BACnet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 if the responsibility of BACnet International (BI). BTL is a registered trademark of BI.

# BACnet Testing Labs
# Product Listing

*This product has been tested at the BACnet Testing Labs and found to comply with all the necessary interoperability requirements in place on the published test date. This listing represents the tested capability of the Listed Product. For information on additional functionality that was not covered in the test process, refer to the Manufacturer's PICS statement on the BI website.*

## Listing Information

| Vendor | | Listing Status |
|---|---|---|
| Beckhoff Automation GmbH<br>Eiserstraße 5<br>33415 Verl<br>Germany | | Listed Product |
| Test Requirements | BACnet Protocol Revision | Date Tested |
| Requirements as of July 2009 | Revision 6 | November 2011 |

| Product Name | Model Number | Software Version |
|---|---|---|
| TwinCAT BACnet/IP | CX9001, CX9010, CX5010, CX5020 | 1.0.0.7 |

## Device Profiles

| Profile | Model Numbers |
|---|---|
| BACnet Building Controller (B-BC) | All Devices |

## BIBBs Supported

| | | |
|---|---|---|
| | ReadProperty-A | DS-RP-A |
| | ReadProperty-B | DS-RP-B |
| | ReadPropertyMultiple-A | DS-RPM-A |
| | ReadPropertyMultiple-B | DS-RPM-B |
| Data Sharing | WriteProperty-A | DS-WP-A |
| | WriteProperty-B | DS-WP-B |
| | WritePropertyMultiple-B | DS-WPM-B |
| | COV-A | DS-COV-A |
| | COV-B | DS-COV-B |

| Alarm and Event Notification | Notification Internal-B | AE-N-I-B |
|---|---|---|
| | ACK-B | AE-ACK-B |
| | Alarm Summary-B | AE-ASUM-B |
| | Enrollment Summary-B | AE-ESUM-B |
| | Information B | AE-INFO-B |

| Scheduling | Internal-B | SCHED-I-B |
|---|---|---|
| | External-B | SCHED-E-B |

| Trending | Viewing and Modifying Trends Internal-B | T-VMT-I-B |
|---|---|---|
| | Viewing and Modifying Trends External-B | T-VMT-E-B |
| | Automated Trend Retrieval-B | T-ATR-B |

| Device and Network Management | Dynamic Device Binding-A | DM-DDB-A |
|---|---|---|
| | Dynamic Device Binding-B | DM-DDB-B |
| | Dynamic Object Binding-B | DM-DOB-B |
| | DeviceCommunicationControl-B | DM-DCC-B |
| | TimeSynchronization-B | DM-TS-B |
| | UTCTimeSynchronization-A | DM-UTC-A |
| | UTCTimeSynchronization-B | DM-UTC-B |
| | ReinitializeDevice-B | DM-RD-B |
| | Backup and Restore-B | DM-BR-B |
| | List Manipulation-B | DM-LM-B |
| | Object Creation and Deletion-B | DM-OCD-B |

## Object Type Support

| Analog Input | Analog Output | Analog Value |
|---|---|---|
| Binary Input | Binary Output | Binary Value |
| Calendar | Command | Device |
| File | Group | Loop |
| Multi-State Input | Multi-State Output | Multi-State Value |
| Notification Class | | |
| Program | Schedule | Trend Log |

## Data Link Layer Options

| Media | Options |
|---|---|
| BACnet IP (Annex J) | BBMD, Register as a Foreign Device |

## Networking Options

| Networking Functionality | Media |
|---|---|
| Annex J BBMD | BACnet/IP |

## Character Set Support

| ANSI X3.4 |
|---|