PRESSURA™ MODEL RPM20

PIC STATEMENT

Date: August 1, 2013
Vendor Name: TSI Inc.
Product Name: Pressura Room Pressure Monitor
Product Model Number: RPM20-BAC
Applications Software Version: 1.0
Firmware Revision: 1.2
BACnet Protocol Revision: 2

Product Description:
TSI's PRESSURA™ Room Pressure Monitors accurately measure the actual room pressure differential, helping to ensure the proper operation of your HVAC system to maintain patient safety. This model monitor 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 Type	Device Instance	*Units	Description	Writable Object	Writable Value	Notes and Range
Analog Input	1	in H_2O, Pa	Room1 Pressure	Y		
Analog Input	2	cfm, l/s, m^3/hr	Supply Flow Rate			
Analog Input	3		Air Changes Per Hour			
Analog Input	4	% RH	Relative Humidity			
Analog Input	5	°F, °C	Room Temperature			
Analog Input	6	cfm, l/s, m^3/hr	Exhaust Flow Rate			
Analog Input	7	in H_2O, Pa	Anteroom Pressure	Y		1 Room with Anteroom or 2 Room with Anteroom configurations only
Analog Input	8	in H_2O, Pa	Room 2 Pressure	Y		2 Room with Anteroom configuration only
Analog Input	10		Room 1 Label	Y		Writing to Object name will change Rm1 Label item. Room 1 Label object has not applicable in H2O units. **Updating *Room 1 Label* Object name will not affect other Room 1 Object names.**
Analog Input	11		Anteroom Label	Y		Writing to Object name will change AnteRm Label item. Anteroom Label object has not applicable in H_2O units. **Updating *Anteroom Label* Object name will not affect other Anteroom Object names.**
Analog Input	12		Room 2 Label	Y		Writing to Object name will change Rm2 Label item. Room 2 Label object has not applicable in H_2O units. **Updating *Room 2 Label* Object name will not affect other Room 2 Object names.**
Analog Value	1	in H_2O, Pa	Room 1 Neg Low Alarm		Y	-0.19500 to + 0.19500 in H_2O
Analog Value	2	in H_2O, Pa	Room 1 Neg High Alarm		Y	-0.19500 to + 0.19500 in H_2O
Analog Value	3	in H_2O, Pa	Room 1 Pos Low Alarm		Y	-0.19500 to + 0.19500 in H_2O
Analog Value	4	in H_2O, Pa	Room 1 Pos High Alarm		Y	-0.19500 to + 0.19500 in H_2O
Analog Value	5	cfm, l/s, m^3/hr	Room 1 Low Exhaust Alarm		Y	0 to 30,000 cfm

Object Type	Device Instance	*Units	Description	Writable Object	Writable Value	Notes and Range
Analog Value	6	cfm, l/s, m^3/hr	Room 1 Low Supply Alarm		Y	0 to 30,000 cfm
Analog Value	7	°F, °C	Room 1 Low Temperature Alarm		Y	50 to 100 °F
Analog Value	8	°F, °C	Room 1 High Temperature Alarm		Y	50 to 100 °F
Analog Value	9	% RH	Room 1 Low RH Alarm		Y	0 to 100
Analog Value	10	% RH	Room 1 High RH Alarm		Y	0 to 100
Analog Value	11	ft^3, m^3	Room 1 Volume		Y	0 to 20,000
Analog Value	31	in H_2O, Pa	Anteroom Neg Low Alarm		Y	-0.19500 to + 0.19500 in H_2O 1 Room with Anteroom or 2 Room with Anteroom configurations only
Analog Value	32	in H_2O, Pa	Anteroom Neg High Alarm		Y	-0.19500 to + 0.19500 in H_2O 1 Room with Anteroom or 2 Room with Anteroom configurations only
Analog Value	33	in H_2O, Pa	Anteroom Pos Low Alarm		Y	-0.19500 to + 0.19500 in H_2O 1 Room with Anteroom or 2 Room with Anteroom configurations only
Analog Value	34	in H_2O, Pa	Anteroom Pos High Alarm		Y	-0.19500 to + 0.19500 in H_2O 1 Room with Anteroom or 2 Room with Anteroom configurations only
Analog Value	35	in H_2O, Pa	Room 2 Neg Low Alarm		Y	-0.19500 to + 0.19500 in H_2O 2 Room with Anteroom configuration only
Analog Value	36	in H_2O, Pa	Room 2 Neg High Alarm		Y	-0.19500 to + 0.19500 in H_2O 2 Room with Anteroom configuration only
Analog Value	37	in H_2O, Pa	Room 2 Pos Low Alarm		Y	-0.19500 to + 0.19500 in H_2O 2 Room with Anteroom configuration only
Analog Value	38	in H_2O, Pa	Room 2 Pos High Alarm		Y	-0.19500 to + 0.19500 in H_2O 2 Room with Anteroom configuration only
Analog Value	39		Alarm Delay		Y	20 to 600 seconds
Analog Value	40		Mute Timeout		Y	1 to 60 minutes
Analog Value	41		Door Delay		Y	20 to 600 seconds

Object Type	Device Instance	*Units	Description	Writable Object	Writable Value	Notes and Range
Analog Value	42		Address		Y	1 to 127
Analog Value	43		MAC ID		Y	0 to 999 Device ID = 1000*MAC ID + Address
Binary Input	1		Room 1 Door Switch			0 Door Closed (Normal) 1 Door Open
Binary Input	3		Room 2 Door Switch			0 Door Closed (Normal) 1 Door Open
Binary Input	4		Room 1 Occupancy			0 Occupied (Normal) 1 Unoccupied
Binary Input	6		Room 2 Occupancy			0 Occupied (Normal) 1 Unoccupied
Binary Value	1		Room 1 High Alarm		Y	0 Disable 1 Enable
Binary Value	2		Room 1 Low Alarm		Y	0 Disable 1 Enable
Binary Value	3		Anteroom High Alarm		Y	0 Disable 1 Enable
Binary Value	4		Anteroom Low Alarm		Y	0 Disable 1 Enable
Binary Value	5		Room 2 High Alarm		Y	0 Disable 1 Enable
Binary Value	6		Room 2 Low Alarm		Y	0 Disable 1 Enable
Multi-State Value	1		Number of Rooms			1 1 Room 2 1 Room with 3 Anteroom 2 Rooms with Anteroom
Multi-State Value	3		Passcode Enable		Y	1 No Password 2 Room Mode Password 3 Menu Password 4 Menu & Room Mode Passwords
Multi-State Value	4		Input 1 Configuration			1 TSI Sensor 2 Pressure Transducer
Multi-State Value	5		Input 2 Configuration			1 TSI Sensor 2 Pressure Transducer 4 None
Multi-State Value	6		Input 3 Configuration			1 Supply Pressure Flow 2 Supply Linear Flow 3 Supply Venturi Flow 4 Supply Switch 5 TSI Sensor 6 Pressure Transducer 7 None
Multi-State Value	7		Input 4 Configuration			1 Room 1 Door Switch 2 Room 1 Occupancy Sensor 3 None

Object Type	Device Instance	*Units	Description	Writable Object	Writable Value	Notes and Range
Multi-State Value	8		Input 5 Configuration			1 Room 1 Keyswitch 2 Room 1 Relative Humidity 3 None
Multi-State Value	9		Input 6 Configuration			1 Room 1 Temp Sensor 3 Room 2 Occupancy Sensor 4 Room 2 Door Switch 6 None
Multi-State Value	10		Input 7 Configuration			2 Exhaust Pressure 3 Flow 4 Exhaust Linear Flow 5 Exhaust Venturi Flow 6 Exhaust Switch 8 Room 2 Keyswitch None
Multi-State Value	11		Room 1 Mode		Y	1 Positive 2 Negative 3 No Isolation
Multi-State Value	12		ACH Duct		Y	1 Supply 2 Exhaust 3 Off
Multi-State Value	14		Anteroom Mode		Y	1 Positive 2 Negative 3 No Isolation
Multi-State Value	15		Room 2 Mode		Y	1 Positive 2 Negative 3 No Isolation

Object Type	Device Instance	*Units	Description	Writable		Notes and Range
				Object	Value	
Multi-State Value	16		Status Index			1 Normal 2 Room 1 Negative Low Alarm 3 Room 1 Negative High Alarm 4 Room 1 Positive Low Alarm 5 Room 1 Positive Low Alarm 6 Low Exhaust Flow Alarm 7 Low Supply Flow Alarm 8 Low Temperature Alarm 9 High Temperature Alarm 10 Low RH Alarm 11 High RH Alarm 12 Anteroom Negative Low Alarm 13 Anteroom Negative High Alarm 14 Anteroom Positive Low Alarm 15 Anteroom Positive High Alarm 16 Room 2 Negative Low Alarm 17 Room 2 Negative High Alarm 18 Room 2 Positive Low Alarm 19 Room 2 Positive High Alarm 20 Data Error

Object Type	Device Instance	*Units	Description	Writable Object	Writable Value	Notes and Range
Multi-State Value	17		Device Type			2 RPM20
Multi-State Value	18		Units Value		Y	1 in H_2O, cfm, F 2 Pa, lps, C 3 Pa, m^3/hr, C

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

** The MAC ID defaults to 606. The device index is the MAC ID multiplied by 1000 plus the MAC Address The default device index is therefore 606001.

UNDERSTANDING, ACCELERATED

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