



BK8000 | RS485 Bus Coupler



The BK8000 Bus Coupler uses the physics of the RS485 (V.24) specification for data transmission. Application of the Bus Coupler with a serial interface is suited to those cases in which the use of a fieldbus system can be omitted. The RS485 interface can be used by any automation device with the corresponding interface to gain access to the Bus Coupler. Data exchange is made via an open, documented protocol. An ActiveX control and a DLL (KS8000) are available for Windows NT/2000/XP applications. The

ActiveX control handles the necessary protocol for the exchange of data with the Bus Couplers, permitting the application to be implemented quickly. KS8000 LV also makes an interface available for the graphical programming system LabVIEW from National Instruments. The data is transmitted in a fixed format binary string secured by a checksum.

Another mode of operation is for the Bus Coupler to function in master/slave mode as a fieldbus multiplexer. The input data from one device are copied directly to the outputs of the other, without the aid of an additional master – and vice versa.

The BK8000 Bus Coupler communicates via an RS485 interface. This permits a bus to be constructed with up to 99 participating devices (addresses can be set with an address selector).

System data	RS485 BK8000
Number of I/O stations	99
Number of I/O points	depending on controller
Data transfer medium	screened, twisted copper cable 2 x 0.25 mm ² (RS485)
Max. cable length	1,200 m
Data transfer rates	9.6 kbaud, 19.2 kbaud, 38.4 kbaud

Technical data	BK8000
Number of Bus Terminals	64
Max. number of bytes fieldbus	512 byte input and 512 byte output
Digital peripheral signals	512 inputs/outputs
Analog peripheral signals	256 inputs/outputs
Protocol	open, documented protocol
Configuration possibility	via KS2000
Bus interface	RS485 D-sub
Power supply	24 V DC (-15 %/+20 %)
Input current	70 mA + (total K-bus current)/4, 500 mA max.
Starting current	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/fieldbus)
Weight	approx. 170 g
Operating/storage temperature	0...+55 °C/-25...+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
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Accessories	
KS2000	configuration software for extended parameterisation
Cordsets	cordsets and connectors

Related products	
BK8100	RS232 Bus Coupler for up to 64 Bus Terminals

System	
RS485	For further RS485 products please see the system overview