

Neptronic Temperature Controller Series
Rev.: 100519

PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (PICS)

Date: September 2017
Vendor Name: Neptronic
Product Name: Neptronic Temperature Controller series
Product Model Number: *TFxB24 series*
TFCB24F3XYZ1,
TFHB24F3XYZ1,
TFHB24F3XYZ2, TFCB24F3XY2,
TFCB24P3-OE1, TFHB24P3-OE2,
TFHB24P3-OE1
TFxB25 series
TFCB25-MT1
TRxB24 series
TROB24T4XYZ1
TRxB25 series
TROB25
EFxB series
EFCB10, EFCB11,
EFCB12, EFCB12-GR1
EFHB10, EFHB11, EFHB12
EVxB series
EVCB74

Product Version: TRxB24 series 1.05, TFxB24 series 1.10
TFxB25 series 1.02, TRxB25 series 1.01
EFxB series 1.01, EVxB series 1.01

BACnet Protocol Revision: 4

Product Description

The TFC (thermostat fan coil) & TFH (thermostat fan coil & humidity) 2x4 series electronic thermostat have been designed for general HVAC applications but more specifically for fan coil control.

The TRO (thermostat VAV) 2x4 series electronic thermostat have been designed for general HVAC applications but more specifically for VAV control.

The EFCB solution is as BACnet Application Specific Controller (B-ASC) designed for fan coil applications consisting of a controller module (EFCB) and a remote LCD thermostat (TFL).

The EVCB solution is as BACnet Application Specific Controller (B-ASC) designed for VAV applications consisting of a controller module (EVCB) with actuator and a remote LCD thermostat (TRL).

BACnet Standardized Device Profile (Annex L):

- BACnet Operator Workstation (B-OWS)
- BACnet Building Controller (B-BC)
- BACnet Advanced Application Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Sensor (B-SS)
- BACnet Smart Actuator (B-SA)

BACnet Interoperability Building Blocks Supported (Annex K):

- Data Sharing-Read Property-B (DS-RP-B)
- Data Sharing-Write Property-B (DS-WP-B)
- Device Management-Dynamic Device Binding-B (DM-DDB-B)
- Device Management-Dynamic Object Binding-B (DM-DOB-B)
- Device Management-Device Communication Control-B (DM-DCC-B)

Segmentation Capability:

- Segmented Requests Supported Window Size: N/A
- Segmented Responses Supported Window Size: N/A

Standard Object Types Supported:

Object Type	Supported	Dynamically Creatable	Dynamically Deletable	Optional Properties Supported	Writable Properties
Analog Input	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reliability Description Min_Present_Value Max_Present_Value Resolution	Out_of_Service
Analog Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reliability Description	Present_Value ¹ Out_of_Service ²
Binary Input	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reliability Active_Text Inactive_Text Description	Out_of_Service
Binary Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reliability Active_Text Inactive_Text Description	Present_Value ³ Out_of_Service ⁴
Device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Max_Master Max_Info_Frame Description #1000 (MAC ADD) ⁵ #1001 (BAUD RATE) #1002 (TIME OUT)	Object_Identifier Object_Name Max_Master Description #1000 #1001 #1002
Multi-state ⁶ Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability States_Text	Present_Value ⁷ Out_of_Service ⁸

¹ Present_Value property is writable for every AV object except: AV.1, AV.2, AV.3, AV.4, AV.28, AV.36, AV.41, AV.42, AV.46, AV.49, AV.68, AV.69

² Out_of_Service property is writable for objects that Present_Value is not writable. See list above.
Object will automatically return to normal after a programmable period of time. See Proprietary property #1002 of Device object.

³ Present_Value property is writable for every BV object except: BV.7

⁴ Out_of_Service property is writable for objects that Present_Value is not writable. See list above.
Object will automatically return to normal after a programmable period of time. See Proprietary property #1002 of Device object.

⁵ TFxB25, TRxB25, EFxB and EVxB series use dipswitches for MSTP MAC ADD, this property is not available on these series.

⁶ MSV object states number and text can vary depending of system set-up. Use carefully.

⁷ Present_Value property is writable for every MSV object except: MSV.9, MSV.14

⁸ Out_of_Service property is writable for objects that Present_Value is not writable. See list above.
Object will automatically return to normal after a programmable period of time. See Proprietary property #1002 of Device object.

Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7) (10Base2, 10Base5, 10BaseT, Fiber)
- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s):
- MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 76800
- ¹MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400, 76800
- Point-To-Point, EIA 232 (Clause 10), baud rate(s):
- Point-To-Point, modem, (Clause 10), baud rate(s):
- LonTalk, (Clause 11), medium:
- Other:

Device Address Binding:

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

Networking Options:

Router	N/A
Annex H, BACnet Tunneling	N/A
BACnet/IP Broadcast Management Device (BBMD)	N/A
Does the BBMD support registrations by Foreign Devices?	N/A

Character Sets Supported:

- | | | |
|---|---|-------------------------------------|
| <input checked="" type="checkbox"/> ANSI X3.4 | <input type="checkbox"/> IBM/Microsoft DBCS | <input type="checkbox"/> JIS C 6226 |
| <input type="checkbox"/> ISO 10646 (ICS-4) | <input type="checkbox"/> ISO 10646 (UCS2) | <input type="checkbox"/> ISO 8859-1 |

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports:

Not applicable.

¹TFxB25, TRxB25, EFxB and EVxB series use dipswitches for MS/TP address and doesn't support MS/TP slave.