

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



- Analog Input (see Table 3)
 - Not Creatable
 - Not Deletable
 - Optional Properties Supported: description, cov-increment
 - Proprietary 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
 - Proprietary 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	Supported Properties	R/W	Value
AI-0 Room Temperature			AI-1 Humidity		
present-value	W		present-value	R	
status-flags	R		status-flags	R	
event-state	R		event-state	R	
out-of-service	W		out-of-service	W	
units	R	°F	units	R	°F
description	R		description	R	
cov-increment	W		cov-increment	W	
AI-2 CO2			AI-3 Illuminance		
present-value	R		present-value	R	
status-flags	R		status-flags	R	
event-state	R		event-state	R	
out-of-service	W		out-of-service	W	
units	R	°F	units	R	°F
description	R		description	R	
cov-increment	W		cov-increment	W	
AI-4 UVI			AI-5 VOC		
present-value	R		present-value	R	
status-flags	R		status-flags	R	
event-state	R		event-state	R	
out-of-service	W		out-of-service	W	
units	R	°F	units	R	°F
description	R		description	R	
cov-increment	W		cov-increment	W	
AI-6 Sound			AI-7 PM2.5		
present-value	R		present-value	R	
status-flags	R		status-flags	R	
event-state	R		event-state	R	
out-of-service	W		out-of-service	W	
units	R	°F	units	R	°F
description	R		description	R	
cov-increment	W		cov-increment	W	
AI-8 PM10			AI-9 Analog Input 1		
present-value	R		present-value	R	
status-flags	R		status-flags	R	
event-state	R		event-state	R	
out-of-service	W		out-of-service	W	
units	R	°F	units	R	°F
description	R		description	R	
cov-increment	W		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-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-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-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-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-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-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-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	Supported Properties	R/W	Value
AV-0 Desired Set Temperature Heating			AV-1 Desired Set Temperature Cooling		
present-value	W		present-value	W	
status-flags	R		status-flags	R	
event-state	R		event-state	R	
out-of-service	W		out-of-service	W	
units	R	°F	units	R	°F
description	R		description	R	
cov-increment	W		cov-increment	W	
min-pres-value	R	60.00	min-pres-value	R	60.00
max-pres-value	R	90.00	max-pres-value	R	90.00
AV-2 Max Set Temperature Heating			AV-3 Min Set Temperature Heating		
present-value	W		present-value	W	
status-flags	R		status-flags	R	
event-state	R		event-state	R	
out-of-service	W		out-of-service	W	
units	R	°F	units	R	°F
description	R		description	R	
cov-increment	W		cov-increment	W	
min-pres-value	R	60.00	min-pres-value	R	60.00
max-pres-value	R	90.00	max-pres-value	R	90.00
AV-4 Max Set Temperature Cooling			AV-5 Min Set Temperature Cooling		
present-value	W		present-value	W	
status-flags	R		status-flags	R	
event-state	R		event-state	R	
out-of-service	W		out-of-service	W	
units	R	°F	units	R	°F
description	R		description	R	
cov-increment	W		cov-increment	W	
min-pres-value	R	60.00	min-pres-value	R	60.00
max-pres-value	R	90.00	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			

Table 4 Continued

AV-7 Heating Deadband				AV-8 Cooling Deadband			
present-value	W			present-value	W		
status-flags	R			status-flags	R		
event-state	R			event-state	R		
out-of-service	W			out-of-service	W		
units	R	°F		units	R	°F	
description	R			description	R		
cov-increment	W			cov-increment	W		
min-pres-value	R	0.00		min-pres-value	R	0.00	
max-pres-value	R	10.00		max-pres-value	R	10.00	
AV-9 Max Humidity Setpoint				AV-10 Min Humidity Setpoint			
present-value	W			present-value	W		
status-flags	R			status-flags	R		
event-state	R			event-state	R		
out-of-service	W			out-of-service	W		
units	R	%RH		units	R	%RH	
description	R			description	R		
cov-increment	W			cov-increment	W		
min-pres-value	R	20.00		min-pres-value	R	20.00	
max-pres-value	R	100		max-pres-value	R	100	
AV-11 Analog Out 1 Min Setting				AV-12 Analog Out 1 Max Setting			
present-value	W			present-value	W		
status-flags	R			status-flags	R		
event-state	R			event-state	R		
out-of-service	W			out-of-service	W		
units	R	V		units	R	V	
description	R			description	R		
cov-increment	W			cov-increment	W		
min-pres-value	R	0.00		min-pres-value	R	0.00	
max-pres-value	R	10.00		max-pres-value	R	10.00	
AV-13 Analog Out 2 Min Setting				AV-14 Analog Out 2 Max Setting			
present-value	W			present-value	W		
status-flags	R			status-flags	R		
event-state	R			event-state	R		
out-of-service	W			out-of-service	W		
units	R	V		units	R	V	
description	R			description	R		
cov-increment	W			cov-increment	W		
min-pres-value	R	0.00		min-pres-value	R	0.00	
max-pres-value	R	10.00		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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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	

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-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	

Table 5
Binary Inputs

Supported Properties	R/W	Supported Properties	R/W
BI-0 Occupancy Status		BI-1 Relay 1	
present-value	R	present-value	R
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
Polarity	W	Polarity	W
description	R	description	R
BI-2 Relay 2		BI-3 Relay 3	
present-value	R	present-value	R
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
Polarity	W	Polarity	W
description	R	description	R
BI-4 Relay 4		BI-5 Relay 5	
present-value	R	present-value	R
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
Polarity	W	Polarity	W
description	R	description	R
BI-6 Relay 6			
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	Supported Properties	R/W
BV-0 Relay 1 Enable		BV-1 Relay 2 Enable	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R
BV-2 Relay 3 Enable		BV-3 Relay 4 Enable	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R
BV-4 Relay 5 Enable		BV-5 Relay 5 Enable	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R
BV-6 Analog In 1 Enable		BV-7 Analog In 2 Enable	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R
BV-8 Analog Out 1 Enable		BV-9 Analog Out 2 Enable	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R

Table 6 Continued

BV-10 Analog Out 3 Enable		BV-11 Analog Out 1 Pulse Enable	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R
BV-12 Analog Out 2 Pulse Enable		BV-13 Analog Out 3 Pulse Enable	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R
BV-14 Thermistor 1 Enable		BV-15 Thermistor 2 Enable	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R
BV-16 Use TH1 As Room Temp Sensor		BV-17 Enable Force Occupied	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R
BV-18 Enable Auto Away		BV-19 Unoccupied Mode	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R

Table 6 Continued

BV-20 Show Centigrade		BV-21 Display CO2	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-text	R	active-text	R
BV-22 Display PM2.5		BV-23 Display VOC	
present-value	W	present-value	W
status-flags	R	status-flags	R
event-state	R	event-state	R
out-of-service	W	out-of-service	W
inactive-text	R	inactive-text	R
active-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		

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