

BACnet Points for Dual Zone Single Compressor Water-to-Air Heat Pumps Utilizing the FX10 Controller



All volatile (Output) type points will revert to the uncommanded values after a power interruption. These have no limit on the number of writes in a lifetime. The nonvolatile (Value) type points have their values stored in flash memory and they retain their values through a power outage. These have a limited life-time number of write cycles, about 2,000,000. Excessive writes to these will cause controller failure.

Depending on the type of BAS that you are using to integrate the controllers, you will either have an uncommanded value of 254 or 255 for the multistate inputs, outputs and values. For the BAS systems that show 254 as the uncommanded value, you will read/write a “0” for the “Off” command and “1” for the “On” command. For the BAS that shows 255 you will read/write a “1” for the “Off” command and a “2” for the “On” command.

<i>Alanlog Inputs</i>	<i>Read/Write</i>	<i>Description</i>
AI1 Space Temp 1	Read	Shows the current space temperature for zone 1.
AI2 Zn1 Eff Clg Setpt	Read	Shows the effective cooling setpoint for zone 1.
AI3 Zn1 Eff Hgt Setpt	Read	Shows the effective heating setpoint for zone 1.
AI4 Space Temp 2	Read	Shows the current space temperature for zone 2.
AI5 Zn2 Eff Clg Setpt	Read	Shows the effective cooling setpoint for zone 2.
AI6 Zn2 Eff Hgt Setpt	Read	Shows the effective heating setpoint for zone 2.
AI7 Discharge Air Temp	Read	Shows value of field mounted sensor unless supplied as a factory special.
AI8 Refrigerant Temp	Read	Shows the refrigerant temperature near the coaxial heat exchanger.
AI9 Frz Setpt	Read	Shows the water coil low temp limit value.
AI10 ECM Cmd	Read	Shows the commanded speed of the ECM blower motor. 0-100%
AI11 Alarms Enumerated	Read	Shows a value from 0-9, Refer to alarms table for descriptions.
<small>Warning: Reverts to "Uncommanded" after a power cycle. These are volatile memory and allow unlimited writes.</small>		
<i>Analog Outputs</i>	<i>Read/Write</i>	<i>Description</i>
AO1 ECM Override	Write	Allows for network control of the ECM blower motor speed.
AO2 AO2 Override	Write	Allows for network control of the analog output 2.

Warning: These are written in Flash memory and have about 2,000,000 write cycles. Should only be written to by manual writes or through a scheduled writes, not by the automated reset process. **EXCESSIVE WRITES WILL CAUSE CONTROLLER FAILURE, THIS WILL NOT BE COVERED UNDER WARRANTY!**

Analog Value	Read/Write	Description
AV1 Occupied Cool	Write	Occupied cooling setpoint, nonvolatile.
AV2 Occupied Heat	Write	Occupied heating setpoint, nonvolatile.
AV3 Unoccupied Cool	Write	Unoccupied cooling setpoint, nonvolatile.
AV4 Unoccupied Heat	Write	Unoccupied heating setpoint, nonvolatile.
AV5 Standby Cool	Write	Standby cooling setpoint, nonvolatile.
AV6 Standby Heat	Write	Standby heating setpoint, nonvolatile.
AV7 Low Speed	Write	Allows for the network to command the ECM blower fan only speed.
AV8 Medium Speed	Write	Allows for the network to command the ECM blower medium speed.
AV9 High Speed	Write	Allows for the network to command the ECM blower high speed.
AV10 Temp Occ Timer	Write	Allows for the network to determine the length of the temporary occupancy time, factory default time is 60 minutes.
AV11 Zn1 Wm Cl CCW	Write	Allows for the network to the define the minimum position of the zone 1 warm cool knob.
AV12 Zn1 Wm Cl CW	Write	Allows for the network to the define the maximum position of the zone 1 warm cool knob.
AV13 Zn2 Wm Cl CCW	Write	Allows for the network to the define the minimum position of the zone 2 warm cool knob.
AV14 Zn2 Wm Cl CW	Write	Allows for the network to the define the maximum position of the zone 2 warm cool knob.
AV15 Zone1 Temp Offset	Write	Allows for adjustment to the zone 1 sensor input, used to calibrate the zone temp reading on the network.
AV16 Zone2 Temp Offset	Write	Allows for adjustment to the zone 2 sensor input, used to calibrate the zone temp reading on the network.
AV17 Damper Off Delay	Write	Allows for the network to determine the length of time the damper remains open after the fan command is removed.

Warning: If your uncommanded value is 254 then the numeric values listed below will be 1 less than what is described.

<i>Multistate Inputs</i>	<i>Read/Write</i>	<i>Description</i>
MI1 Zone 1 Effctv Occpy	Read	Shows the current occupancy status of zone 1. 1=Occupied, 2=Unoccupied, 3=Bypass(Temporary Occupancy)
MI2 Zone 2 Effctv Occpy	Read	Shows the current occupancy status of zone 2. 1=Occupied, 2=Unoccupied, 3=Bypass(Temporary Occupancy)
MI3 Mode	Read	Shows the current occupancy status of zone 1. 1=Occupied, 2=Unoccupied, 3=Bypass(Temporary Occupancy)
MI4 Fan Cmd Status	Read	Shows the commanded status of the fan. 1=Off, 2=On
MI5 Comp Cmd Status	Read	Shows the commanded status of compressor. 1=Off, 2=On
MI6 Comp Hi Capacity	Read	Shows the commanded status of high capacity compressor valve. 1=Off, 2=On
MI7 Rev Valve	Read	Shows the commanded position of the reversing valve. 1=Heating, 2=Cooling
MI8 Accessory 1	Read	Shows the current state of the ACC 1(X1) output. 1=Off, 2=On
MI9 Accessory 2	Read	Shows the current state of the ACC 2(X2) output. 1=Off, 2=On
MI10 Zone 1 Occ Sensor	Read	Shows the current status of zone 1 occupancy sensor. 1=Unoccupied, 2=Occupied
MI11 Zone 2 Occ Sensor	Read	Shows the current status of zone 2 occupancy sensor. 1=Unoccupied, 2=Occupied
MI12 Zone 1 Temp Occ	Read	Shows the current position of zone 1 temporary occupancy button. 1=Off, 2=On
MI13 Zone 2 Temp Occ	Read	Shows the current position of zone 2 temporary occupancy button. 1=Off, 2=On
MI14 Tmp Occ Tmr 1	Read	Shows the zone 1 temporary occupancy timer.
MI15 Temp Occ Tmr 2	Read	Shows the zone 2 temporary occupancy timer.

Warning: If your uncommanded value is 254 then the numeric values listed below will be 1 less than what is described.

<i>Multistate Outputs</i>	<i>Read/Write</i>	<i>Description</i>
MO1 Occupancy Command	Write	Allows for network command to the occupancy input of the heatpump. 1=Occupied, 2=Unoccupied, 3=Bypass,4=Standby
MO2 Emergency Override	Write	Allows for network command to put the unit in emergency shutdown. 1=Normal, 5=Shutdown
MO3 Y1 LoadShed	Write	Allows for a network command to shutdown the compressor when the units is running in setpoint mode. 1=Normal, 2=LoadShed
MO4 Alarm Reset	Write	Allows for remote reset of manual reset alarms, must write to a 2 then back to a 1 for reset to take effect.

#	Description
0	No Alarm
1	Condensate Detected
2	Compressor High Discharge Pressure
3	Compressor Low Suction Pressure
4	Freeze Protection
8	Faulty Freeze Sensor Alarm
9	Loss of Charge

© 2013 The manufacturer has a policy of continual product research and development and reserves the right to change design and specifications without notice.

