-0123	1 GB microSD card, instead of 512 MB microSD card
CX1900-0125	2 GB microSD card, instead of 512 MB microSD card
CX1900-0127	4 GB microSD card, instead of 512 MB microSD card
CX1900-0129	8 GB microSD card, instead of 512 MB microSD card

Accessories

Accessories	
CX1900-0122	512 MB microSD card
CX1900-0124	1 GB microSD card
CX1900-0126	2 GB microSD card
CX1900-0128	4 GB microSD card
CX1900-0130	8 GB microSD card
ZB3180	9-pin D-sub connector for CX8x80/CX7080 (RS232/RS485) with switchable termination resistor