BK3100 | PROFIBUS Bus Coupler

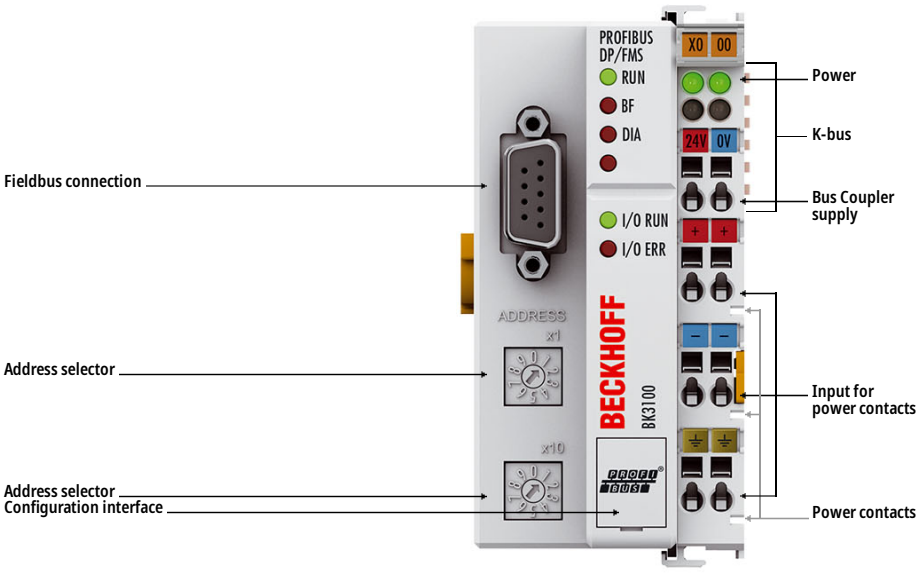

Image similar, may contain optional accessories

Product status: regular delivery (not recommended for new projects) | recommended alternative: BK3120, BK3150

The BK3100 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 Bus Coupler recognizes 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.

Product information

Technical data

Technical data	BK3100
Number of Bus Terminals	64
Max. number of bytes fieldbus	64 byte input and 64 byte output (DP and FMS mode), 128 byte input and 128 byte output (only DP mode)
Digital peripheral signals	512 inputs/outputs

Analog peripheral signals	64 inputs/outputs (only DP mode)
Configuration	via KS2000 or the controller
Data transfer rates	automatic detection up to 12 Mbaud
Bus interface	1 x D-sub 9-pin socket with shielding
Data transfer medium	shielded copper cable, 2 x 0.25 mm^2
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. 170 g
Operating temperature	0...55°C
Storage temperature	-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. rating/installation pos.	IP20/variable
Approvals/markings	CE, CCC, UL, ATEX, IECEx, DNV
Ex marking	ATEX: II 3 G Ex ec IIC T4 Gc IECEx: Ex ec IIC T4 Gc

Housing data	**BKxxxx, BCxxxx**
Design form	compact terminal housing with signal LEDs
Material	polycarbonate
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock
Side by side mounting by means of	double slot and key connection
Marking	labeling of the BZxxxx series
Wiring	solid conductor (s), flexible conductor (st) and ferrule (f): spring actuation by screwdriver
Connection cross-section	s*: 0.08...2.5 mm^2, st*: 0.08...2.5 mm^2, f*: 0.14...1.5 mm^2
Stripping length	8...9 mm
Current load power contacts	I_{max}: 10 A
Dimensions (W x H x D)	51 mm x 100 mm x 69 mm

*s: solid wire; st: stranded wire; f: with ferrule