



BC5150 | CANopen "Compact" Bus Terminal Controller



The Bus Terminal Controllers are Bus Couplers with integrated PLC functionality. The "Compact" BC5150 Bus Terminal Controller for CANopen extends the Beckhoff small controller series by a cost-optimised version in a compact housing. The CANopen controller offers automatic baud rate detection up to 1 Mbaud and two address selection switches for address assignment.

The Bus Terminal Controller is programmed using the TwinCAT programming system according to IEC 61131-3. The configuration/programming interface on the BC5150 is used to load the PLC program. If the software PLC TwinCAT is in use, the PLC program can also be loaded via the fieldbus. The inputs and outputs of the connected Bus Terminals are assigned in the default setting of the PLC. Each Bus Terminal can be configured in such a way that it exchanges data directly through the fieldbus with the higher-level automation device. Similarly, pre-processed data can be exchanged between the Bus Terminal Controller and the higher-level controller via the fieldbus.

Controller for distributed signal processing

The programming system TwinCAT for the BC5150 operates, independently of the manufacturer, in accordance with IEC 61131-3. The PLC programs can be written in five different programming languages (IL, FBD, LD, SFC, ST). In addition, TwinCAT offers extensive debug functionalities (breakpoint, single step, monitoring, ...), which facilitate commissioning. It is also possible to perform adjustment and measurement of the cycle time.

PLC data	CANopen BC5150
Programming	TwinCAT (via programming interface or fieldbus)
Program memory	48 kbytes
Data memory	32 kbytes
Remanent data	2 kbytes
Runtime system	1 PLC task
PLC cycle time	approx. 3 ms for 1,000 instructions (without I/O cycle, K-bus)
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Online change	yes

Technical data	BC5150
Number of Bus Terminals	64 (255 with K-bus extension)
Max. number of bytes fieldbus	16 Tx/Rx PDOs
Max. number of bytes process image	512 byte input and 512 byte output
Digital peripheral signals	2,040 inputs/outputs
Analog peripheral signals	1024 inputs/outputs
Data transfer rates	automatic detection up to 1 Mbaud
Bus interface	open style connector, 5-pin
Serial interface	programming and configuration interface
Configuration	via KS2000 or fieldbus
Power supply	24 V DC (-15 %/+20 %)
Input current	60 mA + (total K-bus current)/4
Current supply K-bus	1000 mA
Power contacts	max. 10 A
Electrical isolation	500 V (power contact/supply voltage)

Weight	approx. 100 g
Operating/storage temperature	-25...+60 °C/-40...+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

Accessories	
KS2000	configuration software for extended parameterisation
TwinCAT PLC	programming system conforms to IEC 61131-3
Cordsets	cordsets and connectors
FC5101 FC5102	CANopen PCI fieldbus cards

Related products	
BC5150	CANopen "Compact" Bus Terminal Controller for up to 64 Bus Terminals (255 with K-bus extension)
BX5100	CANopen Bus Terminal Controller for up to 64 Bus Terminals (255 with K-bus extension)
BK5110	CANopen Coupler for up to 64 digital Bus Terminals
BK5120	CANopen "Economy plus" Bus Coupler for up to 64 Bus Terminals (255 with K-bus extension)
CX8051	CANopen Embedded PC, slave

System	
CANopen	For further CANopen products please see the system overview