



BK5220 | DeviceNet Bus Coupler

DeviceNet The BK5220 “Economy plus” Bus Coupler connects the DeviceNet 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 BK5220 allows the connection of up to 255 spatially distributed Bus Terminals to one Bus Coupler. The “Economy plus” series supports all Beckhoff system Bus Terminals and it can process in its full configuration 1020 digital signals and a maximum of 256 analog input and output channels per slave.

The Bus Coupler operates on the basis of the CAN protocol. The DeviceNet standard on which the Bus Coupler is based allows the operation of diverse DeviceNet devices in one network. DeviceNet is based on a definition of communication objects for the exchange of data from the sensor/actuator area that is especially oriented to automation technology.

The Bus Coupler and Bus Terminals can be parameterized on a PC using the KS2000 configuration set. Commissioning is also possible without the KS2000. Corresponding EDS data files are available for DeviceNet configuration tools.

System data	DeviceNet BK5220		
Number of I/O stations	64		
Data transfer medium	screened, twisted copper wire with power supply, 5-pin		
Max. cable length	500 m	250 m	100 m
Data transfer rates	125 kbaud	250 kbaud	500 kbaud
Operating modes	bit strobe, polling, cyclic, change of state (COS)		
DeviceNet type	communications adapter		

Technical data	BK5220
Number of Bus Terminals	64 (255 with K-bus extension)
Max. number of bytes fieldbus	512 byte input and 512 byte output
Digital peripheral signals	1,020 inputs/outputs
Analog peripheral signals	256 inputs/outputs
Configuration possibility	via KS2000 or the controller
Data transfer rates	automatic detection
Bus interface	1 x open pluggable connector, 5-pin, included
Power supply	24 V DC (-15 %/+20 %), through bus cable 11...25 V (conforms to DeviceNet specification)
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 Bus Coupler)
Weight	approx. 130 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/markings	CE, UL, ATEX, GL
Ex marking	II 3 G Ex nA IIC T4 Gc

Accessories/related products	
KS2000	configuration software for extended parameterisation
Cordsets	cordsets and connectors
FC5201 FC5202	DeviceNet PCI fieldbus cards
BK5200	DeviceNet Bus Coupler for up to 64 Bus Terminals
BK5250	DeviceNet "Compact" Bus Coupler for up to 64 Bus Terminals (255 with K-bus extension)
BC5250	DeviceNet "Compact" Bus Terminal Controller for up to 64 Bus Terminals (255 with K-bus extension)
BX5200	DeviceNet Bus Terminal Controller for up to 64 Bus Terminals (255 with K-bus extension)

System	
DeviceNet	For further DeviceNet products please see the system overview