

HyperStat Modbus and BACnet Mapping document

| | Pogistor | | Bogistor | | | | | |
|----------------------------------------|--------------------|--------------------|---------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Register Type | Register Number | Register Type | Register Address | Parameters | Description | Type | Units | Values |
| Holding Register | 40001 | Holding | 0 | Set Temperature Heating | Temperature setpoint hyperstat will heat to when operating mode = heating | uint16 | 2 x Fahrenheit | 120-180 (60.0 - 90.0) |
| Holding Register | 40002 | Holding | 1 | Set Temperature Cooling | Temperature setpoint hyperstat will cool to when operating mode = cooling | uint16 | 2 x Fahrenheit | 120-180 (60.0 - 90.0) 0 = OFF |
| | | | | | | | | 1 = AUTO |
| Holding Register | 40003 | Holding | 2 | | Configure the fan speed of hyperstat | uint8 | NA | 2 = LOW |
| | | | | Fan Speed | | | | 3 = MEDIUM 4 = HIGH |
| | | | | | | | | 0 = OFF |
| Iding Register | 40004 | Holding | 3 | | Configure the conditioning mode of the hyperstat | uint8 | NA | 1 = AUTO 2 = HEATING |
| | | | | Conditioning Mode | | | | 2 = HEATING 3 = COOLING |
| lding Register | 40005 | Holding | 4 | Max Heating User Temp | Maximum heating set temperature user can set | uint16 | degrees Fahrenheit | 60-90 |
| olding Register | 40006 40007 | Holding | 5 | Min Heating User Temp Max Cooling User Temp | Minimum heating set temperature the user can set | uint16 | degrees Fahrenheit | 60-90 |
| olding Register olding Register | 40007 | Holding | 7 | Max Cooling User Temp Min Cooling User Temp | Maximum cooling set temperature user can set | uint16 uint16 | degrees Fahrenheit | 60-90 60-90 |
| Iding Register | 40009 | Holding | 8 | Temperature Offset | Minimum cooling set temperature the user can set Offset added to measurement room temperature | int16 | degrees Fahrenheit 1/10 degrees Fahrenheit | -100 - 100 (-10.0 - 10.0) |
| olding Register | 40010 | Holding | 9 | Heating Deadband | Amount above set temperature at which heating is activated | uint16 | 1/10 degrees Fahrenheit | 0-100 (0.0-10.0) |
| olding Register | 40011 | Holding | 10 | Cooling Deadband | Amount below set temperature at which cooling is activated | uint16 | 1/10 degrees Fahrenheit | 0-100 (0.0-10.0) |
| olding Register | 40012 | Holding | 11 | | Temperature mode defining how temperature setpoints and deadbands can be configured and how | uint8 | NA NA | 0 = Single Setpoint 1 = Dual Setpoint Fixed Deadba |
| | | | | Temperature Mode | they will be applied | | | 2 = Dual Setpoint Variable Deadb |
| olding Register | 40013 | Holding | 12 | Humidity Min Setpoint | Threshold at which hyperstat will attempt to humidify if humidity level is less than | uint8 | % | 20-100 |
| olding Register olding Register | 40014 40015 | Holding Holding | 13 14 | Humidity Max Setpoint | Threshold at which hyperstat will attempt to dehumidify if humidity level is greater than | uint8 | % | 20-100 |
| olding Register | 40016 | Holding | 15 | CO2 Alert Threshold VOC Alert Threshold | Threshold of CO2 level at which an alert will be indicated Threshold of VOC level at which an alert will be indicated | uint16 uint16 | ppm ppb | 400-10000 0-10000 |
| Iding Register | 40017 | Holding | 16 | PM2.5 Alert Threshold | Threshold of PM2.5 level at which an alert will be indicated | uint16 | ug/m3 | 0-10000 |
| | | | | | | | | 0 = None |
| | | | | | | | | 1 = Conventional Package Un 2 = Heat Pump Unit |
| olding Register | 40018 | Holding | 17 | | Profile in which Hyperstat shall run | uint8 | | 3 = 2 Pipe Fancoil Unit |
| | | | | | | | | 4 = 4 Pipe Fancoil Unit |
| | | | | Profile | | | | 5 = VRV 6 = Sense |
| | | | | Profile | | | | b = Sense 0 = Disabled |
| olding Register | 40019 | Holding | 18 | Relay 1 Enable | Configure if relay 1 is enabled/disabled | bool | | 1 = Enabled |
| olding Register | 40020 | Holding | 19 | | Configure if relay 2 is enabled/disabled | bool | | 0 = Disabled |
| | | | | Relay 2 Enable | | | | 1 = Enabled 0 = Disabled |
| olding Register | 40021 | Holding | 20 | Relay 3 Enable | Configure if relay 3 is enabled/disabled | bool | | 1 = Enabled |
| lding Register | 40022 | Holding | 21 | | Configure if relay 4 is enabled/disabled | bool | | 0 = Disabled |
| | | | | Relay 4 Enable | | | | 1 = Enabled 0 = Disabled |
| olding Register | 40023 | Holding | 22 | Relay 5 Enable | Configure if relay 5 is enabled/disabled | bool | | 0 = Disabled 1 = Enabled |
| Ilding Register | 40024 | Holding | 23 | | Configure if relay 6 is enabled/disabled | bool | | 0 = Disabled |
| ······································ | 70024 | norung | | Relay 6 Enable | Configure in relay to is enabled/disabled | 5001 | | 1 = Enabled |
| | | | | | | | | 0 = None 1 = Cooling Stage 1 |
| | | | | | | | | 2 = Cooling Stage 2 |
| | | | | | | | | 3 = Cooling Stage 3 |
| | | | | | Configure the mapping of relay 1 Note: This value is only used if the relay is enabled | uint8 | | 4 = Heating Stage 1 |
| de la partir | 400 | 11-12 | | | | | | 5 = Heating Stage 2 6 = Heating Stage 3 |
| olding Register | 40025 | Holding | 24 | | | | | 7 = Fan Low Speed |
| | | | | | | | | 8 = Fan Medium Speed |
| | | | | | | | | 9 = Fan High Speed 10 = Fan Enable |
| | | | | | | | | 11 = Occupied Enable |
| | | | | | | | | 12 = Humidifier |
| | | | | Relay 1 Mapping | | | | 13 = Dehumidifier 0 = None |
| | | | | | | | | 1 = Cooling Stage 1 |
| | | | | | | | | 2 = Cooling Stage 2 |
| | | | | | | | | 3 = Cooling Stage 3 |
| | | | | | | | | 4 = Heating Stage 1 5 = Heating Stage 2 |
| olding Register | 40026 | Holding | 25 | | Configure the mapping of relay 2 | uint8 | | 6 = Heating Stage 3 |
| ioiding Register | 40020 | Holding | 23 | | Note: This value is only used if the relay is enabled | uinte | | 7 = Fan Low Speed |
| | | | | | | | | 8 = Fan Medium Speed 9 = Fan High Speed |
| | | | | | | | | 10 = Fan Enable |
| | | | | | | | | 11 = Occupied Enable |
| | | | | Relay 2 Mapping | | | | 12 = Humidifier 13 = Dehumidifier |
| | | | | | | | | 0 = None |
| | | | | | | | | 1 = Cooling Stage 1 |
| | | | | | | | | 2 = Cooling Stage 2 3 = Cooling Stage 3 |
| | | Holding | 26 | | Configure the mapping of relay 3 Note: This value is only used if the relay is enabled | uint8 | | 4 = Heating Stage 1 |
| | 40027 | | | | | | | 5 = Heating Stage 2 |
| olding Register | | | | | | | | 6 = Heating Stage 3 |
| | | | | | | | | 7 = Fan Low Speed 8 = Fan Medium Speed |
| | | | | | | | | 9 = Fan High Speed |
| Holding Register | | | | | | | | 10 = Fan Enable |
| | | | | | | | | 11 = Occupied Enable 12 = Humidifier |
| | | | | Relay 3 Mapping | | | | 13 = Dehumidifier |
| | | | | | | | | 0 = None |
| | | | | | | | | 1 = Cooling Stage 1 2 = Cooling Stage 2 |
| | | | | | | | | 2 = Cooling Stage 2 3 = Cooling Stage 3 |
| | | Holding | 27 | | Configure the mapping of relay 4 Note: This value is only used if the relay is enabled | uint8 | | 4 = Heating Stage 1 |
| | 40028 | | | | | | | 5 = Heating Stage 2 6 = Heating Stage 3 |
| | | | | | | | | 6 = Heating Stage 3 7 = Fan Low Speed |
| | | | | | | | | 8 = Fan Medium Speed |
| | | | | | | | | 9 = Fan High Speed |
| | | | | | | | | 10 = Fan Enable 11 = Occupied Enable |
| | | | | | | | | 12 = Humidifier |
| | | | | Relay 4 Mapping | | | | 13 = Dehumidifier 0 = None |
| | | | | | | | | 1 = Cooling Stage 1 |
| | | | | | | | | 2 = Cooling Stage 2 |
| | | | | | | | | 3 = Cooling Stage 3 |
| | | | | | | | | 4 - Hastina Stone 4 |
| | | | | | | | | 4 = Heating Stage 1 |
| olding Register | 40029 | Holdino | 28 | | Configure the mapping of relay 5 | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 |
| olding Register | 40029 | Holding | 28 | | Configure the mapping of relay 5 Note: This value is only used if the relay is enabled | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 7 = Fan Low Speed |
| olding Register | 40029 | Holding | 28 | | | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 |
| olding Register | 40029 | Holding | 28 | | | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 7 = Fan Low Speed 8 = Fan Medium Speed 9 = Fan High Speed 10 = Fan Enable |
| iding Register | 40029 | Holding | 28 | | | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 7 = Fan Low Speed 8 = Fan Medium Speed 9 = Fan High Speed 10 = Fan Enable 11 = Occupied Enable |
| ding Register | 40029 | Holding | 28 | Balay S.Manniny | | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 7 = Fan Low Speed 8 = Fan Medium Speed 9 = Fan High Speed 10 = Fan Enable 11 = Occupied Enable 12 = Humidfier |
| ding Register | 40029 | Holding | 28 | Relay 5 Mapping | | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 7 = Fan Low Speed 8 = Fan Medium Speed 9 = Fan High Speed 10 = Fan Eable 11 = Occupied Enable 12 = Humidifier 13 = Dehumidifier |
| iding Register | 40029 | Holding | 28 | Relay 5 Mapping | | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 7 = Fan Low Speed 8 = Fan Medium Speed 9 = Fan High Speed 10 = Fan Enable 11 = Occupied Enable 12 = Humidiffer 13 = Debumidiffer 0 = None 1 = Coding Stage 1 |
| iding Register | 40029 | Holding | 28 | Relay S Mapping | | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 7 = Fan Low Speed 8 = Fan Medium Speed 9 = Fan High Speed 10 = Fan Enable 11 = Occupied Enable 12 = Humidifier 0 = None 1 = Cooling Stage 1 2 = Cooling Stage 1 |
| iding Register | 40029 | Holding | 28 | Relay S Mapping | | uint8 | | 4 = Heating Stage 1 5 = Heating Stage 2 6 = Heating Stage 3 7 = Fan Low Speed 8 = Fan Medium Speed 9 = Fan High Speed 10 = Fan Fanble 11 = Occupied Fanble 12 = Humidiffer 3 = Debumidiffer 0 = None 1 = Cooling Stage 1 2 = Cooling Stage 2 3 = Cooling Stage 2 |
| lding Register | 40029 | Holding | 28 | Relay S Mapping | | uint8 | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 8 - Fan Medium Speed 9 - Fan High Speed 10 - Fan Enable 11 - Occupied Fnable 12 - Humidfiler 13 - Debumidfiler 1 - Kone 1 - Cooling Stage 2 3 - Cooling Stage 3 4 - Heating Stage 4 |
| | | | | Relay S Mapping | Note: This value is only used if the relay is enabled Configure the mapping of relay 6 | uint8 | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 8 - Fan Medium Speed 9 - Fan Inglis Speed 10 - Fan Crable 11 - Coupled Frable 12 - Heating Stage 3 2 - Heating Stage 2 3 - Cooling Stage 1 2 - Cooling Stage 2 3 - Heating Stage 2 4 - Heating Stage 2 5 - Heating Stage 2 6 - Heating Stage 2 6 - Heating Stage 2 |
| olding Register | 40029 | Holding | 28 | Relay 5 Magping | Note: This value is only used if the relay is enabled | | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 2 7 - Fan Live Speed 8 - Fan Live Speed 9 - Fan High Speed 10 - Fan Enable 11 - Coccipied Enable 12 - Humidfiler 13 - Ockupied Enable 12 - Humidfiler 2 - Nome 1 - Cooling Stage 1 2 - Cooling Stage 2 3 - Cooling Stage 3 3 - Cooling Stage 3 4 - Cooling Stage 3 5 - Heating Stage 3 6 - Heating Stage 3 7 - Fan Live Speed |
| | | | | Relay S Mapping | Note: This value is only used if the relay is enabled Configure the mapping of relay 6 | | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 8 - Fan Medium Speed 9 - Fan Deel 1 - Cocupied Finalise 11 - Occupied Finalise 12 - Humidfiler 13 - Debumidfiler 12 - Humidfiler 13 - Cocing Stage 1 2 - Cocing Stage 2 3 - Cocing Stage 3 4 - Heating Stage 2 5 - Heating Stage 3 5 - Heating Stage 3 7 - Fan Low Speed 8 - Fan Medium Speed 9 - Fan High Speed |
| | | | | Relay 5 Magping | Note: This value is only used if the relay is enabled Configure the mapping of relay 6 | | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 9 - Fan Mind Stage 3 10 - Fan Low Speed 10 - Fan Enable 11 - Couried Fashle 12 - Humidfire 13 - Debumdirie 13 - Couring Stage 1 2 - Couring Stage 1 3 - Couring Stage 1 3 - Couring Stage 3 4 - Heating Stage 2 5 - Heating Stage 3 7 - Fan Low Speed 9 - Fan High Speed 9 - Fan High Speed 10 - Fan Fashle |
| | | | | Relay S Mapping | Note: This value is only used if the relay is enabled Configure the mapping of relay 6 | | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 8 - Fan Medium Speed 9 - Fan High Speed 11 - Occupied Fnable 12 - Humdfilder 13 - Debumdfilder 12 - Humdfilder 13 - Debumdfilder 14 - Cooling Stage 1 15 - Cooling Stage 2 15 - Cooling Stage 3 16 - Heating Stage 3 16 - Heating Stage 3 17 - Fan Low Stage 3 18 - Fan Medium Speed 10 - Fan Gnable 11 - Occupied Fnable 11 - Occupied Fnable |
| | | | | | Note: This value is only used if the relay is enabled Configure the mapping of relay 6 | | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 9 - Fan High Speed 10 - Fan Enable 11 - County Enable 12 - Humidflier 13 - Debumdiffle 1 - County Stage 1 1 - County Stage 1 2 - County Stage 1 2 - County Stage 1 3 - County Stage 1 5 - Heating Stage 2 6 - Heating Stage 2 6 - Heating Stage 2 7 - Fan Low Speed 9 - Fan High Speed 10 - Fan Enable 11 - County Enable 12 - Humidflier |
| lding Register | 40030 | Holding | 29 | Relay 6 Mapping | Note: This value is only used if the relay is enabled Configure the mapping of relay 6 Note: This value is only used if the relay is enabled | uint8 | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 9 - Fan Mind Speed 10 - Fan Enable 11 - Coccupied Fasible 12 - Humidiffer 0 - None 13 - Defunding Stage 3 3 - Cooling Stage 3 4 - Heating Stage 2 3 - Cooling Stage 3 4 - Heating Stage 2 5 - Heating Stage 2 7 - Fan Low Speed 9 - Fan High Speed 10 - Fan Enable 11 - Coccupied Fasible 12 - Humidiffer 13 - Defunding Stage 3 7 - Fan Low Speed 10 - Fan Enable 11 - Coccupied Fasible 12 - Humidiffer 13 - Defunding Stage 3 13 - Cooling Stage 3 14 - Heating Stage 3 15 - Heating Stage 3 16 - Fan Enable 16 - Speed Stage Sta |
| iding Register | | | | | Note: This value is only used if the relay is enabled Configure the mapping of relay 6 | | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 8 - Fan Medium Speed 9 - Fan High Speed 10 - Heating Stage 3 11 - Occupied Erable 11 - Novement Stage 1 12 - Heating Stage 1 12 - Heating Stage 2 13 - Cooling Stage 1 14 - Heating Stage 2 15 - Heating Stage 1 15 - Heating Stage 2 16 - Heating Stage 3 17 - Fan Low Speed 18 - Tan Medium Speed 19 - Fan High Speed 11 - Cooling Fan High Speed 12 - Heating Stage 1 13 - Debugger Erable 12 - Heating Stage 3 13 - Heating Stage 3 14 - Heating Stage 3 15 - Heating Stage 3 16 - Heating Stage 3 17 - Fan Low Speed 18 - Tan Medium Speed 19 - Stage Stage 3 10 - Disabled 10 - Disabled 10 - Disabled 11 - Enabled 11 - Enabled |
| iding Register | 40030 | Holding | 29 | Relay 6 Mapping | Note: This value is only used if the relay is enabled Configure the mapping of relay 6 Note: This value is only used if the relay is enabled Configure if analog input 1 is enabled/disabled | uint8 | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Live Speed 8 - Fan Hur Speed 10 - Fan Fan Live Speed 11 - Fan Fan Hur Speed 11 - Fan Fan Hur Speed 12 - Humidfiler 13 - Debumdfiller 13 - Debumdfiller 13 - Occupied Fanble 1 - None 1 - Cooling Stage 1 2 - Cooling Stage 1 3 - Heating Stage 2 6 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 8 - Fan Medium Speed 9 - Fan High Speed 10 - Fan Enable 11 - Occupied Fanble 13 - Debumdfiller 13 - Debumdfiller 13 - Debumdfiller 1 - Enabled 1 - Enabled 0 - Current O-10 |
| | 40030 | Holding | 29 | Relay 6 Mapping | Note: This value is only used if the relay is enabled Configure the mapping of relay 6 Note: This value is only used if the relay is enabled | uint8 | | 4 - Heating Stage 1 5 - Heating Stage 2 6 - Heating Stage 3 7 - Fan Low Speed 8 - Fan Medium Speed 9 - Fan High Speed 10 - Heating Stage 3 11 - Occupied Erable 11 - Novement Stage 1 12 - Heating Stage 1 12 - Heating Stage 2 13 - Cooling Stage 1 14 - Heating Stage 2 15 - Heating Stage 1 15 - Heating Stage 2 16 - Heating Stage 3 17 - Fan Low Speed 18 - Tan Medium Speed 19 - Fan High Speed 11 - Cooling Fan High Speed 12 - Heating Stage 1 13 - Debugger Erable 12 - Heating Stage 3 13 - Heating Stage 3 14 - Heating Stage 3 15 - Heating Stage 3 16 - Heating Stage 3 17 - Fan Low Speed 18 - Tan Medium Speed 19 - Stage Stage 3 10 - Disabled 10 - Disabled 10 - Disabled 11 - Enabled 11 - Enabled |

| Holding Register | 40033 | Holding | 32 | Analog In 2 Enable | Configure if analog input 2 is enabled/disabled | bool | | 0 = Disabled 1 = Enabled 0 = Current 0-10 |
|--------------------------------------|----------------|--------------------|----------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------|---------------------------------------------------|
| Holding Register | 40034 | Holding | 33 | | Configure the mapping of analog input 2 Note: This value is only used if the analog input is enabled | uint8 | | 1 = Current 0-20 2 = Current 0-50 |
| | | | | Analog In 2 Mapping | Note: Inis value is only used if the analog input is enabled | | | 3 = Keycard 4 = Door Window |
| Holding Register | 40035 | Holding | 34 | Analog Out 1 Enable | Configure if analog output 1 is enabled/disabled | bool | | 0 = Disabled 1 = Enabled 0 = Cooling |
| Holding Register | 40036 | Holding | 35 | | Configure the mapping of analog output 1 Note: This value is only used if the analog input is enabled | uint8 | | 1 = Fan Speed 2 = Heating |
| Holding Register | 40037 | Holding | 36 | Analog Out 1 Mapping Analog Out 1 At Min Setting | Voltage at which the cooler/damper/fan mapped to the analog output is at minimum position | uint8 | 1/10 Volts | 3 = DCV Damper 0 - 100 (0.0 - 10.0) |
| Holding Register Holding Register | 40038 40039 | Holding | 37 | Analog Out 1 At Max Setting | Voltage at which the cooler/damper/fan mapped to the analog output is at maximum position Determines if PWM channel 1 shall be a pulsed or constant voltage | uint8 bool | 1/10 Volts | 0 - 100 (0.0 - 10.0) 0 = Constant Voltage |
| Holding Register | 40040 | Holding | 39 | Analog Out 1 Pulse Enabled Analog Out 2 Enable | Configure if analog output 2 is enabled/disabled | bool | | 1 = Pulsed Voltage 0 = Disabled 1 = Enabled |
| | | | | Paramog Out 2 Emante | Configure the mapping of analog output 2 | | | 0 = Cooling 1 = Fan Speed |
| Holding Register | 40041 | Holding | 40 | Analog Out 2 Mapping | Note: This value is only used if the analog input is enabled | uint8 | | 2 = Heating 3 = DCV Damper |
| Holding Register Holding Register | 40042 40043 | Holding Holding | 41 42 | Analog Out 2 At Min Setting Analog Out 2 At Max Setting | Voltage at which the cooler/damper/fan mapped to the analog output is at minimum position Voltage at which the cooler/damper/fan mapped to the analog output is at maximum position | uint8 uint8 | 1/10 Volts 1/10 Volts | 0 - 100 (0.0 - 10.0) 0 - 100 (0.0 - 10.0) |
| Holding Register | 40044 | Holding | 43 | Analog Out 2 Pulse Enabled | Determines if PWM channel 2 shall be a pulsed or constant voltage | bool | | 0 = Constant Voltage 1 = Pulsed Voltage |
| Holding Register | 40045 | Holding | 44 | Analog Out 3 Enable | Configure if analog output 3 is enabled/disabled | bool | | 0 = Disabled 1 = Enabled 0 = Cooling |
| Holding Register | 40046 | Holding | 45 | | Configure the mapping of analog output 3 Note: This value is only used if the analog input is enabled | uint8 | | 1 = Fan Speed 2 = Heating |
| Holding Register | 40047 | Holding | 46 | Analog Out 3 Mapping Analog Out 3 At Min Setting | Voltage at which the cooler/damper/fan mapped to the analog output is at minimum position | uint8 | 1/10 Volts | 3 = DCV Damper 0 - 100 (0.0 - 10.0) |
| Holding Register Holding Register | 40048 | Holding | 47 | Analog Out 3 At Max Setting | Voltage at which the cooler/damper/fan mapped to the analog output is at maximum position Determines if PWM channel 3 shall be a pulsed or constant voltage | uint8 bool | 1/10 Volts | 0 - 100 (0.0 - 10.0) 0 = Constant Voltage |
| Holding Register | 40050 | Holding | 49 | Analog Out 3 Pulse Enabled | Enable or disable thermistor input 1 which is used for measuring airflow temperature | bool | | 1 = Pulsed Voltage 0 = Disabled |
| Holding Register | 40051 | Holding | 50 | TH1 Airflow Temperature Enable TH2 Enable | Enable or disable thermistor input 2 which is used for measuring airflow temperature | bool | | 1 = Enabled 0 = Disabled 1 = Enabled |
| Holding Register | 40052 | Holding | 51 | Use TH1 As Room Temp Sensor | When enabled, Hyperstat will use the thermistor connected at TH1 input for determining room/zone temperature instead of the onboard temperature sensor | bool | | 0 = Disabled 1 = Enabled |
| Holding Register Holding Register | 40053 40054 | Holding Holding | 52 53 | Zone CO2 Damper Opening Rate Zone CO2 Threshold | TBD Determines the point where Hyperstat starts controlling dampers to maintain CO2 at target value | uint8 uint16 | %/100 ppm ppm | 0-100 0-2000 |
| Holding Register | 40055 40056 | Holding | 54 55 | Zone CO2 Target | Target value of CO2 Tuner that produces an output action that is proportional to the deviation between the set point and | uint16 uint8 | ppm 1/100 | 0-2000 0-100 |
| Holding Register | 40056 | Holding | 56 | Proportional Constant | the measured process value for a PI Loop Condition with which the controller output is proportional to the amount of time the error is present | uint8 | 1/100 | 0-100 |
| Holding Register | 40058 | Holding | 57 | Integral Constant | Defines the band of temperature, or range of temperature, over which the output of the controller is | uint16 | 1/10 degrees Fahrenheit | 0-100 (0.0-10.0) |
| Holding Register | 40059 | Holding | 58 | Proportional Temperature Range Integration Time | proportional. Example controlling the damper opertions Defines the amount of time PI loop in the system integrates the error over a period until error value reaches to zero. It limits the speed of response and affects stability of the system. | uint16 | minutes | 5-100 |
| Holding Register | 40060 | Holding | 59 | Unoccupied Setback | reaches to zero. It limits the speed of response and affects stability of the system Determines how many degrees from the desired temperature the zone will be allowed to drift during unoccupied | uint8 | 1/10 degrees Fahrenheit | 10-200 (1.0-20.0) |
| Holding Register Holding Register | 40061 40062 | Holding Holding | 60 61 | Relay Activation Hysteresis Analog Fan Speed Multiplier | Condition at which relay will turn off after being turned on to control based on load Tuner that determines how fast a fan can move based on heating or cooling load | uint8 | % 1/10 | 1-50 1-100 (0.1-10) |
| Holding Register | 40063 | Holding | 62 | Humidity Hysteresis | Tuner that determines a condition at which humidier / dehumidifier will turn off after being turned on to control inside humidity | uint8 | % | 1-100 |
| Holding Register | 40064 | Holding | 63 | Forced Occupied Time | During unoccupied time in case there is occupancy detected or user interacts with or edits user intent points then system enters in occupied mode for this tuner period only | uint8 | minutes | 0-255 |
| Holding Register | 40065 | Holding | 64 | Auto Away Time | During Occupied period of the zone (Not during preconditioning period), If an Occupant is not detected for this tuner duration, the zone should enter 'Auto Away' mode if occupancy is enabled | uint8 | minutes | 0-255 |
| Holding Register | 40066 | Holding | 65 | Auto Away Zone Setback Temp | Determines how many degrees from the desired temperature the zone will be allowed to drift during auto away Represents the difference between the current temp and heating desired temp in which the FCU Aux | uint8 | 1/10 Degrees Fahrenheit | 10-200 (1.0 - 20.0) |
| Holding Register | 40067 | Holding | 66 | | Represents the difference between the current temp and nesting testing temp in which the FOJ Aux Heating 1 will activate. For example, if any relay is enabled and associated with Aux Heating State 1, the relay will be | uint8 | 1/10 Degrees Fahrenheit | 10-100 (1.0 - 10.0) |
| | | | | FCU Aux Heating 1 Activate | activated when currentTemp < Heating Desired Temp - FCU Aux Heating 1 Activate Represents the difference between the current temp and heating desired temp in which the FCU Aux | | | |
| Holding Register | 40068 | Holding | 67 | | Heating 2 will activate. For example, if any relay is enabled and associated with Aux Heating State 2, the relay will be | uint8 | 1/10 Degrees Fahrenheit | 10-100 (1.0 - 10.0) |
| Halden Berline | 40069 | Helde- | 68 | FCU Aux Heating 2 Activate | activated when currentTemp < Heating Desired Temp - FCU Aux Heating 2 Activate For a 2 pipe FCU, this tuner determines if the central plant is providing hot water when compared to | uint8 | Degrees Fahrenheit | |
| Holding Register | 40069 | Holding | 08 | FCU Two Pipe Heating Threshold | supply water temp sensor. If Th2 (Supply water sensor) is more than ZpipeFancoilHeatingThreshold (85) then the central plant is providing hot water For a 2 pipe FCU, this tuner determines if the central plant is providing cold water when compared to | uints | Degrees Fanrenneit | 70-130 |
| Holding Register | 40070 | Holding | 69 | FCU Two Pipe Cooling Threshold | supply water temp sensor. If Th2 (supply water sensor) is less than 2pipeFancoilCoolingThreshold (65) then the central plant is providing cold water | uint8 | Degrees Fahrenheit | 35-70 |
| Holding Register | 40071 | Holding | 70 | | If FCU water temperature is greater than FCU Two Pipe Heating Threshold Amount or less than FCU Two Pipe Cooling Threshold, then if the water valve relay has not been enabled for the last FCU | uint8 | minutes | 0-30 |
| | | | | FCU Water Valve Sampling On Time | Water Valve Sampling Wait Time, this value represents the amount of time the water valve relay will be enabled | | | |
| Holding Register | 40072 | Holding | 71 | | If FCU water temperature is greater than FCU Two Pipe Heating Threshold Amount or less than FCU Two Pipe Cooling Threshold, then if the water valve relay has been enabled for the last FCU Water Valve Sampling On Time, this value represents the amount of time the water valve relay will be | uint8 | minutes | 5-255 |
| | | | | FCU Water Valve Sampling Wait Time | disabled If FCU water temperature is between FCU Two Pipe Heating Threshold and FCU Two Pipe Cooling | | | |
| Holding Register | 40073 | Holding | 72 | | Threshold, then if the water valve relay has not been enabled for the last FCU Water Valve Sampling During Loop Deadband Wait Time, this value represents the amount of time the water valve relay | uint8 | minutes | 0-30 |
| | | | | FCU Water Valve Sampling During Loop Deadband On Time | will be enabled If FCU water temperature is between FCU Two Pipe Heating Threshold and FCU Two Pipe Cooling | | | |
| Holding Register | 40074 | Holding | 73 | | Threshold, then if the water valve relay has been enabled for the last FCU Water Valve Sampling During Loop Deadband On Time, this value represents the amount of time the water valve relay will | uint8 | minutes | 5-255 |
| Holding Register | 40075 | Holding | 74 | FCU Water Valve Sampling During Loop Deadband Wait Time | be disabled Configure if Force Occupied feature is enabled/disabled. If Force Occupied = Enable, the Hyperstat will enter occupied mode for duration defined by Forced Occupied Time when occupancy is detected | bool | | 0 = Disabled |
| noiding Register | 40073 | Holding | ,4 | Enable Force Occupied | will enter occupied mode for duration defined by Porced Occupied Time when occupancy is detected or user interacts with Hyperstat. Configure if Auto Away feature is enabled/disabled. If Auto Away – enabled, the Hyperstat will apply | 0001 | | 1 = Enabled |
| Holding Register | 40076 | Holding | 75 | Enable Auto Away | the Auto Away Setback Temps when no motion has been detected for a duration greater than the Auto Away Time | bool | | 0 = Disabled 1 = Enabled |
| Holding Register | 40077 | Holding | 76 | Unoccupied Mode | Indicates if occupied or unoccupied settings shall be followed | bool | | 0 = Occupied 1 = Unoccupied |
| Holding Register | 40078 | Holding | 77 | Show Centigrade | Determine if Hyperstat display shall use units of Celcius or Fahrenheit | bool | | 0 = Disabled 1 = Enabled |
| Holding Register | 40079 | Holding | 78 | Display CO2 | Configures if CO2 sensor value is displayed on Hyperstat home screen | bool | | 0 = Disabled 1 = Enabled 0 = Disabled |
| Holding Register | 40080 | Holding | 79 | Display PM2.5 | Configures if PM2.5 sensor value is displayed on Hyperstat home screen | bool | | 0 = Disabled 1 = Enabled 0 = Disabled |
| Holding Register | 40081 | Holding | 80 | Display VOC | Configures if VOC sensor value is displayed on Hyperstat home screen Configures if Humidity sensor value is displayed on Hyperstat home screen | bool | | 1 = Enabled 0 = Disabled |
| ioluliig Register | 40002 | Holding | - 01 | Display Humidity | Configures ir numidity sensor value is displayed on hyperstat nome screen | 0001 | | 1 = Enabled 0 = Sunday |
| | | | | | | | | 1 = Monday 2 = Tuesday |
| Holding Register 400 | 40083 | Holding | ing 82 | | Configures the system time of the Hyperstat in days | uint8 | | 3 = Wednesday 4 = Thursday 5 = Friday |
| Holding Register | 40084 | Holding | 83 | System Time Days System Time Hours | Configures the system time of the Hyperstat in hours | uint8 | hours | 5 = Friday 6 = Saturday 0-23 |
| folding Register | 40085 | Holding | 84 | System Time Minutes | Configures the system time of the hyperstat in minutes Configures the system time of the Hyperstat in minutes Used to perform a hard reset of the Hyperstat. | uint8 | minutes | 0-59 |
| Holding Register Input Register | 40086 30001 | Holding | 85 | DeviceReset Room Temperature | Note: The Hyperstat will perform a hard reset when this value of "Reset" is written Temperature level sensor reading | bool uint16 | 1/10 degrees Fahrenheit | 1 = Reset |
| Input Register Input Register | 30002 30003 | Input Input | 1 2 | Humidity CO2 | Humidity level sensor reading CO2 level sensor reading | uint16 uint16 | 1/10 % ppm | |
| Input Register Input Register | 30004 30005 | Input | 3 4 | Occupancy Illuminance | Occupancy Status Illuminance level sensor reading | uint8 uint16 | Lux | |
| Input Register Input Register | 30006 30007 | Input | 5 6 | Ultraviolet Index Sound | Ultraviolet Index sensor reading Sound level sensor reading | uint16 uint16 | dB | |
| Input Register Input Register | 30008 30009 | Input | 7 8 | VOC PM2.5 | Volatile organic compound sensor reading PM2.5 level sensor reading | uint16 uint16 | ppb ug/m3 | |
| Input Register Input Register | 30010 30011 | Input | 9 | PM10 Analog Input 1 | PM10 level sensor reading Voltage level at analog input 1 | uint16 | ug/m3 1/10 volts | 0-100 (0.0-10.0) |
| Input Register Input Register | 30012 30013 | Input | 11 | Analog Input 2 Thermistor Input 1 Thermistor Input 2 | Voltage level at analog input 2 Resistance level reading at thermistor input 1 | uint16 | 1/10 volts 1/10 kOhm | 0-100 (0.0-10.0) |
| Input Register Input Register | 30014 | Input | 13 | Thermistor Input 2 Relay 1 | Resistance level reading at thermistor input 2 Contains the current value of relay 1 | uint16 bool | 1/10 kOhm | 0 = Off 1 = On |
| Input Register | 30016 | Input | 15 | Relay 2 | Contains the current value of relay 2 | bool | | 0 = Off 1 = On |
| | | | | | | | | |

| Input Register | 30017 | Input | 16 | | Contains the current value of relay 3 | bool | | 0 = Off | |
|----------------|-------|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------|---------------------------|---------------------|----------|
| 1 | | | | Relay 3 | | | | 1 = On | |
| Input Register | 30018 | Input | 17 | Polos A | Contains the current value of relay 4 | bool | | 0 = Off 1 = On | |
| | | | | Relay 4 | | | | 0 = Off | |
| Input Register | 30019 | Input | 18 | Relay 5 | Contains the current value of relay 5 | bool | | 1 = On | |
| Input Register | | Input | 19 | THE STATE OF THE S | | bool | | 0 = Off | |
| | 30020 | | | Relay 6 | Contains the current value of relay 6 | | | 1 = On | |
| Input Register | 30021 | Input | 20 | Analog Out 1 Percent | PWM channel 1 output level | uint8 | % | 0-100 | |
| Input Register | 30022 | Input | 21 | Analog Out 2 Percent | PWM channel 2 output level | uint8 | % | 0-100 | |
| Input Register | 30023 | Input | 22 | Analog Out 3 Percent | PWM channel 3 output level | uint8 | % | 0-100 | |
| | | Input | | | | | | Bit Index 0 = CO2 | |
| Input Register | 30024 | | 23 | | Bitmap representing each alert thresold (CO2, VOC, PM2.5) | uint16 | | Bit Index 1 = VOC | |
| | | | | Threshold Alert | | | | Bit Index 2 = PM2.5 | |
| Input Register | 30031 | Input | 30 | FW Version Major | Major version number component of FW version string | uint8 | | 0-255 | |
| Input Register | 30032 | Input | 31 | FW Version Minor | Minor version number component of FW version string | uint8 | | 0-255 | |
| Input Register | 30033 | Input | 32 | Modbus Address | Address of modbus server | uint8 | | 0-255 | |
| Input Register | 30034 | Input | | 33 | | | | 0 = 9600 | |
| | | | 33 | | | uint8 | | 1 = 19200 | |
| | | | | | Configured RS485 baud rate | | | 2 = 38400 | |
| | | | | | | | | | |
| | | | | Baud Rate | | | | 4 = 115200 | |
| | 30035 | Input | ut 34 | | | | | | 0 = None |
| | | | | | | | 1 = Odd | | |
| Input Register | | | | | Configured RS485 parity bit | uint8 | 2 = Even | | |
| | | | | | | | | 3 = Mark | |
| | | | | Parity | | | | 4 = Space | |
| Input Register | 30036 | | | | | | 0 = 1 Stop Bit | | |
| | | 30036 | Input | 36 Input | 35 | | Configured RS485 stop bit | uint8 | |
| | | | | Stop Bit | | | | 2 = 2 Stop Bits | |