BACnet® Implementation Conformance Statement (PICS) for CS1-BAC-002 chipset used for X2 controller series
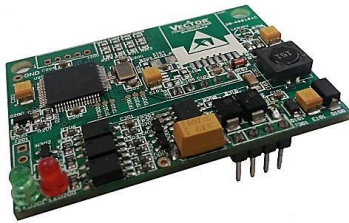

AEX-BAC

TCX2-40863-OP-BAC

Last Revision:	May, 2023
Vendor Name:	Vector Controls GmbH
Product Name:	CS1-BAC-002
Product Model Number:	AEX-BAC, AEX2-BAC, TCX2-40863-BAC, TCX2-40863-OP-BAC, TCX2-24273-BAC, TCX2-24273-230-BAC, TCX2-23343-BAC, TCX2-14050-BAC, TCX2-14050-120-BAC, TCI2-204.202UC-BAC, TCI2-204.202UC-OP-BAC, TRI2-FC-TH-221.202C-BAC, TRI2-FA-TH-221.202C-BAC, TRI2-FU-TH-221.202C-BAC, TRI2-FA-T-221.202C-BAC, SCC2-CQ-210.102U-BAC-1, SCC2-P1-200.101U-BAC, SCC2-P2-200.101U-BAC, SCC2-P3-200.101U-BAC SDC2-16-T-200.101U-BAC-1, SDC2-16-THQ-210.102U-BAC-1, SDC2-16-THCQ-210.102U-BAC-1, SDC2-16-TH-210.101U-BAC-1, SDC2-16-THC-210.102U-BAC-1, SOC2-TH-210.102U-BAC-1, SOC2-TH-210.102U-OP-BAC-1
Application Software Version:	V13R2
Product Version (CS1-BAC-002):	V10R0
BACnet Protocol Revision:	Revision 19 (135-2012)

TCX2 product description:

The TCX2 communicating BACnet® controllers are universal control devices suitable for a large number of applications. They may be used in zoning and other applications which are monitored by a BACnet® MS/TP network. They are programmed through parameters either on the unit or via a free download tool called EasySet.
The CS1-BAC-002 is a BTL listed BACnet® implementation running on the AEX-BAC. The AEX-BAC is the BACnet® communication plug-in for the TCX2- family of controllers.

BACnet® Standardized Device Profile (Annex L)

BACnet Application Specific Controller (B-ASC)

BACnet® Interoperability Building Blocks Supported (Annex K)

Type	Supported	Name	BIBB
Data sharing	☑	Read property - B	DS-RP-B
	☑	Read property multiple - B	DS-RPM-B
	☑	Write property - B	DS-WP-B
	☑	Change of value - B	DS-COV-B
Device management	☑	Device communication Control - B	DM-DCC-B
	☑	Dynamic device binding - B	DM-DDB-B
	☑	Dynamic object binding - B	DM-DOB-B
	☑	Time synchronisation - B	DM-TS-B
	☑	UTC Time synchronisation - B	DM-UTC-B
	☑	Reinitialize device - B	DM-RD-B

Supported standard BACnet® application services

Application Services	Supported
Read Property	☑
Read Property Multiple	☑
Write Property	☑
Device Communication Control [1]	☑
I-Am	☑
I-Have	☑
Time Synchronisation	☑
UTC Time Synchronisation	☑
Reinitialize Device ("cold" or "warm") [1]	☑

(1) password is "Vector" (case sensitive and without the quotes)

Segmentation Capability

Able to transmit segmented messages:	No	Window Size:	N/A
Able to receive segmented messages:	No	Window Size:	N/A

Standard Object Types Supported

Object Type	Supported	Created Dynamically	Deleted Dynamically
Analog input	☑	☐	☐
Analog value	☑	☐	☐
Binary value	☑	☐	☐
Device	☑	☐	☐
Multi-state Value	☑	☐	☐
Network port	☑	☐	☐

Analog Input Object

Property	Supported	R/W
Object Identifier	☑	R
Object Name	☑	R
Description	☑	R/W
Present Value	☑	R
Status Flags	☑	R
Event State	☑	R
Reliability	☑	R
Out Of Service	☑	R/W
Units	☑	R
COV increment	☑	R/W

Analog Value Object

Property	Supported	R/W
Object Identifier	☑	R
Object Name	☑	R
Description	☑	R/W
Present Value	☑	R/W[1]
Status Flags	☑	R
Event State	☑	R
Out Of Service	☑	R/W
Units	☑	R
COV increment	☑	R/W

(1) Only writable for specific objects

Binary Value Object

Property	Supported	R/W
Object Identifier	☑	R
Object Name	☑	R
Description	☑	R/W
Present Value	☑	R/W[1]
Status Flags	☑	R
Event State	☑	R
Out Of Service	☑	R/W
Active Text	☑	R
Inactive Text	☑	R

(1) Only writable for specific objects

Device Object

Property	Supported	R/W
APDU Timeout	☑	R
App Software Version	☑	R
Database Revision	☑	R
Daylight Savings Status	☑	R/W
Description	☑	R/W
Device Address Binding	☑	R
Firmware Revision	☑	R
Local Date	☑	R
Local Time	☑	R
Max APDU Length Accepted	☑	R
Model Name	☑	R
Number of APDU Retries	☑	R
Object Identifier	☑	R/W
Object Name	☑	R/W
Object Type	☑	R
Protocol Object Types Supported	☑	R
Protocol Services Supported	☑	R
Protocol Version	☑	R
Protocol Revision	☑	R
Segmentation Supported	☑	R
System Status	☑	R
UTC Offset	☑	R/W
Vendor Identifier	☑	R
Vendor Name	☑	R
Object List	☑	R

Multi State Value Object

Property	Supported	R/W
Object Identifier	☑	R
Object Name	☑	R
Description	☑	R/W
Present Value	☑	R/W[1]
Status Flags	☑	R
Event State	☑	R
Out Of Service	☑	R
Number Of States	☑	R
State Text	☑	R

(1) Only writable for specific objects

Network Port Object

Property	Supported	R/W
Object Identifier	☑	R
Object Name	☑	R
Status Flags	☑	R
Out Of Service	☑	R
Apdu Length	☑	R
Changes Pending	☑	R
Link Speed	☑	R/W
Mac Address	☑	R
Max Info Frames	☑	R
Max Master	☑	R
Network Number	☑	R
Network Number Quality	☑	R
Network Type	☑	R
Protocol Level	☑	R
Reliability	☑	R

Data Link Layer Options:

Link Layer	Supported
BACnet IP, (Annex J)	☐
BACnet IP, (Annex J), Foreign Device	☐
ISO 8802-3, Ethernet (Clause 7)	☐
ATA 878.1, 2.5 Mb. ARCNET (Clause 8)	☐
ATA 878.1, EIA-485 ARCNET (Clause 8), baud rate(s)	☐
MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 57600, 76800, 115200	☑
MS/TP slave (Clause 9), baud rate(s):	☐
Point-To-Point, EIA 232 (Clause 10), baud rate(s):	☐
Point-To-Point, modem, (Clause 10), baud rate(s):	☐
LonTalk, (Clause 11), medium:	☐
BACnet/ZigBee (ANNEX O)	☐
Other:	☐

Device Address Binding:

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.)	☐ Yes ☑ No

Networking Options:

Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.	N/A
Annex H, BACnet Tunneling Router over IP	N/A
BACnet/IP Broadcast Management Device (BBMD)	N/A
Does the BBMD support registrations by Foreign Devices?	N/A

Character Sets Supported:

☑ ISO 10646 (UTF8)	☐ IBM/Microsoft DBCS	☐ JIS C 6226
☐ ISO 10646 (ICS-2)	☐ ISO 10646 (ICS-4)	☐ ISO 8859-1