Symbio™ 800 Integration Points List
BACnet®/Modbus™
IntelliPak™

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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.

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10101	Cooling Capacity Status	Indicates the actual operating unit cooling capacity	All Packaged RTU	Read	%	0 to 120	Input	30027
AI-10102	Heating Capacity Primary Status	Indicates the unit (primary) heating capacity	Heat Present excluding External Heat	Read	%	0 to 120	Input	30095
AI-10104	Outdoor Air Relative Humidity Local	Indicates the outdoor air humidity value from sensor connected to the controller	Economizer with Reference or Comparative Enthalpy and/or Hot Gas Reheat Present and /or Energy Recovery Wheel Present	Read	%	0 to 120	Input	30127
AI-10105	Outdoor Air Flow Local	Indicates the measured outdoor air flow intake to the unit as reported by the locally-wired air flow monitoring feature	TRAQ Present	Read	CFM	0 to 80000	Input	30121
AI-10107	Space Static Pressure Local	Indicates the space statice pressure from a sensor connected to the controller	Space Pressure Management Present	Read	Inches of Water	-1 to 1	Input	30173

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10110	Return Air Humidity Local	Indicates the return air humidity value from sensor connected to the controller	Economizer with Comparative Enthalpy and/or Energy Recovery Wheel Present	Read	%	0 to 120	Input	30143
AI-10111	Outdoor Air Damper Position	Indicates the position of the outside air damper as requested by the controller. This value does not reflect position feedback from the damper actuator.	Economizer with Reference or Comparative Enthalpy, Dry Bulb or Differential Dry Bulb	Read	%	0 to 120	Input	30119
AI-10112	Exhaust Damper Position	Indicates the unit exhaust damper position	Powered Relief	Read	%	0 to 120	Input	30087
AI-10114	Outdoor Air Minimum Flow Setpoint Active	Indicates the active minimum outdoor air flow setpoint being used by the controller	TRAQ Present	Read	CFM	0 to 65000	Input	30125
AI-10116	Space Humidity Active	Indicates the active space relative humidity being used by the controller	Hot Gas Reheat Present	Read	%	0 to 120	Input	30169
AI-10117	Outdoor Air Dew Point	Indicates the outdoor air dew point value calculated from sensors connected to the controller or BAS values	Hot Gas Reheat Present	Read	°F	-40 to 200	Input	30327
AI-10118	Outdoor Air Temperature Active	Indicates the active outdoor air temperature currently being used by the controller	All Packaged RTU	Read	°F	-40 to 200	Input	30129

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10120	Outdoor Air Humidity Active	Indicates the active outdoor air humidity value used by the controller, considering all potential sources, local to the controller and remote	Economizer with Reference or Comparative Enthalpy and/or Hot Gas Reheat Present and/or Energy Recovery Wheel Present	Read	%	0 to 120	Input	30123
AI-10121	Discharge Air Cooling Setpoint Active	Indicates the discharge air temperature cooling setpoint value resulting from any setpoint arbitration. The active value does NOT reflect any modifications that may be in place as part of setpoint reset. For the actual value being used, refer to the "…status"	All Packaged RTU	Read	°F	-40 to 200	Input	30041
AI-10122	Discharge Air Heating Setpoint Active	Indicates the discharge air temperature heating setpoint value resulting from any setpoint arbitration. The active value does NOT reflect any modifications that may be in place as part of setpoint reset. For the actual value being used, refer to the "…status"	Heat Present excluding External Heat Present and excluding Energy Recovery Wheel Present	Read	°F	-40 to 200	Input	30045
AI-10123	Duct Static Pressure Setpoint Active	Indicates the duct static pressure control setpoint value resulting from any setpoint arbitration	Multiple-zone VAV Units	Read	Inches of Water	0 to 8	Input	30071

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10124	Discharge Air Temperature	Indicates the actual discharge air temperature being used by the controller	All Packaged RTU	Read	°F	-40 to 200	Input	30053
AI-10125	Mixed Air Temperature Local	Indicates the mixed air temperature value from a sensor physically connected to the controller	All Packaged RTU	Read	°F	-40 to 200	Input	30103
AI-10126	Return Air Temperature	Indicates the actual return air temperature being used by the controller	Economizer with Comparative Enthalpy or Differential Dry Bulb and/or Rapid Restart and/or Energy Recovery Wheel Present	Read	°F	-40 to 200	Input	30145
AI-10128	Space Static Pressure Setpoint Active	Indicates the active space static pressure being used by the controller	Space Pressure Management Present	Read	Inches of Water	-1 to 1	Input	30175
AI-10135	Space Dehumidification Setpoint Active	Indicates the active (occupied) space dehumidification setpoint, considering all potential sources	Hot Gas Reheat Present	Read	%	0 to 120	Input	30165
AI-10152	Exhaust Fan Speed Status	Indicates the commanded speed of the modulating exhaust fan	Relief/Exhaust Fan Present	Read	%	0 to 120	Input	30089
AI-10153	Return Fan Speed Status	Indicates the unit commanded return fan speed	Return Fan Present IPAK I and IPAK II only	Read	%	0 to 120	Input	30263

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10154	Economizer Minimum Position Setpoint Active	Indicates the economizer minimum position setpoint value resulting from any setpoint arbitration	Economizer with Reference or Comparative Enthalpy, Dry Bulb or Differential Dry Bulb	Read	%	0 to 120	Input	30073
AI-10155	Duct Static Pressure Local	Indicates the duct static pressure value from a sensor physically connected to the controller	All Packaged RTU	Read	Inches of Water	0 to 8	Input	30069
AI-10156	Outdoor Air Temperature Local	Indicates the outdoor air temperature value from a sensor physically connected to the controller	All Packaged RTU	Read	°F	-40 to 200	Input	30131
AI-10157	Dehumidification Control Status	Indicates the status of the unit dehumidification capacity	Hot Gas Reheat Present	Read	%	0 to 120	Input	30037
AI-10161	Condenser Capacity	Indicates the status of the unit condenser capacity, in percent	All Packaged RTU	Read	%	0 to 120	Input	30023
AI-10166	Energy Recovery Leaving Exhaust Temperatue Status	Energy recovery leaving exhaust temperature	Energy Recovery Wheel Present (VVDA, VVZT only)	Read	°F	-40 to 200	Input	30271
AI-10167	Energy Recovery Outdoor Air Bypass Damper Status	Energy recovery outdoor air bypass damper position	Energy Recovery Wheel Present (VVDA, VVZT only)	Read	%	0 to 120	Input	30273

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10168	Energy Recovery Exhaust Air Bypass Damper Position	Energy recovery exhaust air bypass damper position	Energy Recovery Wheel Present (VVDA, VVZT only)	Read	%	0 to 120	Input	30267
AI-10172	Reheat Capacity Status	Indicates the unit reheat capacity being requested by the controller, in percent	Hot Gas Reheat Present	Read	%	0 to 120	Input	30139
AI-10173	Supply Fan Speed Status	Indicates the commanded speed of the supply fan, in percent	Variable Volume Supply Fan Control (VVDA, VVZT only)	Read	%	0 to 120	Input	30219
AI-10181	Discharge Air Temperature Local	Indicates the discharge air temperature value from a sensor physically connected to the controller	All Packaged RTU	Read	°F	-40 to 200	Input	30055
AI-10182	Duct Static Pressure Active	Indicates the duct static pressure value being used by the unit.	Variable Volumne Discharge Air Temperature Control	Read	Inches of Water	0 to 8	Input	30067

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10183	Outdoor Air Enthalpy Active	Indicates the outdoor air enthalpy value being utilized by the unit	Economizer with Reference of Comparative Enthalpy or Economizer with Reference of Comparative Enthalpy and Energy Wheel Recovery Wheel Present and/or Hot Gas Reheat Present	Read	BTU/lb	0 to 80	Input	30387
AI-10185	Outdoor Air Flow Active	Indicates the active outdoor air flow being used by the controller	TRAQ Present	Read	CFM	0 to 20000	Input	30329
AI-10186	Space Temperature Active	Indicates the active space temperature being used by the controller	All Packaged RTU	Read	°F	-40 to 200	Input	30181
AI-10188	Space CO2 Concentration Active	Indicates the active space CO2 concentration being used by the controller	Demand Control Ventilation	Read	PPM	0 to 10000	Input	30161
AI-10190	Space Temperature Cooling Setpoint Input	Indicates the (occupied) cooling temperature setpoint from the connected space sensor	Zone Temperature Control Units	Read	°F	-40 to 200	Input	30183

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10191	Space Temperature Heating Setpoint Input	Indicates the (occupied) heating temperature setpoint from the connected space sensor	Heat Present and Zone Temperature Control Units	Read	°F	-40 to 200	Input	30185
AI-10197	Heat Type	Identifies the product heat type	All Packaged RTU	Read	None	0 to 255	Input	30247
AI-10198	Cabinet Style	Indicates the cabinet style of the unit	All Packaged RTU	Read	None	0 to 255	Input	30021
AI-10199	Cool Type	Indicates the type of cooling in the unit	All Packaged RTU	Read	None	0 to 255	Input	30025
AI-10200	Preheat Type	Indicates the type of preheat in the unit	All Packaged RTU	Read	None	0 to 255	Input	30137
AI-10201	Reheat Type	Indicates the type of reheat in the unit	All Packaged RTU	Read	None	0 to 255	Input	30141
AI-10202	Supply Fan Type	Indicates the type of supply fan in the unit	All Packaged RTU	Read	None	0 to 255	Input	30221
AI-10203	Exhaust Or Return Fan Type	Indicates the type of exhaust fan or return fan in the unit	All Packaged RTU	Read	None	0 to 255	Input	30091
AI-10204	Exhaust Fan Speed Setpoint Active	Active setpoint input to exhaust/relief fan control	Relief/Exhaust Fan Present	Read	%	0 to 100	Input	30249
AI-10206	Number of Circuits	Indicates the number of refrigeration circuits in the unit	All Packaged RTU	Read	None	0 to 255	Input	30105
AI-10207	Number of Compressors Circuit 1	Indicates the number of compressors on DX circuit 1 of the unit	All Packaged RTU	Read	None	0 to 255	Input	30107
AI-10208	Number of Compressors Circuit 2	Indicates the number of compressors on DX circuit 2 of the unit	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	None	0 to 255	Input	30109

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10210	Return Isolation Damper Input	Indicates the requested position of the return isolation damper	Return Air Isolation Damper Present	Read	%	0 to 120	Input	30147
AI-10213	Space CO2 Concentration Input	Indicates the space CO2 concentration from a sensor connected to the controller	Demand Control Ventilation	Read	PPM	0 to 10000	Input	30163
AI-10214	Space Dehumidification Unoccupied Setpoint Active	Indicates the active unoccupied space dehumidification setpoint, considering all potential sources	Hot Gas Reheat Present	Read	%	0 to 120	Input	30167
AI-10215	Space Humidity Input	Indicates the space relative humidity from a sensor connected to the controller	Hot Gas Reheat Present	Read	%	0 to 120	Input	30171
AI-10216	Space Temp Cooling Setpoint Status	Indicates the (occupied) cooling temperature setpoint from the connected space sensor module	Zone Temperature Control Units	Read	°F	-40 to 200	Input	30177
AI-10217	Space Temp Heating Setpoint Status	Indicates the (occupied) heating temperature setpoint from the connected space sensor module	Heat Present and Zone Temperature Control Units	Read	°F	-40 to 200	Input	30179
AI-10218	Space Temperature Input	Indicates the space temperature from a sensor connected to the controller, either wired or wireless	All Packaged RTU	Read	°F	-40 to 200	Input	30187
AI-10221	Space Temperature Setpoint Active	Indicates the active space temperature setpoint being used by the controller	Zone Temperature Control Units	Read	°F	-40 to 200	Input	30189
AI-10222	Supply Isolation Damper Input	Indicates the requested position of the supply isolation damper, when present	Supply/Discharge Air Isolation Damper Present	Read	%	0 to 120	Input	30223

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10224	Average Current	Indicates the average current, as reported by the optional power monitoring feature of the product	Power Monitoring Present	Read	Amps	Display up to 9 digits	Input	30015
AI-10227	Run Time - Compressor 1A	Indicates the run time of Compressor 1A	All Packaged RTU	Read	None	Display up to 9 digits	Input	30149
AI-10228	Starts - Compressor 1A	Indicates the number of starts for Compressor 1A	All Packaged RTU	Read	None	Display up to 9 digits	Input	30191
AI-10229	Run Time - Compressor 1B	Indicates the run time of Compressor 1B	All Packaged RTU, where applicable	Read	None	Display up to 9 digits	Input	30151
AI-10230	Starts - Compressor 1B	Indicates the number of starts for Compressor 1B	All Packaged RTU, where applicable	Read	None	Display up to 9 digits	Input	30193
AI-10231	Run Time - Compressor 1C	Indicates the run time of Compressor 1C	All Packaged RTU, where applicable	Read	None	Display up to 9 digits	Input	30153
AI-10232	Starts - Compressor 1C	Indicates the number of starts for Compressor 1C	All Packaged RTU, where applicable	Read	None	Display up to 9 digits	Input	30195
AI-10233	Run Time - Compressor 2A	Indicates the run time of Compressor 2A	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	None	Display up to 9 digits	Input	30155
AI-10234	Starts - Compressor 2A	Indicates the number of starts for Compressor 2A	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	None	Display up to 9 digits	Input	30197

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10235	Run Time - Compressor 2B	Indicates the run time of Compressor 2B	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	None	Display up to 9 digits	Input	30157
AI-10236	Starts - Compressor 2B	Indicates the number of starts for Compressor 2B	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	None	Display up to 9 digits	Input	30199
AI-10237	Run Time - Compressor 2C	Indicates the run time of Compressor 2C	IPAK II 90-150T (VVDA, VVZT only)	Read	None	Display up to 9 digits	Input	30159
AI-10238	Starts - Compressor 2C	Indicates the number of starts for Compressor 2C	IPAK II 90-150T (VVDA, VVZT only)	Read	None	Display up to 9 digits	Input	30201
AI-10239	Current L1	Indicates the current for line/leg 1, as reported by the optional power monitoring feature of the product	Power Monitoring Present	Read	Amps	Display up to 9 digits	Input	30029
AI-10240	Current L2	Indicates the current for line/leg 2, as reported by the optional power monitoring feature of the product	Power Monitoring Present	Read	Amps	Display up to 9 digits	Input	30031
AI-10241	Current L3	Indicates the current for line/leg 3, as reported by the optional power monitoring feature of the product	Power Monitoring Present	Read	Amps	Display up to 9 digits	Input	30033
AI-10242	Current Neutral	Indicates the current for neutral, as reported by the optional power monitoring feature of the product	Power Monitoring Present	Read	Amps	0 to 10000	Input	30035

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10243	Discharge Air Cooling Setpoint Status	Indicates the actual discharge air temperature cooling setpoint value, including all setpoint arbitration and any reset algorithms	Discharge Air Temperature Control	Read	°F	-40 to 200	Input	30043
AI-10244	Discharge Air Heating Setpoint Status	Indicates the actual discharge air temperature heating setpoint value, including all setpoint arbitration and any reset algorithms	Discharge Air Temperature Control and Heat Present excluding External Heat Present and excluding Energy Recovery Wheel Present	Read	°F	-40 to 200	Input	30047
AI-10246	Discharge Gauge Pressure Circuit 1	Indicates the refrigerant discharge gauge pressure for DX circuit 1	All Package RTU	Read	PSI	-20 to 700	Input	30059
AI-10247	Discharge Gauge Pressure Circuit 2	Indicates the refrigerant discharge gauge pressure for DX circuit 2	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	PSI	-20 to 700	Input	30061
AI-10249	Energy Consumption Lifetime	Indicates the total energy consumption of the unit (for the lifetime of the unit) when the power monitoring feature is included	Power Monitoring Present	Read	kWh	Display up to 9 digits	Input	30077
AI-10250	Evaporator Leaving Air Temperature	Indicates the leaving air temperature of the evaporator	Hot Gas Reheat Present	Read	°F	-40 to 200	Input	30079

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10251	Evaporator Leaving Air Temperature Evap A	Indicates the leaving air temperature of evaporator A when a split evaporator is used	IPAK III 70-75T High-efficiency or Variable Speed Refrigeration System and/or Hot Gas Reheat Present	Read	°F	-40 to 200	Input	30081
AI-10252	Evaporator Leaving Air Temperature Evap B	Indicates the leaving air temperature of evaporator B when a split evaporator is used	IPAK III 70-75T High-efficiency or Variable Speed Refrigeration System and/or Hot Gas Reheat Present	Read	°F	-40 to 200	Input	30083
AI-10253	Evaporator Leaving Air Temperature Setpoint Active	Indicates the evaporator leaving air temperature setpoint value resulting from any setpoint arbitration, when applicable	Hot Gas Reheat Present (VVDA, CVDA only)	Read	°F	-40 to 200	Input	30085
AI-10254	Final Filter Differential Pressure Local	Indicates the status of the final filter differential pressure sensor input on the controller	Final Filter Monitoring Present	Read	Inches of Water	0 to 8	Input	30093
AI-10255	Line Frequency	Indicates the line frequency when the optional power monitoring option is included	Power Monitoring Present	Read	None	0 to 500	Input	30097

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10256	Mixed Air Temperature Evap A	Indicates the mixed air temperature associated with evaporator A	IPAK I 90-130T IPAK III 70-75T	Read	°F	-40 to 200	Input	30099
AI-10257	Mixed Air Temperature Evap B	Indicates the mixed air temperature associated with evaporator B	IPAK I 90-130T IPAK III 70-75T	Read	°F	-40 to 200	Input	30101
AI-10258	Power Factor	Indicates the reported power factor from the optional power monitoring option, when applicable	Power Monitoring Present	Read	None	Display up to 9 digits	Input	30133
AI-10259	Prefilter Differential Pressure Local	Indicates the status of the pre-final filter differential pressure sensor input on the controller	Pre-Evaporator Filter Monitoring Present	Read	Inches of Water	0 to 8	Input	30135
AI-10262	Suction Gauge Pressure Circuit 1	Indicates the suction pressure for DX circuit 1, in PSIG	All Packaged RTU	Read	PSI	-20 to 700	Input	30203
AI-10263	Suction Gauge Pressure Circuit 2	Indicates the suction pressure for DX circuit 2, in PSIG	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	PSI	-20 to 700	Input	30205
AI-10268	Total Apparent Energy	Indicates the total apparent energy as reported by the optional power monitoring feature, when present	Power Monitoring Present	Read	kWh	Display up to 9 digits	Input	30225
AI-10269	Energy Consumption	Indicates the total energy consumption of the unit (since last accumulation reset) when the power monitoring feature is included	Power Monitoring Present	Read	kWh	Display up to 9 digits	Input	30075

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10270	Total Reactive Energy	Indicates the total reactive energy as reported by the optional power monitoring feature, when present	Power Monitoring Present	Read	kWh	Display up to 9 digits	Input	30229
AI-10271	Total Real Power	Indicates the total real power as reported by the optional power monitoring feature, when present	Power Monitoring Present	Read	kW	Display up to 9 digits	Input	30233
AI-10272	Total Apparent Power	Indicates the total apparent power as reported by the optional power monitoring feature, when present	Power Monitoring Present	Read	kW	Display up to 9 digits	Input	30227
AI-10273	Total Reactive Power	Indicates the total reactive power as reported by the optional power monitoring feature, when present	Power Monitoring Present	Read	kW	Display up to 9 digits	Input	30231
AI-10274	Unit Source ID	Individual diagnostics are reported with dedicated points, variables, registers. This point is not built for diagnostic troubleshooting. Symbio 800 Internally Used Variable Only	All Packaged RTU	Read	None	Display up to 9 digits	Input	30039
AI-10275	Voltage L1-L2	Indicates the voltage between line/leg L1 and L2	Power Monitoring Present	Read	Volts	0 to 1000	Input	30235
AI-10276	Voltage L1-L3	Indicates the voltage between line/leg L1 and L3	Power Monitoring Present	Read	Volts	0 to 1000	Input	30237
AI-10277	Voltage L1-N	Indicates the voltage between line/leg L1 and Neutral	Power Monitoring Present	Read	Volts	0 to 1000	Input	30239
AI-10278	Voltage L2-L3	Indicates the voltage between line/leg L2 and L3	Power Monitoring Present	Read	Volts	0 to 1000	Input	30241
AI-10279	Voltage L2-N	Indicates the voltage between line/leg L2 and Neutral	Power Monitoring Present	Read	Volts	0 to 1000	Input	30243

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10280	Voltage L3-N	Indicates the voltage between line/leg L3 and Neutral	Power Monitoring Present	Read	Volts	0 to 1000	Input	30245
AI-10281	Discharge Air Temperature Setpoint Active	Indicates the discharge air temperature setpoint value resulting from any setpoint arbitration	All Packaged RTU	Read	°F	-40 to 200	Input	30057
AI-10282	Air Flow Percentage Circuit 1	Indicates the requested condenser percentage for circuit 1	All Packaged RTU	Read	%	0 to 120	Input	30011
AI-10283	Air Flow Percentage Circuit 2	Indicates the requested condenser percentage for circuit 2	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	%	0 to 120	Input	30013
AI-10284	Discharge Saturated Refrigeration Temperature Circuit 1	Indicates the discharge saturated refrigerant temperature for DX circuit 2	All Packaged RTU	Read	°F	-40 to 200	Input	30063
AI-10285	Discharge Saturated Refrigeration Temperature Circuit 2	Indicates the discharge saturated refrigerant temperature for DX circuit 2	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	°F	-40 to 200	Input	30065
AI-10286	Suction Saturated Refrigerant Temperature Circuit 1	Indicates suction saturated refrigerant temperature for DX circuit 1	All Packaged RTU	Read	°F	-40 to 200	Input	30207

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10287	Suction Saturated Refrigerant Temperature Circuit 2	Indicates suction saturated refrigerant temperature for DX circuit 2	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	°F	-40 to 200	Input	30209
AI-10288	Suction Temperature Evap 1A	Indicates the suction temperature for evaporator 1A	All Packaged RTU	Read	°F	-40 to 200	Input	30211
AI-10289	Suction Temperature Evap 1B	Indicates the suction temperature for evaporator 1B	IPAK I 90-130T IPAK II 90-150T IPAK III 70-75T	Read	°F	-40 to 200	Input	30213
AI-10290	Suction Temperature Evap 2A	Indicates the suction temperature for evaporator 2A	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	°F	-40 to 200	Input	30215
AI-10291	Suction Temperature Evap 2B	Indicates the suction temperature for evaporator 2B	IPAK I 90-130T IPAK II 90-150T IPAK III 70-75T	Read	°F	-40 to 200	Input	30217
AI-10292	Occupied Cooling Setpoint	Indicates the active occupied cooling setpoint being used by the controller, considering all possible sources	Zone Temperature Control Units	Read	°F	-40 to 200	Input	30111

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10293	Occupied Heating Setpoint	Indicates the active occupied heating setpoint being used by the controller, considering all possible sources	Heat Present and Zone Temperature Control	Read	°F	-40 to 200	Input	30113
AI-10294	Occupied Standby Cooling Setpoint	Indicates the active occupied standby cooling setpoint being used by the controller, considering all possible sources	Zone Temperature Control Units	Read	°F	-40 to 200	Input	30115
AI-10295	Occupied Standby Heating Setpoint	Indicates the active occupied standby heating setpoint being used by the controller, considering all possible sources	Heat Present and Zone Temperature Control	Read	°F	-40 to 200	Input	30117
AI-10296	Supply Fan Speed Setpoint Active	Active setpoint input to supply fan control	Variable Volume Supply Fan Present	Read	%	0 to 100	Input	30251
AI-10297	Discharge Air Temperature Maximum Cool Limit Active	Indicates maximum cooling setpoint allowed to be calculated by Space Temp Control	Zone Temperature Control Units	Read	°F	35 - 85	Input	30253
AI-10298	Discharge Air Temperature Minimum Heat Limit Active	Indicates minimum heating setpoint allowed to be calculated by Space Temp Control	Heat Present and Zone Temperature Control	Read	°F	35 to 145	Input	30255
AI-10299	Discharge Air Temperature Minimum Cool Limit Active	Indicates minimum cooling setpoint allowed to be calculated by Space Temp Control	Zone Temperature Control Units	Read	°F	35 to 85	Input	30257
AI-10300	Discharge Air Temperature Maximum Heat Limit Active	Indicates minimum heating setpoint allowed to be calculated by Space Temp Control	Heat Present and Zone Temperature Control	Read	°F	35 to 145	Input	30259

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10303	Energy Recovery Wheel Filter Differential Pressure	Indicates differntial pressure across the energy wheel filter while bypass dampers are closed	Energy Recovery Wheel Present (VVDA, VVZT only)	Read	Inches of Water	0 to 8	Input	30275
AI-10304	Average Current Meter 2	Indicates the average current for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Amps	Display up to 9 digits	Input	30277
AI-10305	Current L1 Meter 2	Indicates the current for line/leg 1 for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Amps	Display up to 9 digits	Input	30279
AI-10306	Current L2 Meter 2	Indicates the current for line/leg 2 for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Amps	Display up to 9 digits	Input	30281
AI-10307	Current L3 Meter 2	Indicates the current for line/leg 3 for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Amps	Display up to 9 digits	Input	30283
AI-10308	Current Neutral Meter 2	Indicates the current for neutral for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Amps	Display up to 9 digits	Input	30285
AI-10309	Energy Consumption Meter 2	Indicates the energy consumption (since last reset) for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	kWh	Display up to 9 digits	Input	30289

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10310	Energy Consumption Lifetime Meter 2	Indicates the energy consumption for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	kWh	Display up to 9 digits	Input	30287
AI-10311	Line Frequency Meter 2	Indicates the line frequency for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	None	0 to 500	Input	30291
AI-10312	Power Factor Meter 2	Indicates the power factor for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	No Units	Display up to 9 digits	Input	30293
AI-10313	Total Apparent Energy Meter 2	Indicates the total apparent energy for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	kWh	Display up to 9 digits	Input	30295
AI-10314	Total Apparent Power Meter 2	Indicates the total apparent power for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	kW	Display up to 9 digits	Input	30297
AI-10315	Total Reactive Energy Meter 2	Indicates the total reactive energy for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	kWh	Display up to 9 digits	Input	30299
AI-10316	Total Reactive Power Meter 2	Indicates the total reactive power for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	kW	Display up to 9 digits	Input	30301
AI-10317	Total Real Power Meter 2	Indicates the total real power for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	kW	Display up to 9 digits	Input	30303

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10318	Voltage L1-L2 Meter 2	Indicates the voltage between line/leg L1 and L2 for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Volts	0 to 1000	Input	30305
AI-10319	Voltage L1-L3 Meter 2	Indicates the voltage between line/leg L1 and L3 for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Volts	0 to 1000	Input	30307
AI-10320	Voltage L1-N Meter 2	Indicates the voltage between line/leg L1 and Neutral for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Volts	0 to 1000	Input	30309
AI-10321	Voltage L2-L3 Meter 2	Indicates the voltage between line/leg L2 and L3 for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Volts	0 to 1000	Input	30311
AI-10322	Voltage L2-N Meter 2	Indicates the voltage between line/leg L2 and Neutral for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Volts	0 to 1000	Input	30313
AI-10323	Voltage L3-N Meter 2	Indicates the voltage between line/leg L3 and Neutral for the second power meter (air handling section), as reported by the optional power monitoring feature of the product	Dual Power Monitoring Present	Read	Volts	0 to 1000	Input	30315
AI-10324	Run Time - Compressor 1A (Hours)	Indicates the run time of Compressor 1A, in hours	All Packaged RTU	Read	None	Display up to 9 digits	Input	30331

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10325	Run Time - Compressor 1B (Hours)	Indicates the run time of Compressor 1B, in hours	All Packaged RTU, where applicable	Read	None	Display up to 9 digits	Input	30333
AI-10326	Run Time - Compressor 1C (Hours)	Indicates the run time of Compressor 1C, in hours	All Packaged RTU, where applicable	Read	None	Display up to 9 digits	Input	30335
AI-10327	Run Time - Compressor 2A (Hours)	Indicates the run time of Compressor 2A, in hours	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	None	Display up to 9 digits	Input	30337
AI-10328	Run Time - Compressor 2B (Hours)	Indicates the run time of Compressor 2B, in hours	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	None	Display up to 9 digits	Input	30339
AI-10329	Run Time - Compressor 2C (Hours)	Indicates the run time of Compressor 2C, in hours	IPAK II 90-150T	Read	None	Display up to 9 digits	Input	30341
AI-10330	Discharge Pressure Circuit 1	Indicates the refrigerant discharge absolute pressure for DX circuit 1	All Packaged RTU	Read	PSI	-20 to 700	Input	30343
AI-10331	Discharge Pressure Circuit 2	Indicates the refrigerant discharge absolute pressure for DX circuit 2	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	PSI	-20 to 700	Input	30345
AI-10332	Suction Pressure Circuit 1	Indicates the suction pressure for DX circuit 1, in PSIA	All Packaged RTU	Read	PSI	-20 to 700	Input	30347

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10333	Suction Pressure Circuit 2	Indicates the suction pressure for DX circuit 2, in PSIA	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	PSI	-20 to 700	Input	30349
AI-10334	Space Dew Point	Indicates the calculated space dew point from space humid active, space temp active	Hot Gas Reheat Present	Read	°F	-40 to 200	Input	30321
AI-10335	Space Dew Point Setpoint Active	Active occupied space dew point setpoint	Hot Gas Reheat Present	Read	°F	40 to 70	Input	30323
AI-10336	Space Dew Point Unocc Setpoint Active	Active unoccupied space dew point setpoint	Hot Gas Reheat Present	Read	°F	40 to 75	Input	30325
AI-10341	Rfgt LFL Conc Alarm Threshold Sensor A	Indicates the internal sensor % of refrigerant to trip alarm A	All Packaged R454B RTU (VVDA, VVZT only)	Read	%	0 to 100	Input	30359
AI-10342	Rfgt LFL Conc Alarm Threshold Sensor B	Indicates the internal sensor % of refrigerant to trip alarm B	R454B Refrigerant Packaged RTU with 2 Leak Sensors Present (VVDA, VVZT only)	Read	%	0 to 100	Input	30361
AI-10343	Refrigerant LFL Concentration Sensor A	Indicates the actual refrigerant being measured by sensor A	All Packaged R454B RTU (VVDA, VVZT only)	Read	%	0 to 100	Input	30363

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10344	Refrigerant LFL Concentration Sensor B	Indicates the actual refrigerant being measured by sensor B	R454B Refrigerant Packaged RTU with 2 Leak Sensors Present (VVDA, VVZT only)	Read	%	0 to 100	Input	30365
AI-10345	Rfgt LFL Conc Alarm Threshold Sensor C	Indicates the internal sensor % of refrigerant to trip alarm C	R454B Refrigerant Packaged RTU with 3 Leak Sensors Present (VVDA, VVZT only)	Read	%	0 to 100	Input	30367
AI-10346	Rfgt LFL Conc Alarm Threshold Sensor D	Indicates the internal sensor % of refrigerant to trip alarm D	R454B Refrigerant Packaged RTU with 4 Leak Sensors Present (VVDA, VVZT only)	Read	%	0 to 100	Input	30369
AI-10347	Refrigerant LFL Concentration Sensor C	Indicates the actual refrigerant being measured by sensor C	R454B Refrigerant Packaged RTU with 3 Leak Sensors Present (VVDA, VVZT only)	Read	%	0 to 100	Input	30371

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10348	Refrigerant LFL Concentration Sensor D	Indicates the actual refrigerant being measured by sensor D	R454B Refrigerant Packaged RTU with 4 Leak Sensors Present (VVDA, VVZT only)	Read	%	0 to 100	Input	30373
AI-10349	Exhaust Fan 1 VFD Power	Indicates the current power being used by Exhaust Fan 1	Relief/Exhaust Fan Present	Read	kW	Display up to 9 digits	Input	30375
AI-10350	Exhaust Fan 2 VFD Power	Indicates the current power being used by Exhaust Fan 2	2 or 3 Relief/Exhaust Fans Present	Read	kW	Display up to 9 digits	Input	30377
AI-10351	Exhaust Fan 3 VFD Power	Indicates the current power being used by Exhaust Fan 3	3 Relief/Exhaust Fans Present	Read	kW	Display up to 9 digits	Input	30379
AI-10352	Supply Fan 1 VFD Power	Indicates the current power being used by Supply Fan 1	All Packaged RTU	Read	kW	Display up to 9 digits	Input	30381
AI-10353	Supply Fan 2 VFD Power	Indicates the current power being used by Supply Fan 2	IPAK III IPAK I 90-130T	Read	kW	Display up to 9 digits	Input	30383
AI-10354	Return Fan VFD Power	Indicates the current power being used by Return Fan 1	Return Fan Present	Read	kW	Display up to 9 digits	Input	30385

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Modbus Register Type	Modbus Register Address
AI-10355	Return Air Enthalpy Active	The return air enthalpy value being utilized by the unit	Economizer with Reference of Comparative Enthalpy or Economizer with Reference of Comparative Enthalpy and Energy Wheel Recovery Wheel Present and/or Hot Gas Reheat Present	Read	BTU/lb	0 to 90	Input	30389

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10101	Discharge Air Temperature Arbitrator	Indicates the actual discharge air temperature being used by the controller, as determined by the arbitration logic that considers all possible sources	Discharge Air Temperature Control	Write	°F	-40 to 200	0	Holding	40027
AV-10103	Outdoor Air Temperature Arbitrator	Indicates the actual outdoor air temperature being used by the controller, as determined by the arbitration logic that considers all possible sources	All Packaged RTU	Write	°F	-40 to 200	0	Holding	40079
AV-10104	Outdoor Air Humidity Arbitrator	Indicates the actual outdoor air humidity being used by the controller, as determined by the arbitration logic that considers all possible sources	Economizer with Reference or Comparative Enthalpy and/or Hot Gas Reheat Present and /or Energy Recovery Wheel Present	Write	%	0 to 100	0	Holding	40073
AV-10105	Outdoor Air Flow Arbitrator	Indicates the actual outdoor air flow being used by the controller, as determined by the arbitration logic that considers all possible sources	TRAQ Present	Write	CFM	0 to 65,535	0	Holding	40123

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10106	Space Temperature Arbitrator	Indicates the actual space temperature being used by the controller, as determined by the arbitration logic that considers all possible sources	All Packaged RTU	Write	°F	-40 to 200	0	Holding	40103
AV-10108	Space CO2 Concentration Arbitrator	Indicates the actual space CO2 concentration being used by the controller, as determined by the arbitration logic that considers all possible sources	Demand Control Ventilation	Write	PPM	50 to 5000	0	Holding	40085
AV-10109	Space Humidity Arbitrator	Indicates the actual space relative humidity being used by the controller, as determined by the arbitration logic that considers all possible sources	Hot Gas Reheat Present	Write	%	0 to 100	0	Holding	40097
AV-10111	Discharge Air Temperature BAS	The value is normally provided by the BAS to send the discharge air temperature sensor value. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Discharge Air Temperature Control	Write	°F	-40 to 200	900	Holding	40029

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10113	Outdoor Air Temperature BAS	The value is normally provided by the BAS to send the outdoor air temperature sensor value. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	All Packaged RTU	Write	°F	-40 to 200	900	Holding	40081
AV-10114	Space Temperature BAS	The value is normally provided by the BAS to send the space temperature value. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	All Packaged RTU	Write	°F	14 to 122	900	Holding	40105
AV-10115	Outdoor Air Flow BAS	The value is normally provided by the BAS to send the outdoor air flow value. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	TRAQ Present	Write	CFM	0 to 65,000	900	Holding	40125
AV-10116	Outdoor Air Humidity BAS	The value is normally provided by the BAS to send the outdoor air humidity sensor value. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Economizer with Reference or Comparative Enthalpy and/or Hot Gas Reheat Present and/or Energy Recovery Wheel Present	Write	%	0 to 100	900	Holding	40075

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10118	Space CO2 Concentration BAS	The value is normally provided by the BAS to send the space CO2 concentration value. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Demand Control Ventilation	Write	PPM	50 to 5000	900	Holding	40087
AV-10119	Space Humidity BAS	The value is normally provided by the BAS to send the space relative humidity value. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Hot Gas Reheat Present	Write	%	10 to 90	900	Holding	40099
AV-10121	Discharge Air Cooling Setpoint BAS	Normally provided by the BAS to request the discharge air temperature cooling setpoint value	All Packaged RTU	Write	°F	40 to 75	0	Holding	40021
AV-10122	Discharge Air Heating Setpoint BAS	Normally provided by the BAS to request the discharge air temperature heating setpoint value	Heat Present excluding External Heat Present and excluding Energy Wheel Present	Write	°F	50 to 120	0	Holding	40023
AV-10123	Unoccupied Cooling Setpoint	Normally used by the BAS to define the cooling temperature setpoint used for control in unoccupied mode	All Packaged RTU	Write	°F	40 to 115	0	Holding	40109

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10124	Unoccupied Heating Setpoint	Normally used by the BAS to define the heating temperature setpoint used for control in unoccupied mode	Heat Present	Write	°F	40 to 115	0	Holding	40111
AV-10125	Outdoor Air Minimum Flow Setpoint BAS	Normally provided by the BAS to send the requested minimum outdoor air flow setpoint	TRAQ Present	Write	CFM	0 to 60,000	0	Holding	40077
AV-10127	Space Temperature Setpoint BAS	BAS-supplied space temperature setpoint value	Zone Temperature Control Units	Write	°F	50 to 95	0	Holding	40107
AV-10128	Space Static Pressure Setpoint BAS	The value is normally provided by the BAS to send the space static pressure value. The value is subject to arbitration logic in the controller, in which case it may or may not be used for control purposes.	Space Pressure Management Present	Write	Inches of Water	-0.2 to 0.3	0	Holding	40101
AV-10130	Occupied Offset	This value is normally provided by the BAS to define the difference between the occupied cooling and heating setpoints when a single setpoint is provided (see Space Temperature Setpoint BAS, below).	Zone Temperature Control Units	Write	Delta °F	1 to 30	0	Holding	40065
AV-10134	Discharge Air Reheat Setpoint BAS	Normally provided by the BAS to request the discharge air temperature reheat setpoint value, for dehumidification control	Discharge Air Temperature Control and Hot Gas Reheat Present	Write	°F	40 to 95	0	Holding	40025

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10135	Space Dehumidification Setpoint BAS	Normally used by the BAS to define the (occupied) space dehumidification setpoint	Hot Gas Reheat Present	Write	%	40 to 65	0	Holding	40093
AV-10136	Supply Fan Speed Setpoint	BAS supplied supply fan speed setpoint value	Variable Volume Supply Fan Control	Write	%	0 to 100	0	Holding	40113
AV-10137	Exhaust Fan Speed Setpoint	BAS supplied exhaust fan speed setpoint value	Relief/Exhaust Fan Present	Write	%	0 to 100	0	Holding	40115
AV-10139	Cooling Capacity Enable	This percentage value is normally provided by the BAS to demand limit the cooling capacity.	All Packaged RTU	Write	%	0 to 100	0	Holding	40011
AV-10140	Heat Primary Enable BAS	This percentage value is normally provided by the BAS to demand limit the heating capacity.	Staged Electric or Modulating Electric Heat Present	Write	%	0 to 100	0	Holding	40051
AV-10141	Morning Warmup Setpoint BAS	Normally provided by the BMS, defines the space temperature below which morning warmup will be exercised, when enabled	Heat Present	Write	°F	50 to 90	0	Holding	40057
AV-10142	Occupied Standby Offset	This value is normally provided by the BMS to define the difference between the occupied standby cooling and heating setpoints when a single setpoint is provided (see Space Temperature Setpoint BAS, below).	Zone Temperature Control Units	Write	Delta °F	1 to 30	0	Holding	40071

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10143	Duct Static Pressure Setpoint BAS	Normally provided by the BAS to request the duct static pressure setpoint value	Multiple-zone VAV Units	Write	Inches of Water	0.05 to 5	0	Holding	40039
AV-10144	Economizer Minimum Position Setpoint BAS	Normally provided by the BAS to request the ecominizer minimum position setpoint	Economizer Present	Write	%	0 to 100	0	Holding	40041
AV-10147	Cooling Setpoint High Limit	The value is normally used by the BAS to provide the occupied cooling setpoint high limit for space comfort control applications.	Zone Temperature Control Units	Write	°F	40 to 110	0	Holding	40013
AV-10148	Cooling Setpoint Low Limit	The value is normally used by the BAS to provide the occupied cooling setpoint low limit for space comfort control applications.	Zone Temperature Control Units	Write	°F	40 to 110	0	Holding	40015
AV-10149	Daytime Warmup Setpoint BAS	Defines the space temp below which daytime warmup will be enabled	Heat Present and Discharge Temperature Control	Write	°F	50 to 87	0	Holding	40017
AV-10150	Economizer Outdoor Air Enable Setpoint BAS	Related to the economizer enable decision, this value is normally provided by the BAS to determine the outdoor air temperature below which economizing is enabled.	Economizer Present	Write	°F	50 to 140	0	Holding	40043
AV-10152	Heating Setpoint High Limit	The value is normally used by the BAS to provide the occupied heating setpoint high limit for space comfort control applications.	Heat Present and Zone Temperature Control	Write	°F	40 to 105	0	Holding	40053

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10153	Heating Setpoint Low Limit	The value is normally used by the BAS to provide the occupied heating setpoint low limit for space comfort control applications.	Heat Present and Zone Temperature Control	Write	°F	40 to 105	0	Holding	40055
AV-10156	Space Dehumidification Unoccupied Setpoint BAS	Normally used by the BAS to define the unoccupied space dehumidification setpoint	Hot Gas Reheat Present	Write	%	40 to 65	0	Holding	40095
AV-10159	Occupied Cooling Setpoint BAS	The value is normally provided by the BAS to define the occupied cooling setpoint when both heating and cooling setpoints are provided in lieu of a single setpoint	Zone Temperature Control Units	Write	°F	40 to 115	0	Holding	40061
AV-10160	Occupied Heating Setpoint BAS	The value is normally provided by the BAS to define the occupied heating setpoint when both heating and cooling setpoints are provided in lieu of a single setpoint	Heat Present and Zone Temperature Control	Write	°F	40 to 115	0	Holding	40063
AV-10161	Occupied Standby Cooling Setpoint BAS	The value is normally provided by the BAS to define the occupied standby cooling setpoint when both heating and cooling setpoints are provided in lieu of a single setpoint	Zone Temperature Control Units	Write	°F	40 to 115	0	Holding	40067
AV-10162	Occupied Standby Heating Setpoint BAS	Indicates the active occupied standby heating setpoint being used by the controller, considering all possible sources	Heat Present and Zone Temperature Control	Write	°F	40 to 83	0	Holding	40069

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10163	Demand Limit Setpoint	This value is normally provided by the BAS to demand limit the unit. Demand Limit Request BAS must be set to "Limited" in order for the value to have meaning.	All Packaged RTU	Write	%	0 to 100	0	Holding	40019
AV-10164	Evaporator Leaving Air Temperature Setpoint	Normally provided by the BAS to request the evaporator leaving air temperature setpoint	Hot Gas Reheat Present	Write	°F	40 to 55	0	Holding	40047
AV-10165	Pre Cool Setpoint	Normally provided by the BAS, defines the space temperature above which pre-cool will be exercised, when enabled	All Packaged RTU	Write	°F	40 to 83	0	Holding	40083
AV-10166	Discharge Air Temperature Maximum Heat Limit	Indicates the discharge air temperature maximum heat limit, above which a high temperature diagnostic will be generated This value can be provided by the BAS.	Heat Present and Zone Temperature Control	Write	°F	40 to 140	0	Holding	40031
AV-10167	Discharge Air Temperature Minimum Cool Limit	Indicates the discharge air temperature minimum cool limit, below which a low temperature diagnostic will be generated This value can be provided by the BAS.	Zone Temperature Control Units	Write	°F	40 to 80	0	Holding	40033
AV-10168	Exhaust Enable Position Setpoint	Normally provided by the BAS to indicate the outdoor air damper position above which the exhaust sequence is enabled	Relief/Exhaust or Return Fan Present	Write	%	0 to 100	0	Holding	40049

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10169	Occupied Bypass Time	Normally used by the BAS to configure the occupied bypass time The occupied bypass time is the amount of time the controller will be overridden when an occupancy request is initiated during the unoccupied mode.	All Packaged RTU	Write	Minutes	0 to 240	0	Holding	40059
AV-10170	Economizer Outdoor Air Enthalpy Enable Setpoint BAS	Related to the economizer enable decision, this value is normally provided by the BAS to determine the outdoor air enthalpy below which economizing is enabled.	Economizer with Reference or Comparative Enthalpy and/or Hot Gas Reheat Present and/or Energy Recovery Wheel Present	Write	BTU/lb	19 to 28	0	Holding	40045
AV-10175	Space CO2 High Limit	Normally provided by the BAS to define the CO2 high limit, for ventilation purposes	Demand Control Ventilation	Write	PPM	0 to 2000	0	Holding	40089
AV-10176	Space CO2 Low Limit	Normally provided by the BAS to define the CO2 low limit	Demand Control Ventilation	Write	PPM	0 to 2000	0	Holding	40091
AV-10177	Supply Fan Speed Setpoint External Heat	Specifies the supply fan speed setpoint during external heat modes of operation.	Single-zone VAV	Write	%	0 to 100	0	Holding	40117
AV-10178	Discharge Air Temperature Maximum Cool Limit	Normally used by BAS to limit space temperature control calculated cooling setpoint	Zone Temperature Control Units	Write	°F	40 to 80	0	Holding	40121

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Units	Valid Range	Heartbeat (seconds)	Modbus Register Type	Modbus Register Address
AV-10179	Discharge Air Temperature Minimum Heat Limit	Normally used by BAS to limit space temperature control calculated heating setpoint	Heat Present and Zone Temperature Control Units	Write	°F	40 to 140	0	Holding	40119
AV-10180	Space Dew Point Setpoint BAS	Normally used by the BAS to define the dew point temperature setpoint used for dehumidification control in occupied mode	Hot Gas Reheat Present	Write	°F	40 to 70	0	Holding	40127
AV-10181	Space Dew Point Unocc Setpoint BAS	Normally used by the BAS to define the dew point temperature setpoint used for dehumidification control in unoccupied mode	Hot Gas Reheat Present	Write	°F	40 to 75	0	Holding	40129

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BI-10001	microSD	Indicates when a micro SD card is present	All Packaged RTU	Read	0 = MicroSD card is not present 1 = MicroSD card is present	Input	NA
BI-10002	USB Port 1	Indicates when a USB device is present in port 1.	All Packaged RTU	Read	0 = USB device is not present 1 = USB device is present	Input	NA
BI-10003	USB Port 2	Indicates when a USB device is present in port 2	All Packaged RTU	Read	0 = USB device is not present 1 = USB device is present	Input	NA
BI-10004	USB Port 3	Indicates when a USB device is present in port 3	All Packaged RTU	Read	0 = USB device is not present 1 = USB device is present	Input	NA
BI-10005	USB Port 4	Indicates when a USB device is present in port 4	All Packaged RTU	Read	0 = USB device is not present 1 = USB device is present	Input	NA
BI-10105	FDD: Unit Economizing When It Should Not	FDD: Indicates when the unit is economizing but should not be	Economizer Present	Read	0 = Inactive 1 = Active	Input	33053
BI-10106	FDD: Unit Not Economizing When it Should Be	FDD: Indicates when the unit is not economizing but should be	Economizer Present	Read	0 = Inactive 1 = Active	Input	33054
BI-10107	FDD: Excessive Outdoor Air	FDD: Indicates an excessive outdoor air condition	Economizer Present	Read	0 = Inactive 1 = Active	Input	33050
BI-10108	FDD: Outdoor Air Damper Not Modulating	FDD: Indicates when the outdoor air damper is not modulating but should be	Economizer Present	Read	0 = Inactive 1 = Active	Input	33051
BI-10111	Compressor 1A Status	Indicates the operating status of compressor 1A	All Packaged RTU	Read	0 = Off 1 = Running	Input	33015

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BI-10112	Compressor 1B Status	Indicates the operating status of compressor 1B	All Packaged RTU, where applicable	Read	0 = Off 1 = Running	Input	33016
BI-10113	Compressor 1C Status	Indicates the operating status of compressor 1C	All Packaged RTU, where applicable	Read	0 = Off 1 = Running	Input	33017
BI-10114	Compressor 2A Status	Indicates the operating status of compressor 2A	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	0 = Off 1 = Running	Input	33018
BI-10115	Compressor 2B Status	Indicates the operating status of compressor 2B	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	0 = Off 1 = Running	Input	33019
BI-10116	Compressor 2C Status	Indicates the operating status of compressor 2C	IPAK II 90-150T	Read	0 = Off 1 = Running	Input	33020
BI-10132	FDD: Outdoor Air Temperature Sensor Failure	FDD: Indicates when the outdoor air temperature sensor has failed	Economizer Present	Read	0 = Inactive 1 = Active	Input	33052
BI-10140	Unit Running State	Indicates whether the unit is off or on	All Packaged RTU	Read	0 = Off 1 = Running	Input	33069
BI-10143	VAV Box Command	Indicates whether the associated VAV boxes should be allowed to be in automatic control or forced wide open	Multiple-zone VAV Units	Read	0 = Auto 1 = Open	Input	33070
BI-10144	Alarm Relay Output Status	Indicates the state of the alarm output of the controller	All Packaged RTU	Read	0 = De-energized 1 =Energized	Input	33011
BI-10149	Return Fan Output Status	Indicates the state of the return fan	Return Fan Present	Read	0 = Off 1 = On	Input	33084
BI-10154	Supply Fan Configuration Status	Indicates the supply fan configuration	Zone Temperature Control Units	Read	0 = Cycling 1 =Continuouos	Input	33077
BI-10155	Rapid Restart Status	Indicates the active status of the Rapid Restart event	Rapid Restart Control	Read	0 = Inactive 1 = Active	Input	33078
BI-10161	Morning Warmup Active	Indicates the active status of the Morning Warmup event	Heat Present	Read	0 = Inactive 1 = Active	Input	33061

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BI-10162	Daytime Warmup Active	Indicates the active status of the Daytime Warmup event	Discharge Air Temperature Control and Heat Present	Read	0 = Inactive 1 = Active	Input	33030
BI-10164	Coil Frost Protection Status Circuit 1	Indicates the status of evaporator frost protection function for circuit 1	All Packaged RTU	Read	0 = Inactive 1 = Active	Input	33013
BI-10165	Coil Frost Protection Status Circuit 2	Indicates the status of evaporator frost protection function for circuit 2	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	0 = Inactive 1 = Active	Input	33014
BI-10166	Energy Recovery Status	Indicates the status of the energy recovery device (Wheel)	Energy Recovery Wheel Present	Read	0 = Inactive 1 = Active	Input	33091
BI-10167	Energy Recovery Preheat Status	Indicates the status of the energy recovery preheat	Energy Recovery Wheel Present with Preheat	Read	0 = Inactive 1 = Active	Input	33090
BI-10168	Energy Recovery Frost Avoidance Status	Indicates the status of the Recovery Frost Avoidance function	Energy Recovery Wheel Present	Read	0 = Inactive 1 = Active	Input	33089
BI-10170	Condensate Overflow Input	Indicates the status of the condensate overflow input	Condensate Overflow Switch Present	Read	0 = Normal 1 = Overflow	Input	33021
BI-10172	Occupancy Input	Indicates the status of the occupancy input (see below)	All Packaged RTU	Read	0 = Occupied 1 =Unoccupied	Input	33062
BI-10173	Precool Active	Indicates when the pre-cool mode is active	All Packaged RTU	Read	0 = Inactive 1 = Active	Input	33063
BI-10174	Supply Air Tempering Status	Indicates whether or not the supply air tempering feature is enabled	IPAK II Staged Electric or Modulating Gas Heat or Modulating Electric Heat or Hot Water or Steam	Read	0 = Disable 1 = Enable	Input	33064
BI-10175	Timed Override Timer Is Active	Indicates whether or not the timed override timer is active	All Packaged RTU	Read	0 = Inactive 1 = Active	Input	33068

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BI-10176	Diagnostic Present	Diagnostic Present	All Packaged RTU	Read	0 = Normal 1 = In Alarm	Input	33076
BI-10201	Changeover Input	Indicates the status of the (heat/cool) changeover input	Discharge Air Temperature Control and Heat Present	Read	0 = Heating 1 = Cooling	Input	33012
BI-10202	Condenser Fan Circuit 1 Relay 1 Status	Indicates the status of condenser fan circuit 1, relay 1	Standard Ambient Condenser Control Present, All Non Variable Speed and select high efficiency Units	Read	0 = Off 1 = On	Input	33022
BI-10203	Condenser Fan Circuit 1 Relay 2 Status	Indicates the status of condenser fan circuit 1, relay 2	IPAK I and IPAK II, All Non Variable Speed and select high efficiency units IPAK III, All Units	Read	0 = Off 1 = On	Input	33023
BI-10204	Condenser Fan Circuit 1 Relay 3 Status	Indicates the status of condenser fan circuit 1, relay 3	IPAK I, 60-130T and IPAK II, 90-150T All Non Variable Speed and select high efficiency Units IPAK III, 60-75T	Read	0 = Off 1 = On	Input	33024
BI-10205	Condenser Fan Circuit 1 Relay 4 Status	Indicates the status of condenser fan circuit 1, relay 4	IPAK I, 90-130T IPAK II, 120-150T	Read	0 = Off 1 = On	Input	33025

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BI-10206	Condenser Fan Circuit 2 Relay 1 Status	Indicates the status of condenser fan circuit 2, relay 1	IPAK I 40-130T and IPAK II 90-150T All Non Variable Speed and select high efficiency Units IPAK III 40-75T	Read	0 = Off 1 = On	Input	33026
BI-10207	Condenser Fan Circuit 2 Relay 2 Status	Indicates the status of condenser fan circuit 2, relay 2	IPAK I 40-130T and IPAK II 90-150T All Non Variable Speed and select high efficiency Units IPAK III 40-75T	Read	0 = Off 1 = On	Input	33027
BI-10208	Condenser Fan Circuit 2 Relay 3 Status	Indicates the status of condenser fan circuit 2, relay 3	IPAK I, 60-130T and IPAK II, 90-150T All Non Variable Speed and select high efficiency Units IPAK III, 60-75T	Read	0 = Off 1 = On	Input	33028
BI-10209	Condenser Fan Circuit 2 Relay 4 Status	Indicates the status of condenser fan circuit 2, relay 4	IPAK I, 90-130T and IPAK II, 120-150T Non Variable Speed and select high efficiency Units	Read	0 = Off 1 = On	Input	33029
BI-10210	Emergency Stop	Indicates the status of the emergency stop function of the unit	All Packaged RTU	Read	0 = Auto 1 =Emergency Stop - Manual Reset Required	Input	33047
BI-10211	Equipment Stop Status	Indicates the status of the externally-wired auto/stop input	All Packaged RTU	Read	0 = Stop 1 = Auto	Input	33049

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BI-10212	Supply Fan Bypass Status	Indicates the status of the supply fan bypass from the variable frequency drive (VFD)	Supply Fan VFD Bypass Present	Read	0 = Inactive 1 = Active	Input	33065
BI-10213	Ventilation Mode A Local	Indicates when the controller is actively in the Ventilation Override Mode A	Ventilation Override Present	Read	0 = Inactive 1 = Active	Input	33071
BI-10214	Ventilation Mode B Local	Indicates when the controller is actively in the Ventilation Override Mode B	Ventilation Override Present	Read	0 = Inactive 1 = Active	Input	33072
BI-10215	Ventilation Mode C Local	Indicates when the controller is actively in the Ventilation Override Mode C	Ventilation Override Present	Read	0 = Inactive 1 = Active	Input	33073
BI-10216	Ventilation Mode D Local	Indicates when the controller is actively in the Ventilation Override Mode D	Ventilation Override Present	Read	0 = Inactive 1 = Active	Input	33074
BI-10217	Ventilation Mode E Local	Indicates when the controller is actively in the Ventilation Override Mode E	Ventilation Override Present	Read	0 = Inactive 1 = Active	Input	33075
BI-10218	Diagnostic: Manual Reset Required	Indicates when a diagnostic exists that requires manual reset	All Packaged RTU	Read	0 = Normal 1 = In Alarm	Input	33031
BI-10219	Economizer Airside Status	Indicates the status of airside economizing. This value will be true when airside economizing is active/ enabled.	Economizer with Reference or Comparative Enthalpy, Dry Bulb or Differential Dry Bulb	Read	0 = Inactive 1 = Active	Input	33046
BI-10221	Exhaust Fan Output Status	Indicates the status of the exhaust fan output on the controller	Relief/Exhaust Fan Present	Read	0 = Off 1 = On	Input	33048
BI-10222	Heat Output 1 Status	Indicates the commanded state of heating output 1	Staged or Modulating Electric Heat Present	Read	0 = Off 1 = On	Input	33055

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BI-10223	Heat Output 2 Status	Indicates the commanded state of heating output 2	Staged or Modulating Electric Heat Present	Read	0 = Off 1 = On	Input	33056
BI-10224	Heat Output 3 Status	Indicates the commanded state of heating output 3	Staged or Modulating Electric Heat Present All IPAK I and All IPAK II IPAK III 50Hz, 50-158kW or 60Hz, 60-190kW	Read	0 = Off 1 = On	Input	33057
BI-10225	Heat Output 4 Status	Indicates the commanded state of heating output 4	Staged or Modulating Electric Heat Present, where applicable	Read	0 = Off 1 = On	Input	33058
BI-10226	Supply Fan Output Status	Indicates the status of the supply fan output of the controller	All Packaged RTU	Read	0 = Off 1 = On	Input	33067
BI-10603	Diagnostic: Discharge Air High Temperature Detected	Indicates when a discharge air high temperature diagnostic is present	All Packaged RTU	Read	0 = No 1 = Yes	Input	33035
BI-10605	Diagnostic: Loss of Charge Lockout Ckt1	Indicates when a loss of charge lockout diagnostic exists for DX circuit 1	All Packaged RTU	Read	0 = No 1 = Yes	Input	33037
BI-10606	Diagnostic: Loss of Charge Lockout Ckt2	Indicates when a loss of charge lockout diagnostic exists for DX circuit 2	IPAK I 40-130T IPAK II 90-150T IPAK III 40-75T	Read	0 = No 1 = Yes	Input	33038
BI-10608	Diagnostic: Morning Warmup Mode Exceeded 120 Minutes	Indicates when the morning warmup mode has exceeded 120 consectutive minutes	Heat Present	Read	0 = No 1 = Yes	Input	33040

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BI-10609	Diagnostic: Pre Cool Mode Exceeded 120 Minutes	Indicates when the pre-cool mode has exceeded 120 consective minutes	All Packaged RTU	Read	0 = No 1 = Yes	Input	33041
BI-10611	Diagnostic: Return Air High Temperature Detected	Indicates when a return air high temperature diagnostic is present	Economizer with Comparative Enthalpy or Differential Dry Bulb or Energy Recovery Wheel Present, Rapid Restart	Read	0 = No 1 = Yes	Input	33043
BI-10614	Diagnostic: Condensate Overflow Lockout	Indicates when a condensate overflow lockout diagnostic is present	Condensate Overflow Switch Present	Read	0 = No 1 = Yes	Input	33033
BI-10615	Diagnostic: High Condensate Level Detected	Indicates when a high condensate level is detected	Condensate Overflow Switch Present	Read	0 = No 1 = Yes	Input	33045
BI-10616	Supply Fan Speed Control Enabled	Supply fan speed is controlled via Supply Fan Speed Setpoint. If disabled/inactive, supply fan speed control is under local control.	Variable Volume Supply Fan Control	Read	0 = Disabled 1 = Enabled	Input	33079
BI-10617	Supply Fan Speed Limited	Supply fan speed is being increased or decreased due to a limit control action	Variable Volume Supply Fan Control	Read	0 = Not Limited 1 = Limited	Input	33080
BI-10618	Exhaust Fan Speed Control Enabled	Exhaust fan speed is controlled via Exhaust Fan Speed Setpoint. If disabled/ inactive, supply fan speed control is under local control.	Relief/Exhaust Fan Present	Read	0 = Disabled 1 = Enabled	Input	33081
BI-10619	Diagnostic Shutdown Present	Unit is shut down due to diagnostics	All Packaged RTU	Read	0 = Normal 1 = In Alarm	Input	33082
BI-10620	Diagnostic: Local Manual Reset Required	Diagnostic Reset required [Local only]	All Packaged RTU	Read	0 = Normal 1 = In Alarm	Input	33083

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BI-10622	Exhaust Fan Bypass Status	Indicates the status of the exhaust fan bypass from the variable frequency drive (VFD)	Relief/Exhaust Fan VFD Bypass Present	Read	0 = Inactive 1 = Active	Input	33087
BI-10623	Return Fan Bypass Status	Indicates the status of the return fan bypass from the variable frequency drive (VFD)	Return Fan VFD Bypass Present	Read	0 = Inactive 1 = Active	Input	33088
BI-10628	Final Filter Differential Press Setpoint Exceeded	Indicates when the Final Filter Differential Pressure Setpoint has been exceeded	Final Filter Monitoring Present	Read	0 = Inactive 1 = Active	Input	33096
BI - 10629	Pre Evap Filter Differential Pressure Setpoint Exceeded	Indicates when the Pre Evaporator Filter Differential Pressure Setpoint has been exceeded	Pre-Evaporator Filter Monitoring Present	Read	0 = Inactive 1 = Active	Input	33097
BI - 10630	Energy Wheel Filter Differential Pressure Setpoint Exceeded	Indicates when the Energy Wheel Filter Differential Pressure Setpoint has been exceeded	Energy Recovery Wheel Present	Read	0 = Inactive 1 = Active	Input	33098
BI - 10631	Refrigerant Mitigation Active	Indicates if unit is in active mitigation mode	All Packaged R454B RTU	Read	0 = Inactive 1 = Active	Input	33099

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BV-10103	Heat Lockout Command	Normally used by the BAS to command the unit to prevent heating operation (Trane external heat option)	Heat Present	Write	0 = Normal 1 = Locked Out	Holding	43016
BV-10104	Supply Fan Configuration Command	Normally used by the BAS to command the unit supply fan configuration as either cycling or continuous	Zone Temperature Control	Write	0 = Cycling 1 = Continuous	Holding	43022
BV-10106	Dehumidification Enable Command	Normally used by the BAS to disable unit dehumidification	Hot Gas Reheat Present	Write	0 = Disable 1 = Auto	Holding	43013
BV-10110	Reset Diagnostic	Normally used by the BAS to initiate a request to reset any remote controller diagnostics	All Packaged RTU	Write	0 = Normal 1 = Reset	Holding	43020
BV-10111	Daytime Warmup Enable Command	Normally used by the BAS to enable daytime warmup	Discharge Air Temperature Control and Heat Present	Write	0 = Disable 1 = Enable	Holding	43012
BV-10112	Morning Warmup Enable Command	Normally used by the BAS to enable morning warmup	Heat Present	Write	0 = Disable 1 = Enable	Holding	43017
BV-10113	Occupancy Input BAS	Normally used by the BAS to provide the requested occupancy state to the unit	All Packaged RTU	Write	0 = Occupied 1 =Unoccupied	Holding	43018
BV-10115	Cooling Lockout BAS	Normally used by the BAS as a command to (temporarily) prevent all mechanical cooling	All Packaged RTU	Write	0 = Normal 1 = Locked Out	Holding	43011
BV-10116	Demand Limit Request BAS	This command is normally provided by the BAS to demand limit the unit. The command is used in conjuction with Demand Limit Setpoint to determine the percentage the unit will be limited.	All Packaged RTU	Write	0 = Not Limited 1 = Limited	Holding	43014
BV-10117	Energy Consumption Reset	Normally used by the BAS to reset the energy consumption accumulated total	Power Monitoring Present	Write	0 = Accumulating 1 = Reset	Holding	43015

Object Identifier	Object Name	Description	Configuration Dependency	Read/ Write	Object States	Modbus Register Type	Modbus Register Address
BV-10118	Pre Cool Enable Command	Normally used by the BAS to enable pre-cool	All Packaged RTU	Write	0 = Disabled 1 = Enabled	Holding	43019
BV-10119	Supply Air Tempering Enable	Normally used by the BAS to enable the supply (discharge) air tempering feature of the unit	Modulating Gas, Modulating Electric, Hot Water or Steam Heat Present or IPAK II Staged Electric Heat Present	Write	0 = Disable 1 = Enable	Holding	43021
BV-10120	Rapid Restart Enable	Enables/Disables rapid restart operation	Rapid Restart Control	Write	0 = Disable 1 = Enable	Holding	43023
BV-10121	Rapid Restart Economizer Enable	Enables/Disables economizer evaluation during rapid restart operation	Economizer with Reference or Comparative Enthalpy, Dry Bulb or Differential Dry Bulb AND Rapid Restart Control	Write	0 = Disable 1 = Enable	Holding	43024
BV-10122	Supply Fan Speed Setpoint Enable	Enables Supply Fan Speed Setpoint control	Variable Volume Supply Fan Control	Write	0 = Disable 1 = Enable	Holding	43025
BV-10123	Exhaust Fan Speed Setpoint Enable	Enables Exhaust Fan Speed Setpoint control	Relief/Exhaust Fan Present	Write	0 = Disable 1 = Enable	Holding	43026
BV-10124	Supply Fan Compensation	Enables the outdoor air damper position to compensate for changes in supply fan speed	Variable Volume Supply Fan Control and Economizer with Reference or Comparative Enthalpy, Dry Bulb or Differential Dry Bulb	Write	0 = Disable 1 = Enable	Holding	43027
BV-10125	Energy Consumption Reset Meter 2	Normally used by the BAS to reset the energy consumption accumulated total for second power meter	Dual Power Monitoring Present	Write	0 = Accumulating 1 = Reset	Holding	43028

Object Identifier	Object Name	Description	Configuration Dependency	Object States	Read/ Write	Modbus Register Type	Modbus Register Address
MI-10101	Heat Cool Mode Status	Indicates the current heat cool mode of the controller	All Packaged RTU	1 = Auto 2 = Heat 3 = Morning Warm-up 4 = Cool 5 = Night Purge 6 = Pre Cool 7 = Off 8 = Test 9 = Emergency Heat 10 = Fan Only 11 = Free Cool 12 = Ice-Making 13 = Max Heat 14 = Economizer 15 = Dehumidify 16 = Calibrate	Read	Input	32018
MI-10102	Ventilation Override Status	Indicates which of the 5 preprogrammed ventilation override modes is operational, when applicable	Ventilation Override Present	1 = Inactive 2 = Mode A Active 3 = Mode B Active 4 = Mode C Active 5 = Mode D Active 6 = Mode E Active	Read	Input	32026
MI-10103	Occupancy Status	Indicates the active occupancy mode of the controller	All Packaged RTU	1 = Occupied 2 = Unoccupied 3 = Occupied Bypass 4 = Occupied Standby 5 = Auto	Read	Input	32020
MI-10105	Cooling Reset Type Status	Indicates the type of cooling reset used by the controller	Discharge Air Temperature Control	1 = None 2 = Outdoor Air 3 = Zone 4 = Return Air	Read	Input	32013

Object Identifier	Object Name	Description	Configuration Dependency	Object States	Read/ Write	Modbus Register Type	Modbus Register Address
MI-10106	Heating Reset Type Status	Indicates the type of heating reset used, when applicable	Discharge Air Temperature Control and Heat Present excluding External Heat Present and excluding Energy Wheel Present	1 = None 2 = Outdoor Air 3 = Zone	Read	Input	32019
MI-10107	Trane Unit Type	Indicates the equipment type according to the manufacturer's classification	All Packaged RTU	1 = 1 Heat/1 Cool 2 = Heat Pump 3 = Blower Coil 4 = Unit Ventilator 5 = Fan Coil 6 = Rooftop 7 = Air Handler 8 = Vertical Self Contained 9 = Unitary 10 = VAV Box 11 = Fan Coil	Read	Input	32025

Object Identifier	Object Name	Description	Configuration Dependency	Object States	Read/ Write	Modbus Register Type	Modbus Register Address
MI-10108	Economizer Type	Indicates the general description of the type of economizer system	All Packaged RTU	1 = None 2 = 2 Position Ventilation 3 = Modulation Economizer 4 = 2 Position Ventilation/ Waterside Economizer 5 = Waterside Economizer 6 = Airside/ Waterside Economizer 7 = TRAQ Damper 8 = Airside Economizer and TRAQ Damper/ Sensor 9 = Waterside Economizer and TRAQ Damper/ Sensor 10 = Airside/ Waterside Economizer and TRAQ Damper/Sensor	Read	Input	32015
MI-10109	Condenser Type	Indicates the general description of the equipment condenser system	All Packaged RTU	1 = None 2 = Air Cooled Condenser 3 = Water Cooled Condenser 4 = Evaporative Condenser	Read	Input	32012

Object Identifier	Object Name	Description	Configuration Dependency	Object States	Read/ Write	Modbus Register Type	Modbus Register Address
MI-10117	Refrigerant Type	Indicates the type of refrigerant used in the equipment	All Packaged RTU	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 € 17 = R-454B	Read	Input	32021
MI-10118	System Mode Switch Local	Indicates the status of the system mode switch connected to the controller	Zone Temperature Control	1 = Off 2 = Auto 3 = Cool 4 = Heat 5 = Emergency Heat	Read	Input	32023
MI-10119	Arbitration Method	The arbitration method is used to define the source of the data being provided to the controller. The source can be defined as DEFAULT (stored in the controller, such as setpoints and settings), LOCAL (for wired/wireless sensors), or FULL (for all remote sources, including BMS, custom programming, etc.).	All Packaged RTU	1 = Full (Auto) Source 2 = Local Source 3 = Default Source	Read	Input	32011
MI-10120	Timed Override Request Active	Indicates the status of the timed override request (see above)	All Packaged RTU	1 = Idle 2 = On 3 = Cancel	Read	Input	32024

Object Identifier	Object Name	Description	Configuration Dependency	Object States	Read/ Write	Modbus Register Type	Modbus Register Address
MI-10121	Electrical Service Type	Indicates the electrical service type used for the unit	Power Monitoring Present	1 = A+N 2 = A+B 3 = A+B+N 4 = A+B+C 5 = A+B+C+N	Read	Input	32016
MI-10132	Economizer Decision Method	Normally provided by the BAS to determine the method of enabling airside economizing	Economizer with Reference or Comparative Enthalpy or Dry Bulb or Differential Dry Bulb	1 = Absolute Temperature 2 = Relative Temperature 3 = Absolute Enthalpy 4 = Comparative Enthalpy	Read	Input	32014
MI-10144	Economizer System Status	Indicates the status of enabling economizing	Economizer with Reference or Comparative Enthalpy or Dry Bulb or Differential Dry Bulb	1 = Disabled 2 = Enabled 3 = Not Present	Read	Input	32027
MI-10145	Model Information [GEN2]	Indicates the type of equipment.	All Packaged RTU	27 = IPAK	Read	Input	32028
MI-10146	Electrical Service Type Meter 2	Indicates the electrical service type used for the second power connection on the unit	Dual Power Monitoring Present	1 = A+N 2 = A+B 3 = A+B+N 4 = A+B+C 5 = A+B+C+N	Read	Input	32029
MI-10147	Emergency Override BAS - Active	Indicates the status of emergency override	Economizer with Reference or Comparative Enthalpy, Dry Bulb, Differential Dry Bulb, or 0-25% Motorized Damper	1 = Normal 2 = Pressurize 3 = Depressurize 4 = Purge 5 = Shutdown 6 = Fire	Read	Input	32030

Object Identifier	Object Name	Description	Configuration Dependency	Object States	Read/ Write	Modbus Register Type	Modbus Register Address
MV-10102	Emergency Override BAS	Normally used by the BAS to command the unit into an emergency mode of operation	Economizer with Reference or Comparative Enthalpy, Dry Bulb, Differential Dry Bulb, or 0-25% Motorized Damper	1 = Normal 2 = Pressurize 3 = Depressurize 4 = Purge 5 = Shutdown 6 = Fire	Write	Holding	42012
MV-10103	Economizer Airside Enable BAS	Normally provided by the BAS to enable airside economizing	Economizer with Reference or Comparative Enthalpy or Dry Bulb,or Differential Dry Bulb	1 = Disabled 2 = Enabled 3 = Auto	Write	Holding	42011
MV-10104	Heat Cool Mode Request	Normally provided by the BAS to command the unit into a heat/cool mode, including additional possible control modes	All Packaged RTU	1 = Auto 2 = Heat 3 = Morning Warm-up 4 = Cool 5 = Night Purge 6 = Pre Cool 7 = Off 8 = Test 9 = Emergency Heat 10 = Fan Only 11 = Free Cool 12 = Ice-Making 13 = Max Heat 14 = Economizer 15 = Dehumidify 16 = Calibrate	Write	Holding	42013

Object Identifier	Object Name	Description	Configuration Dependency	Object States	Read/ Write	Modbus Register Type	Modbus Register Address
MV-10106	Occupancy Request	Normally used by the BAS to command the unit into an occupancy mode	All Packaged RTU	1 = Occupied 2 = Unoccupied 3 = Occupied Bypass 4 = Occupied Standby 5 = Auto	Write	Holding	42014
MV-10110	Timed Override Request	Normally used by the BAS to request a temporary timed override during unoccupied	All Packaged RTU	1 = Idle 2 = On 3 = Cancel	Write	Holding	42015
MV-10111	Dehumidification Method	Normally used by the BAS to select how the unit determines when to dehumidify.	Hot Gas Reheat Present	1 = Relative Humidity 2 = Dew Point	Write	Holding	42016