



## BK5110, BK5120 | CANopen Bus Couplers



The BK51x0 Bus Couplers connect the CAN bus system to the electronic terminal blocks, which can be extended in modular fashion. One unit consists of one Bus Coupler, any number of up to 64 terminals and one end terminal. The BK5110 "Economy" variant permits particularly economical creation of peripheral interfacing connections. Up to 64 digital input/output terminals can be connected.

With the K-bus extension technology, the "Economy plus" Bus Coupler BK5120 allows the connection of up to 255 spatially distributed Bus Terminals to one Bus Coupler. The Bus Coupler works on the CAN protocol basis as defined in ISO 11898. In addition to network services, CANopen also determines the data allocation for automation systems applications and has established itself as an open CAN application layer. The Bus Couplers support all types of CANopen communications and can also be used without difficulty in manufacturer-specific CAN environments due to the simple structure of this protocol definition. The firmware can be updated via the configuration interface.

Parameterising can also be carried out using any CANopen configuration tools. For this, EDS data files are available, which describe all the setting options for the CANopen coupler. For most applications, however, no configuration is necessary, as CANopen provides practical default values for all parameters.

System data	CANopen   BK5110, BK5120							
Number of I/O stations	64 (BK5120: 255 with K-bus extension)							
Number of I/O points	depends on the structure							
Data transfer medium	screened, twisted copper cable, 2 x signal, 1 x ground (recommended)							
Max. cable length	5,000 m	2,500 m	1,000 m	500 m	250 m	100 m	40 m	
Data transfer rates	10 kbaud	20 kbaud	50 kbaud	100/125 kbaud	250 kbaud	500 kbaud	1,000 kbaud	
PDO modes	synchron, cyclic, event driven, polling							

Technical data	BK5110	BK5120
Number of Bus Terminals	64	64 (255 with K-bus extension)
Max. number of bytes fieldbus	5 Tx/Rx PDOs	16 Tx/Rx PDOs
Digital peripheral signals	256 inputs/outputs	960 inputs/outputs
Analog peripheral signals	–	60 inputs/outputs
Configuration possibility	via KS2000 or the controller	
Number of PDOs (CANopen)	5 Tx/5 Rx	16 Tx/16 Rx
Additional CANopen features	life, node guarding, emergency object, variable mapping, store/restore	
Data transfer rates	up to 1 Mbaud	
Bus interface	1 x open style connector, 5-pin, included	
Power supply	24 V DC (-15 %/+20 %)	
Input current	70 mA + (total K-bus current)/4, 200 mA max.	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	500 mA	1750 mA
Power contacts	24 V DC max./10 A max.	
Electrical isolation	500 V (power contact/supply voltage Bus Coupler)	
Weight	approx. 130 g	approx. 150 g
Operating/storage temperature	0...+55 °C/-25...+85 °C	-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. class/installation pos.	IP 20/variable
Approvals	CE, UL, Ex, GL

Accessories	
KS2000	configuration software for extended parameterisation
Cordsets	cordsets and connectors
FC5101   FC5102	CANopen PCI fieldbus cards

Ordering information	Description
BK5110	CANopen Coupler for up to 64 digital Bus Terminals
BK5120	CANopen "Economy plus" Bus Coupler for up to 64 Bus Terminals (255 with K-bus extension)
BK5150	CANopen "Compact" Bus Coupler for up to 64 Bus Terminals (255 with K-bus extension)
BK5151	CANopen "Compact" Bus Coupler for up to 64 Bus Terminals (255 with K-bus extension)
LC5100	CANopen "Low Cost" Bus Coupler for up to 64 digital Bus Terminals (255 with K-bus extension)
BC5150, BX5100	CANopen "Compact" Bus Terminal Controller for up to 64 Bus Terminals (255 with K-bus extension)
CX8051	CANopen Embedded PC, slave

System	
CANopen	For further CANopen products please see the <a href="#">system overview</a>