



Document Name
MODBUS POINTS LIST
 Unit Type
SP For Program Version 1.x.x

* Logical Address	Description	Input Registers 3x	Data Format	Comments
00001 LSW 00002 MSW	Suction Pressure A	Read Only	32-bit Float	Linear from 0.0 to 250.0 psig / 0.0 to 17.3 bar.
00003 LSW 00004 MSW	Discharge Pressure A	Read Only	32-bit Float	Linear from 0.0 to 650.0 psig / 0.0 to 45.0 bar.
00005 LSW 00006 MSW	Zone Air Relative Humidity	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00007 LSW 00008 MSW	Zone Air Temperature	Read Only	32-bit Float	Linear from -40.0°F to 140.0°F / -40.0°C to 60.0°C.
00009 LSW 00010 MSW	Supply Air Temperature	Read Only	32-bit Float	Linear from -40.0°F to 140.0°F / -40.0°C to 60.0°C.
00011 LSW 00012 MSW	Suction Pressure B	Read Only	32-bit Float	Linear from 0.0 to 250.0 psig / 0.0 to 17.3 bar.
00013 LSW 00014 MSW	Discharge Pressure B	Read Only	32-bit Float	Linear from 0.0 to 650.0 psig / 0.0 to 45.0 bar.
00015 LSW 00016 MSW	Pool 1 Inlet Temperature	Read Only	32-bit Float	Linear from -40.0°F to 140.0°F / -40.0°C to 60.0°C.
00017 LSW 00018 MSW	Pool 2 Inlet Temperature	Read Only	32-bit Float	Linear from -40.0°F to 140.0°F / -40.0°C to 60.0°C.
00019 LSW 00020 MSW	Pool 1 Outlet Temperature	Read Only	32-bit Float	Linear from -40.0°F to 140.0°F / -40.0°C to 60.0°C.
00021 LSW 00022 MSW	Pool 2 Outlet Temperature	Read Only	32-bit Float	Linear from -40.0°F to 140.0°F / -40.0°C to 60.0°C.
00023 LSW 00024 MSW	Supply Blower DP	Read Only	32-bit Float	Linear from 0.0 to 25.0 "wc.
00025 LSW 00026 MSW	Exhaust Blower DP	Read Only	32-bit Float	Linear from 0.0 to 25.0 "wc.
00027 LSW 00028 MSW	Evaporator DP	Read Only	32-bit Float	Linear from 0.0 to 2.0 "wc.
00029 LSW 00030 MSW	Evaporator A DP	Read Only	32-bit Float	Linear from 0.0 to 2.0 "wc.
00031 LSW 00032 MSW	OA DP	Read Only	32-bit Float	Linear from 0.0 to 2.0 "wc.
00033 LSW 00034 MSW	Zone DP	Read Only	32-bit Float	Linear from -1.0 to 1.0 "wc.
00035 LSW 00036 MSW	VOC Sensor	Read Only	32-bit Float	Linear from 0 to 2000 ppm.
00037 LSW 00038 MSW	OA RH	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00039 LSW 00040 MSW	OA Temperature	Read Only	32-bit Float	Linear from -40.0°F to 140.0°F / -40.0°C to 60.0°C.
00041 LSW 00042 MSW	Evaporator Bypass Damper Command	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00043 LSW 00044 MSW	OA Damper Command	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00045 LSW 00046 MSW	Air Heat Command	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00047 LSW 00048 MSW	Supply Blower CFM	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00049 LSW 00050 MSW	Exhaust Blower CFM	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00051 LSW 00052 MSW	Low Exhaust Speed	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00053 LSW 00054 MSW	Outdoor Air Filter DP	Read Only	32-bit Float	Linear from 0.0 to 2.0 "wc.
00055 LSW 00056 MSW	Return Air Filter DP	Read Only	32-bit Float	Linear from 0.0 to 2.0 "wc.
00057	Unit Status	Read Only	16-bit Integer	For code definitions, see the table below.



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00001 LSW 00002 MSW	Zone Relative Humidity Setpoint	Read/ Write	32-bit Float	Settable from 0.0 to 100.0 %.
00003 LSW 00004 MSW	Zone Air Temperature Setpoint	Read/ Write	32-bit Float	Settable from 65.0°F to 99.0°F / 18.3°C to 37.2°C.
00005 LSW 00006 MSW	Pool 1 Water Temperature Setpoint	Read/ Write	32-bit Float	Settable from 70.0°F to 104.0 °F / 21.1°C to 40.0°C.
00007 LSW 00008 MSW	Pool 2 Water Temperature Setpoint	Read/ Write	32-bit Float	Settable from 70.0°F to 104.0 °F / 21.1°C to 40.0°C.

* Logical Address	Description	Coils 0x	Data Format	Comments
00001	Network Occupied	Read/ Write	Boolean	Write 1 for Network Occupancy Request. Write 0 for Network Unoccupied request.
00002	Network Event	Read/ Write	Boolean	Write 1 for Event Mode. Write 0 for Normal Mode.
00003	Network Max OA	Read/ Write	Boolean	Write 1 for Max OA Mode. Write 0 for Normal Mode.
00004	Network Purge	Read/ Write	Boolean	Write 1 for Purge Mode. Write 0 for Normal Mode.
00005	Network Off	Read/ Write	Boolean	Write 1 to turn Unit off. Write 0 for turn Unit On.
00006	Network Roof Lockout	Read/ Write	Boolean	Write 1 when Roof or Wall is Open. Write 0 when Roof is Closed.
00007	Remote Reset	Read/ Write	Boolean	Write 1 to Remotely Reset the Unit.

* Logical Address	Description	Discrete Inputs 1x	Data Format	Comments
00001	Supply Blower On	Read Only	Boolean	State of Supply Blower. 0 = Off, 1 = On.
00002	Exhaust Blower On	Read Only	Boolean	State of Exhaust Blower. 0 = Off, 1 = On.
00003	Compressor A On	Read Only	Boolean	State of Compressor A. 0 = Off, 1 = On.
00004	Compressor B On	Read Only	Boolean	State of Compressor B. 0 = Off, 1 = On.
00005	Airflow	Read Only	Boolean	State of Airflow. 0 = Off, 1 = On.
00006	Air Heating Required	Read Only	Boolean	State of Air Heat Requirement. 0 = Off, 1 = On.
00007	Auxiliary Heat Required Pool 1	Read Only	Boolean	State of Auxiliary Pool 1 Heat Requirement. 0 = Off, 1 = On.
00008	Auxiliary Heat Required Pool 2	Read Only	Boolean	State of Auxiliary Pool 2 Heat Requirement. 0 = Off, 1 = On.
00009	Pool 1 Flow Switch	Read Only	Boolean	State of Flow Switch. 0 = Off, 1 = On.
00010	Pool 2 Flow Switch	Read Only	Boolean	State of Flow Switch. 0 = Off, 1 = On.
00011	Tower 1 Flow Switch	Read Only	Boolean	State of Flow Switch. 0 = Off, 1 = On.
00012	Tower 2 Flow Switch	Read Only	Boolean	State of Flow Switch. 0 = Off, 1 = On.
00013	Occupied	Read Only	Boolean	Occupied Status, 0 = Un-occupied, 1 = Occupied.
00014	Event Mode	Read Only	Boolean	Event Mode, 0 = Normal, 1 = Event On.



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00015	Maximum Outdoor Air Mode	Read Only	Boolean	Max OA Mode, 0 = Normal, 1 = Max OA On.
00016	Economizer On	Read Only	Boolean	Economizer Status, 0 = Normal, 1 = Economizer Running.
00017	Purge Mode	Read Only	Boolean	Purge Mode, 0 = Normal, 1 = Purge On.
00018	Remote Off	Read Only	Boolean	Remote Off Status, 0 = Unit Off, 1 = Normal.
00019	Suction Pressure A Alarm	Read Only	Boolean	Very Low Suction Pressure A, 0 = Normal, 1 = Alarm.
00020	Suction Pressure B Alarm	Read Only	Boolean	Very Low Suction Pressure B, 0 = Normal, 1 = Alarm.
00021	Multiple Suction Pressure A Alarms	Read Only	Boolean	Multiple Low Suction Pressure A, 0 = Normal, 1 = Alarm.
00022	Multiple Suction Pressure B Alarms	Read Only	Boolean	Multiple Low Suction Pressure B, 0 = Normal, 1 = Alarm.
00023	Discharge Pressure A Alarm	Read Only	Boolean	High Discharge Pressure A, 0 = Normal, 1 = Alarm.
00024	Discharge Pressure B Alarm	Read Only	Boolean	High Discharge Pressure B, 0 = Normal, 1 = Alarm.
00025	Zone Sensor Alarm	Read Only	Boolean	Communication Fault, 0 = Normal, 1 = Alarm.
00026	Outdoor Air Sensor Alarm	Read Only	Boolean	Communication Fault, 0 = Normal, 1 = Alarm.
00027	Supply Blower Overload	Read Only	Boolean	Supply Blower Overload, 0 = Normal, 1 = Alarm.
00028	Exhaust Blower Overload	Read Only	Boolean	Exhaust Blower Overload, 0 = Normal, 1 = Alarm.
00029	Condenser Fan Overload	Read Only	Boolean	Condenser Fan Overload, 0 = Normal, 1 = Alarm.
00030	Compressor A Overload	Read Only	Boolean	Compressor A Overload, 0 = Normal, 1 = Alarm.
00031	Compressor B Overload	Read Only	Boolean	Compressor B Overload, 0 = Normal, 1 = Alarm.
00032	Smoke / General Alarm	Read Only	Boolean	Smoke Alarm, 0 = Normal, 1 = Alarm.
00033	Low Voltage Alarm	Read Only	Boolean	Voltage Monitor Alarm, 0 = Normal, 1 = Alarm.
00034	Freeze Protection Alarm	Read Only	Boolean	Freeze Protection Alarm, 0 = Normal, 1 = Alarm.
00035	Return Air Filter Alarm	Read Only	Boolean	RA Filter Alarm, 0 = Normal, 1 = Alarm.
00036	Low Exhaust Blower Overload	Read Only	Boolean	Low Exhaust Blower Overload, 0 = Normal, 1 = Alarm.
00037	Motor 2 Overload	Read Only	Boolean	Motor 2 Overload, 0 = Normal, 1 = Alarm.
00038	Motor 3 Overload	Read Only	Boolean	Motor 3 Overload, 0 = Normal, 1 = Alarm.
00039	Motor 4 Overload	Read Only	Boolean	Motor 4 Overload, 0 = Normal, 1 = Alarm.
00040	Motor 8 Overload	Read Only	Boolean	Motor 8 Overload, 0 = Normal, 1 = Alarm.
00041	VFD 106 Overload	Read Only	Boolean	VFD 106 Overload, 0 = Normal, 1 = Alarm.
00042	VFD 142 Overload	Read Only	Boolean	VFD 142 Overload, 0 = Normal, 1 = Alarm.
00043	EVD Offline Alarm	Read Only	Boolean	EVD Driver Offline, 0 = Normal, 1 = Alarm.
00044	EVD Low Superheat A Alarm	Read Only	Boolean	EVD Low Superheat A, 0 = Normal, 1 = Alarm.



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00045	EVD Low Superheat B Alarm	Read Only	Boolean	EVD Low Superheat B, 0 = Normal, 1 = Alarm.
00046	EVD LOP A Alarm	Read Only	Boolean	EVD LOP A, 0 = Normal, 1 = Alarm.
00047	EVD LOP B Alarm	Read Only	Boolean	EVD LOP B, 0 = Normal, 1 = Alarm.
00048	EVD MOP A Alarm	Read Only	Boolean	EVD MOP A, 0 = Normal, 1 = Alarm.
00049	EVD MOP B Alarm	Read Only	Boolean	EVD MOP B, 0 = Normal, 1 = Alarm.
00050	EVD Valve A Alarm	Read Only	Boolean	EVD Valve A, 0 = Normal, 1 = Alarm.
00051	EVD Valve B Alarm	Read Only	Boolean	EVD Valve B, 0 = Normal, 1 = Alarm.
00052	EVD Low Suct A Alarm	Read Only	Boolean	EVD Low Suct A, 0 = Normal, 1 = Alarm.
00053	EVD Low Suct B Alarm	Read Only	Boolean	EVD Low Suct B, 0 = Normal, 1 = Alarm.
00054	EVD High T Cond Alarm	Read Only	Boolean	EVD High T Cond, 0 = Normal, 1 = Alarm.
00055	EVD S1 Alarm	Read Only	Boolean	EVD S1, 0 = Normal, 1 = Alarm.
00056	EVD S2 Alarm	Read Only	Boolean	EVD S2, 0 = Normal, 1 = Alarm.
00057	EVD S3 Alarm	Read Only	Boolean	EVD S3, 0 = Normal, 1 = Alarm.
00058	EVD S4 Alarm	Read Only	Boolean	EVD S4, 0 = Normal, 1 = Alarm.
00059	EVD Battery Alarm	Read Only	Boolean	EVD Battery, 0 = Normal, 1 = Alarm.
00060	EVD EEPROM Alarm	Read Only	Boolean	EVD EEPROM, 0 = Normal, 1 = Alarm.
00061	EVD Incomplete Closing Alarm	Read Only	Boolean	EVD Incomplete Closing, 0 = Normal, 1 = Alarm.
00062	EVD Emergency Closing Alarm	Read Only	Boolean	EVD Emergency Closing, 0 = Normal, 1 = Alarm.
00063	EVD Firmware Alarm	Read Only	Boolean	EVD Firmware, 0 = Normal, 1 = Alarm.
00064	EVD Config Error	Read Only	Boolean	EVD Config Error, 0 = Normal, 1 = Alarm.
00065	EVD Retain Alarm	Read Only	Boolean	EVD Retain, 0 = Normal, 1 = Alarm.
00066	EVD Retain Error	Read Only	Boolean	EVD Retain Error, 0 = Normal, 1 = Alarm.
00067	Offline c.PCOe 2	Read Only	Boolean	Expansion Module Communication Fault, 0 = Normal, 1 = Alarm.
00068	Offline c.PCOe 3	Read Only	Boolean	Expansion Module Communication Fault, 0 = Normal, 1 = Alarm.
00069	Offline c.PCOe 4	Read Only	Boolean	Expansion Module Communication Fault, 0 = Normal, 1 = Alarm.
00070	Offline c.PCOe 5	Read Only	Boolean	Expansion Module Communication Fault, 0 = Normal, 1 = Alarm.
00071	High Condensate Level Alarm	Read Only	Boolean	Drain pan level high, 0 = Normal, 1 = Alarm.
00072	Active Alarm	Read Only	Boolean	Any Alarm is Active, 0 = Normal, 1 = Alarm.
00073	Outdoor Air Filter Alarm	Read Only	Boolean	OA Filter Alarm, 0 = Normal, 1 = Alarm.
00074	Pool 1 Pump Output	Read Only	Boolean	Pool 1 Pump Output, 0 = Off, 1 = On.



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00075	Pool 1 Pump Output	Read Only	Boolean	Pool 2 Pump Output, 0 = Off, 1 = On.
00076	Tower Water Circuit A Pump Output	Read Only	Boolean	Tower Water A Pump Output, 0 = Off, 1 = On.
00077	Tower Water Circuit B Pump Output	Read Only	Boolean	Tower Water B Pump Output, 0 = Off, 1 = On.

* All coil and holding register addresses are in PLC style base 0 notation. If base 1 notation is required, add 1 to the logical address number.

CODE	UNIT STATUS
0	Unit Off /Zone Satisfied
1	Heating Required
2	Cooling Required
3	Dehumidification Required
4	Dehum and Heating Required
5	Dehum and Cooling Required
6	Energy Recovery
7	Low Air Flow Condition
8	Low Suction Pressure Condition
9	EEV Initialization

Revision (Rev.) History				
Rev.	Description	Date	Initials	ECN #
00	Initial Release	6/16/2020	MTW	EC-10586
01	Added Alarm Active, OA Filter and RA Filter DP and Pump Outputs.	12/9/2020	MTW	EC-10629