Siemens MS/TP Point Pickup Module

6 Point Digital   **6 Point Analog**   **12 Point Combination**
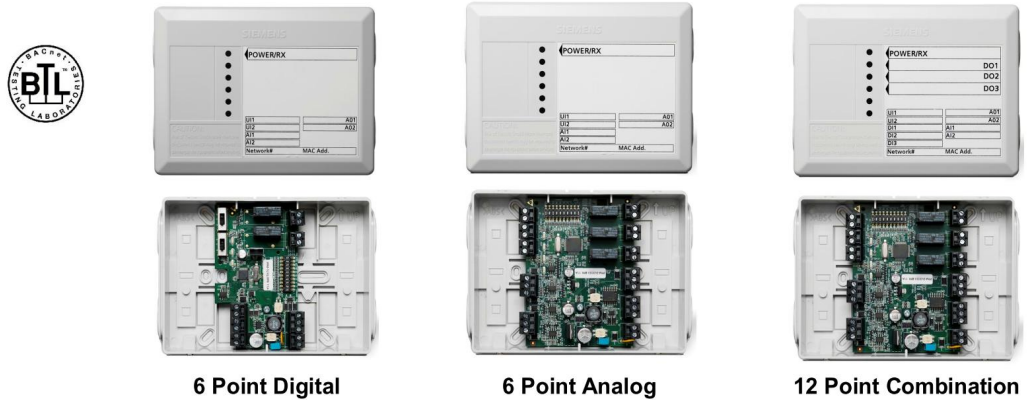
Description

The Siemens Point Pickup Modules (PPM) are expansion I/O devices that communicate on a BACnet master-slave/token-passing (MS/TP) network, allowing for the incorporation of a cluster of remote points into the Building Automation Station over the MS/TP network.

The PPM family leverages the MS/TP network to extend the reach of any BTL-listed BACnet Building Controllers application program.

Each Universal Input can be configured for analog or digital input. Input/Output type is configured by writing to BACnet object properties.

Features

- Wide range of signal type support for flexible IO solutions.
- Device ID and Device name auto-populated for efficient start up (Device ID and Device name are also writable for customization).
- UL and cUL Listed as Enclosed Energy Management Equipment. No additional enclosure required.
- Evaluated and certified by UL[1] as suitable for installation in plenum areas. (Building codes for plenum requirements vary by location; check with local building authority).
- LEDs, visible through the housing, indicate the power, communication, and DO status.
- Default communication at 19200 baud also supports 9600, 38400 and 76800 via DIP switch.
- 8-bit DIP switch to configure MAC address.
- Recover and resume communication on the network after a power interruption without operator intervention.
- Capable of mounting on electrical junction box without field modification or adaptors. (4 in. x 4 in. standard depth US box, 100 mm x 100 mm x 25 mm Asia/Pacific standard box.)
- DIN rail and surface mount installation also possible.
- Assembly has a cover label associated with the LEDs for easy labeling and identification.
- Supports unsolicited COVs when faster data point value updates are required.

1) The current version of PPM-3U63.BPR (for China only) is not certified by BTL or UL.

Hardware

Controller Board

The controller interfaces with, but does not provide, direct control of the following external devices:

- Digital input devices (dry contacts from motion sensors, alarm and door contacts) or Accumulator (gas, water, electrical)
- Digital output devices (fans, pumps, lighting)
- Analog input devices (temp, humidity, flow, pressure)
- Analog output (valves, actuators)

		PPM Type			
		Digital PPM	Analog PPM	Combo PPM	
				PPM-2U3322.BPF and PPM-2U3322.BPR	PPM-3U63.BPR (for China only)
I/O Function	Description	Maximum number of function per module			
Digital inputs					
Binary Inputs	Status indication, voltage-free/dry contact	4	2	5	9
Counter	Count/accumulator, voltage-free/dry pulse contact	3			
Analog inputs w/ 12-bit A/D resolution					
	Temperature Pt 1000 385		4	4	
	Temperature NTC 10K Type II	1			
	Temperature Ni1000 RTD		4	4	
	Voltage, DC 0-10V		4	4	
	Current DC 4-20 mA		2		
Universal inputs w/ 12-bit A/D resolution					
	Temperature Pt 1000 385			2	3
	Temperature Ni 1000 RTD			2	3
	Voltage, DC 0-10V			2	3
	Digital inputs			2	3
Digital outputs					
BO On/Off	NO Contact, 240 Vac, 5A Resistive/ 2 A General Purpose	2		3	3
Analog outputs					
	DC 0-10 V		2	2	

MS/TP Point Pickup Modules Specifications

Power Requirements Operating Range Power Consumption	Input power range of 19.2 Vac to 28.8 Vac (50 or 60 Hz) 4 VA to 7 VA
Universal Inputs	**6 Point Digital PPMs** (PPM-1U32.BPR and PPM-1U32.BPF) 1- 10K Ω Type II NTC Thermistor or dry contact **6 Point Analog PPMs** (PPM-2U22.BPF and PPM-2U22.BPR) 2- 1000 Nickel RTD, 1000 Pt RTD, 0-10V, or dry contact **12 Point Combination PPMs** (PPM-2U3322.BPF and PPM-2U3322.BPR) 2- 1000 Nickel RTD, 1000 Pt RTD, 0-10V, or dry contact **12 Point Combination PPM** (PPM-3U63.BPR, for China only) 3- 1000 Nickel RTD, 1000 Pt RTD, 0-10V, or dry
Digital Outputs	**6 Point Digital PPMs** (PPM-1U32.BPR and PPM-1U32.BPF) 2- Form A NO (Normally Open) Relays. 24 to 240 Vac, 5A resistive, 2A General Purpose, 5(2) **6 Point Digital PPM** (PPM-1U32.BPR) 2- Hand-Off-Auto switches provide manual operation of the relays for commissioning **12 Point Combination PPMs** (PPM-2U3322.BPF, PPM-2U3322.BPR, and PPM-3U63.BPR (for China only)) 3- Form A NO (Normally Open) Relays. 24 to 240 Vac, 5A resistive, 2A General Purpose, 5(2)
Analog Inputs	**6 Point Analog PPMs** (PPM-2U22.BPF and PPM-2U22.BPR) 2- 1000 Nickel RTD, 1000 Pt RTD, 0-10Vdc, or 4-20mA **12 Point Combination PPMs** (PPM-2U3322.BPFand PPM-2U3322.BPR) 2- 1000 Nickel RTD, 1000 Pt RTD, 0-10Vdc
Analog Outputs	**6 Point Analog PPMs** (PPM-2U22.BPF and PPM-2U22.BPR) 2- 0-10 Vdc **12 Point Combination PPMs** (PPM-2U3322.BPFand PPM-2U3322.BPR) 2- 0-10 Vdc
Digital Inputs	**6 Point Digital PPMs** (PPM-1U32.BPR and PPM-1U32.BPF) 3- Dry contact or Pulse accumulator **12 Point Digital PPM** (PPM-3U63.BPR, for China only) 6- Dry contact
Dimensions	6.1 in x 4.5 x 1.4 in (154 mm x 114.4 mm x 34.5 mm)
Weight	0.8 lb max. including box
Communications Remote Local	BACnet MS/TP master or slave 9600 to 76800 baud set using a DIP switch
Storage Temperature Operating Range Humidity Range	-40°F to 158°F (-40°C to 70°C) 32°F to 122°F (0°C to 50°C) 5% to 95% rh (non-condensing)

Ordering Information

Part Number	Description
PPM-1U32.BPF	6 Point Digital BACnet MS/TP Point Pickup Module, Fixed terminal blocks (1UI 3DI 2DO)
PPM-1U32.BPR	6 Point Digital BACnet MS/TP Point Pickup Module, Removable terminal blocks and HOA switches (1UI 3DI 2DO)
PPM-2U22.BPF	6 Point Analog BACnet MS/TP Point Pickup Module, Fixed terminal blocks (2UI 2AI 2 AO)
PPM-2U22.BPR	6 Point Analog BACnet MS/TP Point Pickup Module, Removable terminal blocks (2UI 2AI 2 AO)
PPM-2U3322.BPF	12 Point Combination BACnet MS/TP Point Pickup Module, Fixed terminal blocks (2UI 3DI 3DO 2AO 2AI)
PPM-2U3322.BPR	12 Point Combination BACnet MS/TP Point Pickup Module, Removable terminal blocks (2UI 3DI 3DO 2AO 2AI)
PPM-3U63.BPR (for China only)	12 Point Combination BACnet MS/TP Point Pickup Module, Removable terminal blocks (3UI 6DI 3DO)
PPM-DIN.RMB	BACnet MS/TP Point Pickup Module DIN rail mounting brackets (5 pair)
550-975P100	3-wire 120 Ω 1/2W carbon composition resistor/each end of line terminator (pkg. of 100)
550-974P10	3-wire RS-485 reference terminator for single earth ground termination at one end of network.

BACnet Protocol Implementation Conformance Statement

Products

Product	Model Number	Protocol Revision	Software Version	Firmware Version
6 Point Analog PPM	PPM-2U22.BPF PPM-2U22.BPR	135-2004	3.0	1.0
6 Point Digital PPM	PPM-1U32.BPF PPM-1U32.BPR	135-2004	3.0	1.0
12 Point Combo PPM	PPM-2U3322.BPF PPM-2U3322.BPR PPM-3U63.BPR (for China only)	135-2004	3.0	1.0

Vendor Information

Siemens Industry, Inc.
Building Technologies Division
1000 Deerfield Parkway
Buffalo Grove, IL 60089

www.sbt.siemens.com

Product Description

The Point Pickup Module connects to small point count, remotely located digital IO/. This controller communicates with the APOGEE® Automation System using BACnet MS/TP.

BACnet Standardized Device Profile (Annex L)

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

Supported BACnet Interoperability Building Block (BIBBs)

BACnet Interoperability Building Blocks (BIBB)		Supported
Data Sharing		
DS-RP-A	Data Sharing-ReadProperty-A	
DS-RP-B	Data Sharing-ReadProperty-B	•
DS-RPM-A	Data Sharing-ReadPropertyMultiple-A	
DS-RPM-B	Data Sharing-ReadPropertyMultiple-B	•
DS-RPC-A	Data Sharing-ReadPropertyConditional-A	
DS-RPC-B	Data Sharing-ReadPropertyConditional-B	
DS-WP-A	Data Sharing-WriteProperty-A	
DS-WP-B	Data Sharing-WriteProperty-B	•
DS-WPM-A	Data Sharing-WritePropertyMultiple-A	•
DS-WPM-A	Data Sharing-WritePropertyMultiple-B	
DS-COV-A	Data Sharing-COV-A	
DS-COV-B	Data Sharing-COV-B	•
DS-COVP-A	Data Sharing-COVP-A	
DS-COVP-B	Data Sharing-COVP-B	
DS-COVU-A	Data Sharing-COV-Unsolicited-A	
DS-COVU-B	Data Sharing-COV-Unsolicited-B	•
Scheduling		
SCHED-A	Scheduling-A	
SCHED-I-B	Scheduling-Internal-B	
SCHED-E-B	Scheduling-External-B	
Alarm and Event Management		
AE-N-A	Alarm and Event-Notification-A	
AE-N-I-B	Alarm and Event-Notification Internal-B	
AE-N-E-B	Alarm and Event-Notification External-B	
AE-ACK-A	Alarm and Event-ACK-A	
AE-ACK-B	Alarm and Event-ACK-B	
AE-ASUM-A	Alarm and Event-Alarm Summary-A	
AE-ESUM-B	Alarm and Event-Alarm Summary-B	
AE-INFO-A	Alarm and Event-Information-A	
AE-INFO-B	Alarm and Event-Information-B	
AE-LS-A	Alarm and Event-LifeSafety-A	
AE-LS-B	Alarm and Event-LifeSafety-B	
Trending		
T-VMT-A	Trending-Viewing and Modifying Trends-A	

BACnet Interoperability Building Blocks (BIBB)		Supported
T-VMT-I-B	Trending-Viewing and Modifying Trends-Internal-B	
T-VMT-E-B	Trending-Viewing and Modifying Trends-External-B	
T-ATR-A	Trending-Automated Trend Retrieval-A	
T-ATR-B	Trending-Automated Trend Retrieval-B	
Network Management		
NM-CE-A	Network Management-Connection Establishment-A	
NM-CE-B	Network Management-Connection Establishment-B	
NM-RC-A	Network Management-Router Configuration-A	
NM-RC-B	Network Management-Router Configuration-B	
Device Management		
DM-DDB-A	Device Management-Dynamic Device Binding-A	
DM-DDB-B	Device Management-Dynamic Device Binding-B	•
DM-DOB-A	Device Management-Dynamic Object Binding-A	
DM-DOB-B	Device Management-Dynamic Object Binding-B	•
DM-DDC-A	Device Management-DeviceCommunicationControl-A	
DM-DDC-B	Device Management-DeviceCommunicationControl-B	•
DM-PT-A	Device Management-Private Transfer-A	
DM-PT-B	Device Management-Private Transfer-B	
DM-TM-A	Device Management-Text Message-A	
DM-TM-B	Device Management-Text Message-B	
DM-TS-A	Device Management-TimeSynchronization-A	
DM-TS-B	Device Management-TimeSynchronization-B	
DM-UTC-A	Device Management-UTCTimeSynchronization-A	
DM-UTC-B	Device Management-UTCTimeSynchronization-B	
DM-RD-A	Device Management-ReinitializeDevice-A	
DM-RD-B	Device Management-ReinitializeDevice-B	
DM-BR-A	Device Management-Backup and Restore-A	
DM-BR-B	Device Management-Backup and Restore-B	
DM-LM-A	Device Management-List Manipulation-A	
DM-LM-B	Device Management-List Manipulation-B	
DM-OCD-A	Device Management-Object Creation and Deletion-A	
DM-OCD-B	Device Management-Object Creation and Deletion-B	
DM-VT-A	Device Management-Virtual Terminal-A	
DM-VT-B	Device Management-Virtual Terminal-B	

BACnet Standard Application Services Support

Name		
ReadProperty		Execute
ReadPropertyMultiple		Execute
WriteProperty		Execute
UnconfirmedCOVNotification	Initiate	
DeviceCommunicationContro		Execute
I-Am	Initiate	
I-Have	Initiate	
Who-Has		Execute
Who-Is		Execute

Data Link Layer Options

	BACnet IP, (Annex J)
	BACnet IP, (Annex J), Foreign Device
	ISO 8802-3, Ethernet (Clause 7)
	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 bps, 19200 bps, 38400 bps, 76800 bps
•	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: _____
	Other: _____

Segmentation Capability

	Able to transmit segmented messages	Window Size: 32
	Able to receive segmented messages	Window Size: 32

Device Address Binding

Is Static Device Binding supported?	No

Networking Options

Router, Clause 6 – List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc. BACnet/IP (Annex J) to BACnet MS/TP	
Annex H.3, BACnet Tunneling Router over UDP/IP	
BACnet/IP Broadcast Management Device (BBMD)	
Does the BBMD support registrations by Foreign Devices?	

Character Sets Supported

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

•	ANSI X3.4
	ISO 10646 (USC-2)
	IBM™/Microsoft™ DBCS
	ISO 10646 (ICS-4)
	ISO 8859-1
	JIS C 6226

6 Point Analog PPM

Standard Object Types Supported

Object Type	Supported	Creatable	Deletable
Accumulator		No	No
Analog Input	•	No	No
Analog Output	•	No	No
Analog Value		No	No
Averaging		No	No
Binary Input	•	No	No
Binary Output	•	No	No
Binary Value		No	No
Calendar		No	No
Command		No	No
Device	•	No	No
Event Enrollment		No	No
File		No	No
Group		No	No
Life Safety Point		No	No
Life Safety Zone		No	No
Loop		No	No
Multi-state Output		No	No
Multi-state Value		No	No
Notification Class		No	No
Program		No	No
Pulse Converter		No	No
Schedule		No	No
Trend Log		No	No

Object Attributes

Accumulator Input Object Type

This object type will not be supported in this project.

Analog Input Object Type

Analog Input Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		
Out_Of_Service	Yes	W	
Update_Interval	No		
Units	Yes	W	
Min_Pres_Value	No		
Max_Pres_Value	No		
Resolution	No		
COV_Increment	Yes	W	
Time_Delay	No		
Notification Class	No		
High_Limit	No		
Low_Limit	No		
Deadband	No		
Limit_Enable	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		
Analog Output Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		

Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		
Out_Of_Service	Yes		
Units	Yes		
Min_Pres_Value	No		
Max_Pres_Value	No		
Resolution	Yes		
Priority_Array	Yes		
Relinquish_default	Yes	W	
COV_Increment	Yes	W	
Time_Delay	No		
Notification Class	No		
High_Limit	No		
Low_Limit	No		
Deadband	No		
Limit_Enable	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		

Analog Value Object Type

This object type will not be supported in this project.

Averaging Object Type

This object type will not be supported in this project.

Binary Input Object Type

Binary Input Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		

Reliability	Yes		
Out_Of_Service	Yes	W	
Polarity	Yes		
Inactive_Text	Yes		
Active_Text	Yes		
Change_Of_State_Time	No		
Change_Of_State_Count	No		
Time_Of_State_Count_Reset	No		
Elapsed_Active_Time	No		
Time_Of_Active_Time_Reset	No		
Time_Delay	No		
Notification Class	No		
Alarm_Value	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		
Binary Output Object Type			
Property_Identifier	**Supported**	**Access**	**Notes**
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		
Out_Of_Service	Yes		
Polarity	Yes		
Inactive_Text	Yes		
Active_Text	Yes		
Change_Of_State_Time	No		
Change_Of_State_Count	No		
Time_Of_State_Count_Reset	No		
Elapsed_Active_Time	No		
Minimum_Off_time	No		
Maximum_Off_time	No		

Priority_Array	Yes		
Relinquish_default	Yes	W	
Time_Delay	No		
Notification Class	No		
Feedback_Value	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		

Binary Value Object Type

This object type will not be supported in this project.

Calendar Object Type

This object type will not be supported in this project.

Command Object Type

This object type will not be supported in this project.

Device Object Type

Device Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes	W	
Object_Name	Yes	W	
Object_Type	Yes		
System_Status	Yes		
Vendor_Name	Yes		
Vendor_Identifier	Yes		
Model_Name	Yes		
Firmware_Revision	Yes		
Application_Software_Version	Yes		
Location	Yes	W	
Description	Yes	W	
Protocol_Version	Yes		
Protocol_Revision	Yes		
Protocol_Services_Support	Yes		
Protocol_Object_Types_Supported	Yes		
Object_List	Yes		
Max_APDU_Length_Accepted	Yes		

Segementation_Support	Yes		
Max_Segments_Support	No		
VT_Classes_Supported	No		
Active_VT_Sessions	No		
Local_Time	No		
Local_Date	No		
UTC_Offset	No		
Daylight_Savings_Status	No		
APDU_Segment_Timeout	No		
APDU_Timeout	Yes		
Number_Of_APDU_Retries	Yes		
List_Of_Session_Keys	No		
Time_Sync_Recipients	No		
Max_Master	Yes	W	
Max_Info_Frames	Yes	W	
Device_Address_Binding	Yes		
Database_Revsion	Yes		
Configuration_Files	No		
Last_Restore_Time	No		
Backup_Failure_Time	No		
Active_COV_Subscriptions	No		
Slave_Proxy_Table	No		
Manual_Slave_Address_Binding	No		
Auto_Slave_Discovery	No		
Slave_Address_Binding	No		
Profile_Name	No		

Event Enrollment Object Type

This object type will not be supported in this project.

File Object Type

This object type will not be supported in this project.

Group Object Type

This object type will not be supported in this project.

Life Safety Point Object Type

This object type will not be supported in this project.

Life Safety Zone Object Type

This object type will not be supported in this project.

Loop Object Type

This object type will not be supported in this project.

Multistate Input Object Type

This object type will not be supported in this project.

Multistate Output Object Type

This object type will not be supported in this project.

Multistate Value Object Type

This object type will not be supported in this project.

Notification Class Object Type

This object type will not be supported in this project.

Program Object Type

This object type will not be supported in this project.

Pulse Converter Object Type

This object type will not be supported.

Schedule Object Type

This object type will not be supported in this project.

Trend Log Object Type

This object type will not be supported in this project.

6 Point Digital PPM

Standard Object Types Supported

Object Type	Supported	Creatable	Deletable
Accumulator	•	No	No
Analog Input	•	No	No
Analog Output		No	No
Analog Value		No	No
Averaging		No	No
Binary Input	•	No	No
Binary Output	•	No	No
Binary Value		No	No
Calendar		No	No
Command		No	No
Device	•	No	No
Event Enrollment		No	No
File		No	No
Group		No	No
Life Safety Point		No	No
Life Safety Zone		No	No
Loop		No	No
Multi-state Output		No	No
Multi-state Value		No	No
Notification Class		No	No
Program		No	No
Pulse Converter		No	No
Schedule		No	No
Trend Log		No	No

Object Attributes

Accumulator Input Object Type

Accumulator Input Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	

Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		
Out_Of_Service	Yes	W	
Scale	Yes	W	Currently we just support the floatscale.
Units	Yes	W	
Prescale	No		
Max_Pres_Value	Yes		
Value_Change_Time	Yes		
Value_Before_Change	Yes		
Value_Set	Yes	W	
Logging_Record	No		
Logging_Object	No		
Pulse_Rate	No		
High_Limit	No		
Low_Limit	No		
Limit_Monitoring_Interval	No		
Notification Class	No		
Time_Delay	No		
Limit_Enable	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		

Analog Input Object Type

Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		

Out_Of_Service	Yes	W	
Update_Interval	No		
Units	Yes	W	
Min_Pres_Value	No		
Max_Pres_Value	No		
Resolution	No		
COV_Increment	Yes	W	
Time_Delay	No		
Notification Class	No		
High_Limit	No		
Low_Limit	No		
Deadband	No		
Limit_Enable	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		

Analog Output Object Type

This object type will not be supported in this project.

Analog Value Object Type

This object type will not be supported in this project.

Averaging Object Type

This object type will not be supported in this project.

Binary Input Object Type

Binary Input Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		

Out_Of_Service	Yes	W	
Polarity	Yes		
Inactive_Text	Yes	W	
Active_Text	No		
Max_Pres_Value	Yes		
Change_Of_State_Time	No		
Change_Of_State_Count	No		
Time_Of_State_Count_Reset	No		
Elapsed_Active_Time	No		
Time_Of_Actve_Time_Reset	No		
Time_Delay	No		
Notification Class	No		
Alarm_Value	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		

Binary Output Object Type

Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		
Out_Of_Service	Yes		
Polarity	Yes		
Inactive_Text	Yes		
Active_Text	Yes		
Change_Of_State_Time	No		
Change_Of_State_Coount	No		
Time_Of_State_Count_Reset	No		
Elapsed_Active_Time	No		
Time_Of_Active_Time_Reset	No		
Minimum_Off_Time	No		

Minimum_On_Time	No		
Priority_Array	Yes		
Relinquish_default	Yes	W	
Time_Delay	No		
Notification Class	No		
Feedback_Value	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		

Binary Value Object Type

This object type will not be supported in this project.

Calendar Object Type

This object type will not be supported in this project.

Command Object Type

This object type will not be supported in this project.

Device Object Type

Device Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes	W	
Object_Name	Yes	W	
Object_Type	Yes		
System_Status	Yes		
Vendor_Name	Yes		
Vendor_Identifier	Yes		
Model_Name	Yes		
Firmware_Revision	Yes		
Application_Software_Version	Yes		
Location	Yes	W	
Description	Yes	W	
Protocol_Version	Yes		
Protocol_Revision	Yes		
Protocol_Services_Supported	Yes		
Protocol_Object_Tyes_Supported	Yes		
Object_List	Yes		

Max_APDU_Length_Accepted	Yes		
Segmentation_Supported	Yes		
Max_Segments_Supported	No		
VT_Classes_Sessions	No		
Local_Time	No		
Local_Date	No		
UTC_Offset	No		
Daylight_Savings_Status	No		
APDU_Segment_Timeout	No		
APDU_Timeout	Yes		
Number_Of_APDU_Retries	Yes		
List_Of_Session_Keys	No		
Time_Sync_Recipients	No		
Max_Master	Yes	W	
Max_Info_Frames	Yes	W	
Device_Address_Binding	Yes		
Database_Revision	Yes		
Configuration_Files	No		
Last_Restore_Time	No		
Backup_FailureE_Timeout	No		
Active_COV_Subscriptions	No		
Slave_Proxy_Table	No		
Manual_Slave_Address_Binding	No		
Auto_Slave_Discovery	No		
Slave_Address_Binding	No		
Profile_Name	No		

Event Enrollment Object Type
This object type will not be supported in this project.

File Object Type
This object type will not be supported in this project.

Group Object Type
This object type will not be supported in this project.

Life Safety Point Object Type
This object type will not be supported in this project.

Life Safety Zone Object Type
This object type will not be supported in this project.

Loop Object Type
This object type will not be supported in this project.

Multistate Input Object Type
This object type will not be supported in this project.

Multistate Output Object Type

This object type will not be supported in this project.

Multistate Value Object Type

This object type will not be supported in this project.

Notification Class Object Type

This object type will not be supported in this project.

Program Object Type

This object type will not be supported in this project.

Pulse Converter Object Type

This object type will not be supported in this project.

Schedule Object Type

This object type will not be supported in this project.

Trend Log Object Type

This object type will not be supported in this project.

12 Point Combo PPM

Standard Object Types Supported

Object Type	Supported	Creatable	Deletable
Accumulator		No	No
Analog Input	•	No	No
Analog Output	•	No	No
Analog Value		No	No
Averaging		No	No
Binary Input	•	No	No
Binary Output	•	No	No
Binary Value		No	No
Calendar		No	No
Command		No	No
Device	•	No	No
Event Enrollment		No	No
File		No	No
Group		No	No
Life Safety Point		No	No
Life Safety Zone		No	No
Loop		No	No
Multi-state Input		No	No
Multi-state Output		No	No
Multi-state Value		No	No
Notification Class		No	No
Program		No	No
Pulse Converter		No	No
Schedule		No	No
Trend Log		No	No

Object Attributes

Accumulator Input Object Type

This object type will not be supported in this project.

Analog Input Object Type

Analog Input Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		
Out_Of_Service	Yes	W	
Update_Interval	No		
Units	Yes	W	
Min_Pres_Value	No		
Max_Pres_Value	No		
Resolution	No		
COV_Increment	Yes	W	
Time_Delay	No		
Notification Class	No		
High_Limit	No		
Low_Limit	No		
Deadband	No		
Limit_Enable	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		
Analog Output Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		

Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		
Out_Of_Service	Yes		
Units	Yes		
Min_Pres_Value	No		
Max_Pres_Value	No		
Resolution	No		
Priority_Array	Yes		
Relinquish_default	Yes	W	
COV_Increment	Yes	W	
Time_Delay	No		
Notification Class	No		
High_Limit	No		
Low_Limit	No		
Deadband	No		
Limit_Enable	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		

Analog Value Object Type

This object type will not be supported in this project.

Averaging Object Type

This object type will not be supported in this project.

Binary Input Object Type

Binary Input Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		

Reliability	Yes		
Out_Of_Service	Yes	W	
Polarity	Yes		
Inactive_Text	Yes		
Active_Text	Yes		
Change_Of_State_Time	No		
Change_Of_State_Count	No		
Time_Of_State_Count_Reset	No		
Elapsed_Active_Time	No		
Time_Of_Active_Time_Reset	No		
Time_Delay	No		
Notification Class	No		
Alarm_Value	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		
Binary Output Object Type			
Property_Identifier	**Supported**	**Access**	**Notes**
Object_Identifier	Yes		
Object_Name	Yes		
Object_Type	Yes		
Present_Value	Yes	W	
Description	No		
Device_Type	No		
Status_Flags	Yes		
Event_State	Yes		
Reliability	Yes		
Out_Of_Service	Yes		
Polarity	Yes		
Inactive_Texxt	Yes		
Active_Text	Yes		
Change_Of_State_Time	No		
Change_Of_State_Count	No		
Time_Of_State_Count_Reset	No		
Elapsed_Active_Time	No		
Time_Of_Active_Time_Reset	No		
Minimum_Off_Time	No		

Minimum_On_Time	No		
Priority_Array	Yes		
Relinquish_default	Yes	W	
Time_Delay	No		
Notification Class	No		
Feedback_Value	No		
Event_Enable	No		
Acked_Transitions	No		
Notify_Type	No		
Event_Time_Stamps	No		
Profile_Name	No		

Binary Value Object Type

This object type will not be supported in this project.

Calendar Object Type

This object type will not be supported in this project.

Command Object Type

This object type will not be supported in this project.

Device Object Type

Device Object Type			
Property_Identifier	Supported	Access	Notes
Object_Identifier	Yes	W	
Object_Name	Yes	W	
Object_Type	Yes		
System_Status	Yes		
Vendor_Name	Yes		
Vendor_Identifier	Yes		
Model_Name	Yes		
Firmware_Revision	Yes		
Application_Software_Version	Yes		
Location	Yes	W	
Description	Yes	W	
Protocol_Version	Yes		
Protocol_Revision	Yes		
Protocol_Services_Supported	Yes		
Protocol_Object_Types_Supported	Yes		
Object_list	Yes		

Max_APPDU_Length_Accepted	Yes		
Segmentation_Supported	Yes		
Max_Segments_Supported	No		
VT_Classes_Supported	No		
Active_VT_Sessions	No		
Local_Time	No		
Local_Date	No		
UT_Offset	No		
Daylight_Savings_Status	No		
APDU_Segment_Timeout	No		
APDU_Timeout	Yes		
Number_Of_APDU_Retries	Yes		
List_Of_Session_Keys	No		
Time_Sync_Recipients	No		
Max_Master	Yes	W	
Max_Info_Frames	Yes	W	
Device_Address_Binding	Yes		
Database_Revision	Yes		
Configuration_Files	No		
Last_Restore_Time	No		
Backup_Failure_Timeout	No		
Active_COV_Subscriptions	No		
Slave_Proxy_Table	No		
Manual_Slave_Address_Binding	No		
Auto_Slave_Discovery	No		
Slave_Address_Binding	No		
Profile_Name	No		

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Schedule Object Type

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Trend Log Object Type

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