Object Naming Conventions

The communicated points for the Symbio™ controllers are generally named according to their function. While many of the points are read-only, others include both read and write capability. The established naming convention helps to identify the capabilities of each point. For most points, the suffix identifies the capability according to the following definition. While there are some exceptions, the majority of the points have been defined according to these guidelines.

Suffix	Description
Status	Points with the Status suffix are defined as read-only. The status point reports the value being used by the controller.
Local	Points with the Local suffix are defined as read-only. The local point reports values associated with controller sensors, both wired and wireless. The local value may or may not be actively used by the controller, depending on the presence or absence of a communicated value (BAS). When both a local and communicated value exist, the communicated value is used.
Active	Points with the Active suffix are defined as read-only. Points designated as active are normally the result of the arbitration between a communicated value(BAS) and at least one value local to the equipment, such as a sensor or default setpoint. The active point reports the value being input to the controller.
Setpoint	Points with the Setpoint suffix are defined as either read-only or read/write. For BACnet®, the binary input, analog input and multi-state input points are all read-only. These setpoints report the value currently in use by the controller. The analog value, binary value and multi-state value points are all read/write. These points are provided for use by the building automation system (BAS). When used, these points are written internally to arbitration logic. This defines the interaction with hardwired points, editable software configuration points and the relinquish default value/state. Refer to the Appendix for additional information.
Input	Points with the Input suffix are defined as read-only. These points normally reflect the status of a sensor input, either hardwired or communicating wirelessly (Air-Fi®). However, the input point reflects the arbitrated result of the controller sensor input and a communicated value, if present. When both a controller sensor and communicated value exist, the controller will use and report the communicated value.
Arbitrator	Points with the “Arbitrator” suffix are to be used as read-only. The arbitrator prioritizes inputs from communicating points, hardwired points and stored defaults points. The priority array of the arbitration point displays each of the values provided, including the active status, indicating which of the input sources is being used. Refer to the Appendix for additional information.
BAS	Points with the BAS suffix are defined as read/write. These points are provided for use by the building automation system (BAS). When used, these points are written to arbitration logic. This defines the interaction with hardwired points, editable software configuration points and the relinquished default value/state. Refer to the Appendix for additional information.
Command	Points with the Command suffix are defined as read/write. These points are written to change the default behavior of the controller. Once written, these point values may be persisted.
Request	Points with the Request suffix are defined as read/write. These points are written to request a change the operating behavior of the controller.

Object Data Points and Diagnostic Data Points

The following tables are sorted as follows:

- Tables are listed by input/output type and sorted by object identifier. These tables provide the user with the unit's type for each object
- Tables are sorted by object name and provide a complete list of object names, types, values/ranges, and descriptions.

Note: Not all points are available to the user. The available data points are defined during self-configuration and are dependent on the type of equipment.

Object Identifier	Object Name	Units	Configuration Dependency
AI-10100	Active Cool/Heat Setpoint Temperature	Temperature	Standard
AI-10101	Evaporator Leaving Water Temperature	Temperature	Standard
AI-10102	Evaporator Entering Water Temperature	Temperature	Standard
AI-10103	Active Chilled Water Setpoint	Temperature	Standard
AI-10104	Chilled Water Setpoint Status	Temperature	Standard
AI-10105	Hot Water Setpoint Active	Temperature	Hot Water Control
AI-10106	Hot Water Setpoint Status	Temperature	Hot Water Control
AI-10107	Active Demand Limit Setpoint	Percentage	Ice Building Not Installed
AI-10108	Active Demand Limit Setpoint	Percentage	Ice Building
AI-10109	Demand Limit Setpoint Status	Percentage	Ice Building
AI-10110	Unit Power Consumption	Power, Electrical	Energy Meter
AI-10111	Outdoor Air Temperature	Temperature	Standard
AI-10112	Evaporator Refrigerant Pressure Circuit 1	Pressure, Fluidic	Standard
AI-10113	Condenser Refrigerant Pressure Circuit 1	Pressure, Fluidic	Standard
AI-10114	Differential Refrigerant Pressure Circuit 1	Pressure, Fluidic	Standard
AI-10115	Evaporator Saturated Refrigerant Temperature Circuit 1	Temperature	Standard
AI-10116	Condenser Saturated Refrigerant Temperature Circuit 1	Temperature	Standard
AI-10117	Evaporator Refrigerant Pressure Circuit 2	Pressure, Fluidic	Circuit 2
AI-10118	Condenser Refrigerant Pressure Circuit 2	Pressure, Fluidic	Circuit 2
AI-10119	Differential Refrigerant Pressure Circuit 2	Pressure, Fluidic	Circuit 2
AI-10120	Evaporator Saturated Refrigerant Temperature Circuit 2	Temperature	Circuit 2
AI-10121	Condenser Saturated Refrigerant Temperature Circuit 2	Temperature	Circuit 2
AI-10122	Evaporator Refrigerant Absolute Pressure Circuit 1	Pressure, Fluidic	Standard
AI-10123	Condenser Refrigerant Absolute Pressure Circuit 1	Pressure, Fluidic	Standard
AI-10124	Evaporator Refrigerant Absolute Pressure Circuit 2	Pressure, Fluidic	Circuit 2
AI-10125	Condenser Refrigerant Absolute Pressure Circuit 2	Pressure, Fluidic	Circuit 2
AI-10126	Actual Running Capacity	Percentage	Standard
AI-10127	Air Flow Percentage Circuit 1	Percentage	Standard
AI-10128	Air Flow Percentage Circuit 2	Percentage	Circuit 2
AI-10129	Starts - Compressor 1A	None	Standard
AI-10130	Run Time - Compressor 1A	None	Standard
AI-10131	Starts - Compressor 1B	None	Standard

Object Identifier	Object Name	Units	Configuration Dependency
AI-10132	Run Time - Compressor 1B	None	Standard
AI-10133	Starts - Compressor 1C	None	Compressor 1C
AI-10134	Run Time - Compressor 1C	None	Compressor 1C
AI-10135	Starts - Compressor 2A	None	Circuit 2
AI-10136	Run Time - Compressor 2A	None	Circuit 2
AI-10137	Starts - Compressor 2B	None	Circuit 2
AI-10138	Run Time - Compressor 2B	None	Circuit 2
AI-10139	Starts - Compressor 2C	None	Compressor 2C
AI-10140	Run Time - Compressor 2C	None	Compressor 2C
AI-10141	Heat Recovery Leaving Water Temperature Setpoint Active	Temperature	Partial Heat Recovery
AI-10142	Heat Recovery Entering Water Temperature	Temperature	Heat Recovery Water Temps
AI-10143	Heat Recovery Leaving Water Temperature	Temperature	Heat Recovery Water Temps
AI-10144	Chiller Design Capacity	Power, Cooling	Standard
AI-10145	Number of Circuits	None	Standard
AI-10146	Number of Compressors Circuit 1	None	Standard
AI-10147	Number of Compressors Circuit 2	None	Standard
AI-10148	Refrigerant Discharge Temperature Estimate Circuit 1	Temperature	Standard
AI-10149	Refrigerant Discharge Temperature Estimate Circuit 2	Temperature	Circuit 2
AI-10150	Refrigerant Discharge Temperature Circuit 1	Temperature	Discharge Temp
AI-10151	Refrigerant Discharge Temperature Circuit 2	Temperature	Discharge Temp, Circuit 2
AI-10152	Unit Source ID (Last Diagnostic Code)	None	Standard
AI-10154	Energy Consumption Lifetime	Energy, Electrical	Energy Meter
AI-10155	Energy Consumption	Energy, Electrical	Energy Meter
AI-10156	Average Current	Current	Energy Meter
AI-10157	Average Voltage L-L	Voltage	Energy Meter
AI-10158	Current L1	Current	Energy Meter
AI-10159	Current L2	Current	Energy Meter
AI-10160	Current L3	Current	Energy Meter
AI-10161	Voltage L1-L2	Voltage	Energy Meter
AI-10162	Voltage L2-L3	Voltage	Energy Meter
AI-10163	Voltage L1-L3	Voltage	Energy Meter
AI-10164	Unit Power Demand	Power, Electrical	Energy Meter

Object Identifier	Object Name	Units	Configuration Dependency
AI-10165	Line Frequency	None	Energy Meter
AI-10166	Power Factor	None	Energy Meter
AI-10168	Supplemental Heat Status	Percentage	Supplemental Heater
AI-10169	Evaporator Approach Temperature Circuit 1	Temperature, Delta	Standard
AI-10170	Condenser Approach Temperature Circuit 1	Temperature, Delta	Hot Water Control
AI-10171	Evaporator Approach Temperature Circuit 2	Temperature, Delta	Circuit 2
AI-10172	Condenser Approach Temperature Circuit 2	Temperature, Delta	Hot Water Control, Circuit 2
AI-10173	Compressor Suction Superheat Ckt1	Temperature, Delta	Standard
AI-10174	Compressor Suction Superheat Ckt2	Temperature, Delta	Circuit 2

Object Identifier	Object Name	Units	Configuration Dependency
AV-10100	Chilled Water Setpoint	Temperature	Standard
AV-10101	Demand Limit Setpoint	Percentage	Standard
AV-10102	Hot Water Setpoint	Temperature	Hot Water Control
AV-10103	Heat Recovery Leaving Water Temperature Setpoint BAS	Temperature	Partial Heat Recovery

Object Identifier	Object Name	Object States	Configuration Dependency
BI-10100	Limit Mode Relay Status	0 = Auto 1 = On	Standard
BI-10101	Emergency Stop	0 = Auto 1 = Emergency Stop - Manual Reset Required	Standard
BI-10102	Manual Override Exists	0 = Off 1 = On	Standard
BI-10103	Front Panel Auto Stop Status	0 = Stop 1 = Auto	Standard
BI-10104	External Auto Stop Input Status	0 = Stop 1 = Auto	Standard
BI-10105	Run Enabled	0 = Run Not Enabled 1 = Run Enabled	Standard
BI-10106	Local Setpoint Control	0 = Remote Control 1 = Local Control	Standard
BI-10107	Maximum Capacity	0 = Off 1 = On	Standard
BI-10108	Compressor 1A Status	0 = Off 1 = Running	Standard
BI-10109	Compressor 1B Status	0 = Off 1 = Running	Standard
BI-10110	Compressor 1C Status	0 = Off 1 = Running	Compressor 1C
BI-10111	Compressor 2A Status	0 = Off 1 = Running	Circuit 2
BI-10112	Compressor 2B Status	0 = Off 1 = Running	Circuit 2
BI-10113	Compressor 2C Status	0 = Off 1 = Running	Compressor 2C
BI-10114	Chiller Running State	0 = Off 1 = On	Standard
BI-10115	Heat Recovery Control Active Status	0 = Inactive 1 = Active	Partial Heat Recovery

Object Identifier	Object Name	Object States	Configuration Dependency
BI-10116	Heat Recovery Request Active	0 = Off 1 = On	Partial Heat Recovery
BI-10117	Evaporator Water Pump Request	0 = Off 1 = On	Standard
BI-10118	Evaporator Water Flow Status	0 = No Flow 1 = Flow	Standard
BI-10119	Diagnostic Present: Information	0 = Normal 1 = In Alarm	Standard
BI-10120	Diagnostic Present: Advisory	0 = Normal 1 = In Alarm	Standard
BI-10121	Diagnostic Present: Critical	0 = Normal 1 = In Alarm	Standard
BI-10122	Diagnostic Present: Service Required	0 = Normal 1 = In Alarm	Standard
BI-10123	Diagnostic Present	0 = Normal 1 = In Alarm	Standard
BI-10124	Diagnostic Shutdown Present	0 = Normal 1 = In Alarm	Standard
BI-10125	Diagnostic: Manual Reset Required	0 = Normal 1 = In Alarm	Standard
BI-10126	Diagnostic: Local Manual Reset Required	0 = Normal 1 = In Alarm	Standard
BI-10127	Noise Reduction Request Active	0 = Off 1 = On	Noise Reduction
BI-10128	In Defrost	0 = Not In Defrost 1 = Defrost	Hot Water Control
BI-10129	Circuit 1 Lockout Front Panel	0 = Normal 1 = Locked Out	Standard
BI-10130	Circuit 2 Lockout Front Panel	0 = Normal 1 = Locked Out	Circuit 2
BI-10131	Circuit 1 Lockout External	0 = Normal 1 = Locked Out	External Circuit Lockout

Object Identifier	Object Name	Object States	Configuration Dependency
BI-10132	Circuit 2 Lockout External	0 = Normal 1 = Locked Out	External Circuit Lockout
BI-10133	Circuit 1 Lockout Active	0 = Normal 1 = Locked Out	Standard
BI-10134	Circuit 2 Lockout Active	0 = Normal 1 = Locked Out	Circuit 2
BI-10135	Circuit 1 Available	0 = Unavailable 1 = Available	Standard
BI-10136	Circuit 2 Available	0 = Unavailable 1 = Available	Circuit 2
BI-10137	Circuit 1 Running Status	0 = Off 1 = On	Standard
BI-10138	Circuit 2 Running Status	0 = Off 1 = On	Circuit 2

Object Identifier	Diagnostic Name	Object States
BI - 11000	Comm Loss: Percent Capacity Output	0 = Normal 1 = In Alarm
BI - 11001	Comm Loss: Supplemental Heater Relay 1	0 = Normal 1 = In Alarm
BI - 11002	Comm Loss: Supplemental Heater Relay 2	0 = Normal 1 = In Alarm
BI - 11003	Comm Loss: Supplemental Heater Relay 3	0 = Normal 1 = In Alarm
BI - 11004	Comm Loss: Supplemental Heater Relay 4	0 = Normal 1 = In Alarm
BI - 11005	Comm Loss: Energy Meter	0 = Normal 1 = In Alarm
BI - 11006	Comm Loss: Outdoor Air Temperature	0 = Normal 1 = In Alarm
BI - 11007	Comm Loss: Phase Protection Fault Input	0 = Normal 1 = In Alarm
BI - 11008	Diagnostic: Energy Meter Write Value Failure	0 = Normal 1 = In Alarm
BI - 11009	Diagnostic: Outdoor Air Temperature Sensor	0 = Normal 1 = In Alarm
BI - 11010	Diagnostic: Phase Protection Fault	0 = Normal 1 = In Alarm
BI - 11011	Diagnostic: Software Error 1001: Call Trane Service	0 = Normal 1 = In Alarm
BI - 11012	Diagnostic: Software Error 1002: Call Trane Service	0 = Normal 1 = In Alarm
BI - 11013	Diagnostic: Software Error 1003: Call Trane Service	0 = Normal 1 = In Alarm
BI - 11014	Diagnostic: Pumpdown Terminated By Time - Ckt1	0 = Normal 1 = In Alarm
BI - 11015	Diagnostic: Pumpdown Terminated By Time - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11016	Comm Loss: Discharge Pressure Transducer - Ckt1	0 = Normal
BI - 11017	Comm Loss: Discharge Pressure Transducer - Ckt2	0 = Normal 1 = In Alarm
BI - 11018	Comm Loss: Discharge Temperature Sensor - Ckt1	0 = Normal 1 = In Alarm
BI - 11019	Comm Loss: Discharge Temperature Sensor - Ckt2	0 = Normal 1 = In Alarm
BI - 11020	Comm Loss: External Ckt1 Lockout	0 = Normal 1 = In Alarm
BI - 11021	Comm Loss: External Ckt2 Lockout	0 = Normal 1 = In Alarm
BI - 11022	Comm Loss: Reversing Valve - Ckt1	0 = Normal 1 = In Alarm
BI - 11023	Comm Loss: Reversing Valve - Ckt2	0 = Normal 1 = In Alarm
BI - 11024	Comm Loss: Suction Pressure Transducer - Ckt1	0 = Normal 1 = In Alarm
BI - 11025	Comm Loss: Suction Pressure Transducer - Ckt2	0 = Normal 1 = In Alarm
BI - 11026	Comm Loss: Suction Temperature - Ckt1	0 = Normal 1 = In Alarm
BI - 11027	Comm Loss: Suction Temperature - Ckt2	0 = Normal 1 = In Alarm
BI - 11028	Diagnostic: Discharge Pressure Transducer - Ckt1	0 = Normal 1 = In Alarm
BI - 11029	Diagnostic: Discharge Pressure Transducer - Ckt2	0 = Normal 1 = In Alarm
BI - 11030	Diagnostic: Discharge Temperature Sensor - Ckt1	0 = Normal 1 = In Alarm
BI - 11031	Diagnostic: Discharge Temperature Sensor - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11032	Diagnostic: Suction Pressure Transducer - Ckt1	0 = Normal 1 = In Alarm
BI - 11033	Diagnostic: Suction Pressure Transducer - Ckt2	0 = Normal 1 = In Alarm
BI - 11034	Diagnostic: Suction Temperature Sensor - Ckt1	0 = Normal 1 = In Alarm
BI - 11035	Diagnostic: Suction Temperature Sensor - Ckt2	0 = Normal 1 = In Alarm
BI - 11036	Comm Loss: Subcooler Shutoff Valve Relay - Ckt1	0 = Normal 1 = In Alarm
BI - 11037	Comm Loss: Subcooler Shutoff Valve Relay - Ckt2	0 = Normal 1 = In Alarm
BI - 11038	Comm Loss: Receiver Fill Valve Relay - Ckt1	0 = Normal 1 = In Alarm
BI - 11039	Comm Loss: Receiver Fill Valve Relay - Ckt2	0 = Normal 1 = In Alarm
BI - 11040	Diagnostic: High Compressor Pressure Differential - Ckt1	0 = Normal 1 = In Alarm
BI - 11041	Diagnostic: High Compressor Pressure Differential - Ckt2	0 = Normal 1 = In Alarm
BI - 11042	Diagnostic: High Discharge Refrigerant Pressure - Ckt1	0 = Normal 1 = In Alarm
BI - 11043	Diagnostic: High Discharge Refrigerant Pressure - Ckt2	0 = Normal 1 = In Alarm
BI - 11044	Diagnostic: High Discharge Temperature - Ckt1	0 = Normal 1 = In Alarm
BI - 11045	Diagnostic: High Discharge Temperature - Ckt2	0 = Normal 1 = In Alarm
BI - 11046	Diagnostic: High Discharge Temperature Lockout - Ckt1	0 = Normal 1 = In Alarm
BI - 11047	Diagnostic: High Discharge Temperature Lockout - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11048	Diagnostic: Loss of Charge - Ckt1	0 = Normal 1 = In Alarm
BI - 11049	Diagnostic: Loss of Charge - Ckt2	0 = Normal 1 = In Alarm
BI - 11050	Diagnostic: Low Discharge Saturated Temperature - Ckt1	0 = Normal 1 = In Alarm
BI - 11051	Diagnostic: Low Discharge Saturated Temperature - Ckt2	0 = Normal 1 = In Alarm
BI - 11052	Diagnostic: Low Refrigerant Temperature - Ckt1	0 = Normal 1 = In Alarm
BI - 11053	Diagnostic: Low Refrigerant Temperature - Ckt2	0 = Normal 1 = In Alarm
BI - 11054	Diagnostic: Low Suction Refrigerant Pressure - Ckt1	0 = Normal 1 = In Alarm
BI - 11055	Diagnostic: Low Suction Refrigerant Pressure - Ckt2	0 = Normal 1 = In Alarm
BI - 11056	Diagnostic: Low Suction Superheat - Ckt1	0 = Normal 1 = In Alarm
BI - 11057	Diagnostic: Low Suction Superheat - Ckt2	0 = Normal 1 = In Alarm
BI - 11058	Diagnostic: Suction Temperature Too High - Ckt1	0 = Normal 1 = In Alarm
BI - 11059	Diagnostic: Suction Temperature Too High - Ckt2	0 = Normal 1 = In Alarm
BI - 11060	Diagnostic: Very Low Suction Pressure - Circuit 1	0 = Normal 1 = In Alarm
BI - 11061	Diagnostic: Very Low Suction Pressure - Circuit 2	0 = Normal 1 = In Alarm
BI - 11062	Diagnostic: Low Differential Refrigerant Pressure - Ckt1	0 = Normal 1 = In Alarm
BI - 11063	Diagnostic: Low Differential Refrigerant Pressure - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11064	Comm Loss: Compressor 1A Fault Input	0 = Normal 1 = In Alarm
BI - 11065	Comm Loss: Compressor 1B Fault Input	0 = Normal 1 = In Alarm
BI - 11066	Comm Loss: Compressor 1C Fault Input	0 = Normal 1 = In Alarm
BI - 11067	Diagnostic: Compressor 1A Fault	0 = Normal 1 = In Alarm
BI - 11068	Diagnostic: Compressor 1B Fault	0 = Normal 1 = In Alarm
BI - 11069	Diagnostic: Compressor 1C Fault	0 = Normal 1 = In Alarm
BI - 11070	Diagnostic: Compressor 1A Fault Lockout	0 = Normal 1 = In Alarm
BI - 11071	Diagnostic: Compressor 1B Fault Lockout	0 = Normal 1 = In Alarm
BI - 11072	Diagnostic: Compressor 1C Fault Lockout	0 = Normal 1 = In Alarm
BI - 11073	Diagnostic: Starts/Hours Modified 1A	0 = Normal 1 = In Alarm
BI - 11074	Diagnostic: Starts/Hours Modified 1B	0 = Normal 1 = In Alarm
BI - 11075	Diagnostic: Starts/Hours Modified 1C	0 = Normal 1 = In Alarm
BI - 11076	Comm Loss: Compressor 2A Fault Input	0 = Normal 1 = In Alarm
BI - 11077	Comm Loss: Compressor 2B Fault Input	0 = Normal 1 = In Alarm
BI - 11078	Comm Loss: Compressor 2C Fault Input	0 = Normal 1 = In Alarm
BI - 11079	Diagnostic: Compressor 2A Fault	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11080	Diagnostic: Compressor 2B Fault	0 = Normal 1 = In Alarm
BI - 11081	Diagnostic: Compressor 2C Fault	0 = Normal 1 = In Alarm
BI - 11082	Diagnostic: Compressor 2A Fault Lockout	0 = Normal 1 = In Alarm
BI - 11083	Diagnostic: Compressor 2B Fault Lockout	0 = Normal 1 = In Alarm
BI - 11084	Diagnostic: Compressor 2C Fault Lockout	0 = Normal 1 = In Alarm
BI - 11085	Diagnostic: Starts/Hours Modified 2A	0 = Normal 1 = In Alarm
BI - 11086	Diagnostic: Starts/Hours Modified 2B	0 = Normal 1 = In Alarm
BI - 11087	Diagnostic: Starts/Hours Modified 2C	0 = Normal 1 = In Alarm
BI - 11088	Comm Loss: High Pressure Cutout Switch - Ckt1	0 = Normal 1 = In Alarm
BI - 11089	Comm Loss: High Pressure Cutout Switch - Ckt2	0 = Normal 1 = In Alarm
BI - 11090	Diagnostic: High Pressure Cutout - Ckt1	0 = Normal 1 = In Alarm
BI - 11091	Diagnostic: High Pressure Cutout - Ckt2	0 = Normal 1 = In Alarm
BI - 11092	Comm Loss: Evaporator Antifreeze Heater	0 = Normal 1 = In Alarm
BI - 11093	Diagnostic: Evaporator Water Flow Lost	0 = Normal 1 = In Alarm
BI - 11094	Diagnostic: Evaporator Water Flow Lost Lockout	0 = Normal 1 = In Alarm
BI - 11095	Diagnostic: Evaporator Water Flow Overdue	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11096	Diagnostic: High Evaporator Water Temperature	0 = Normal 1 = In Alarm
BI - 11097	Diagnostic: High Suction Rfgt Pressure	0 = Normal 1 = In Alarm
BI - 11098	Diagnostic: Inverted Evaporator Water Temperature	0 = Normal 1 = In Alarm
BI - 11099	Diagnostic: Inverted Water Temp (Heating)	0 = Normal 1 = In Alarm
BI - 11100	Diagnostic: Low Evaporator Water Temp (Unit On)	0 = Normal 1 = In Alarm
BI - 11101	Diagnostic: Low Evaporator Water Temp (Unit Off)	0 = Normal 1 = In Alarm
BI - 11102	Comm Loss: Evap Entering Water Temp	0 = Normal 1 = In Alarm
BI - 11103	Comm Loss: Evap Leaving Water Temp	0 = Normal 1 = In Alarm
BI - 11104	Comm Loss: Evaporator Water Flow Switch	0 = Normal 1 = In Alarm
BI - 11105	Diagnostic: Evaporator Entering Water Temp Sensor	0 = Normal 1 = In Alarm
BI - 11106	Diagnostic: Evaporator Leaving Water Temp Sensor	0 = Normal 1 = In Alarm
BI - 11107	Comm Loss: Cooling EXV - Ckt1	0 = Normal 1 = In Alarm
BI - 11108	Comm Loss: Cooling EXV - Ckt2	0 = Normal 1 = In Alarm
BI - 11109	Comm Loss: Electronic Expansion Valve - Ckt1	0 = Normal 1 = In Alarm
BI - 11110	Comm Loss: Electronic Expansion Valve - Ckt2	0 = Normal 1 = In Alarm
BI - 11111	Comm Loss: Heating EXV - Ckt1	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11112	Comm Loss: Heating EXV - Ckt2	0 = Normal 1 = In Alarm
BI - 11113	Comm Loss: Auxiliary Setpoint Command	0 = Normal 1 = In Alarm
BI - 11114	Comm Loss: Emergency Stop Feedback Input	0 = Normal 1 = In Alarm
BI - 11115	Comm Loss: Ext Chilled/Hot Water Setpoint	0 = Normal 1 = In Alarm
BI - 11116	Comm Loss: Ext Noise Reduction Request	0 = Normal 1 = In Alarm
BI - 11117	Comm Loss: External Auto/Stop	0 = Normal 1 = In Alarm
BI - 11118	Comm Loss: Ext Demand Limit Setpoint	0 = Normal 1 = In Alarm
BI - 11119	Comm Loss: External Hot Water Command	0 = Normal 1 = In Alarm
BI - 11120	Comm Loss: Programmable Relay Board 1	0 = Normal 1 = In Alarm
BI - 11122	Diagnostic: Emergency Stop Feedback Input	0 = Normal 1 = In Alarm
BI - 11123	Diagnostic: External Chilled/Hot Water Setpoint	0 = Normal 1 = In Alarm
BI - 11124	Diagnostic: External Demand Limit Setpoint	0 = Normal 1 = In Alarm
BI - 11125	Comm Loss: Condenser Fan Enable - Ckt1	0 = Normal 1 = In Alarm
BI - 11126	Comm Loss: Condenser Fan Enable - Ckt2	0 = Normal 1 = In Alarm
BI - 11127	Comm Loss: Condenser Fan Fault - Ckt1	0 = Normal 1 = In Alarm
BI - 11128	Comm Loss: Condenser Fan Fault - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11129	Comm Loss: Fan Inverter Speed Command - Ckt1	0 = Normal 1 = In Alarm
BI - 11130	Comm Loss: Fan Inverter Speed Command - Ckt2	0 = Normal 1 = In Alarm
BI - 11131	Diagnostic: Condenser Fan Fault - Ckt1	0 = Normal 1 = In Alarm
BI - 11132	Diagnostic: Condenser Fan Fault - Ckt2	0 = Normal 1 = In Alarm
BI - 11133	Comm Loss: Comm Loss: Fan Inverter Fault - Ckt1	0 = Normal 1 = In Alarm
BI - 11134	Comm Loss: Comm Loss: Fan Inverter Fault - Ckt2	0 = Normal 1 = In Alarm
BI - 11135	Diagnostic: Fan Inverter Fault - Ckt1	0 = Normal 1 = In Alarm
BI - 11136	Diagnostic: Fan Inverter Fault - Ckt2	0 = Normal 1 = In Alarm
BI - 11137	Comm Loss: Noise Reduction Request Relay	0 = Normal 1 = In Alarm
BI - 11140	Comm Loss: Heat Recovery Entering Water Temperature	0 = Normal 1 = In Alarm
BI - 11141	Comm Loss: Heat Recovery Leaving Water Temperature	0 = Normal 1 = In Alarm
BI - 11144	Diagnostic: Heat Recovery Entering Water Temp Sensor	0 = Normal 1 = In Alarm
BI - 11145	Diagnostic: Heat Recovery Leaving Water Temp Sensor	0 = Normal 1 = In Alarm
BI - 11147	Diagnostic: No Partial Heat Recovery - Ckt1	0 = Normal 1 = In Alarm
BI - 11148	Diagnostic: No Partial Heat Recovery - Ckt2	0 = Normal 1 = In Alarm
BI - 11149	Comm Loss: External Ice Building Command	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11156	Comm Loss: Run Command Compressor 1A	0 = Normal 1 = In Alarm
BI - 11157	Comm Loss: Run Command Compressor 1B	0 = Normal 1 = In Alarm
BI - 11158	Comm Loss: Run Command Compressor 1C	0 = Normal 1 = In Alarm
BI - 11159	Comm Loss: Run Command Compressor 2A	0 = Normal 1 = In Alarm
BI - 11160	Comm Loss: Run Command Compressor 2B	0 = Normal 1 = In Alarm
BI - 11161	Comm Loss: Run Command Compressor 2C	0 = Normal 1 = In Alarm
BI - 11162	Diagnostic: MP: Invalid Configuration	0 = Normal 1 = In Alarm
BI - 11163	Diagnostic: MP: Reset Has Occurred	0 = Normal 1 = In Alarm
BI - 11164	Comm Loss: Evap Pump Inv1 Fault Input	0 = Normal 1 = In Alarm
BI - 11165	Comm Loss: Evap Pump Inv1 Freq Feedback	0 = Normal 1 = In Alarm
BI - 11166	Comm Loss: Evap Pump Inv1 Run Command	0 = Normal 1 = In Alarm
BI - 11167	Comm Loss: Evaporator Pump 1 Fault Input	0 = Normal 1 = In Alarm
BI - 11168	Comm Loss: Evaporator Pump 2 Fault Input	0 = Normal 1 = In Alarm
BI - 11169	Comm Loss: Evaporator Water Pump 1 Relay	0 = Normal 1 = In Alarm
BI - 11170	Comm Loss: Evaporator Water Pump 2 Relay	0 = Normal 1 = In Alarm
BI - 11171	Diagnostic: Evaporator Pump 1 Starts/Hours Modified	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
BI - 11172	Diagnostic: Evaporator Pump 2 Starts/Hours Modified	0 = Normal 1 = In Alarm
BI - 11173	Diagnostic: Evaporator Pump 1 Fault	0 = Normal 1 = In Alarm
BI - 11174	Diagnostic: Evaporator Pump 2 Fault	0 = Normal 1 = In Alarm
BI - 11175	Diagnostic: Evaporator Water Flow Lost - Pump1	0 = Normal 1 = In Alarm
BI - 11176	Diagnostic: Evaporator Water Flow Lost - Pump2	0 = Normal 1 = In Alarm
BI - 11177	Diagnostic: Evaporator Water Flow Overdue - Pump1	0 = Normal 1 = In Alarm
BI - 11178	Diagnostic: Evaporator Water Flow Overdue - Pump2	0 = Normal 1 = In Alarm
BI - 11179	Diagnostic: Evaporator Water Flow Too Low	0 = Normal 1 = In Alarm
BI - 11180	Diagnostic: Power Factor Correction Fault	0 = Normal 1 = In Alarm
BI - 11181	Comm Loss: Power Factor Correction Fault Input	0 = Normal 1 = In Alarm

Object Identifier	Object Name	Object States	Configuration Dependency
BV-10100	Reset Diagnostic	0 = Normal 1 = Reset	Standard
BV-10101	Noise Reduction Request BAS	0 = Normal 1 = Reduce Noise	Noise Reduction
BV-10102	Heat Recovery Request	0 = Off 1 = On	Partial Heat Recovery
BV-10103	Energy Consumption Reset	0 = Accumulating 1 = Reset	Energy Meter
BV-10104	Circuit 1 Lockout BAS	0 = Normal 1 = Locked Out	Standard
BV-10105	Circuit 2 Lockout BAS	0 = Normal 1 = Locked Out	Circuit 2
BV-10106	Chiller Auto Stop Command BAS	0 = Stop 1 = Auto	Standard

Object Identifier	Object Name	Object States	Configuration Dependency
MI-10100	Running Mode	1 = Chiller Off 2 = Chiller In Start Mode 3 = Chiller In Run Mode 4 = Chiller In Pre-Shutdown Mode 5 = Chiller In Service Mode	Standard
MI-10101	Operating Mode	1 = Cool 2 = Heat 3 = Ice Making 4 = Free Cooling	Standard
MI-10102	Chiller Setpoint Source	1 = BAS 2 = External 3 = Front Panel	Standard
MI-10103	Refrigerant Type	1 = R-11 2 = R-12 3= R-22 4= R-123 5 = R-134a 6 = R-407C 7 = R-410A 8 = R-113 9 = R-114 10 = R-500 11 = R-502 12 = R-404A 13 = R-513A 14 = R-1233zd(e) 15 = R-514A 16 = R-1234ze(e) 17 = R-454B 18 = R-515B	Standard
MI-10104	Cooling Type	1 = Water Cooled 2 = Air Cooled	Standard

Object Identifier	Object Name	Object States	Configuration Dependency
MI-10105	Manufacturing Location	1 = Field Applied 2= La Crosse 3 = Pueblo 4 = Charmes 5 = Rushville 6 = Macon 7 = Waco 8 = Lexington 9 = Forsyth 10 = Clarksville 11 = Ft. Smith 12 = Penang 13 = Colchester 14 = Curitiba 15 = Taicang 16 = Taiwan 17 = Epinal 18 = Golbey 19 = Bari	Standard
MI-10106	Model Information GEN2	1 = CVHF 2 = CVGF 3= CVHS 4= RTAE 5 = RTAF 6 = RTHA 7 = RTHB 8 = RTHC 9 = RTHD 10 = RTWE 11 = CTVD 12 = CVR 13 = CVHH	Standard

Object Identifier	Object Name	Object States	Configuration Dependency
		14 = CDHH 15 = VMAX 16 = GVAF 17 = RTWF 18 = RTHF 19 = RTAC 20 = CVHM 21 = RTAG 22 = CGAF 23 = RTXG 24 = GVWF 25 = HDWA 26 = CMAC 27 = IPAK 28 = CXAF 29 = ACSA 30 = RTSF 31 = HSWA 32 = ACRA 33 = RTEG 34 = AXCA 35 = CMAF 36 = ACRB Large 37 = ACRB Small 38 = CVHE 39 = CVHG 40 = CVHL 41 = RTWF XSE 42 = CGWF 43 = CDHG 44 = ACCA 45 = RTWD	

Object Identifier	Object Name	Object States	Configuration Dependency
		46 = RTUD 47 = CXWF 48 = CCUF 49 = RTHG 50 = CGAM 51 = CXAM	

Modbus Register	Object Name	Object States	Configuration Dependency
MV-10100	Chiller Mode Command BAS	1 = Cool 2 = Heat 3 = Ice Making 4 = Free Cooling	Standard

Object Naming Conventions

The communicated points for the Symbio™ controllers are generally named according to their function. While many of the points are read-only, others include both read and write capability. The established naming convention helps to identify the capabilities of each point. For most points, the suffix identifies the capability according to the following definition. While there are some exceptions, the majority of the points have been defined according to these guidelines.

Suffix	Description
Status	Points with the Status suffix are defined as read-only. The status point reports the value being used by the controller.
Local	Points with the Local suffix are defined as read-only. The local point reports values associated with controller sensors, both wired and wireless. The local value may or may not be actively used by the controller, depending on the presence or absence of a communicated value (BAS). When both a local and communicated value exist, the communicated value is used.
Active	Points with the Active suffix are defined as read-only. Points designated as active are normally the result of the arbitration between a communicated value(BAS) and at least one value local to the equipment, such as a sensor or default setpoint. The active point reports the value being input to the controller.
Setpoint	Points with the Setpoint suffix are defined as either read-only or read/write. For BACnet®, the binary input, analog input and multi-state input points are all read-only. These setpoints report the value currently in use by the controller. The analog value, binary value and multi-state value points are all read/write. These points are provided for use by the building automation system (BAS). When used, these points are written internally to arbitration logic. This defines the interaction with hardwired points, editable software configuration points and the relinquish default value/state. Refer to the Appendix for additional information.
Input	Points with the Input suffix are defined as read-only. These points normally reflect the status of a sensor input, either hardwired or communicating wirelessly (Air-Fi®). However, the input point reflects the arbitrated result of the controller sensor input and a communicated value, if present. When both a controller sensor and communicated value exist, the controller will use and report the communicated value.
Arbitrator	Points with the “Arbitrator” suffix are to be used as read-only. The arbitrator prioritizes inputs from communicating points, hardwired points and stored defaults points. The priority array of the arbitration point displays each of the values provided, including the active status, indicating which of the input sources is being used. Refer to the Appendix for additional information.
BAS	Points with the BAS suffix are defined as read/write. These points are provided for use by the building automation system (BAS). When used, these points are written to arbitration logic. This defines the interaction with hardwired points, editable software configuration points and the relinquished default value/state. Refer to the Appendix for additional information.
Command	Points with the Command suffix are defined as read/write. These points are written to change the default behavior of the controller. Once written, these point values may be persisted.
Request	Points with the Request suffix are defined as read/write. These points are written to request a change the operating behavior of the controller.

Object Data Points and Diagnostic Data Points

The following tables are sorted as follows:

- Tables are listed by input/output type and sorted by object identifier. These tables provide the user with the unit’s type for each object type.
- Tables are sorted by object name and provide a complete list of object names, types, values/ranges, and descriptions.

Note: Not all points are available to the user. The available data points are defined during self-configuration and are dependent on the type of equipment.

Register Type	Register Value	Byte Order	Invalid Values
Analog	Float, 32-bit	High Word/High Byte First	NaN
Binary	Int, 16-bit, unsigned	High Byte first	0xFFFF
Multi-state	Int, 16-bit, unsigned	High Byte first	0xFFFF

Modbus Register	Object Name	Units	Configuration Dependency
30011	Active Cool/Heat Setpoint Temperature	Temperature	Standard
30013	Evaporator Leaving Water Temperature	Temperature	Standard
30015	Evaporator Entering Water Temperature	Temperature	Standard
30017	Active Chilled Water Setpoint	Temperature	Standard
30019	Chilled Water Setpoint Status	Temperature	Standard
30021	Hot Water Setpoint Active	Temperature	Hot Water Control
30023	Hot Water Setpoint Status	Temperature	Hot Water Control
30025	Active Demand Limit Setpoint	Percentage	Ice Building Not Installed
30027	Active Demand Limit Setpoint	Percentage	Ice Building
30029	Demand Limit Setpoint Status	Percentage	Ice Building
30031	Unit Power Consumption	Power, Electrical	Energy Meter
30033	Outdoor Air Temperature	Temperature	Standard
30035	Evaporator Refrigerant Pressure Circuit 1	Pressure, Fluidic	Standard
30037	Condenser Refrigerant Pressure Circuit 1	Pressure, Fluidic	Standard
30039	Differential Refrigerant Pressure Circuit 1	Pressure, Fluidic	Standard
30041	Evaporator Saturated Refrigerant Temperature Circuit 1	Temperature	Standard
30043	Condenser Saturated Refrigerant Temperature Circuit 1	Temperature	Standard
30045	Evaporator Refrigerant Pressure Circuit 2	Pressure, Fluidic	Circuit 2
30047	Condenser Refrigerant Pressure Circuit 2	Pressure, Fluidic	Circuit 2
30049	Differential Refrigerant Pressure Circuit 2	Pressure, Fluidic	Circuit 2
30051	Evaporator Saturated Refrigerant Temperature Circuit 2	Percentage	Circuit 2
30053	Condenser Saturated Refrigerant Temperature Circuit 2	Percentage	Circuit 2
30055	Evaporator Refrigerant Absolute Pressure Circuit 1	Pressure, Fluidic	Standard
30057	Condenser Refrigerant Absolute Pressure Circuit 1	Pressure, Fluidic	Standard
30059	Evaporator Refrigerant Absolute Pressure Circuit 2	Pressure, Fluidic	Circuit 2
30061	Condenser Refrigerant Absolute Pressure Circuit 2	Pressure, Fluidic	Circuit 2
30063	Actual Running Capacity	Percentage	Standard
30065	Air Flow Percentage Circuit 1	Percentage	Standard
30067	Air Flow Percentage Circuit 2	Percentage	Circuit 2
30069	Starts - Compressor 1A	None	Standard
30071	Run Time - Compressor 1A	None	Standard
30073	Starts - Compressor 1B	None	Standard

Modbus Register	Object Name	Units	Configuration Dependency
30075	Run Time - Compressor 1B	None	Standard
30077	Starts - Compressor 1C	None	Compressor 1C
30079	Run Time - Compressor 1C	None	Compressor 1C
30081	Starts - Compressor 2A	None	Circuit 2
30083	Run Time - Compressor 2A	None	Circuit 2
30085	Starts - Compressor 2B	None	Circuit 2
30087	Run Time - Compressor 2B	None	Circuit 2
30089	Starts - Compressor 2C	None	Compressor 2C
30091	Run Time - Compressor 2C	None	Compressor 2C
30093	Heat Recovery Leaving Water Temperature Setpoint Active	Temperature	Partial Heat Recovery
30095	Heat Recovery Entering Water Temperature	Temperature	Heat Recovery Water Temps
30097	Heat Recovery Leaving Water Temperature	Temperature	Heat Recovery Water Temps
30099	Chiller Design Capacity	Power, Cooling	Standard
30101	Number of Circuits	None	Standard
30103	Number of Compressors Circuit 1	None	Standard
30105	Number of Compressors Circuit 2	None	Standard
30107	Refrigerant Discharge Temperature Estimate Circuit 1	Temperature	Standard
30109	Refrigerant Discharge Temperature Estimate Circuit 2	Temperature	Circuit 2
30111	Refrigerant Discharge Temperature Circuit 1	Temperature	Discharge Temp
30113	Refrigerant Discharge Temperature Circuit 2	Temperature	Discharge Temp, Circuit 2
30115	Unit Source ID (Last Diagnostic Code)	None	Standard
30119	Energy Consumption Lifetime	Energy, Electrical	Energy Meter
30121	Energy Consumption	Energy, Electrical	Energy Meter
30123	Average Current	Current	Energy Meter
30125	Average Voltage L-L	Voltage	Energy Meter
30127	Current L1	Current	Energy Meter
30129	Current L2	Current	Energy Meter
30131	Current L3	Current	Energy Meter
30133	Voltage L1-L2	Voltage	Energy Meter
30135	Voltage L2-L3	Voltage	Energy Meter
30137	Voltage L1-L3	Voltage	Energy Meter
30139	Unit Power Demand	Power, Electrical	Energy Meter

Modbus Register	Object Name	Units	Configuration Dependency
30141	Line Frequency	None	Energy Meter
30143	Power Factor	None	Energy Meter
30147	Supplemental Heat Status	Percentage	Supplemental Heater
30149	Evaporator Approach Temperature Circuit 1	Temperature, Delta	Standard
30151	Condenser Approach Temperature Circuit 1	Temperature, Delta	Hot Water Control
30153	Evaporator Approach Temperature Circuit 2	Temperature, Delta	Circuit 2
30155	Condenser Approach Temperature Circuit 2	Temperature, Delta	Hot Water Control, Circuit 2
30157	Compressor Suction Superheat Ckt1	Temperature, Delta	Standard
30159	Compressor Suction Superheat Ckt2	Temperature, Delta	Circuit 2

Modbus Register	Object_Name	Units	Configuration Dependency
40011	Chilled Water Setpoint	Temperature	Standard
40013	Demand Limit Setpoint	Percentage	Standard
40015	Hot Water Setpoint	Temperature	Hot Water Control
40017	Heat Recovery Leaving Water Temperature Setpoint BAS	Temperature	Partial Heat Recovery

Modbus Register	Object Name	Object Status	Configuration Dependency
33011	Limit Mode Relay Status	0 = Auto 1 = On	Standard
33012	Emergency Stop	0 = Auto 1 = Emergency Stop - Manual Reset Required	Standard
33013	Manual Override Exists	0 = Off 1 = On	Standard
33014	Front Panel Auto Stop Status	0 = Stop 1 = Auto	Standard
33015	External Auto Stop Input Status	0 = Stop 1 = Auto	Standard
33016	Run Enabled	0 = Run Not Enabled 1 = Run Enabled	Standard
33017	Local Setpoint Control	0 = Remote Control 1 = Local Control	Standard
33018	Maximum Capacity	0 = Off 1 = On	Standard
33019	Compressor 1A Status	0 = Off 1 = Running	Standard
33020	Compressor 1B Status	0 = Off 1 = Running	Standard
33021	Compressor 1C Status	0 = Off 1 = Running	Compressor 1C
33022	Compressor 2A Status	0 = Off 1 = Running	Circuit 2
33023	Compressor 2B Status	0 = Off 1 = Running	Circuit 2
33024	Compressor 2C Status	0 = Off 1 = Running	Compressor 2C
33025	Chiller Running State	0 = Off 1 = On	Standard
33026	Heat Recovery Control Active Status	0 = Inactive 1 = Active	Partial Heat Recovery

Modbus Register	Object Name	Object Status	Configuration Dependency
33027	Heat Recovery Request Active	0 = Off 1 = On	Partial Heat Recovery
33028	Evaporator Water Pump Request	0 = Off 1 = On	Standard
33029	Evaporator Water Flow Status	0 = No Flow 1 = Flow	Standard
33030	Diagnostic Present: Information	0 = Normal 1 = In Alarm	Standard
33031	Diagnostic Present: Advisory	0 = Normal 1 = In Alarm	Standard
33032	Diagnostic Present: Critical	0 = Normal 1 = In Alarm	Standard
33033	Diagnostic Present: Service Required	0 = Normal 1 = In Alarm	Standard
33034	Diagnostic Present	0 = Normal 1 = In Alarm	Standard
33035	Diagnostic Shutdown Present	0 = Normal 1 = In Alarm	Standard
33036	Diagnostic: Manual Reset Required	0 = Normal 1 = In Alarm	Standard
33037	Diagnostic: Local Manual Reset Required	0 = Normal 1 = In Alarm	Standard
33038	Noise Reduction Request Active	0 = Off 1 = On	Noise Reduction
33039	In Defrost	0 = Not In Defrost 1 = Defrost	Hot Water Control
33040	Circuit 1 Lockout Front Panel	0 = Normal 1 = Locked Out	Standard
33041	Circuit 2 Lockout Front Panel	0 = Normal 1 = Locked Out	Circuit 2
33042	Circuit 1 Lockout External	0 = Normal 1 = Locked Out	External Circuit Lockout

Modbus Register	Object Name	Object Status	Configuration Dependency
33043	Circuit 2 Lockout External	0 = Normal 1 = Locked Out	External Circuit Lockout
33044	Circuit 1 Lockout Active	0 = Normal 1 = Locked Out	Standard
33045	Circuit 2 Lockout Active	0 = Normal 1 = Locked Out	Circuit 2
33046	Circuit 1 Available	0 = Unavailable 1 = Available	Standard
33047	Circuit 2 Available	0 = Unavailable 1 = Available	Circuit 2
33048	Circuit 1 Running Status	0 = Off 1 = On	Standard
33049	Circuit 2 Running Status	0 = Off 1 = On	Circuit 2

Object Identifier	Diagnostic Name	Object States
34001	Comm Loss: Percent Capacity Output	0 = Normal 1 = In Alarm
34002	Comm Loss: Supplemental Heater Relay 1	0 = Normal 1 = In Alarm
34003	Comm Loss: Supplemental Heater Relay 2	0 = Normal 1 = In Alarm
34004	Comm Loss: Supplemental Heater Relay 3	0 = Normal 1 = In Alarm
34005	Comm Loss: Supplemental Heater Relay 4	0 = Normal 1 = In Alarm
34006	Comm Loss: Energy Meter	0 = Normal 1 = In Alarm
34007	Comm Loss: Outdoor Air Temperature	0 = Normal 1 = In Alarm
34008	Comm Loss: Phase Protection Fault Input	0 = Normal 1 = In Alarm
34009	Diagnostic: Energy Meter Write Value Failure	0 = Normal 1 = In Alarm
34010	Diagnostic: Outdoor Air Temperature Sensor	0 = Normal 1 = In Alarm
34011	Diagnostic: Phase Protection Fault	0 = Normal 1 = In Alarm
34012	Diagnostic: Software Error 1001: Call Trane Service	0 = Normal 1 = In Alarm
34013	Diagnostic: Software Error 1002: Call Trane Service	0 = Normal 1 = In Alarm
34014	Diagnostic: Software Error 1003: Call Trane Service	0 = Normal 1 = In Alarm
34015	Diagnostic: Pumpdown Terminated By Time - Ckt1	0 = Normal 1 = In Alarm
34016	Diagnostic: Pumpdown Terminated By Time - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34017	Comm Loss: Discharge Pressure Transducer - Ckt1	0 = Normal 1 = In Alarm
34018	Comm Loss: Discharge Pressure Transducer - Ckt2	0 = Normal 1 = In Alarm
34019	Comm Loss: Discharge Temperature Sensor - Ckt1	0 = Normal 1 = In Alarm
34020	Comm Loss: Discharge Temperature Sensor - Ckt2	0 = Normal 1 = In Alarm
34021	Comm Loss: External Ckt1 Lockout	0 = Normal 1 = In Alarm
34022	Comm Loss: External Ckt2 Lockout	0 = Normal 1 = In Alarm
34023	Comm Loss: Reversing Valve - Ckt1	0 = Normal 1 = In Alarm
34024	Comm Loss: Reversing Valve - Ckt2	0 = Normal 1 = In Alarm
34025	Comm Loss: Suction Pressure Transducer - Ckt1	0 = Normal 1 = In Alarm
34026	Comm Loss: Suction Pressure Transducer - Ckt2	0 = Normal 1 = In Alarm
34027	Comm Loss: Suction Temperature - Ckt1	0 = Normal 1 = In Alarm
34028	Comm Loss: Suction Temperature - Ckt2	0 = Normal 1 = In Alarm
34029	Diagnostic: Discharge Pressure Transducer - Ckt1	0 = Normal 1 = In Alarm
34030	Diagnostic: Discharge Pressure Transducer - Ckt2	0 = Normal 1 = In Alarm
34031	Diagnostic: Discharge Temperature Sensor - Ckt1	0 = Normal 1 = In Alarm
34032	Diagnostic: Discharge Temperature Sensor - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34033	Diagnostic: Suction Pressure Transducer - Ckt1	0 = Normal 1 = In Alarm
34034	Diagnostic: Suction Pressure Transducer - Ckt2	0 = Normal 1 = In Alarm
34035	Diagnostic: Suction Temperature Sensor - Ckt1	0 = Normal 1 = In Alarm
34036	Diagnostic: Suction Temperature Sensor - Ckt2	0 = Normal 1 = In Alarm
34037	Comm Loss: Subcooler Shutoff Valve Relay - Ckt1	0 = Normal 1 = In Alarm
34038	Comm Loss: Subcooler Shutoff Valve Relay - Ckt2	0 = Normal 1 = In Alarm
34039	Comm Loss: Receiver Fill Valve Relay - Ckt1	0 = Normal 1 = In Alarm
34040	Comm Loss: Receiver Fill Valve Relay - Ckt2	0 = Normal 1 = In Alarm
34041	Diagnostic: High Compressor Pressure Differential - Ckt1	0 = Normal 1 = In Alarm
34042	Diagnostic: High Compressor Pressure Differential - Ckt2	0 = Normal 1 = In Alarm
34043	Diagnostic: High Discharge Refrigerant Pressure - Ckt1	0 = Normal 1 = In Alarm
34044	Diagnostic: High Discharge Refrigerant Pressure - Ckt2	0 = Normal 1 = In Alarm
34045	Diagnostic: High Discharge Temperature - Ckt1	0 = Normal 1 = In Alarm
34046	Diagnostic: High Discharge Temperature - Ckt2	0 = Normal 1 = In Alarm
34047	Diagnostic: High Discharge Temperature Lockout - Ckt1	0 = Normal 1 = In Alarm
34048	Diagnostic: High Discharge Temperature Lockout - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34049	Diagnostic: Loss of Charge - Ckt1	0 = Normal 1 = In Alarm
34050	Diagnostic: Loss of Charge - Ckt2	0 = Normal 1 = In Alarm
34051	Diagnostic: Low Discharge Saturated Temperature - Ckt1	0 = Normal 1 = In Alarm
34052	Diagnostic: Low Discharge Saturated Temperature - Ckt2	0 = Normal 1 = In Alarm
34053	Diagnostic: Low Refrigerant Temperature - Ckt1	0 = Normal 1 = In Alarm
34054	Diagnostic: Low Refrigerant Temperature - Ckt2	0 = Normal 1 = In Alarm
34055	Diagnostic: Low Suction Refrigerant Pressure - Ckt1	0 = Normal 1 = In Alarm
34056	Diagnostic: Low Suction Refrigerant Pressure - Ckt2	0 = Normal 1 = In Alarm
34057	Diagnostic: Low Suction Superheat - Ckt1	0 = Normal 1 = In Alarm
34058	Diagnostic: Low Suction Superheat - Ckt2	0 = Normal 1 = In Alarm
34059	Diagnostic: Suction Temperature Too High - Ckt1	0 = Normal 1 = In Alarm
34060	Diagnostic: Suction Temperature Too High - Ckt2	0 = Normal 1 = In Alarm
34061	Diagnostic: Very Low Suction Pressure - Circuit 1	0 = Normal 1 = In Alarm
34062	Diagnostic: Very Low Suction Pressure - Circuit 2	0 = Normal 1 = In Alarm
34063	Diagnostic: Low Differential Refrigerant Pressure - Ckt1	0 = Normal 1 = In Alarm
34064	Diagnostic: Low Differential Refrigerant Pressure - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34065	Comm Loss: Compressor 1A Fault Input	0 = Normal 1 = In Alarm
34066	Comm Loss: Compressor 1B Fault Input	0 = Normal 1 = In Alarm
34067	Comm Loss: Compressor 1C Fault Input	0 = Normal 1 = In Alarm
34068	Diagnostic: Compressor 1A Fault	0 = Normal 1 = In Alarm
34069	Diagnostic: Compressor 1B Fault	0 = Normal 1 = In Alarm
34070	Diagnostic: Compressor 1C Fault	0 = Normal 1 = In Alarm
34071	Diagnostic: Compressor 1A Fault Lockout	0 = Normal 1 = In Alarm
34072	Diagnostic: Compressor 1B Fault Lockout	0 = Normal 1 = In Alarm
34073	Diagnostic: Compressor 1C Fault Lockout	0 = Normal 1 = In Alarm
34074	Diagnostic: Starts/Hours Modified 1A	0 = Normal 1 = In Alarm
34075	Diagnostic: Starts/Hours Modified 1B	0 = Normal 1 = In Alarm
34076	Diagnostic: Starts/Hours Modified 1C	0 = Normal 1 = In Alarm
34077	Comm Loss: Compressor 2A Fault Input	0 = Normal 1 = In Alarm
34078	Comm Loss: Compressor 2B Fault Input	0 = Normal 1 = In Alarm
34079	Comm Loss: Compressor 2C Fault Input	0 = Normal 1 = In Alarm
34080	Diagnostic: Compressor 2A Fault	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34081	Diagnostic: Compressor 2B Fault	0 = Normal 1 = In Alarm
34082	Diagnostic: Compressor 2C Fault	0 = Normal 1 = In Alarm
34083	Diagnostic: Compressor 2A Fault Lockout	0 = Normal 1 = In Alarm
34084	Diagnostic: Compressor 2B Fault Lockout	0 = Normal 1 = In Alarm
34085	Diagnostic: Compressor 2C Fault Lockout	0 = Normal 1 = In Alarm
34086	Diagnostic: Starts/Hours Modified 2A	0 = Normal 1 = In Alarm
34087	Diagnostic: Starts/Hours Modified 2B	0 = Normal 1 = In Alarm
34088	Diagnostic: Starts/Hours Modified 2C	0 = Normal 1 = In Alarm
34089	Comm Loss: High Pressure Cutout Switch - Ckt1	0 = Normal 1 = In Alarm
34090	Comm Loss: High Pressure Cutout Switch - Ckt2	0 = Normal 1 = In Alarm
34091	Diagnostic: High Pressure Cutout - Ckt1	0 = Normal 1 = In Alarm
34092	Diagnostic: High Pressure Cutout - Ckt2	0 = Normal 1 = In Alarm
34093	Comm Loss: Evaporator Antifreeze Heater	0 = Normal 1 = In Alarm
34094	Diagnostic: Evaporator Water Flow Lost	0 = Normal 1 = In Alarm
34095	Diagnostic: Evaporator Water Flow Lost Lockout	0 = Normal 1 = In Alarm
34096	Diagnostic: Evaporator Water Flow Overdue	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34097	Diagnostic: High Evaporator Water Temperature	0 = Normal 1 = In Alarm
34098	Diagnostic: High Suction Rfgt Pressure	0 = Normal 1 = In Alarm
34099	Diagnostic: Inverted Evaporator Water Temperature	0 = Normal 1 = In Alarm
34100	Diagnostic: Inverted Water Temp (Heating)	0 = Normal 1 = In Alarm
34101	Diagnostic: Low Evaporator Water Temp (Unit On)	0 = Normal 1 = In Alarm
34102	Diagnostic: Low Evaporator Water Temp (Unit Off)	0 = Normal 1 = In Alarm
34103	Comm Loss: Evap Entering Water Temp	0 = Normal 1 = In Alarm
34104	Comm Loss: Evap Leaving Water Temp	0 = Normal 1 = In Alarm
34105	Comm Loss: Evaporator Water Flow Switch	0 = Normal 1 = In Alarm
34106	Diagnostic: Evaporator Entering Water Temp Sensor	0 = Normal 1 = In Alarm
34107	Diagnostic: Evaporator Leaving Water Temp Sensor	0 = Normal 1 = In Alarm
34108	Comm Loss: Cooling EXV - Ckt1	0 = Normal 1 = In Alarm
34109	Comm Loss: Cooling EXV - Ckt2	0 = Normal 1 = In Alarm
34110	Comm Loss: Electronic Expansion Valve - Ckt1	0 = Normal 1 = In Alarm
34111	Comm Loss: Electronic Expansion Valve - Ckt2	0 = Normal 1 = In Alarm
34112	Comm Loss: Heating EXV - Ckt1	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34113	Comm Loss: Heating EXV - Ckt2	0 = Normal 1 = In Alarm
34114	Comm Loss: Auxiliary Setpoint Command	0 = Normal 1 = In Alarm
34115	Comm Loss: Emergency Stop Feedback Input	0 = Normal 1 = In Alarm
34116	Comm Loss: Ext Chilled/Hot Water Setpoint	0 = Normal 1 = In Alarm
34117	Comm Loss: Ext Noise Reduction Request	0 = Normal 1 = In Alarm
34118	Comm Loss: External Auto/Stop	0 = Normal 1 = In Alarm
34119	Comm Loss: Ext Demand Limit Setpoint	0 = Normal 1 = In Alarm
34120	Comm Loss: External Hot Water Command	0 = Normal 1 = In Alarm
34121	Comm Loss: Programmable Relay Board 1	0 = Normal 1 = In Alarm
34123	Diagnostic: Emergency Stop Feedback Input	0 = Normal 1 = In Alarm
34124	Diagnostic: External Chilled/Hot Water Setpoint	0 = Normal 1 = In Alarm
34125	Diagnostic: External Demand Limit Setpoint	0 = Normal 1 = In Alarm
34126	Comm Loss: Condenser Fan Enable - Ckt1	0 = Normal 1 = In Alarm
34127	Comm Loss: Condenser Fan Enable - Ckt2	0 = Normal 1 = In Alarm
34128	Comm Loss: Condenser Fan Fault - Ckt1	0 = Normal 1 = In Alarm
34129	Comm Loss: Condenser Fan Fault - Ckt2	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34130	Comm Loss: Fan Inverter Speed Command - Ckt1	0 = Normal 1 = In Alarm
34131	Comm Loss: Fan Inverter Speed Command - Ckt2	0 = Normal 1 = In Alarm
34132	Diagnostic: Condenser Fan Fault - Ckt1	0 = Normal 1 = In Alarm
34133	Diagnostic: Condenser Fan Fault - Ckt2	0 = Normal 1 = In Alarm
34134	Comm Loss: Comm Loss: Fan Inverter Fault - Ckt1	0 = Normal 1 = In Alarm
34135	Comm Loss: Comm Loss: Fan Inverter Fault - Ckt2	0 = Normal 1 = In Alarm
34136	Diagnostic: Fan Inverter Fault - Ckt1	0 = Normal 1 = In Alarm
34137	Diagnostic: Fan Inverter Fault - Ckt2	0 = Normal 1 = In Alarm
34138	Comm Loss: Noise Reduction Request Relay	0 = Normal 1 = In Alarm
34141	Comm Loss: Heat Recovery Entering Water Temperature	0 = Normal 1 = In Alarm
34142	Comm Loss: Heat Recovery Leaving Water Temperature	0 = Normal 1 = In Alarm
34145	Diagnostic: Heat Recovery Entering Water Temp Sensor	0 = Normal 1 = In Alarm
34146	Diagnostic: Heat Recovery Leaving Water Temp Sensor	0 = Normal 1 = In Alarm
34148	Diagnostic: No Partial Heat Recovery - Ckt1	0 = Normal 1 = In Alarm
34149	Diagnostic: No Partial Heat Recovery - Ckt2	0 = Normal 1 = In Alarm
34150	Comm Loss: External Ice Building Command	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34157	Comm Loss: Run Command Compressor 1A	0 = Normal 1 = In Alarm
34158	Comm Loss: Run Command Compressor 1B	0 = Normal 1 = In Alarm
34159	Comm Loss: Run Command Compressor 1C	0 = Normal 1 = In Alarm
34160	Comm Loss: Run Command Compressor 2A	0 = Normal 1 = In Alarm
34161	Comm Loss: Run Command Compressor 2B	0 = Normal 1 = In Alarm
34162	Comm Loss: Run Command Compressor 2C	0 = Normal 1 = In Alarm
34163	Diagnostic: MP: Invalid Configuration	0 = Normal 1 = In Alarm
34164	Diagnostic: MP: Reset Has Occurred	0 = Normal 1 = In Alarm
34165	Comm Loss: Evap Pump Inv1 Fault Input	0 = Normal 1 = In Alarm
34166	Comm Loss: Evap Pump Inv1 Freq Feedback	0 = Normal 1 = In Alarm
34167	Comm Loss: Evap Pump Inv1 Run Command	0 = Normal 1 = In Alarm
34168	Comm Loss: Evaporator Pump 1 Fault Input	0 = Normal 1 = In Alarm
34169	Comm Loss: Evaporator Pump 2 Fault Input	0 = Normal 1 = In Alarm
34170	Comm Loss: Evaporator Water Pump 1 Relay	0 = Normal 1 = In Alarm
34171	Comm Loss: Evaporator Water Pump 2 Relay	0 = Normal 1 = In Alarm
34172	Diagnostic: Evaporator Pump 1 Starts/Hours Modified	0 = Normal 1 = In Alarm

Object Identifier	Diagnostic Name	Object States
34173	Diagnostic: Evaporator Pump 2 Starts/Hours Modified	0 = Normal 1 = In Alarm
34174	Diagnostic: Evaporator Pump 1 Fault	0 = Normal 1 = In Alarm
34175	Diagnostic: Evaporator Pump 2 Fault	0 = Normal 1 = In Alarm
34176	Diagnostic: Evaporator Water Flow Lost - Pump1	0 = Normal 1 = In Alarm
34177	Diagnostic: Evaporator Water Flow Lost - Pump2	0 = Normal 1 = In Alarm
34178	Diagnostic: Evaporator Water Flow Overdue - Pump1	0 = Normal 1 = In Alarm
34179	Diagnostic: Evaporator Water Flow Overdue - Pump2	0 = Normal 1 = In Alarm
34180	Diagnostic: Evaporator Water Flow Too Low	0 = Normal 1 = In Alarm
34181	Diagnostic: Power Factor Correction Fault	0 = Normal 1 = In Alarm
34182	Comm Loss: Power Factor Correction Fault Input	0 = Normal 1 = In Alarm

Modbus Register	ObjectName	Object States	Configuration Dependency
43011	Reset Diagnostic	0 = Normal 1 = Reset	Standard
43012	Noise Reduction Request BAS	0 = Normal 1 = Reduce Noise	Noise Reduction
43013	Heat Recovery Request	0 = Off 1 = On	Partial Heat Recovery
43014	Energy Consumption Reset	0 = Accumulating 1 = Reset	Energy Meter
43015	Circuit 1 Lockout BAS	0 = Normal 1 = Locked Out	Standard
43016	Circuit 2 Lockout BAS	0 = Normal 1 = Locked Out	Circuit 2
43017	Chiller Auto Stop Command BAS	0 = Stop 1 = Auto	Standard

Modbus Register	Object_Name	Object States	Configuration Dependency
32011	Running Mode	1 = Chiller Off 2 = Chiller In Start Mode 3 = Chiller In Run Mode 4 = Chiller In Pre-Shutdown Mode 5 = Chiller In Service Mode	Standard
32012	Operating Mode	1 = Cool 2 = Heat 3 = Ice Making 4 = Free Cooling	Standard
32013	Chiller Setpoint Source	1 = BAS 2 = External 3 = Front Panel	Standard
32014	Refrigerant Type	1 = R-11 2 = R-12 3= R-22 4= R-123 5 = R-134a 6 = R-407C 7 = R-410A 8 = R-113 9 = R-114 10 = R-500 11 = R-502 12 = R-404A 13 = R-513A 14 = R-1233zd(E) 15 = R-514A 16 = R-1234ze(E) 17 = R-454B 18 = R-515B	Standard
32015	Cooling Type	1 = Water Cooled 2 = Air Cooled	Standard

Modbus Register	Object_Name	Object States	Configuration Dependency
32016	Manufacture Location	1 = Field Applied	
		2 = La Crosse	
		3 = Pueblo	
		4 = Charmes	
		5 = Rushville	
		6 = Macon	
		7 = Waco	
		8 = Lexington	
		9 = Forsyth	
		10 = Clarksville	
		11 = Ft. Smith	
		12 = Penang	
		13 = Colchester	
		14 = Curitiba	
		15 = Taicang	
		16 = Taiwan	
		17 = Epinal	
		18 = Golbey	
		19 = Bari	
32017	Model Information [GEN2]	1 = CVHF	Standard
		2 = CVGF	
		3= CVHS	
		4= RTAE	
		5 = RTAF	
		6 = RTHA	
		7 = RTHB	
		8 = RTHC	
		9 = RTHD	
		10 = RTWE	
		11 = CTVD	
		12 = CVR	
		13 = CVHH	

Modbus Register	Object_Name	Object States	Configuration Dependency
		14 = CDHH	
		15 = VMAX	
		16 = GVAF	
		17 = RTWF	
		18 = RTHF	
		19 = RTAC	
		20 = CVHM	
		21 = RTAG	
		22 = CGAF	
		23 = RTXG	
		24 = GVWF	
		25 = HDWA	
		26 = CMAC	
		27 = IPAK	
		28 = CXAF	
		29 = ACSA	
		30 = RTSF	
		31 = HWSA	
		32 = ACRA	
		33 = RTEG	
		34 = ACXA	
		35 = CMAF	
		36 = ACRB Large	
		37 = ACRB Small	
		38 = CVHE	
		39 = CVHG	
		40 = CVHL	
		41 = RTWF XSE	
		42 = CGWF	
		43 = CDHG	
		44 = ACCA	

Modbus Register	Object_Name	Object States	Configuration Dependency
		45 = RTWD	
		46 = RTUD	
		47 = CXWF	
		48 = CCUF	
		49 = RTHG	
		50 = CGAM	
		51 = CXAM	

Modbus Register	Object Name	Object States	Configuration Dependency
42011	Chiller Mode Command BAS	1 = Cool 2 = Heat 3 = Ice Making 4 = Free Cooling	Standard

Diagnostics Code

Diagnostic Code (Decimal)	Diagnostic Name
101001	MP: Invalid Configuration
101006	MP: Reset Has Occurred
101002	Low Suction Refrigerant Pressure - Circuit 1
101003	Low Refrigerant Temperature - Circuit 1
101004	High Discharge Temperature - Circuit 1
101005	High Compressor Pressure Differential - Circuit 1
101006	Low Suction Superheat - Circuit 1
101007	Low Differential Refrigerant Pressure - Circuit 1
101008	High Discharge Temperature Lockout - Circuit 1
101009	Low Discharge Saturated Temperature - Circuit 1
101011	High Discharge Refrigerant Pressure - Circuit 1
101012	Very Low Suction Pressure - Circuit 1
101013	Loss of Charge - Circuit 1
101014	Suction Temperature Too High - Circuit 1
102002	Low Suction Refrigerant Pressure - Circuit 2
102003	Low Refrigerant Temperature - Circuit 2
102004	High Discharge Temperature - Circuit 2
102005	High Compressor Pressure Differential - Circuit 2
102006	Low Suction Superheat - Circuit 2
102007	Low Differential Refrigerant Pressure - Circuit 2
102008	High Discharge Temperature Lockout - Circuit 2
102009	Low Discharge Saturated Temperature - Circuit 2
102011	High Discharge Refrigerant Pressure - Circuit 2
102012	Very Low Suction Pressure - Circuit 2
102013	Loss of Charge - Circuit 2
102014	Suction Temperature Too High - Circuit 2
111001	Low Evaporator Water Temp (Unit On)
111002	Low Evaporator Water Temp (Unit Off)
111003	Evaporator Water Flow Overdue
111004	Evaporator Water Flow Lost
111005	Inverted Evaporator Water Temperature
111006	High Evaporator Water Temperature

Diagnostic Code (Decimal)	Diagnostic Name
111007	Comm Loss: Evaporator Antifreeze Heater
111010	Inverted Water Temp (Heating)
111011	High Suction Rfgt Pressure
111012	Evaporator Water Flow Lost Lockout
141003	High Pressure Cutout - Circuit 1
141004	Comm Loss: High Pressure Cutout Switch - Circuit 1
142003	High Pressure Cutout - Circuit 2
142004	Comm Loss: High Pressure Cutout Switch - Circuit 2
171001	Comm Loss: External Ice Building Command
21001	Comm Loss: Outdoor Air Temperature
21002	Outdoor Air Temperature Sensor
21003	Comm Loss: Phase Protection Fault Input
21004	Phase Protection Fault
21006	Software Error 1001: Call Trane Service
21007	Software Error 1002: Call Trane Service
21008	Software Error 1003: Call Trane Service
21010	Comm Loss: Energy Meter
21011	Energy Meter Write Value Failure
251001	Comm Loss: Fan Inverter Fault - Circuit 1
251002	Comm Loss: Fan Inverter Speed Command - Circuit 1
251003	Fan Inverter Fault - Circuit 1
251004	Comm Loss: Condenser Fan Enable - Circuit 1
251005	Comm Loss: Condenser Fan Fault - Circuit 1
251006	Condenser Fan Fault - Circuit 1
251007	Comm Loss: Noise Reduction Request Relay - Circuit 1
252001	Comm Loss: Fan Inverter Fault - Circuit 2
252002	Comm Loss: Fan Inverter Speed Command - Circuit 2
252003	Fan Inverter Fault - Circuit 2
252004	Comm Loss: Condenser Fan Enable - Circuit 2
252005	Comm Loss: Condenser Fan Fault - Circuit 2
252006	Condenser Fan Fault - Circuit 2
281001	Comm Loss: Evaporator Water Pump 1 Relay

Diagnostic Code (Decimal)	Diagnostic Name
281002	Comm Loss: Evaporator Water Pump 2 Relay
281003	Evaporator Water Flow Lost - Pump1
281004	Evaporator Water Flow Lost - Pump2
281005	Evaporator Water Flow Overdue - Pump1
281006	Evaporator Water Flow Overdue - Pump2
281007	Evaporator Pump 1 Fault
281008	Evaporator Pump 2 Fault
281009	Comm Loss: Evaporator Pump 1 Fault Input
281010	Comm Loss: Evaporator Pump 2 Fault Input
281023	Comm Loss: Evap Pump Inv1 Run Command
281024	Comm Loss: Evap Pump Inv1 Freq Feedback
281025	Comm Loss: Evap Pump Inv1 Fault Input
281026	Evaporator Pump 1 Starts/Hours Modified
281027	Evaporator Pump 2 Starts/Hours Modified
291001	Comm Loss: Electronic Expansion Valve - Circuit 1
291002	Comm Loss: Cooling EXV - Circuit 1
291003	Comm Loss: Heating EXV - Circuit 1
292001	Comm Loss: Electronic Expansion Valve - Circuit 2
292002	Comm Loss: Cooling EXV - Circuit 2
292003	Comm Loss: Heating EXV - Circuit 2
31001	Comm Loss: Supplemental Heater Relay 1
31002	Comm Loss: Percent Capacity Output
31003	Comm Loss: Supplemental Heater Relay 2
31004	Comm Loss: Supplemental Heater Relay 3
31005	Comm Loss: Supplemental Heater Relay 4
311001	Comm Loss: Compressor Fault Input 1A
311002	Compressor Fault Lockout 1A
311003	Starts/Hours Modified 1A
311005	Compressor 1A Fault
312001	Comm Loss: Compressor Fault Input 1B
312002	Compressor Fault Lockout 1B
312003	Starts/Hours Modified 1B

Diagnostic Code (Decimal)	Diagnostic Name
312005	Compressor 1B Fault
313001	Comm Loss: Compressor Fault Input 1C
313002	Compressor Fault Lockout 1C
313003	Starts/Hours Modified 1C
313005	Compressor 1C Fault
321001	Comm Loss: Compressor Fault Input 2A
321002	Compressor Fault Lockout 2A
321003	Starts/Hours Modified 2A
321005	Compressor 2A Fault
322001	Comm Loss: Compressor Fault Input 2B
322002	Compressor Fault Lockout 2B
322003	Starts/Hours Modified 2B
322005	Compressor 2B Fault
323001	Comm Loss: Compressor Fault Input 2C
323002	Compressor Fault Lockout 2C
323003	Starts/Hours Modified 2C
323005	Compressor 2C Fault
551001	Comm Loss: Heat Recovery Leaving Water Temperature
551002	Heat Recovery Leaving Water Temp Sensor
551003	Comm Loss: Heat Recovery Entering Water Temperature
551004	Heat Recovery Entering Water Temp Sensor
551008	No Partial Heat Recovery - Circuit 1
552008	No Partial Heat Recovery - Circuit 2
391007	Comm Loss: Run Command Compressor 1A
392007	Comm Loss: Run Command Compressor 1B
393007	Comm Loss: Run Command Compressor 1C
401007	Comm Loss: Run Command Compressor 2A
402007	Comm Loss: Run Command Compressor 2B
403007	Comm Loss: Run Command Compressor 2C
41001	Comm Loss: Discharge Pressure Transducer - Circuit 1
41002	Comm Loss: Suction Pressure Transducer - Circuit 1
41004	Pumpdown Terminated By Time - Circuit 1

Diagnostic Code (Decimal)	Diagnostic Name
41005	Discharge Pressure Transducer - Circuit 1
41006	Suction Pressure Transducer - Circuit 1
41008	Comm Loss: Suction Temperature - Circuit 1
41009	Suction Temperature Sensor - Circuit 1
41010	Comm Loss: Reversing Valve - Circuit 1
41011	Comm Loss: Subcooler Shutoff Valve Relay - Circuit 1
41012	Comm Loss: Discharge Temperature Sensor - Circuit 1
41013	Discharge Temperature Sensor - Circuit 1
41014	Comm Loss: Receiver Fill Valve Relay - Circuit 1
41015	Comm Loss: External Ckt Lockout - Circuit 1
42001	Comm Loss: Discharge Pressure Transducer - Circuit 2
42002	Comm Loss: Suction Pressure Transducer - Circuit 2
42004	Pumpdown Terminated By Time - Circuit 2
42005	Discharge Pressure Transducer - Circuit 2
42006	Suction Pressure Transducer - Circuit 2
42008	Comm Loss: Suction Temperature - Circuit 2
42009	Suction Temperature Sensor - Circuit 2
42010	Comm Loss: Reversing Valve - Circuit 2
42011	Comm Loss: Subcooler Shutoff Valve Relay - Circuit 2
42012	Comm Loss: Discharge Temperature Sensor - Circuit 2
42013	Discharge Temperature Sensor - Circuit 2
42014	Comm Loss: Receiver Fill Valve Relay - Circuit 2
42015	Comm Loss: External Ckt Lockout - Circuit 2
551001	Comm Loss: Heat Recovery Leaving Water Temperature
551002	Heat Recovery Leaving Water Temp Sensor
551003	Comm Loss: Heat Recovery Entering Water Temperature
551004	Heat Recovery Entering Water Temp Sensor
551005	Comm Loss: Heat Recovery Three Way Valve
551006	Comm Loss: External Heat Recovery Command
551007	No Heat Recovery
551008	No Partial Heat Recovery - Circuit 1
552008	No Partial Heat Recovery - Circuit 2

Diagnostic Code (Decimal)	Diagnostic Name
581001	Power Factor Correction Fault
581002	Comm Loss: Power Factor Correction Fault Input
591001	Evaporator Water Flow Too Low
61002	Comm Loss: Evaporator Water Flow Switch
61003	Comm Loss: Evap Entering Water Temp
61004	Comm Loss: Evap Leaving Water Temp
61005	Evaporator Entering Water Temp Sensor
61006	Evaporator Leaving Water Temp Sensor
81001	Comm Loss: External Auto/Stop
81002	Comm Loss: Emergency Stop Feedback Input
81003	Emergency Stop Feedback Input
81005	External Chilled/Hot Water Setpoint
81006	Comm Loss: Ext Chilled/Hot Water Setpoint
81007	Comm Loss: Programmable Relay Board 1
81008	External Demand Limit Setpoint
81009	Comm Loss: Ext Demand Limit Setpoint
81010	Comm Loss: Auxiliary Setpoint Command
81011	Comm Loss: External Hot Water Command
81016	Comm Loss: Ext Noise Reduction Request