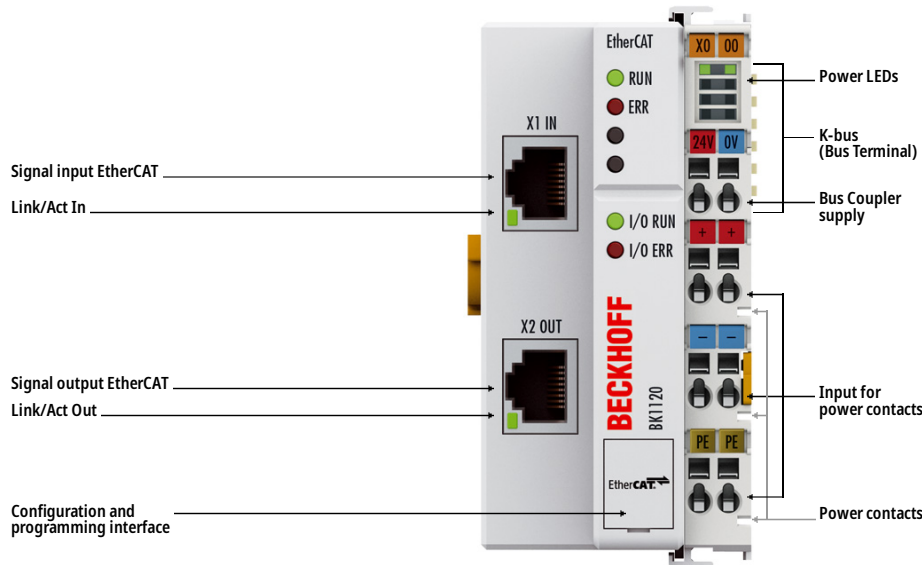
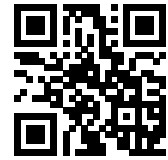


# BK1120 | EtherCAT Bus Coupler for standard Bus Terminals



**i Product status:** Regular delivery

The BK1120 EtherCAT Coupler is the link between the EtherCAT protocol at fieldbus level and the Bus Terminals. The coupler converts the passing telegrams from Ethernet 100BASE-TX to the internal, fieldbus-independent terminal bus. A station consists of a coupler and up to 64 Bus Terminals plus a bus end terminal. The process image of the EtherCAT system is assigned automatically. Up to 255 Bus Terminals can be connected via the K-Bus extension.

Special features:

- Connection technology: 2 x RJ45 socket
- Connection lengths: up to 100 m
- connects the EtherCAT protocol with the Bus Terminals

The BK1120 has two RJ45 sockets. The upper Ethernet interface is used to connect the coupler to the network; the lower socket serves for the optional connection of further EtherCAT devices in the same segment.

The system and field supply, each 24 V DC, is provided directly at the coupler. The attached Bus Terminals are supplied with the current required for communication from the supplied system voltage. The field supply is forwarded to the individual I/O components via the power contacts with up to 10 A. In the EtherCAT network, the EK1120 coupler can be installed anywhere in the Ethernet signal transfer section (100BASE-TX) – except directly at the switch. The EK9000 and EK1000 couplers are suitable for use at the switch.

## Product information

### Technical data

System data

EtherCAT | BK1120

Number of I/O stations	65,535
Number of I/O points	depending on controller
Data transfer medium	Ethernet/EtherCAT Cat.5 cable
Max. cable length	100 m (100BASE-TX)
Data transfer rates	100 Mbit/s
Data transfer time	0.01 ms in the case of 10 modules for 32 bit inputs and outputs each (without K-bus run-time)

Technical data	BK1120
Number of Bus Terminals	64 (255 with K-bus extension)
Max. number of bytes fieldbus	1024 byte input and 1024 byte output
Configuration possibility	via KS2000 or EtherCAT (ADS)
Bus interface	2 x RJ45
Power supply	24 V DC (-15 %/+20 %)
Input current	70 mA + (total K-bus current)/4, 500 mA max.
Starting current	approx. 2.5 x continuous current
Recommended fuse	≤ 10 A
Current supply K-bus	1750 mA
Power contacts	max. 24 V DC/max. 10 A
Electrical isolation	500 V (power contact/supply voltage/Ethernet)
Distance between stations	100 m (100BASE-TX)
Weight	approx. 150 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
Protect. rating/installation pos.	IP20/variable
Approvals/markings	CE, UL, ATEX
Ex marking	II 3 G Ex nA IIC T4 Gc

Housing data	BKxxxx, BCxxxx
Design form	compact terminal housing with signal LEDs
Material	polycarbonate
Dimensions (W x H x D)	51 mm x 100 mm x 69 mm
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock
Side by side mounting by means of	double slot and key connection
Marking	labeling of the BZxxx series

<b>Wiring</b>	solid conductor (e), flexible conductor (f) and ferrule (a): spring actuation by screwdriver
<b>Connection cross-section</b>	s*: 0.08...2.5 mm <sup>2</sup> , st*: 0.08...2.5 mm <sup>2</sup> , f*: 0.14...1.5 mm <sup>2</sup>
<b>Stripping length</b>	8...9 mm
<b>Current load power contacts</b>	I <sub>max</sub> : 10 A

---

\*s: solid wire; st: stranded wire; f: with ferrule