BACnet Protocol Implementation Conformance Statement

Date: November 15th, 2022
Vendor Name: 75F
Product Name: Hyperstat
Product Model Number: 7X-HS-C2W-X
Application Firmware Revision: 0.58 BACnet Protocol Revision: 19

Product Description:
The 75F HyperStat is an all-in-one IAQ sensing station, thermostat, and humidistat. It brings HVAC equipment online for secure remote management from any smartphone or connected device through Facilisight, or to a third party BAS via BACnet MSTP. Occupants can make temperature adjustments within predefined limits or adjust fan settings from a touch slider, TFT LCD screen, or buttons. This device supports the WELL Building Standard for healthy buildings and tracks occupancy, temperature, VOC, derived CO2, humidity, light, sound, and optional particulate matter measurements every 60 seconds for integration to a built-in analytics package.

BACnet Standardized Device Profiles Supported (Annex L): BACnet Application Specific Controller (B-ASC)

BACnet Interoperability Building Blocks Supported (Annex K): DS-RP-B; DS-RPM-B; DS-WP-B; DS-COV-B; DM-DDB-B; DM-DOB-B; DM-DCC-B; DM-RD-B

BACnet Data Link Layer Options:
- ☑ MS/TP master (Clause 9)
  - ☑ Master ☑ Slave ☑ Other: Local 120k Ω resistor
  - Data rates: ☑ 9600 ☑ 19200 ☑ 38400 ☑ 57600 ☐ 76800 ☑ 115200

Device Address Binding: Device supports static device binding.

Character Sets Supported: Device Supports ISO 10646 (UTF-8)

Standard Object Types Supported:
- **See Addendum for property support and details.**
- Device (see Table 1)
  - Not Creatable
  - Not Deletable
  - Optional Properties Supported: max-master, max-info-frames, description, active-cov-subscriptions
  - Propietary Properties: N/A

- Network Port (see Table 2)
  - Not Creatable
  - Not Deletable
  - Optional Properties Supported: apdu-length, link-speed, mac-address, max-master, max-info-frames
  - Propietary Properties: N/A

- Analog Input (see Table 3)
    - Not Creatable
    - Not Deletable
    - Optional Properties Supported: description, cov-increment
    - Propietary Properties: N/A

- Analog Value (see Table 4)
    - Not Creatable
    - Not Deletable
    - Optional Properties Supported: description, cov-increment, min-pres-value, max-pres-value
    - Proprietary Properties: N/A
    - Property Range Restrictions: See Table 4

- Binary Input (see Table 5)
    - Not Creatable
    - Not Deletable
    - Optional Properties Supported: description
    - Propietary Properties: N/A

- Binary Value (see Table 6)
    - Not Creatable
    - Not Deletable
    - Optional Properties Supported: description, inactive-text, active-text
    - Proprietary Properties: N/A
    -
- Multi-state Input (see Table 7)
    - Not Creatable
    - Not Deletable
    - Optional Properties Supported: description, state-text
    - Proprietary Properties: N/A
    - Property Range Restrictions: See Table 7

- Multi-state Value (see Table 8)
    - Not Creatable
    - Not Deletable
    - Optional Properties Supported: description, state-text
    - Proprietary Properties: N/A
    - Property Range Restrictions: See Table 8

Table 1

Device

Supported Properties	R/W	Value
max-apdu-length	R	256
segmentation-supported	R	no-segmentation
apdu-timeout	R	3000
max-master	W	127
max-info-frames	W	2
device-address-binding	R	
database-revision	R	1
active-cov-subscriptions	R	

Table 2

network-port 1 Hyperstat Network Port

Supported Properties	R/W	Value
status-flags	W	
reliability	R	
out-of-service	R	
network-type	W	mstp
protocol-level	R	PHYSICAL
changes-pending	R	
link-speed	W	
mac-address	R	
max-master	R	
max-info-frames	R	

Table 3

Analog Inputs

Supported Properties	R/W	Value
AI-0 Room Temperature		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
AI-2 CO2		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
AI-4 UVI		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
AI-6 Sound		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
AI-8 PM10		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

Supported Properties	R/W	Value
AI-1 Humidity		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
AI-3 Illuminance		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
AI-5 VOC		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
AI-7 PM2.5		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
AI-9 Analog Input 1		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

Table 3 Continued

AI-10 Analog Input 2		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

AI-11 Thermistor 1		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

AI-12 Thermistor 2		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

AI-13 Analog Out 1		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

AI-14 Analog Out 2		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

AI-15 Analog Out 3		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

AI-16 Active Set Temperature Heating		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

AI-17 Active Set Temperature Cooling		
present-value	R	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	

Table 4

Analog Values

Supported Properties	R/W	Value
AV-0 Desired Set Temperature Heating		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	60.00
max-pres-value	R	90.00
AV-2 Max Set Temperature Heating		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	60.00
max-pres-value	R	90.00
AV-4 Max Set Temperature Cooling		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	60.00
max-pres-value	R	90.00
AV-6 Temperature Offset		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	-10.00
max-pres-value	R	10.00

Supported Properties	R/W	Value
AV-1 Desired Set Temperature Cooling		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	60.00
max-pres-value	R	90.00
AV-3 Min Set Temperature Heating		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	60.00
max-pres-value	R	90.00
AV-5 Min Set Temperature Cooing		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	60.00
max-pres-value	R	90.00

Table 4 Continued

AV-7 Heating Deadband		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	10.00

AV-8 Cooling Deadband		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	10.00

AV-9 Max Humidity Setpoint		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	%RH
description	R	
cov-increment	W	
min-pres-value	R	20.00
max-pres-value	R	100

AV-10 Min Humidity Setpoint		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	%RH
description	R	
cov-increment	W	
min-pres-value	R	20.00
max-pres-value	R	100

AV-11 Analog Out 1 Min Setting		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	V
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	10.00

AV-12 Analog Out 1 Max Setting		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	V
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	10.00

AV-13 Analog Out 2 Min Setting		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	V
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	10.00

AV-14 Analog Out 2 Max Setting		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	V
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	10.00

Table 4 Continued

AV-15 Analog Out 3 Min Setting		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	V
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	10.00

AV-16 Analog Out 3 Max Setting		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	V
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	10.00

AV-17 CO2 Alert Threshold		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	PPM
description	R	
cov-increment	W	
min-pres-value	R	400.00
max-pres-value	R	10000

AV-18 VOC Alert Threshold		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	PPB
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	20000

AV-19 PM2.5 Alert Threshold		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	mg/m3
description	R	
cov-increment	W	
min-pres-value	R	400.00
max-pres-value	R	10000

AV-20 Zone CO2 Damper Opening Rate		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	%
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	100

AV-21 Zone CO2 Threshold		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	PPM
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	2000

AV-22 Zone CO2 Target		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	V
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	2000

Table 4 Continued

AV-23 Proportional Constant		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	1.00

AV-24 Integral Constant		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	1.00

AV-25 Proportional Temperature Range		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	10.00

AV-26 Integration Time		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	
description	R	
cov-increment	W	
min-pres-value	R	5.00
max-pres-value	R	100.00

AV-27 Unoccupied Setback		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	1.00
max-pres-value	R	20.00

AV-28 Heating Deadband Multiplier		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	
description	R	
cov-increment	W	
min-pres-value	R	0.10
max-pres-value	R	10.00

AV-29 Relay Activation Hysteresis		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	%
description	R	
cov-increment	W	
min-pres-value	R	1.00
max-pres-value	R	50.00

AV-30 Fan Speed Multiplier		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	
description	R	
cov-increment	W	
min-pres-value	R	0.10
max-pres-value	R	10.00

Table 4 Continued

AV-31 Humidity Hysteresis		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	%
description	R	
cov-increment	W	
min-pres-value	R	1.00
max-pres-value	R	100

AV-32 Forced Occupied Time		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	Minutes
description	R	
cov-increment	W	
min-pres-value	R	1.00
max-pres-value	R	255

AV-33 Auto Away Time		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	Minutes
description	R	
cov-increment	W	
min-pres-value	R	1.00
max-pres-value	R	255

AV-34 Auto Away Setback Temperature		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	1.00
max-pres-value	R	20.00

AV-35 FCU Aux Heating 1 Activate		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	1.00
max-pres-value	R	10.00

AV-36 FCU Aux Heating 2 Activate		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	1.00
max-pres-value	R	10.00

AV-37 FCU Two Pipe Heating Threshold		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	70.00
max-pres-value	R	130.00

AV-38 FCU Two Pipe Cooling Threshold		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	°F
description	R	
cov-increment	W	
min-pres-value	R	35.00
max-pres-value	R	70.00

Table 4 Continued

AV-39 FCU Water Vlv Sampling On Time		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	Minutes
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	30.00

AV-40 FCU Water Vlv Wait Sampling Time		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	Minutes
description	R	
cov-increment	W	
min-pres-value	R	5.00
max-pres-value	R	255

AV-41 FCU Wtr Vlv Sampling During Loop Deadband On Time		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	Minutes
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	30.00

AV-42 FCU Wtr Vlv Sampling During Loop Deadband Wait Time		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	Minutes
description	R	
cov-increment	W	
min-pres-value	R	5.00
max-pres-value	R	255

AV-43 Fail-Safe Time		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
units	R	Minutes
description	R	
cov-increment	W	
min-pres-value	R	0.00
max-pres-value	R	65535

Table 5

Binary Inputs

Supported Properties	R/W
BI-0 Occupancy Status	
present-value	R
status-flags	R
event-state	R
out-of-service	W
Polarity	W
description	R
BI-2 Relay 2	
present-value	R
status-flags	R
event-state	R
out-of-service	W
Polarity	W
description	R
BI-4 Relay 4	
present-value	R
status-flags	R
event-state	R
out-of-service	W
Polarity	W
description	R
BI-6 Relay 6	
present-value	R
status-flags	R
event-state	R
out-of-service	W
Polarity	W
description	R

Supported Properties	R/W
BI-1 Relay 1	
present-value	R
status-flags	R
event-state	R
out-of-service	W
Polarity	W
description	R
BI-3 Relay 3	
present-value	R
status-flags	R
event-state	R
out-of-service	W
Polarity	W
description	R
BI-5 Relay 5	
present-value	R
status-flags	R
event-state	R
out-of-service	W
Polarity	W
description	R

Table 6

Binary Values

Supported Properties	R/W
BV-0 Relay 1 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-2 Relay 3 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-4 Relay 5 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-6 Analog In 1 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-8 Analog Out 1 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

Supported Properties	R/W
BV-1 Relay 2 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-3 Relay 4 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-5 Relay 5 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-7 Analog In 2 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-9 Analog Out 2 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

Table 6 Continued

BV-10 Analog Out 3 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-11 Analog Out 1 Pulse Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-12 Analog Out 2 Pulse Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-13 Analog Out 3 Pulse Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-14 Thermistor 1 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-15 Thermistor 2 Enable	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-16 Use TH1 As Room Temp Sensor	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-17 Enable Force Occupied	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-18 Enable Auto Away	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-19 Unoccupied Mode	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

Table 6 Continued

BV-20 Show Centigrade	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-22 Display PM2.5	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-24 Display Humidity	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

BV-21 Display CO2	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R
BV-23 Display VOC	
present-value	W
status-flags	R
event-state	R
out-of-service	W
inactive-text	R
active-text	R

Table 7
Multi State Inputs

Supported Properties	R/W	Value
MSI-0 Operating Mode		
object name	W	
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	5
state-text 1	R	OFF
state-text 2	R	HEATING
state-text 3	R	COOLING
state-text 4	R	-
state-text 5	R	-
MSI-2 Active Fan Speed		
object name	W	
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	5
state-text 1	R	AUTO
state-text 2	R	LOW
state-text 3	R	MEDIUM
state-text 4	R	HIGH
state-text 5	R	-

Supported Properties	R/W	Value
MSI-1 Active Conditioning Mode		
object name	W	
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	5
state-text 1	R	OFF
state-text 2	R	AUTO
state-text 3	R	HEAT
state-text 4	R	COOL
state-text 5	R	-
MSI-3 Occupancy Status		
object name	W	
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	5
state-text 1	R	INITIALIZING
state-text 2	R	OCCUPIED
state-text 3	R	UNOCCUPIED
state-text 4	R	OCC. AUTO AWAY
state-text 5	R	UNOCC. FORCE OCC.

Table 8
Multi State Values

Supported Properties	R/W	Value
MSV-0 Desired Conditioning Mode		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	OFF
state-text 2	R	AUTO
state-text 3	R	HEAT
state-text 4	R	COOL
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-
MSV-2 Temperature Mode		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	SINLGE SETPOINT
state-text 2	R	DUAL SETPOINT FIX DB
state-text 3	R	DUAL SETPOINT VAR DB
state-text 4	R	COOL
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

Supported Properties	R/W	Value
MSV-1 Desired Fan Speed		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	OFF
state-text 2	R	AUTO
state-text 3	R	LOW
state-text 4	R	MEDIUM
state-text 5	R	HIGH
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-
MSV-3 Profile		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	NONE
state-text 2	R	CPU
state-text 3	R	HPU
state-text 4	R	FCU 2 PIPE
state-text 5	R	FCU 4 PIPE
state-text 6	R	-
state-text 7	R	SENSE
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

Table 8 Continued

MSV-4 Relay 1 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	-
state-text 2	R	-
state-text 3	R	-
state-text 4	R	-
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

MSV-5 Relay 2 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	-
state-text 2	R	-
state-text 3	R	-
state-text 4	R	-
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

MSV-6 Relay 3 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	-
state-text 2	R	-
state-text 3	R	-
state-text 4	R	-
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

MSV-7 Relay 4 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	-
state-text 2	R	-
state-text 3	R	-
state-text 4	R	-
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

Table 8 Continued

MSV-8 Relay 5 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	-
state-text 2	R	-
state-text 3	R	-
state-text 4	R	-
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

MSV-9 Relay 6 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	-
state-text 2	R	-
state-text 3	R	-
state-text 4	R	-
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

MSV-10 Analog In 1 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	CURRENT 0-10
state-text 2	R	CURRENT 0-20
state-text 3	R	CURRENT 0-50
state-text 4	R	KEYCARD
state-text 5	R	DOOR WINDOW
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

MSV-11 Analog In 2 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	CURRENT 0-10
state-text 2	R	CURRENT 0-20
state-text 3	R	CURRENT 0-50
state-text 4	R	KEYCARD
state-text 5	R	DOOR WINDOW
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

Table 8 Continued

MSV-12 Analog Out 1 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	COOLING
state-text 2	R	FAN SPEED
state-text 3	R	HEATING
state-text 4	R	DCV DAMPER
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

MSV-13 Analog Out 2 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	COOLING
state-text 2	R	FAN SPEED
state-text 3	R	HEATING
state-text 4	R	DCV DAMPER
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-

MSV-14 Analog Out 3 Mapping		
present-value	W	
status-flags	R	
event-state	R	
out-of-service	W	
number-of-states	R	14
state-text 1	R	COOLING
state-text 2	R	FAN SPEED
state-text 3	R	HEATING
state-text 4	R	DCV DAMPER
state-text 5	R	-
state-text 6	R	-
state-text 7	R	-
state-text 8	R	-
state-text 9	R	-
state-text 10	R	-
state-text 11	R	-
state-text 12	R	-
state-text 13	R	-
state-text 14	R	-