



Document Name
MODBUS POINTS LIST

Unit Type
LC/LV For Program Version 4.x.x and Above

* Logical Address	Description	Input Registers 3x	Data Format	Comments
00001 LSW 00002 MSW	Zone Air RH	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00003 LSW 00004 MSW	Zone Air Temperature	Read Only	32-bit Float	Linear from -40.0°F to 140.0 °F.
00005 LSW 00006 MSW	Zone Air Dewpoint	Read Only	32-bit Float	Linear from -40.0°F to 140.0 °F.
00007 LSW 00008 MSW	Suction Pressure	Read Only	32-bit Float	Linear from 0.0 to 250.0 psig.
00009 LSW 00010 MSW	Discharge Pressure	Read Only	32-bit Float	Linear from 0.0 to 650.0 psig.
00011 LSW 00012 MSW	Liquid Pressure	Read Only	32-bit Float	Linear from 0.0 to 650.0 psig.
00013 LSW 00014 MSW	Suction Temperature	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00015 LSW 00016 MSW	Liquid Temperature	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00017 LSW 00018 MSW	DHU/ Supply Air Temperature	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F. (Supply Air Temperature Applicable on LCxQ units only)
00019 LSW 00020 MSW	Evaporative Coil Diff Air Pressure	Read Only	32-bit Float	Linear from 0.000"wc to 2.000"wc.
00021 LSW 00022 MSW	Pool Inlet Water Temperature	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00023 LSW 00024 MSW	Pool Outlet Water Temperature	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00025 LSW 00026 MSW	Partial Pool Inlet Water Temperature	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00027 LSW 00028 MSW	Partial Pool Outlet Water Temperature	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00029 LSW 00030 MSW	Reheat Coil/EC Fan Diff Air Pressure	Read Only	32-bit Float	Linear from 0.000"wc to (2.000/ 10.000/ 25.000"wc).
00031 LSW 00032 MSW	Outdoor Air Filter Differential Air Pressure	Read Only	32-bit Float	Linear from 0.000"wc to 2.000"wc.
00033 LSW 00034 MSW	Return Air Filter Differential Air Pressure	Read Only	32-bit Float	Linear from 0.000"wc to 2.000"wc.
00035 LSW 00036 MSW	Surface Temperature 1	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00037 LSW 00038 MSW	Surface Temperature 2	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00039 LSW 00040 MSW	Surface Temperature 3	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00041 LSW 00042 MSW	Refrigerant Superheat	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00043 LSW 00044 MSW	Refrigerant Subcooling	Read Only	32-bit Float	Linear from -58.0 to 212.0 °F.
00045 LSW 00046 MSW	Airflow	Read Only	32-bit Float	Linear from 0 to 20,000.0 CFM.
00047 LSW 00048 MSW	Outside Airflow	Read Only	32-bit Float	Linear from 0 to 20,000.0 CFM. (Applicable on LCxQ units only)
00049 LSW 00050 MSW	Air Heating Command	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00051 LSW 00052 MSW	Supply Fan(s) Speed Command	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00053 LSW 00054 MSW	Condenser Fan Speed Command	Read Only	32-bit Float	Linear from 0.0 to 100.0 %. (Applicable on LCxQ units only)
00055 LSW 00056 MSW	Evap Bypass Damper Command	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00057 LSW 00058 MSW	Outdoor Air Damper Command	Read Only	32-bit Float	Linear from 0.0 to 100.0 %.
00059 LSW 00060 MSW	Active Zone RH Setpoint	Read Only	32-bit Float	Linear from 0.0 to 99.9 %.



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* Logical Address	Description	Input Registers 3x	Data Format	Comments
00061 LSW 00062 MSW	Active Zone Temp Setpoint	Read Only	32-bit Float	Linear from 65.0 to 99.9 °F

* Logical Address	Description	Input Registers 3x	Data Format	Comments
00063	Unit Status	Read Only	16-bit Integer	For status definitions, see the table below.
00064	Supply Fan 1 Alarm Code	Read Only	16-bit Integer	For status definitions, see the table below.
00065	Supply Fan 2 Alarm Code	Read Only	16-bit Integer	For status definitions, see the table below.
00066	Condenser Fan 1 Alarm Code	Read Only	16-bit Integer	For status definitions, see the table below.
00067	Condenser Fan 2 Alarm Code	Read Only	16-bit Integer	For status definitions, see the table below.
00068	Evaporator Bypass Damper Alarm Code	Read Only	16-bit Integer	For status definitions, see the table below.
00069	Outside Air Damper Alarm Code	Read Only	16-bit Integer	For status definitions, see the table below.

* Logical Address	Description	Holding Registers 4x	Data Format	Comments
00001 LSW 00002 MSW	Network Occ Zone RH Setpoint	Read/Write	32-bit Float	Settable from 0.0 to 100.0 %.
00003 LSW 00004 MSW	Network Occ Zone Temp Setpoint	Read/Write	32-bit Float	Settable from 65.0 to 99.9 °F.
00005 LSW 00006 MSW	Network Unocc Zone RH Setpoint	Read/Write	32-bit Float	Settable from 0.0 to 100.0 %.
00007 LSW 00008 MSW	Network Unocc Zone Temp Setpoint	Read/Write	32-bit Float	Settable from 65.0 to 99.9 °F.
00009 LSW 00010 MSW	Network Zone Temperature	Read/Write	32-bit Float	Settable from 65.0 to 99.9 °F.
00011 LSW 00012 MSW	Network Zone RH	Read/Write	32-bit Float	Settable from 0.0 to 100.0 %.
00013 LSW 00014 MSW	BMS Heartbeat Delay	Read/Write	32-bit Float	Settable from 0 to 999 Seconds. Defaulted to 120 Seconds.
00015 LSW 00016 MSW	Pool Water Temperature Setpoint	Read/Write	32-bit Float	Settable from 0.0 to 99.9 °F.
00017 LSW 00018 MSW	Partial Pool Water Temperature Setpoint	Read/Write	32-bit Float	Settable from 0.0 to 99.9 °F.

* Logical Address	Description	Coils 0x	Data Format	Comments
00001	Network Reset	Read/Write	Boolean	Set 1 to Remote Reset the Unit. 0 is reset after 5 seconds.
00002	BMS Occupied	Read/Write	Boolean	Set 0 for Network Unoccupied request. Set 1 for Network Occupancy Request.
00003	BMS Remote Off	Read/Write	Boolean	Set 0 for Unit On, Set 1 for Unit Off. This action needs to be enabled at the controller before it can be used.
00004	BMS Roof / Wall Switch	Read/Write	Boolean	Set 1 when Roof is open. Set 0 when Roof is closed. This action requires setup in the Service Menu.
00005	BMS Heartbeat	Read/Write	Boolean	Toggle between 1 and 0 within Heartbeat Delay to ensure active communication.



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* Logical Address	Description	Discrete Inputs 1x	Data Format	Comments
00001	Supply Fan Overload	Read Only	Boolean	State of Supply Fan Overload, 0 = OK, 1 = FLT.
00002	Compressor Overload & High/ Low Pressure Switch	Read Only	Boolean	State of Compressor Overload & High/Low Pressure Switch, 0 = OK, 1 = FLT.
00003	System On/Off Switch	Read Only	Boolean	State of System On/Off Switch, 0 = Off, 1 = On.
00004	Occupancy Switch	Read Only	Boolean	State of Occupancy Switch, 0 = Off, 1 = On.
00005	General/ Smoke Alarm Switch	Read Only	Boolean	State of General/ Smoke Alarm Switch, 0 = Off, 1 = On.
00006	Condenser Flow Switch	Read Only	Boolean	State of Condenser Flow Switch, 0 = Off, 1 = On.
00007	A2L Sensor Switch	Read Only	Boolean	State of A2L Sensor Switch, 0 = OK, 1 = FLT.
00008	Pool Flow Switch	Read Only	Boolean	State of Pool Flow Switch, 0 = Off, 1 = On.
00009	Partial Pool Flow Switch	Read Only	Boolean	State of Partial Pool Flow Switch, 0 = Off, 1 = On.
00010	Condensate Overflow Switch	Read Only	Boolean	State of Condensate Overflow Switch, 0 = OK, 1 = FLT.
00011	Low Voltage Phase Monitor Switch	Read Only	Boolean	State of Low Voltage Phase Monitor, 0 = OK, 1 = FLT.
00012	Roof Switch	Read Only	Boolean	State of Roof Switch, 0 = Off, 1 = On.
00013	Auxiliary Heating Required	Read Only	Boolean	State of Air Heat Requirement. 0 = Off, 1 = On.
00014	Tower Water Pump	Read Only	Boolean	State of Tower Water Pump Output. 0 = Off, 1 = On.
00015	Supply Fan On	Read Only	Boolean	State of Supply Fan, 0 = Off, 1 = On.
00016	Compressor	Read Only	Boolean	State of Compressor, 0 = Off, 1 = On.
00017	Auxiliary Pool Heat	Read Only	Boolean	State of Auxiliary Pool Heat. 0 = Off, 1 = On.
00018	Occupied Output/ Remote Exhaust	Read Only	Boolean	Confirmation of Occupied Status. 0 = Unoccupied, 1 = Occupied
00019	Alarm Active	Read Only	Boolean	Confirmation of Alarm Status. 0 = Alarm, 1 = Normal.
00020	Pool Water Pump	Read Only	Boolean	State of Pool Pump Output, 0 = Off, 1 = On.
00021	Condenser Fan On	Read Only	Boolean	State of Condenser Fan(s), 0 = Off, 1 = On. (Applicable on LCxQ units only)
00022	Retain Memory Alarm	Read Only	Boolean	Controller Retain Memory Error, 0 = Normal, 1 = Alarm.
00023	Retain Memory Write Alarm	Read Only	Boolean	Controller Retain Memory Write Error, 0 = Normal, 1 = Alarm.
00024	Low Suction Pressure Alarm	Read Only	Boolean	Low Suction Pressure Alarm, 0 = Normal, 1 = Alarm.
00025	High Discharge Pressure Alarm	Read Only	Boolean	High Discharge Pressure Alarm, 0 = Normal, 1 = Alarm.
00026	Compressor Overload & High/ Low Pressure Switch Alarm	Read Only	Boolean	Compressor Overload & High/Low Pressure Switch Alarm, 0 = Normal, 1 = Alarm.
00027	A2L Alarm	Read Only	Boolean	A2L Alarm, 0 = Normal, 1 = Alarm.
00028	Supply Fan Overload Alarm	Read Only	Boolean	Supply Fan(s) Overload Alarm, 0 = Normal, 1 = Alarm.
00029	Smoke / General Alarm	Read Only	Boolean	Smoke/ General Alarm, 0 = Normal, 1 = Alarm.
00030	c.PCOe Offline	Read Only	Boolean	Expansion Module Communication Fault, 0 = Normal, 1 = Alarm.
00031	c.PCOe Configuration Error	Read Only	Boolean	Expansion Module Configuration Fault, 0 = Normal, 1 = Alarm.

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* Logical Address	Description	Discrete Inputs 1x	Data Format	Comments
00032	Zone Sensor Fault	Read Only	Boolean	Zone Sensor Communication Fault, 0 = Normal, 1 = Alarm.
00033	Network Sensor Alarm	Read Only	Boolean	Network Sensor Alarm, 0 = Normal, 1 = Alarm.
00034	Lead Unit Sensor Alarm	Read Only	Boolean	Lead Unit Sensor Alarm, 0 = Normal, 1 = Alarm.
00035	Low Voltage/ Phase Monitor Alarm	Read Only	Boolean	Low Voltage/ Phase Monitor Alarm, 0 = Normal, 1 = Alarm.
00036	Condensate Switch Alarm	Read Only	Boolean	Condensate Overfill Switch Alarm, 0 = Normal, 1 = Alarm.
00037	Evap Bypass Damper Alarm	Read Only	Boolean	Evap Bypass Damper Alarm, 0= Normal, 1 = Alarm.
00038	Outside Air Damper Alarm	Read Only	Boolean	Outside Air Damper Alarm, 0= Normal, 1 = Alarm.
00039	Supply Fan 1 Alarm	Read Only	Boolean	EC Supply Fan 1 Alarm, 0 = Normal, 1 = Alarm.
00040	Supply Fan 2 Alarm	Read Only	Boolean	EC Supply Fan 2 Alarm, 0 = Normal, 1 = Alarm.
00041	Condenser Fan 1 Alarm	Read Only	Boolean	EC Condenser Fan 1 Alarm, 0 = Normal, 1 = Alarm.
00042	Condenser Fan 2 Alarm	Read Only	Boolean	EC Condenser Fan 2 Alarm, 0 = Normal, 1 = Alarm.
00043	Outdoor Air Dirty Filter Alarm	Read Only	Boolean	Outdoor Air Dirty Filter Alarm, 0 = Normal, 1 = Alarm.
00044	Return Air Dirty Filter Alarm	Read Only	Boolean	Return Air Dirty Filter Alarm, 0 = Normal, 1 = Alarm.
00045	ExV Motor Alarm	Read Only	Boolean	ExV Motor Error Alarm, 0 = Normal, 1 = Alarm.
00046	ExV Control Alarm	Read Only	Boolean	ExV Ineffective Control Alarm, 0 = Normal, 1 = Alarm.
00047	ExV Emergency Close Alarm	Read Only	Boolean	ExV Emergency Close Alarm, 0 = Normal, 1 = Alarm.
00048	c.PCOe 2 Offline	Read Only	Boolean	Expansion Module 2 Communication Fault, 0 = Normal, 1 = Alarm. (Applicable on LCxQ units only)
00049	c.PCOe 2 Configuration Error	Read Only	Boolean	Expansion Module 2 Configuration Fault, 0 = Normal, 1 = Alarm. (Applicable on LCxQ units only)
00050	Critical Sensor Alarm	Read Only	Boolean	Critical Sensor Alarm, 0 = Normal, 1 = Alarm.
00051	Condenser Fans Overload Alarm	Read Only	Boolean	Condenser Fans Overload Alarm, 0 = Normal, 1 = Alarm.

* 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.



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CODE	UNIT STATUS
0	Zone Satisfied
1	Heating Required
2	Cooling Required
3	Dehumidification Required
4	Dehum and Cooling Required
5	Dehum and Heating Required
6	Low Suction Pressure Condition
7	Low Air Flow Condition
8	Low DHU Temperature
9	High DHU Temperature
10	System Switch is Off
11	Locked/Alarm
12	Enthalpy Lockout
13	Dewpoint Lockout

CODE	DAMPER ALARM CODE
0	No Alarm
1	Actuator Testing
2	Gear Disengaged
3	Communication Error
4	Actuator Range Fault
5	Actuator Blocked Fault

CODE	ZIEHL-ABEGG BLOWER ALARM CODE	NICOTRA GEBHARDT BLOWER ALARM CODE	DELTA AXIAL FAN ALARM CODE
0	Fan OK	Fan OK	Fan OK
1	IGBT Fault	FOC Duration Fault	Bus High Amperage Fault
2	Earth/Ground Fault	Under Voltage Fault	Bus High Voltage Fault
3	DC Bus High Fault	Over Voltage Fault	But Low Voltage Fault
4	DC Bus Low Fault	Over Temp. Fault	IGBT Temp Fault
5	High Voltage Fault	Speed Feedback Fault	Motor Start Fault
6	Low Voltage Fault	Startup Fault	Phase Loss Fault
7	Line/Phase Fault	Input Loss of Phase Fault	Hall Signal Fault
8	Hall Sensor Fault	Output Loss of Phase Fault	Reverse Run Fault
9	Motor Blocked Fault	Overcurrent Fault	EEPROM Write Fault
10	Peak Current Fault	Safety Core Fault	Bus Peak Amperage Fault
11	Safety Shutdown	Internal Comm. Loss	Input High Amperage Fault
12	Temperature Fault	Software Error	Emergency Stop Fault
13	Motor Start Fault	N/A	Hall Step Fault
14	Communication Fault	N/A	Input Power Fault

Revision (Rev.) History				
Rev.	Description	Date	Initials	ECN #
00	Initial Release	3/20/2025	MJH	EC-11157
01	Added unit Statuses and Cond Fans OL Point	11/5/35	MJH	EC-11210