


## BX5100 bus terminal controller

 The BX5100 bus terminal controller offers a high degree of flexibility. The controller is a slave device towards a higher-level CANopen network and acts as CANopen master on the underlying CANopen system (smart system bus SSB). Thus the BX5100 is the ideal device for modular systems with distributed control architecture.

Besides the two CANopen interfaces, the IEC 61131-3 controller provides a K-bus interface for the connection of the Beckhoff Bus Terminals. Additionally, the BX devices are equipped with two serial interfaces: one for programming, the other for free utilisation. Furthermore, the BX features an illuminated LCD display with two lines of 16 characters each, a joystick switch and a real-time clock.

The CANopen interfaces support all CANopen PDO transmission types. The local PLC communicates data via network variables mapped in PDOs. The CANopen master interface on the BX5100 is intended for up to eight devices with four PDOs each.

The controller is programmed with TwinCAT in all five IEC 61131-3 languages. Programming and online debugging can be done via CANopen or serial interface.

Local I/O on both devices is provided by the bus terminal series with more than 250 different terminal types.

In the BC5150, the bus terminal controller is also available in a more compact version.

[www.beckhoff.com/BX5100](http://www.beckhoff.com/BX5100)

[www.beckhoff.com/BC5150](http://www.beckhoff.com/BC5150)

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## Features

<b>NMT</b>	NMT slave NMT master
<b>Error control</b>	Node guarding Heartbeat producer
<b>Boot-up</b>	Yes
<b>Node ID range</b>	None
<b>Node ID</b>	Hardware switch Proprietary
<b>CANopen bit-rates</b>	n/a
<b>Type of bit-rate adjustment</b>	None
<b>RPDOs</b>	32
<b>TPDOs</b>	32
<b>PDO modes</b>	Event-triggered Triggered by event-timer Remotely-requested Synchronous (cyclic) Synchronous (acyclic)
<b>PDO linking</b>	Yes
<b>PDO mapping</b>	Variable

<b>SDO server</b>	1
<b>SDO client</b>	8
<b>Emergency producer</b>	Yes
<b>Emergency consumer</b>	No
<b>Sync producer</b>	No
<b>Sync counter</b>	No
<b>Time stamp</b>	No
<b>Additional functions</b>	None
<b>CANopen version</b>	CiA 301 V 4.1
<b>Frameworks</b>	CiA 302
<b>Device profiles</b>	<p>CiA 401: CANopen device profile for generic I/O modules</p> <p>CiA 402: CANopen drives and motion control device profile</p> <p>CiA 404: CANopen device profile for measuring devices and closed-loop controllers</p> <p>CiA 405: CANopen interface and device profile for IEC 61131-3 programmable devices</p> <p>CiA 406: CANopen device profile for encoders</p>
<b>Certified</b>	No
<b>Availability</b>	In stock