



## BK3010 | PROFIBUS Bus Coupler



The BK3010 “Economy” Bus Coupler connects the PROFIBUS system to the electronic terminal blocks, which can be extended in modular fashion. One unit consists of the Bus Coupler, any number of up to 64 terminals and one end terminal. The BK3010 permits particularly economical creation of peripheral interfacing connections. Up to 64 digital input/output terminals can be connected.

The Bus Coupler recognises the connected terminals and automatically generates the affiliations of the inputs/outputs to the bytes of the process image. The first input/output signal is inserted in the first bit of one byte (LSB), beginning from the left. The Bus Coupler inserts further signals in this byte. Inputs and outputs are clearly separated. The Bus Coupler automatically begins a further byte if the number of inputs or outputs exceeds 8 bits.

The Beckhoff GSE and type data files to the Bus Couplers support the Bus Terminal options and can be loaded in the corresponding master configuration software to facilitate planning and design. Various configurations and parameters for the Bus Coupler can be selected via GSE and type data files.

System data	PROFIBUS   BK3010				
Number of I/O stations	100 with repeater				
Number of I/O points	approx. 6,000, depending on the master				
Data transfer medium	shielded copper cable, 2 x 0.25 mm <sup>2</sup>				
Max. cable length	1,200 m	1,000 m	400 m	200 m	100 m
Data transfer rates	9.6/19.2/ 93.75 kbaud	187.5 kbaud	500 kbaud	1,500 kbaud	...3, 6, 12 Mbaud

Technical data	BK3010
Number of Bus Terminals	64
Max. number of bytes fieldbus	64 byte input and 64 byte output
Digital peripheral signals	512 inputs/outputs
Analog peripheral signals	–
Configuration possibility	via KS2000 or the controller
Data transfer rates	automatic detection up to max. 1.5 Mbaud
Bus interface	1 x D-sub 9-pin socket with shielding
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	500 mA
Power contacts	max. 24 V DC/max. 10 A
Electrical isolation	500 V (power contact/supply voltage/fieldbus)
Weight	approx. 150 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

Accessories	
<b>KS2000</b>	configuration software for extended parameterisation
<b>Cordsets</b>	cordsets and connectors
<b>FC310x</b>	PC Fieldbus Cards with PCI interface

Related products	
<b>BK3100</b>	PROFIBUS DP/FMS Bus Coupler for up to 64 Bus Terminals, 12 Mbaud
<b>BK3110</b>	PROFIBUS Bus Coupler for up to 64 digital Bus Terminals, 12 Mbaud
<b>BK3120</b>	PROFIBUS "Economy plus" Bus Coupler for up to 64 Bus Terminals (255 with K-bus extension), 12 Mbaud
<b>BK3150</b>	PROFIBUS "Compact" Bus Coupler for up to 64 Bus Terminals (255 with K-bus extension), 12 Mbaud
<b>BK3520</b>	PROFIBUS "Economy plus" Bus Coupler for up to 64 Bus Terminals (255 with K-bus extension), 12 Mbaud
<b>LC3100</b>	PROFIBUS "Low Cost" Bus Coupler for up to 64 digital Bus Terminals, 12 Mbaud
<b>BC3100</b>	PROFIBUS Bus Terminal Controller for up to 64 Bus Terminals, 12 Mbaud
<b>BC3150</b>	PROFIBUS "Compact" Bus Terminal Controller for up to 64 Bus Terminals (255 with K-bus extension), 12 Mbaud
<b>BX3100</b>	PROFIBUS Bus Terminal Controller for up to 64 Bus Terminals (255 with K-bus extension), 12 Mbaud
<b>CX8030</b>	PROFIBUS Embedded PC, master
<b>CX8031</b>	PROFIBUS Embedded PC, slave

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