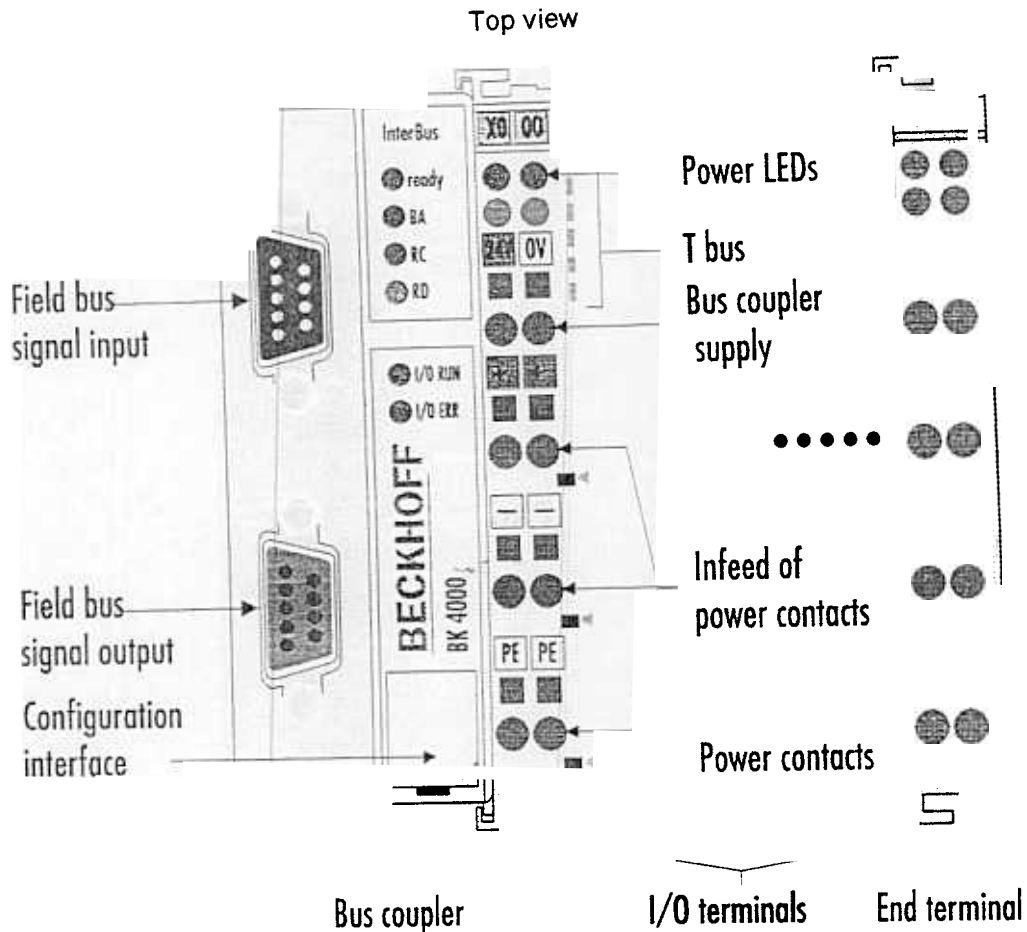


INTERBUS-S couplers

■ BK4000, BK4010



■ Product description

The BK4000 and BK4010 bus couplers connect the INTERBUS-S 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. The BK4010 economy variant permits particularly economical creation of peripheral interfacing connections. Up to 64 digital input and output signals 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 output are clearly separated. The bus coupler automatically begins a further byte if the number of inputs or outputs exceeds 8 bits.

The address affiliations of the BK4000 bus coupler can be varied freely, either byte-by-byte or bit-by-bit using the KS2000 configuration set and a PC. The KS2000 package includes a connecting cable to link up the PC and bus coupler and the configuration software for the PC. The assignment list can optionally be modified via the control system.

Order designation**Description**

BK4000	INTERBUS S coupler for up to 64 bus terminals
BK4010	INTERBUS S coupler for digital inputs and outputs up to max. 64 bits
KS2000	Connecting cable, configuration software on 3½ inch diskette for the PC, DB for PLC
KL9010	End terminal

Complex signal processing for analogue I/Os, position measurement, ...

The BK4000 bus coupler supports the operation of all bus terminals. As far as the user is concerned, handling of the analogue inputs/outputs is no different to other series. The numeric values are available in the process image for processing in the form of 8, 16, 32 or 64-bit values.

The analogue and multifunctional bus terminals can be adapted to each specific application using the KS2000 configuration set. Depending on the type, the analogue bus terminals' registers contain temperature ranges, gain values and linearisation characteristics. Using the KS2000 software, the required parameters can be set on a PC. The bus terminal stores settings permanently and in a fail safe manner.

Optionally, the bus terminals can also be controlled by the control system. Via data blocks (DBs), the PLC or the IPC handles configuration of the complete periphery during the start up phase. If required, the controller can upload the decentrally created configuration data in order to centrally manage and store this data. Therefore, new adjustments are not necessary in the event of replacement of a bus terminal. The controller automatically sets the required setting on power up.

System data

	INTERBUS S (BK4000, BK4010)
Number of I/O - modules	256
Number of I/O-points	4096
Data transfer medium	LiYCY 3 x 2 x 0.22 mm ²
Length between modules	max. 400 m
Data transfer rate	500 kBaud
Data transfer time	1.43 ms in the case of 10 modules for 32-bit inputs and outputs each
Bus connection	2 x D-SUB 9, plug and socket with shielding

Number of bus terminals		
Digital peripheral signals	256 inputs and outputs	64 inputs and 64 outputs
Analogue peripheral signals	32 inputs and outputs	
Configuration possibility	by PC software or the controller	
Configuration interface	available	
Maximum number of bytes	depending on the signal for 64 terminals up to 64 I / 64 O 8 I / 8 O	
Bus connection	2 x D SUB 9 with vibration protection	
Power supply	24 V DC, -15% +20%	
Input current	105 mA typ. 900 mA max.	85 mA typ. 500 mA max.
K bus power supply up to	1750 mA	
Power contact voltage	24 V DC	
Power contact current load	10 A max.	
Dielectric strength	4000 Vrms (Power contact /supply voltage / field bus)	
Housing	BKG 1334 b	
Weight approx.	170 g	150 g
Operating temperature	0°C ... +55°C	
Storage temperature	-20°C +85°C	
Relative humidity	95%, no condensation	
Vibrations/Shock strength	in conformity with IEC 68-2-6 / IEC 68-2-27	
EMC strength burst / ESD	in conformity with IEC 801-4 / IEC 801-2, severity 4	
Installation position	any	
Type of protection	IP20	