



BK5120 | CANopen Bus Coupler



The BK5120 “Economy plus” Bus Coupler connects 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. With the K-bus extension technology, the 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 Coupler supports 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 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	BK5120
Number of Bus Terminals	64 (255 with K-bus extension)
Max. number of bytes fieldbus	16 Tx/Rx PDOs
Digital peripheral signals	960 inputs/outputs
Analog peripheral signals	60 inputs/outputs
Configuration possibility	via KS2000 or the controller
Number of PDOs (CANopen)	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, 500 mA max.
Starting current	approx. 2.5 x continuous current
Recommended fuse	≤ 10 A
Current supply K-bus	1750 mA
Power contacts	24 V DC max./10 A max.
Electrical isolation	500 V (power contact/supply voltage Bus Coupler)
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. 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

Related products	
BK5110	CANopen Coupler for up to 64 digital Bus Terminals
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 version for up to 64 digital Bus Terminals (255 with K-bus extension)
BC5150	CANopen "Compact" Bus Terminal Controller for up to 64 Bus Terminals (255 with K-bus extension)
BX5100	CANopen 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 system overview