

# BACnet® P.I.C.S.

Protocol Implementation Conformance Statement



## For c-pro 3 NODE kilo and kilo+ programmable controllers







**Important**

Read this document thoroughly before installation and before use of the device and follow all recommendations; keep this document with the device for future consultation.

Only use the device in the way described in this document; do not use the same as a safety device.



**Disposal**

The device must be disposed of in compliance with local standards regarding the collection of electric and electronic equipment.



**ANNEX A - PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (NORMATIVE)**

(This annex is part of this Standard and is required for its use.)

**BACnet® Protocol Implementation Conformance Statement**

**Date:** 23-02-2017

**Vendor Name:** EVCO S.p.A.

**Product Name:** c-pro3 NODE

**Product Model Number:** EPK4BHX, EPK4LHX, EPK4DHX, EPK4BHR, EPK4LHR, EPK4DHR, EPK4BHQ, EPK4LHQ, EPK4DHQ, EPK4BHT, EPK4LHT, EPK4DHT

**Application Software Version:** 1.0.0

**Firmware Revision:** 3.3

**BACnet Protocol Revision:** 1.10

**Product Description:**

The CPro3 NODE Kilo and Kilo+ controllers are fully programmable I/O controllers for use in HVAC&R fields and Building Automation System applications. All variants of the CPro3 NODE product family conform to the BACnet Application Specific Controller (B-ASC) profile:

**BACnet Standardized Device Profile (Annex L)**

- BACnet Operator Workstation (B-OWS)
- BACnet Advanced Operator Workstation (B-AWS)
- BACnet Operator Display (B-OD)
- 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):**

<b>Data Sharing</b>		
<b>Designation</b>	<b>BIBB</b>	<b>§Annex K</b>
DS-RP-B	Read Property-B	<b>K.1.2</b>
DS-RPM-B	Read Property Multiple-B	<b>K.1.4</b>
DS-WP-B	Write Property-B	<b>K. 1.8</b>
DS-WPM-B	Write Property Multiple-B	<b>K.1.10</b>
DS-COV-B	Change Of Value-B	<b>K.1.12</b>

<b>Device &amp; Network Management</b>		
DM-DDB-B	I Am	<b>K.5.2</b>
DM-DDB-B	Who Is	<b>K.5.2</b>
DM-DOB-B	I Have	<b>K.5.4</b>
DM-DOB-B	Who Has	<b>K.5.4</b>
DM-DCC-B	Device Communication Control	<b>K.5.4</b>

DM-TS-B	Time Synchronisation-B	<b>K.5.12</b>
DM-RD-B	Reinitialize Device-B	<b>K.5.16</b>
<b>Alarms and Events</b>		
AE-N-I-B	Notification Internal-B	<b>K.2.2</b>
AE-ACK-B	Acknowledge-B	<b>K.2.5</b>
AE-INFO-B	Information-B	<b>K.2.11</b>

<b>Schedules</b>		

<b>Trends</b>		

**Segmentation Capability:**

- Able to transmit segmented messages Window Size \_\_\_\_\_
- Able to receive segmented messages Window Size \_\_\_\_\_

**Supported Data Link Layer and Routing Options:**

- BACnet MS/TP
  - Data Rates:
    - 9600 baud
    - 19200 baud
    - 38400 baud
    - 76800 baud
  - Options:
    - BBMD, Foreign Device
- BACnet IP
- Ethernet, ISO 8802-3
- ARCNET , ANSI/ATA 878.1
- LonTalk TP/FT-10
- LonTalk IP
- Point-To-Point, EIA 232
- BACnet/ZigBee (ANNEX O)
- Other: \_\_\_\_\_

**Networking Options:**

- Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
- Annex H, BACnet Tunneling Router over IP
- BACnet/IP Broadcast Management Device (BBMD)

Does the BBMD support registrations by Foreign Devices?  Yes  No

Does the controller support registrations to BBMD as Foreign Device?  Yes  No

Does the BBMD support network address translation?  Yes  No

**Network Security Options:**

- Non-secure Device - is capable of operating without BACnet Network Security
- Secure Device - is capable of using BACnet Network Security (NS-SD BIBB)
- Multiple Application-Specific Keys:
  - Supports Encryption (NS-ED BIBB)
  - Key Server (NS-KS BIBB)

**Character Sets Supported:**

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

- |   |   |                                     |
|---|---|-------------------------------------|
| <input checked="" type="checkbox"/> ISO 10646 (UTF-8) | <input type="checkbox"/> IBM™/Microsoft™ DBCS | <input type="checkbox"/> ISO 8859-1 |
| <input checked="" type="checkbox"/> ISO 10646 (UCS-2) | <input type="checkbox"/> ISO 10646 (UCS-4)    | <input type="checkbox"/> JIS X 0208 |



**Supported BACnet Object Types (Summary):**

An object type is supported if it may be present in the device. The objects checked are currently supported by this product family. See the appropriate object type section in this document for details.

Object	Supported	Create	Delete	Notes
Accumulator	<input type="checkbox"/>			
Analog Input	<input checked="" type="checkbox"/>	NO	NO	
Analog Output	<input checked="" type="checkbox"/>	NO	NO	
Analog Value	<input checked="" type="checkbox"/>	NO	NO	
Averaging	<input type="checkbox"/>			
Binary Input	<input checked="" type="checkbox"/>	NO	NO	
Binary Output	<input checked="" type="checkbox"/>	NO	NO	
Binary Value	<input checked="" type="checkbox"/>	NO	NO	
Calendar	<input type="checkbox"/>			Not requested for B-ASC profile
Command	<input type="checkbox"/>			
Device	<input checked="" type="checkbox"/>	NO	NO	
Event Enrollment	<input type="checkbox"/>			
File	<input type="checkbox"/>			
Loop	<input type="checkbox"/>			
Multistate Input	<input type="checkbox"/>			
Multistate Output	<input type="checkbox"/>			
Multistate Value	<input checked="" type="checkbox"/>	NO	NO	
Notification Class	<input type="checkbox"/>			Not requested for B-ASC profile
Schedule	<input type="checkbox"/>			Not requested for B-ASC profile
Trend Log	<input type="checkbox"/>			
Event Log	<input type="checkbox"/>			

**Device Address Binding:**

Support of static device binding (this is currently necessary for two-way communication with MS/TP slaves and certain other devices):  Yes  No

**Analog Input**

Property	Data type	R	W	Storage	Configurab. In Uni-Pro	Default	Note
Object_Identifier	BACnetObjectIdentifier	X					
Object_Name	CharacterString	X	X	F	Y		
Object_Type	BACnetObjectType	X					
Description	CharacterString	X	X	F	Y		
Present_Value	float	X	X	R			
Status_Flags	BACnetStatusFlags	X					
Event_State	BACnetEventState	X					
Reliability	BACnetReliability	X					
Out_Of_Service	bool	X	X	R			
Units	BACnetEngineeringUnits	X		F	Y	95	
Min_Pres_Value	float	X	X	F	Y	-32700	Range AI
Max_Pres_Value	float	X	X	F	Y	32700	Range AI
COV_Increment	Float	X	X	F	Y	0	
Time_Delay (*)	Unsigned	X	X	F	Y	0	
Notification_Class (*)	Unsigned	X	X	F	Y	NONE	
High_Limit (*)	float	X	X	F	Y	0	
Low_Limit (*)	float	X	X	F	Y	0	

Deadband (*)	Float	X	X	F	Y	0	
Limit_Enable (*)	Unsigned	X	X	F	Y	0,0	see Tab.2
Event_Enable (*)	Unsigned	X	X	F	Y	0,0,0	see Tab.3
Acked_Transitions (*)	BACnetEventTransitionBits	X		R		0,0,0	see Tab.3
Notify_Type (*)	BACnetNotifyType	X	X	F	Y	alarm	alarm,event
Event_Time_Stamps (*)	BACnetARRAY[3] of BACnetTimeStamp	X		R			

The property PRESENT\_VALUE is usually read-only, unless OUT\_OF\_SERVICE is set to TRUE: in this situation the physical input is disconnected than the application and the PRESENT\_VALUE, as well as the property RELIABILITY, can be written for testing purposes.

(\*) These properties are supported only if the specific object implements Intrinsic Reporting

**Analog Output**

<b>Property</b>	<b>Data type</b>	<b>R</b>	<b>W</b>	<b>Storage</b>	<b>Configurab. In Uni-Pro</b>	<b>Default</b>	<b>Note</b>
Object_Identifier	BACnetObjectIdentifier	X					
Object_Name	CharacterString	X	X	F	Y		
Object_Type	BACnetObjectType	X					
Description	CharacterString	X	X	F	Y		
Present_Value	float	X	X	R			
Status_Flags	BACnetStatusFlags	X					
Event_State	BACnetEventState	X					
Reliability	BACnetReliability	X					
Out_Of_Service	bool	X	X				
Units	BACnetEngineeringUnits	X		F	Y	95	
Min_Pres_Value	Float	X	X	F	Y	-32700	Range AI
Max_Pres_Value	Float	X	X	F	Y	32700	Range AI
Priority_Array	Float[16]	X		R			
Relinquish_Default	Float	X	X	R			
COV_Increment	Float	X	X	F	Y	0	
Time_Delay (*)	Unsigned	X	X	F	Y	0	
Notification_Class (*)	Unsigned	X	X	F	Y	NONE	
High_Limit (*)	Float	X	X	F	Y	0	
Low_Limit (*)	Float	X	X	F	Y	0	

Deadband (*)	Float	X	X	F	Y	0	
Limit_Enable (*)	Unsigned	X	X	F	Y	0,0	see Tab.2
Event_Enable (*)	Unsigned	X	X	F	Y	0,0,0	see Tab.3
Acked_Transitions (*)	BACnetEventTransitionBits	X		R		0,0,0	see Tab.3
Notify_Type (*)	BACnetNotifyType	X	X	F	Y	alarm	alarm,event
Event_Time_Stamps (*)	BACnetARRAY[3] of BACnetTimeStamp	X		R			

When OUT\_OF\_SERVICE is TRUE or when the output is forced with an OVERRIDE operation, the physical output is disconnected than the application.

The PRIORITY\_ARRAY is an array of 16 items. The BACnet variables should be forced (Override) with different priority levels. The value with the highest priority will be used to command the output. To remove that forced value it is necessary to do the Relinquish with the same priority. If all the level are released (NULL), the PRESENT\_VALUE will became the RELINQUISH\_DEFAULT value.

(\*) These properties are supported only if the specific object implements Intrinsic Reporting

**Analog Value**

<b>Property</b>	<b>Data type</b>	<b>R</b>	<b>W</b>	<b>Storage</b>	<b>Configurab. In Uni-Pro</b>	<b>Default</b>	<b>Note</b>
Object_Identifier	BACnetObjectIdentifier	X					
Object_Name	CharacterString	X	X	F	Y		
Object_Type	BACnetObjectType	X					
Description	CharacterString	X	X	F	Y		
Present_Value	Float	X	X	R			
Status_Flags	BACnetStatusFlags	X					
Event_State	BACnetEventState	X					
Reliability	BACnetReliability	X					
Out_Of_Service	Bool	X	X				
Units	BACnetEngineeringUnits	X		F	Y	95	
Priority_Array	Float[16]	X		R			
Relinquish_Default	Float	X	X	R			
COV_Increment	Float	X	X	F	Y	0	
Time_Delay (*)	Unsigned	X	X	F	Y	0	
Notification_Class (*)	Unsigned	X	X	F	Y	NONE	
High_Limit (*)	Float	X	X	F	Y	0	
Low_Limit (*)	Float	X	X	F	Y	0	
Deadband (*)	Float	X	X	F	Y	0	
Limit_Enable (*)	Unsigned	X	X	F	Y	0,0	see Tab.2

Event_Enable (*)	Unsigned	X	X	F	Y	0,0,0	see Tab.3
Acked_Transitions (*)	BACnetEventTransitionBits	X		R		0,0,0	see Tab.3
Notify_Type (*)	BACnetNotifyType	X	X	F	Y	alarm	alarm,event
Event_Time_Stamps (*)	BACnetARRAY[3] of BACnetTimeStamp	X		R			

The PRIORITY\_ARRAY is an array of 16 items. The BACnet variables should be forced (Adjust) with different priority levels. The value with the highest priority will be used by the application. To remove that forced value it is necessary to do the Relinquish with the same priority. If all the level are released (NULL), the PRESENT\_VALUE will become the RELINQUISH\_DEFAULT value.

(\*) These properties are supported only if the specific object implements Intrinsic Reporting

**Binary Input**

<b>Property</b>	<b>Data type</b>	<b>R</b>	<b>W</b>	<b>Storage</b>	<b>Configurab. In Uni-Pro</b>	<b>Default</b>	<b>Note</b>
Object_Identifier	BACnetObjectIdentifier	X					
Object_Name	CharacterString	X	X	F	Y		
Object_Type	BACnetObjectType	X					
Description	CharacterString	X	X	F	Y		
Present_Value	BACnetBinaryPV	X	X	R			
Status_Flags	BACnetStatusFlags	X					
Event_State	BACnetEventState	X					
Reliability	BACnetReliability	X					
Out_Of_Service	Bool	X	X	R			
Polarity	BACnetPolarity	X	X	F	Y	0	0,1
Inactive_Text	CharacterString	X	X	F	Y	inactive	
Active_Text	CharacterString	X	X	F	Y	active	
Change_Of_State_Time	BACnetTimeStamp	X		R			
Change_Of_State_Count	Unsigned	X	X	R			
Time_Of_State_Count_Reset	BACnetTimeStamp	X		R			
Time_Delay (*)	Unsigned	X	X	F	Y	0	
Notification_Class (*)	Unsigned	X	X	F	Y	NONE	
Alarm_Value (*)	BACnetBinaryPV	X	X	F	Y	1	0,1
Event_Enable (*)	Unsigned	X	X	F	Y	0,0,0	see Tab.3



Acked_Transitions (*)	BACnetEventTransitionBits	X		R		0,0,0	see Tab.3
Notify_Type (*)	BACnetNotifyType	X	X	F	Y	alarm	alarm,event
Event_Time_Stamps (*)	BACnetARRAY[3] of BACnetTimeStamp	X		R			

The property PRESENT\_VALUE is usually read-only, unless OUT\_OF\_SERVICE is set to TRUE: in this situation the physical input is disconnected than the application and the PRESENT\_VALUE, as well as the property RELIABILITY, can be written for testing purposes.

By default, the PRESENT\_VALUE returns the string INACTIVE\_TEXT in case of logic value "low" and ACTIVE\_TEXT in case of "high".

(\*) These properties are supported only if the specific object implements Intrinsic Reporting

**Binary Output**

<b>Property</b>	<b>Data type</b>	<b>R</b>	<b>W</b>	<b>Storage</b>	<b>Configurab. In Uni-Pro</b>	<b>Default</b>	<b>Note</b>
Object_Identifier	BACnetObjectIdentifier	X					
Object_Name	CharacterString	X	X	F	Y		
Object_Type	BACnetObjectType	X					
Description	CharacterString	X	X	F	Y		
Present_Value	BACnetBinaryPV	X	X	R			
Status_Flags	BACnetStatusFlags	X					
Event_State	BACnetEventState	X					
Reliability	BACnetReliability	X					
Out_Of_Service	Bool	X	X	R			
Polarity	BACnetPolarity	X	X	F	Y	0	0,1
Inactive_Text	CharacterString	X		F	Y	inactive	
Active_Text	CharacterString	X		F	Y	active	
Change_Of_State_Time	BACnetTimeStamp	X		R			
Change_Of_State_Count	Unsigned	X	X	R			
Time_Of_State_Count_Reset	BACnetTimeStamp	X		R			
Priority_Array	Unsigned [16]	X		R			
Relinquish_Default	BACnetBinaryPV	X	X	R			
Time_Delay (*)	Unsigned	X	X	F	Y	0	
Notification_Class (*)	Unsigned	X	X	F	Y	NONE	
Feedback_Value (*)	BACnetBinaryPV	X	X	F	Y	1	0,1

Event_Enable (*)	Unsigned	X	X	F	Y	0,0,0	see Tab.3
Acked_Transitions (*)	BACnetEventTransitionBits	X		R		0,0,0	see Tab.3
Notify_Type (*)	BACnetNotifyType	X	X	F	Y	alarm	alarm,event
Event_Time_Stamps (*)	BACnetARRAY[3] of BACnetTimeStamp	X		R			

When OUT\_OF\_SERVICE is TRUE or when the output is forced with an OVERRIDE operation, the physical output is disconnected than the application.

The PRIORITY\_ARRAY is an array of 16 items. The BACnet variables should be forced (Override) with different priority levels. The value with the highest priority will be used to command the output. To remove that forced value it is necessary to do the Relinquish with the same priority. If all the level are released (NULL), the PRESENT\_VALUE will became the RELINQUISH\_DEFAULT value.

By default, the PRESENT\_VALUE returns the string INACTIVE\_TEXT in case of logic value "low" and ACTIVE\_TEXT in case of "high".

(\*) These properties are supported only if the specific object implements Intrinsic Reporting

**Binary Value**

<b>Property</b>	<b>Data type</b>	<b>R</b>	<b>W</b>	<b>Storage</b>	<b>Configurab. In Uni-Pro</b>	<b>Default</b>	<b>Note</b>
Object_Identifier	BACnetObjectIdentifier	X					
Object_Name	CharacterString	X	X	F	Y		
Object_Type	BACnetObjectType	X					
Description	CharacterString	X	X	F	Y		
Present_Value	BACnetBinaryPV	X	X	R			
Status_Flags	BACnetStatusFlags	X					
Event_State	BACnetEventState	X					
Reliability	BACnetReliability	X					
Out_Of_Service	bool	X	X	R			
Inactive_Text	CharacterString	X	X	F	Y	inactive	
Active_Text	CharacterString	X	X	F	Y	active	
Change_Of_State_Time	BACnetTimeStamp	X		R			
Change_Of_State_Count	Unsigned	X	X	R			
Time_Of_State_Count_Reset	BACnetTimeStamp	X		R			
Priority_Array	Unsigned [16]	X		R			
Relinquish_Default	BACnetBinaryPV	X		R			
Time_Delay (*)	Unsigned	X	X	F	Y	0	
Notification_Class (*)	Unsigned	X	X	F	Y	NONE	
Feedback_Value (*)	BACnetBinaryPV	X	X	F	Y	1	0,1
Event_Enable (*)	Unsigned	X	X	F	Y	0,0,0	see Tab.3

Acked_Transitions (*)	BACnetEventTransitionBits	X	X	R		0,0,0	see Tab.3
Notify_Type (*)	BACnetNotifyType	X	X	F	Y	alarm	alarm,event
Event_Time_Stamps (*)	BACnetARRAY[3] of BACnetTimeStamp	X		R			

The PRIORITY\_ARRAY is an array of 16 items. The BACnet variables should be forced (Adjust) with different priority levels. The value with the highest priority will be used by the application. To remove that forced value it is necessary to do the Relinquish with the same priority. If all the level are released (NULL), the PRESENT\_VALUE will became the RELINQUISH\_DEFAULT value.

By default, the PRESENT\_VALUE returns the string INACTIVE\_TEXT in case of logic value "low" and ACTIVE\_TEXT in case of "high".

(\*) These properties are supported only if the specific object implements Intrinsic Reporting

**Multi State Value**

<b>Property</b>	<b>Data type</b>	<b>R</b>	<b>W</b>	<b>Storage</b>	<b>Configurab. In Uni-Pro</b>	<b>Default</b>	<b>Note</b>
Object_Identifier	BACnetObjectIdentifier	X					
Object_Name	CharacterString	X	X	F	Y		
Object_Type	BACnetObjectType	X					
Description	CharacterString	X	X	F	Y		
Present_Value	Unsigned	X	X	R			
Status_Flags	BACnetStatusFlags	X					
Event_State	BACnetEventState	X					
Reliability	BACnetReliability	X					
Out_Of_Service	Bool	X	X	R			
Number_Of_States	Unsigned	X		F	Y	1	<=16
State_Text	BACnetARRAY[N] of CharacterString	X		F	Y	str null	N = 16
Priority_Array	Unsigned [16]	X		R			
Relinquish_Default	Unsigned	X	X	R			
Time_Delay (*)	Unsigned	X	X	F	Y	0	
Notification_Class (*)	Unsigned	X	X	F	Y	NONE	
Alarm_Values (*)	Unsigned	X	X	F	Y	0	<= N_O_S
Fault_Values (*)	Unsigned	X	X	F	Y	0	<= N_O_S

Event_Enable (*)	Unsigned	X	X	F	Y	0,0,0	see Tab.3
Acked_Transitions (*)	BACnetEventTransitionBits	X	X	R		0,0,0	see Tab.3
Notify_Type (*)	BACnetNotifyType	X	X	F	Y	alarm	alarm, event
Event_Time_Stamps (*)	BACnetARRAY[3] of BACnetTimeStamp	X		R			

The PRIORITY\_ARRAY is an array of 16 items. The BACnet variables should be forced (Adjust) with different priority levels. The value with the highest priority will be used by the application. To remove that forced value it is necessary to do the Relinquish with the same priority. If all the level are released (NULL), the PRESENT\_VALUE will became the RELINQUISH\_DEFAULT value.

(\*) These properties are supported only if the specific object implements Intrinsic Reporting

**Device**

<b>Property</b>	<b>Data type</b>	<b>Man/OPT</b>	<b>R</b>	<b>W</b>	<b>Storage</b>	<b>Configurab. In Uni-Pro</b>	<b>Default</b>	<b>Note</b>
Object_Identifier	BACnetObjectIdentifier	R	X	X				
Object_Name	CharacterString	R	X	X	F	Y	prj Name	
Object_Type	BACnetObjectType	R	X					
System_Status	BACnetDeviceStatus	R	X		R		OPERATIONAL	
Vendor_Name	CharacterString	R	X		F	Y	EVCO SpA	
Vendor_Identifier	Unsigned	R	X		F	Y	630	
Model_Name	CharacterString	R	X		F	Y	CPro3	
Firmware_Revision	CharacterString	R	X		F	Y	Ver/Rev	
Application_Software_Revision	CharacterString	R	X		F	Y	Prj/Ver	
Location	CharacterString	O	X	X	F	Y	strNull	
Description	CharacterString	O	X	X	F	Y	strNull	
Protocol_Version	Unsigned	R	X		F			
Protocol_Revision	Unsigned	R	X		F			
Protocol_Services_Supported	Bitstring	R	X		F			
Protocol_Object_Types_Supported	Bitstring	R	X		F			
Object_List	BACnetObjectIdentifier	R	X		F			
Max_Apdu_Length_Accepted	Unsigned	R	X		F			
Segmentation_Supported	BACnetSegmentation	R	X		F			NO



Local_Time	Time	O	X		R				from RTC
Local_Date	Date	O	X		R				from RTC
Apdu_Timeout	Unsigned	R	X	X	F	Y	3		sec
Number_Of_Apdu_Retries	Unsigned	R	X	X	F	Y	1		
Max_Master	Unsigned	O	X	X	F	Y	127		1-127
Max_Info_Frames	Unsigned	O	X	X	F	Y	3		1-5
Device_Address_Binding	BACnetObjectIdentifier	R	X						
Database_Revision	Unsigned	R	X		F	Y	Ver		
Active_Cov_Subscriptions	Unsigned	O	X						
Receive_Message_Count	Unsigned	O	X		R				
Transmit_Message_Count	Unsigned	O	X		R				
Error_Message_Count	Unsigned	O	X		R				

Property	Data type	MS/TP	IP	R	W	Storage	Configurab. In Uni-Pro	Default	Note
Device ID	Unsigned	R	R	X	X	F	Y	127	1..24bit-1
MAC Address	Unsigned	R		X	X	F	Y	127	1-127
Baud Rate	Unsigned	R		X	X	F	Y	38400	9600 19200 38400 76800
Adjust Priority	Unsigned	R	R	X	X	F	Y	16	1..16

Override Priority	Unsigned	R	R	X	X	F	Y	8	1..16
BACnet Port Number	Unsigned		R	X	X	F	Y	0xBAC0	
BBMD IP Address			R	X	X	F	Y	0.0.0.0	
BBMD Port Number	Unsigned		R	X	X	F	Y	0xBAC0	
Time To Live	Unsigned		R	X	X	F	Y	300	>=15 sec

NOTE: Storage "R" means that all the writeable values will be storage non volatile, so will be lost after power cycle of the controller.

NOTE: Some properties like MAX\_MASTER, MAX\_INFO\_FRAMES,... are related only to the MSTP protocol, others like BBMD and Time To Live only to IP protocol.

Tab. 1

**BACnetEngineeringUnits**

(see ANSI/ASHRAE Standard 135-2010)

Tab. 2

```
BACnetLimitEnable ::= BIT STRING {
lowLimitEnable (0),
highLimitEnable (1)
}
```

Tab. 3

```
BACnetEventTransitionBits ::= BIT STRING {
to-offnormal (0),
to-fault (1),
to-normal (2)
}
```

Tab. 4

```
BACnetEventState ::= ENUMERATED {
normal (0),
fault (1),
offnormal (2),
high-limit (3),
low-limit (4),
life-safety-alarm (5),
...
}
```

**Appendix A : Restrictions**

All strings are restricted to 25 characters.

Unsigned values are limited to 65535.

The max number of states in Multistate objects is 16 states.

The max number of COV subscription is 10

If the precision of the value written to PRESENT\_VALUE is greater than the precision of the variable in the application, the controller will truncate the value to the application precision.

MAX\_INFO\_FRAMES is limited to 1.

NUMBER\_OF\_APDU\_RETRIES is restricted to the range 0..3

The max number of the Reception List is 5.

Only some objects have the Intrinsic Reporting properties supported.



ANNEX A - PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (NORMATIVE)

c-pro 3 NODE kilo and kilo+ programmable controllers

PICS ver. 1.0

GL - 6/17

Code 148CP3NKE104

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**EVCO S.p.A.**

Via Feltre 81, 32036 Sedico Belluno ITALY

Tel. 0437/8422 | Fax 0437/83648

info@evco.it | www.evco.it