



BK9053 | PROFINET "Compact" Bus Coupler



PROFINET is the open Industrial Ethernet standard of the PNO (PROFIBUS Nutzerorganisation). Internationally established IT standards are used for communication. PROFINET RT describes the data exchange between controllers and field devices and can be used in standard Ethernet networks. Commercial switches are used for networking purposes. Linking to any PROFINET controller takes place via the GSDML basic device file.

The BK9053 Bus Coupler connects PROFINET with the modular, extendable electronic terminal blocks. One unit consists of one Bus Coupler, any number from 1 to 64 terminals (255 with K-bus extension) and one end terminal.

The Bus Couplers recognize the terminals to which they are connected, and perform the assignment of the inputs and outputs to the words of the process image automatically.

System data	PROFINET BK9053
Number of I/O stations	only limited by IP addresses
Number of I/O points	depending on controller
Data transfer medium	4 x 2 twisted pair copper cable; category 3 (10 Mbit/s), category 5 (100 Mbit/s)
Distance between stations	100 m between hub/switch and Bus Coupler or between Bus Coupler and Bus Coupler
Data transfer rates	100 Mbit/s
Topology	star wiring

Technical data	BK9053
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	512 inputs/outputs
Analog peripheral signals	256 inputs/outputs
Protocol	PROFINET RT (Class B)
Configuration possibility	via KS2000
Data transfer rates	10/100 Mbit/s, automatic recognition of the transmission rate
Bus interface	1 x RJ45
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	max. 24 V DC/max. 10 A
Electrical isolation	500 V (power contact/supply voltage/fieldbus)
Weight	approx. 100 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/markings	CE, UL, ATEX

Ex marking	II 3 G Ex nA IIC T4 Gc
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Accessories/related products	
TS6271	license for using the TwinCAT PROFINET RT Controller
KS2000	configuration software for extended parameterisation
Cordsets	cordsets and connectors
FC9001-0010 FC9011	Ethernet PCI fieldbus cards
BK9103	PROFINET Bus Coupler for up to 64 Bus Terminals (with integrated 2-channel switch)
CX8093	PROFINET Embedded PC

System	
PROFINET	For further PROFINET products please see the system overview