SUREFLOW™ MODEL 8682-BAC

PICS Statement

Date: July 11, 2007
Vendor Name: TSI Inc.
Product Name: SUREFLOW Adaptive Offset Controller
Product Model Number: 8682-BAC
Applications Software Version: 1.0
Firmware Revision: 1.0
BACnet Protocol Revision: 2

Product Description:

TSI SUREFLOW Room Pressure Controls are designed to maintain more exhaust from a laboratory than is supplied. This negative air balance helps ensure that chemical vapors cannot diffuse outside the laboratory. The SUREFLOW Model 8682 also controls the temperature of the laboratory space by modulating reheat and the supply air volume. Optionally, a room pressure sensor can be connected to the SUREFLOW Model 8682 controller to correct long-term changes in the building dynamics. This controller is capable of acting as a stand-alone device or as part of a building automation system via BACnet MS/TP protocol.

BACnet Standardized Device Profile (Annex L):
☑ BACnet Application Specific Controller (B-ASC)

Segmentation Capability:
None

List all BACnet Interoperability Building Blocks Supported (Annex K):

DS-RP-B	**DM-DDB-B**
DS-WP-B	**DM-DOB-B**
DS-RPM-B	**DM-DCC-B**

Standard Object Types Supported:

	Dynamically Creatable	Dynamically Deletable	Optional Properties Supported	Writable Properties (Data Type)
Analog Input	No	No		
Analog Value	No	No		Present_Value (Real)
Binary Input	No	No	Active_Text, Inactive_Text	
Binary Value	No	No	Active_Text, Inactive_Text	Present_Value (Enumerated)
Multi-state Input	No	No	State_Text	
Multi-state Value	No	No	State_Text	Present_Value (Unsigned Int)
Device Object	No	No		Object Name (Char String) Max Master (Unsigned Int)

Data Link Layer Options:
☑ MS/TP master (Clause 9), baud rate(s): 76.8k 38.4k, 19.2k, 9600 bps

Device Address Binding:
Not Supported

Networking Options:
None

Character Sets Supported:
☑ ANSI X3.4

Object Set

Object Type	Device Instance	*Units	Description	Range
Analog Input	1	ft/min, m/s, in. H_2O, Pa	Room Pressure	
Analog Input	2	cfm, l/s	Total Supply Flow	
Analog Input	3	cfm, l/s	Total General Exhaust Flow	
Analog Input	4	cfm, l/s	Total Hood Flow	
Analog Input	5	cfm, l/s	Total Exhaust Flow	
Analog Input	6	cfm, l/s	Supply 1 Flow Rate	
Analog Input	7	cfm, l/s	Supply 2 Flow Rate	
Analog Input	8	cfm, l/s	Supply 3 Flow Rate	
Analog Input	9	cfm, l/s	Supply 4 Flow Rate	
Analog Input	10	cfm, l/s	Exhaust 1 Flow Rate	
Analog Input	11	cfm, l/s	Exhaust 2 Flow Rate	
Analog Input	12	cfm, l/s	Hood 1 Flow Rate	
Analog Input	13	cfm, l/s	Hood 2 Flow Rate	
Analog Input	14	cfm, l/s	Hood 3 Flow Rate	
Analog Input	15	cfm, l/s	Hood 4 Flow Rate	
Analog Input	16	cfm, l/s	Hood 5 Flow Rate	
Analog Input	17	cfm, l/s	Hood 6 Flow Rate	
Analog Input	18	cfm, l/s	Hood 7 Flow Rate	
Analog Input	19	cfm, l/s	Supply Flow Setpoint	
Analog Input	20	cfm, l/s	General Exhaust Flow Setpoint	
Analog Input	21	cfm, l/s	Current Flow Offset	
Analog Input	22	°F, °C	Temperature	
Analog Input	23	% Open	Supply Damper Position	
Analog Input	24	% Open	Exhaust Damper Position	
Analog Input	25	% Open	Reheat Valve Position	
Analog Value	1		MAC Address	1 to 127
Analog Value	2	ft/min, m/s, in. H_2O, Pa	Room Pressure Setpoint	-0.19500 to 0.19500 in. H_2O
Analog Value	3	ft/min, m/s, in. H_2O, Pa	Remote Pressure Setpoint	-0.19500 to 0.19500 in. H_2O
Analog Value	4	ft/min, m/s, in. H_2O, Pa	Low Pressure Alarm	-0.19500 to 0.19500 in. H_2O
Analog Value	5	ft/min, m/s, in. H_2O, Pa	High Pressure Alarm	-0.19500 to 0.19500 in. H_2O
Analog Value	6	ft/min, m/s, in. H_2O, Pa	Remote Low Pressure Alarm	-0.19500 to 0.19500 in. H_2O
Analog Value	7	ft/min, m/s, in. H_2O, Pa	Remote High Pressure Alarm	-0.19500 to 0.19500 in. H_2O
Analog Value	8	cfm, l/s	Vent Min Setpoint	0 to 30,000 cfm
Analog Value	9	cfm, l/s	Cooling Flow Setpoint	0 to 30,000 cfm
Analog Value	10	cfm, l/s	Unocc Flow Setpoint	0 to 30,000 cfm
Analog Value	11	cfm, l/s	Min Offset	0 to 30,000 cfm
Analog Value	12	cfm, l/s	Max Offset	0 to 30,000 cfm
Analog Value	13	cfm, l/s	Max Supply Setpoint	0 to 30,000 cfm
Analog Value	14	cfm, l/s	Min Exhaust Setpoint	0 to 30,000 cfm
Analog Value	15	cfm, l/s	Min Supply Alarm	0 to 30,000 cfm
Analog Value	16	cfm, l/s	Max Exhaust Alarm	0 to 30,000 cfm
Analog Value	17	°F, °C	Temperature Setpoint	50 to 85 °F
Analog Value	18	°F, °C	Unocc Temp Setpoint	50 to 85 °F
Binary Value	1		Occ/Unocc Mode	0 Occupied 1 Unoccupied
Binary Value	2		Remote Mode	0 Normal Mode 1 Remote Mode
Multi-State Input	1		Status Index	1 Normal 2 Low Press Alarm 3 High Press Alarm 4 Max Exhaust Alarm 5 Min Supply Alarm 6 Data Error 7 Emergency
Multi-State Value	2		Emergency Mode	1 Exit Emergency Mode 2 Enter Emergency Mode 3 Normal
Multi-State Value	3		Units Value	1 ft/min 2 m/s 3 in. H_2O 4 Pa
Device	868001**		TSI8682	

* The units are based on the value of the Units Value object. When the Units Value is set to 1 or 3 the units are in English form. When the Units Value is set to 2 or 4 the units are metric. English is the default value.

**The device instance is the model, 868000, summed with the MAC address of the device.

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