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Honeywell ComfortPoint™ Open IRM Controller Protocol Implementation Conformance Statement (PICS)

Topic: BACnet Protocol Implementation Conformance Statement (PICS)
Date: July 2017
Version: 6.0
Applicable Products: ComfortPoint™ Open IRM Controller,
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Honeywell ComfortPoint™ Open IRM Controller

Annex A - Protocol Implementation Conformance Statement

Date: 18th, July 2017

Vendor ID: 17

Vendor Name: Honeywell International Inc.

Product Name: Honeywell ComfortPoint™ Open IRM Controller

Product Model Number: CPO-RL1, CPO-RL2, CPO-RL3, CPO-RL4, CPO-RL5, CPO-RL6, CPO-RL7U, CPO-RL8, CPO-RS1, CPO-RS2, CPO-RS3, CPO-RS4, CPO-RS5, CPO-RS6, TR-RS4, TR-RS5, PCD7.LRL2, PCD7.LRS4, PCD7.LRS5, CLMERL2, CLMERL8, CLMERS4, CLMERL6, CLMERS5, AL-RL2, AL-RL4, AL-RS4

Applications Software Version: 5.0

Firmware Revision: 3.2.5

BACnet Protocol Revision: 12

Product Description and Intended Use:

The CPO-R controller is a BACnet-compliant HVAC room controller offering comprehensive installation advantages, such as universal mounting options and the capability to directly connect and power field devices. Fast and easy single person commissioning on smartphone and tablet is possible via the 'RoomUp' application. Proven configurable applications can be used in 2- and 4-pipe systems. Fan coil units, chilled ceilings, hydronic and underfloor heating installations, air quality control, and a mix of these applications can be covered in a single controller.

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):

| | | |
|--|--------------------------------|-----------|
| Data Sharing | Read Property-B | DS-RP-B |
| | Read Property Multiple-B | DS-RPM-B |
| | Write Property-B | DS-WP-B |
| | Write Property Multiple-B | DS-WPM-B |
| | Change Of Value-B | DS-COV-B |
| Alarm & Event Management | Notification Internal-B | AE-N-I-B |
| | Acknowledgement-B | AE-ACK-B |
| | Alarm Summary-B | AE-ASUM-B |
| | Event Information -B | AE-INFO-B |
| Scheduling | Scheduling Internal-B | SCHED-I-B |
| Device & Network Management | Dynamic Device Binding-A | DM-DDB-A |
| | Dynamic Device Binding-B | DM-DDB-B |
| | Dynamic Object Binding-B | DM-DOB-B |
| | Device Communication Control-B | DM-DCC-B |
| | Time Synchronization-B | DM-TS-B |

| | | |
|--|----------------------------|----------|
| | UTC Time Synchronization-B | DM-UTC-B |
| | Reinitialize Device-B | DM-RD-B |
| | Back-up and Restore-B | DM-BR-B |
| | List Manipulation-B | DM-LM-B |

Following device binding methods Supported by the controller

- Send Who-Is, receive I-Am (BIBB DM-DDB-A)
- Receive Who-Is, send I-Am (BIBB DM-DDB-B)
- Send Who-Has, receive I-Have (BIBB DM-DOB-A)
- Receive Who-Has, send I-Have (BIBB DM-DOB-B)
- Manual configuration of recipient device's network number and MAC address
- None of the above

Segmentation Capability:

- Able to transmit segmented messages no Window Size ____
- Able to receive segmented messages no Window Size ____

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): 9.6k, 19.2k, 38.4k, 57.6k,76.8k,115.2k 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:
- 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 - BACnet IP (Annex J) - MS/TP.
- 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 BBMD support network address translation? Yes No

Character Sets Supported:

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

- ISO 10646 (UTF-8)

- IBM™/Microsoft™ DBCS
- JIS X 0208
- ISO 10646 (UCS-4)
- ISO 10646 (UCS-2)
- ISO 8859-1

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

N/A

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)

Standard Object Types Supported:

| | Object supported | Object dynamically creatable | Object dynamically deletable |
|--------------------|------------------|------------------------------|------------------------------|
| ANALOG_INPUT | Y | N | N |
| ANALOG_OUTPUT * | Y | N | N |
| ANALOG_VALUE | Y | N | N |
| AVERAGING | N | N | N |
| BINARY_INPUT | Y | N | N |
| BINARY_OUTPUT ** | Y | N | N |
| BINARY_VALUE | Y | N | N |
| CALENDAR | Y | N | N |
| COMMAND | N | N | N |
| DEVICE | Y | N | N |
| EVENT_ENROLLMENT | N | N | N |
| FILE | Y | N | N |
| GROUP | N | N | N |
| LOOP | N | N | N |
| LIFE_SAFETY_DEVICE | N | N | N |
| LIFE_SAFETY_ZONE | N | N | N |
| MULTISTATE_INPUT | N | N | N |
| MULTISTATE_OUTPUT | N | N | N |
| MULTISTATE_VALUE | Y | N | N |
| NOTIFICATION_CLASS | Y | N | N |
| PROGRAM | N | N | N |
| SCHEDULE | Y | N | N |
| TRENDLOG | N | N | N |
| ACCUMULATOR | Y | N | N |
| PULSE_CONVERTER | N | N | N |

* * CPO-RS3 does not support AO

** CPO-RS1 does not support BO

Standard Objects and Properties Supported:

Accumulatore Object

| Readable Properties | Writable Properties |
|---------------------------|---------------------|
| OBJECT_IDENTIFIREFIRE | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | PRESENT_VALUE |
| STATUS_FLAGS | |
| EVENT_STATE | |
| OUT_OF_SERVICE | OUT_OF_SERVICE |
| SCALE | |
| UNITS | |
| MAX_PRES_VALUE | MAX_PRES_VALUE |
| DESCRIPTION | |
| RELIABILITY | |
| PRESCALE | |
| VALUE_CHANGE_TIME | |
| VALUE_BEFORE_CHANGE | |
| VALUE_SET | VALUE_SET |
| PULSE_RATE | |
| HIGH_LIMIT | HIGH_LIMIT |
| LOW_LIMIT | LOW_LIMIT |
| LIMIT_MONITORING_INTERVAL | |
| NOTIFICATION_CLASS | |
| TIME_DELAY | TIME_DELAY |
| LIMIT_ENABLE | LIMIT_ENABLE |
| EVENT_ENABLE | EVENT_ENABLE |
| ACKED_TRANSITIONS | |
| NOTIFY_TYPE | NOTIFY_TYPE |
| EVENT_TIME_STAMPS | |

Analog Input Object:

| Readable Properties | Writable Properties |
|---------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | PRESENT_VALUE |
| STATUS_FLAGS | |
| EVENT_STATE | |
| OUT_OF_SERVICE | OUT_OF_SERVICE |
| UNITS | |
| DESCRIPTION | |
| RELIABILITY | |
| COV_INCREMENT | COV_INCREMENT |
| TIME_DELAY | TIME_DELAY |
| NOTIFICATION_CLASS | |
| HIGH_LIMIT | HIGH_LIMIT |
| LOW_LIMIT | LOW_LIMIT |

| | |
|-------------------|--------------|
| DEADBAND | DEADBAND |
| LIMIT_ENABLE | LIMIT_ENABLE |
| EVENT_ENABLE | EVENT_ENABLE |
| ACKED_TRANSITIONS | |
| NOTIFY_TYPE | NOTIFY_TYPE |
| EVENT_TIME_STAMPS | |

Analog Output Object:

| Readable Properties | Writable Properties |
|---------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | PRESENT_VALUE |
| STATUS_FLAGS | |
| EVENT_STATE | |
| OUT_OF_SERVICE | OUT_OF_SERVICE |
| UNITS | |
| PRIORITY_ARRAY | |
| RELINQUISH_DEFAULT | RELINQUISH_DEFAULT |
| DESCRIPTION | |
| RELIABILITY | |
| COV_INCREMENT | COV_INCREMENT |
| TIME_DELAY | TIME_DELAY |
| NOTIFICATION_CLASS | |
| HIGH_LIMIT | HIGH_LIMIT |
| LOW_LIMIT | LOW_LIMIT |
| DEADBAND | DEADBAND |
| LIMIT_ENABLE | LIMIT_ENABLE |
| EVENT_ENABLE | EVENT_ENABLE |
| ACKED_TRANSITIONS | |
| NOTIFY_TYPE | NOTIFY_TYPE |
| EVENT_TIME_STAMPS | |

Analog Value Object:

| Readable Properties | Writable Properties |
|---------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | PRESENT_VALUE |
| STATUS_FLAGS | |
| EVENT_STATE | |
| OUT_OF_SERVICE | OUT_OF_SERVICE |
| UNITS | |
| DESCRIPTION | |
| RELIABILITY | |
| COV_INCREMENT | COV_INCREMENT |
| TIME_DELAY | TIME_DELAY |
| NOTIFICATION_CLASS | |
| HIGH_LIMIT | HIGH_LIMIT |
| LOW_LIMIT | LOW_LIMIT |

| | |
|--------------------|--------------------|
| DEADBAND | DEADBAND |
| LIMIT_ENABLE | LIMIT_ENABLE |
| EVENT_ENABLE | EVENT_ENABLE |
| ACKED_TRANSITIONS | |
| NOTIFY_TYPE | NOTIFY_TYPE |
| EVENT_TIME_STAMPS | |
| PRIORITY_ARRAY | |
| RELINQUISH_DEFAULT | RELINQUISH_DEFAULT |

Binary Input Object:

| Readable Properties | Writable Properties |
|---------------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | PRESENT_VALUE |
| STATUS_FLAGS | |
| EVENT_STATE | |
| OUT_OF_SERVICE | OUT_OF_SERVICE |
| POLARITY | |
| DESCRIPTION | |
| RELIABILITY | |
| INACTIVE_TEXT | |
| ACTIVET_TEXT | |
| ELAPSED_ACTIVE_TIME | ELAPSED_ACTIVE_TIME |
| TIME_OF_ACTIVE_TIME_RESET | |
| TIME_DELAY | TIME_DELAY |
| NOTIFICATION_CLASS | |
| ALARM_VALUE | ALARM_VALUE |
| EVENT_ENABLE | EVENT_ENABLE |
| ACKED_TRANSITIONS | |
| NOTIFY_TYPE | NOTIFY_TYPE |
| EVENT_TIME_STAMPS | |

Binary Output Object:

| Readable Properties | Writable Properties |
|---------------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | PRESENT_VALUE |
| STATUS_FLAGS | |
| EVENT_STATE | |
| OUT_OF_SERVICE | OUT_OF_SERVICE |
| POLARITY | |
| PRIORITY_ARRAY | |
| RELINQUISH_DEFAULT | RELINQUISH_DEFAULT |
| DESCRIPTION | |
| RELIABILITY | |
| INACTIVE_TEXT | |
| ACTIVET_TEXT | |
| ELAPSED_ACTIVE_TIME | ELAPSED_ACTIVE_TIME |
| TIME_OF_ACTIVE_TIME_RESET | |

Binary Value Object:

| Readable Properties | Writable Properties |
|---------------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | PRESENT_VALUE |
| STATUS_FLAGS | |
| EVENT_STATE | |
| OUT_OF_SERVICE | OUT_OF_SERVICE |
| DESCRIPTION | |
| RELIABILITY | |
| INACTIVE_TEXT | |
| ACTIVET_TEXT | |
| ELAPSED_ACTIVE_TIME | ELAPSED_ACTIVE_TIME |
| TIME_OF_ACTIVE_TIME_RESET | |
| TIME_DELAY | TIME_DELAY |
| NOTIFICATION_CLASS | |
| ALARM_VALUE | ALARM_VALUE |
| EVENT_ENABLE | EVENT_ENABLE |
| ACKED_TRANSITIONS | |
| NOTIFY_TYPE | NOTIFY_TYPE |
| EVENT_TIME_STAMPS | |
| PRIORITY_ARRAY | |
| RELINQUISH_DEFAULT | RELINQUISH_DEFAULT |

Calendar Object:

| Readable Properties | Writable Properties |
|---------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | |
| DATE_LIST | DATE_LIST |
| DESCRIPTION | |

Device Object:

| Readable Properties | Writable Properties |
|---------------------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| SYSTEM_STATUS | |
| VENDOR_NAME | |
| VENDOR_IDENTIFIER | |
| MODEL_NAME | |
| FIRMWARE_REVISION | |
| APPLICATION_SOFTWARE_VERSION | |
| PROTOCOL_VERSION | |
| PROTOCOL_REVISION | |
| PROTOCOL_SERVICES_SUPPORTED | |
| PROTOCOL_OBJECT_TYPES_SUPPORTED | |
| OBJECT_LIST | |
| MAX_APDU_LENGTH_ACCEPTED | |
| SEGMENTATION_SUPPORTED | |

| | |
|--------------------------|------------------------|
| APDU_TIMEOUT | APDU_TIMEOUT |
| NUMBER_OF_APDU_RETRIES | |
| DEVICE_ADDRESS_BINDING | |
| DATABASE_REVISION | |
| LOCATION | |
| DESCRIPTION | |
| LOCAL_TIME | |
| LOCAL_DATE | |
| UTC_OFFSET | |
| DAYLIGHT_SAVING_STATUS | |
| MAX_MASTERS | MAX_MASTERS |
| MAX_INFO_FRAMES | |
| CONFIGURATION_FILES | |
| LAST_RESTORE_TIME | |
| BACKUP_FAILURE_TIMEOUT | BACKUP_FAILURE_TIMEOUT |
| ACTIVE_COV_SUBSCRIPTIONS | |
| BACKUP_AND_RESTORE_STATE | |
| TIME_OF_DEVICE_RESTART | |
| SERIAL_NUMBER | |

File Object:

| Readable Properties | Writable Properties |
|---------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| FILE_TYPE | |
| FILE_SIZE | FILE_SIZE |
| MODIFICATION_DATE | |
| ARCHIVE | ARCHIVE |
| READ_ONLY | |
| FILE_ACCESS_METHOD | |
| DESCRIPTION | |

Multi-State Value Object:

| Readable Properties | Writable Properties |
|---------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | PRESENT_VALUE |
| STATUS_FLAGS | |
| EVENT_STATE | |
| OUT_OF_SERVICE | OUT_OF_SERVICE |
| DESCRIPTION | |
| RELIABILITY | |
| STATE_TEXT | |
| PRIORITY_ARRAY | |
| RELINQUISH_DEFAULT | RELINQUISH_DEFAULT |
| TIME_DELAY | TIME_DELAY |
| NOTIFICATION_CLASS | |
| ALARM_VALUES | ALARM_VALUES |
| FAULT_VALUES | FAULT_VALUES |
| EVENT_ENABLE | EVENT_ENABLE |

| | |
|-------------------|-------------|
| ACKED_TRANSITIONS | |
| NOTIFY_TYPE | NOTIFY_TYPE |
| EVENT_TIME_STAMPS | |
| NUMBER_OF_STATES | |

Notification Class Object:

| Readable Properties | Writable Properties |
|---------------------|---------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| NOTIFICATION_CLASS | |
| PRIORITY | PRIORITY |
| RECIPIENT_LIST | RECIPIENT_LIST |
| ACK_REQUIRED | ACK_REQUIRED |
| DESCRIPTION | |

Schedule Object:

| Readable Properties | Writable Properties |
|-----------------------------------|-----------------------------------|
| OBJECT_IDENTIFIER | |
| OBJECT_NAME | |
| OBJECT_TYPE | |
| PRESENT_VALUE | PRESENT_VALUE |
| EFFECTIVE_PERIOD | EFFECTIVE_PERIOD |
| LIST_OF_OBJECT_PROPERTY_REFERENCE | LIST_OF_OBJECT_PROPERTY_REFERENCE |
| PRIORITY_FOR_WRITING | PRIORITY_FOR_WRITING |
| STATUS_FLAGS | |
| RELIABILITY | |
| OUT_OF_SERVICE | OUT_OF_SERVICE |
| SCHEDULE_DEFAULT | SCHEDULE_DEFAULT |
| DESCRIPTION | |
| WEEKLY_SCHEDULE | WEEKLY_SCHEDULE |
| EXCEPTION_SCHEDULE | EXCEPTION_SCHEDULE |

Proprietary Objects and Properties Supported:

Device Object:

| Proprietary Properties Name | Proprietary Property Value | Data Type | Readable | Writable |
|-----------------------------|----------------------------|------------------------|----------|----------|
| Proprietary Objects List | 516 | BACnetObjectIdentifier | Y | N |
| MSTP Baudrate | 520 | Unsigned | Y | Y |
| RACL cycle time | 529 | Unsigned | Y | N |
| Daylight savings | 552 | BOOLEAN | Y | Y |
| TZ Regions | 553 | CharacterString | Y | Y |
| MAC Id | 567 | Unsigned | Y | N |
| MAC Min | 568 | Unsigned | Y | N |
| MAC Max | 569 | Unsigned | Y | N |
| Big endian strings | 574 | BOOLEAN | Y | N |
| Controller state | 1012 | Enumerated | Y | N |
| Commissioning Status | 1055 | OctetString | Y | Y |
| Application Version | 1056 | CharacterString | Y | N |

Analog Input Object:

| Proprietary Properties Name | Proprietary Property Value | Data Type | Readable | Writable |
|--|----------------------------|------------------------|----------|----------|
| Plant reference | 512 | CharacterString | Y | N |
| Tech Address | 532 | CharacterString | Y | N |
| Sensor Offset | 533 | Real | Y | Y |
| Flexlink | 1013 | BACnetObjectIdentifier | Y | N |
| Characteristic | 1057 | Unsigned | Y | Y |
| M/S Participation | 1046 | BOOLEAN | Y | N |
| M/S Direction 0=SM 1=MS | 1047 | BOOLEAN | Y | N |
| M/S Aggregation 0=Loc 1=Avg 2=Sum 3=Min 4=Max 5=Lst | 1048 | Enumerated | Y | N |
| M/S Local | 1049 | Real | Y | N |
| M/S Average | 1050 | Real | Y | N |
| M/S Sum | 1051 | Real | Y | N |
| M/S Min | 1052 | Real | Y | N |
| M/S Max | 1053 | Real | Y | N |
| M/S Last Win | 1053 | Real | Y | N |

Analog Output Object:

| Proprietary Properties Name | Proprietary Property Value | Data Type | Readable | Writable |
|--|----------------------------|------------------------|----------|----------|
| Plant reference | 512 | CharacterString | Y | N |
| Tech Address | 532 | CharacterString | Y | N |
| Flexlink | 1013 | BACnetObjectIdentifier | Y | N |
| Characteristic | 1057 | Unsigned | Y | Y |
| M/S Participation | 1046 | BOOLEAN | Y | N |
| M/S Direction 0=SM 1=MS | 1047 | BOOLEAN | Y | N |
| M/S Aggregation 0=Loc 1=Avg 2=Sum 3=Min 4=Max 5=Lst | 1048 | Enumerated | Y | N |

Analog Value Object:

| Proprietary Properties Name | Proprietary Property Value | Data Type | Readable | Writable |
|--|----------------------------|------------------------|----------|----------|
| Plant reference | 512 | CharacterString | Y | N |
| Flexlink | 1013 | BACnetObjectIdentifier | Y | N |
| M/S Participation | 1046 | BOOLEAN | Y | N |
| M/S Direction 0=SM 1=MS | 1047 | BOOLEAN | Y | N |
| M/S Aggregation 0=Loc 1=Avg 2=Sum 3=Min 4=Max 5=Lst | 1048 | Enumerated | Y | N |
| M/S Local | 1049 | Real | Y | N |
| M/S Average | 1050 | Real | Y | N |
| M/S Sum | 1051 | Real | Y | N |
| M/S Min | 1052 | Real | Y | N |
| M/S Max | 1053 | Real | Y | N |
| M/S Last Win | 1053 | Real | Y | N |

Binary Input Object:

| Proprietary Properties Name | Proprietary Property Value | Data Type | Readable | Writable |
|--|----------------------------|------------------------|----------|----------|
| Plant reference | 512 | CharacterString | Y | N |
| Tech Address | 532 | CharacterString | Y | N |
| Flexlink | 1013 | BACnetObjectIdentifier | Y | N |
| M/S Participation | 1046 | BOOLEAN | Y | N |
| M/S Direction 0=SM 1=MS | 1047 | BOOLEAN | Y | N |
| M/S Aggregation 0=Loc 1=Avg 2=Sum 3=Min 4=Max 5=Lst | 1048 | Enumerated | Y | N |
| M/S Local | 1049 | Enumerated | Y | N |
| M/S Min | 1052 | Enumerated | Y | N |
| M/S Max | 1053 | Enumerated | Y | N |
| M/S Last Win | 1053 | Enumerated | Y | N |

Binary Output Object:

| Proprietary Properties Name | Proprietary Property Value | Data Type | Readable | Writable |
|--|----------------------------|------------------------|----------|----------|
| Plant reference | 512 | CharacterString | Y | N |
| Tech Address | 532 | CharacterString | Y | N |
| Flexlink | 1013 | BACnetObjectIdentifier | Y | N |
| M/S Participation | 1046 | BOOLEAN | Y | N |
| M/S Direction 0=SM 1=MS | 1047 | BOOLEAN | Y | N |
| M/S Aggregation 0=Loc 1=Avg 2=Sum 3=Min 4=Max 5=Lst | 1048 | Enumerated | Y | N |

Binary Value Object:

| Proprietary Properties Name | Proprietary Property Value | Data Type | Readable | Writable |
|--|----------------------------|------------------------|----------|----------|
| Plant reference | 512 | CharacterString | Y | N |
| Flexlink | 1013 | BACnetObjectIdentifier | Y | N |
| M/S Participation | 1046 | BOOLEAN | Y | N |
| M/S Direction 0=SM 1=MS | 1047 | BOOLEAN | Y | N |
| M/S Aggregation 0=Loc 1=Avg 2=Sum 3=Min 4=Max 5=Lst | 1048 | Enumerated | Y | N |
| M/S Local | 1049 | Enumerated | Y | N |
| M/S Min | 1052 | Enumerated | Y | N |
| M/S Max | 1053 | Enumerated | Y | N |
| M/S Last Win | 1053 | Enumerated | Y | N |

MultiState Value Object:

| Proprietary Properties Name | Proprietary Property Value | Data Type | Readable | Writable |
|-----------------------------|----------------------------|-----------------|----------|----------|
| Plant reference | 512 | CharacterString | Y | N |

| | | | | |
|--|------|------------------------|---|---|
| Flexlink | 1013 | BACnetObjectIdentifier | Y | N |
| M/S Participation | 1046 | BOOLEAN | Y | N |
| M/S Direction 0=SM 1=MS | 1047 | BOOLEAN | Y | N |
| M/S Aggregation 0=Loc 1=Avg 2=Sum 3=Min 4=Max 5=Lst | 1048 | Enumerated | Y | N |
| M/S Local | 1049 | Enumerated | Y | N |
| M/S Min | 1052 | Enumerated | Y | N |
| M/S Max | 1053 | Enumerated | Y | N |
| M/S Last Win | 1053 | Enumerated | Y | N |

Analog Flag Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| Analog Flag Object | 130 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Present Value | 85 | Real | Y | Y |
| Relinquish Default | 104 | Real | Y | Y |
| Plant reference | 512 | CharacterString | Y | N |
| Flexlink | 1013 | BACnetObjectIdentifier | Y | N |

Binary Flag Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| Binary Flag Object | 131 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Present Value | 85 | Enumerated | Y | Y |
| Relinquish Default | 104 | Enumerated | Y | Y |
| Plant reference | 512 | CharacterString | Y | N |
| Flexlink | 1013 | BACnetObjectIdentifier | Y | N |

Parameter Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| Parameter Object | 132 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |

| | | | | |
|----------------------|-----|-----------------|---|---|
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Present Value | 85 | Real | Y | Y |
| RACL Module Id | 522 | Unsigned | Y | N |
| RACL Parameter Index | 523 | Unsigned | Y | N |
| RACL Contrloop Name | 524 | CharacterString | Y | N |

Input Terminal Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| Input Terminal Object | 149 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Present Value | 85 | Real | Y | Y |
| Sensor Type Reference | 1025 | Unsigned | Y | N |
| Number Of 0_1 Transitions | 1030 | Unsigned | Y | N |
| Allowed Sensor Types | 1031 | Unsigned | Y | N |

Binary Output Terminal Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| BO Terminal Object | 150 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Present Value | 85 | Enumerated | Y | Y |
| Overridden | 1026 | Enumerated | Y | N |

Analog Output Terminal Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| AO Terminal Object | 151 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Present Value | 85 | Real | Y | Y |
| Pwm Period | 1017 | Real | Y | N |

| | | | | |
|--------------------------------------|------|------------------------|---|---|
| Floating BO Terminal Reference Close | 1018 | BACnetObjectIdentifier | Y | N |
| Floating BO Terminal Reference Open | 1019 | BACnetObjectIdentifier | Y | N |
| Floating Runtime Close | 1020 | Real | Y | N |
| Floating Runtime Open | 1021 | Real | Y | N |
| Floating Move Hysteresis | 1022 | Real | Y | N |
| Voltage Output Number | 1027 | Unsigned | Y | N |
| PWM BO Terminal Reference | 1029 | BACnetObjectIdentifier | Y | N |
| Floating Power Up Sync | 1032 | Unsigned | Y | N |
| Floating Underdrive Repeat Time | 1033 | Unsigned | Y | N |
| Floating Synch to Open/Close | 1037 | Unsigned | Y | N |
| Floating Underdrive Repeat Count | 1038 | Unsigned | Y | N |
| Weekly Exercising Enable | 1023 | BOOLEAN | Y | Y |
| Weekly Exercising State | 1024 | BOOLEAN | Y | N |

MultiState Output Terminal Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| MS Terminal Object | 152 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Present Value | 85 | Enumerated | Y | Y |
| Operation Mode | 1072 | Unsigned | Y | N |
| BO Terminal References | 1073 | BACnetObjectIdentifier | Y | N |
| Stage Values | 1074 | Unsigned | Y | N |
| Stage Hysteresis | 1075 | Unsigned | Y | N |
| Min On Time | 1076 | Unsigned | Y | N |
| Min Off Time | 1077 | Unsigned | Y | N |

Plant Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| Plant Object | 153 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Plant ID | 1039 | Unsigned | Y | N |
| Local zone UID | 1040 | Unsigned | Y | N |

| | | | | |
|------------------------|------|-----------------|---|---|
| Local zone name | 1041 | CharacterString | Y | N |
| Master plant ID | 1042 | Unsigned | Y | N |
| Master device instance | 1043 | Unsigned | Y | N |
| Slave list | 1044 | SlaveList (250) | Y | N |

Sylk Wallmodule Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| Sylk Wallmodule Object | 156 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Wallmodule Address | 1062 | Unsigned | Y | N |
| Wallmodule Type | 1063 | Unsigned | Y | N |
| Wallmodule Disable | 1064 | BOOLEAN | Y | N |

Sylk Terminal Object:

| Proprietary Object Name | Proprietary Object Value |
|-------------------------|--------------------------|
| Sylk Terminal Object | 157 |

| Standard and Proprietary Properties Name | Standard and Proprietary Property Value | Data Type | Readable | Writable |
|--|---|------------------------|----------|----------|
| Object Identifier | 75 | BACnetObjectIdentifier | Y | N |
| Object Name | 77 | CharacterString | Y | N |
| Object Type | 79 | Enumerated | Y | N |
| Present Value | 85 | Real | Y | Y |
| Local PVID | 1065 | Unsigned | Y | N |
| Direction | 1066 | BOOLEAN | Y | N |
| Writepriority | 1067 | Unsigned | Y | Y |