Symbio™ 800 Integration Points List
BACnet®
RTAC (UC800)

Date: 12/6/2024
Reference Document: BAS-SVP083*-EN

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	Description	Units	Configuration Dependency
1	Active Chilled Water Setpoint		Real	
2	Active Current Limit Setpoint		Real	
5	Actual Running Capacity		Real	
6	Evaporator Refrigerant Pressure - Ckt1		Real	
9	Evaporator Refrigerant Pressure - Ckt 2		Real	
12	Evaporator Saturated Refrigerant Temperature- Ckt 1		Real	
14	Evaporator Saturated Refrigerant Temperature- Ckt 2		Real	
16	Condenser Refrigerant Pressure - Ckt 1		Real	
18	Condenser Refrigerant Pressure - Ckt 2		Real	
20	Condenser Saturated Refrigerant Temperature - Ckt 1		Real	
22	Condenser Saturated Refrigerant Temperature - Ckt 2		Real	
25	Local Atmospheric Pressure		Real	
26	Starts- Compressor 1A		Real	
27	Starts- Compressor 1B		Real	
28	Starts- Compressor 2A		Real	
29	Starts- Compressor 2B		Real	
34	Run Time- Compressor 1A		Real	
35	Run Time- Compressor 1B		Real	
36	Run Time- Compressor 2A		Real	
37	Run Time- Compressor 2B		Real	
42	Airflow Percentage- Circuit 1		Real	
43	Airflow Percentage- Circuit 2		Real	
44	Evaporator Entering Water Temp		Real	
45	Evaporator Leaving Water Temp		Real	
48	High Side Oil Pressure - Compressor 1A		Real	
49	High Side Oil Pressure - Compressor 1B		Real	
50	High Side Oil Pressure - Compressor 2A		Real	
51	High Side Oil Pressure - Compressor 2B		Real	
52	Oil Temp - Compressor 1A		Real	
53	Oil Temp - Compressor 1B		Real	
54	Oil Temp - Compressor 2A		Real	
55	Oil Temp - Compressor 2B		Real	

Object Identifier	Object Name	Description	Units	Configuration Dependency
57	Outdoor Air Temperature		Real	
59	Motor Voltage AB Starter 1A		Real	
60	Motor Voltage AB Starter 1B		Real	
61	Motor Voltage AB Starter 2A		Real	
71	Motor Current L1 Starter 1A		Real	
72	Motor Current L2 Starter 1A		Real	
73	Motor Current L3 Starter 1A		Real	
74	Motor Current L1 Starter 1B		Real	
75	Motor Current L2 Starter 1B		Real	
76	Motor Current L3 Starter 1B		Real	
77	Motor Current L1 Starter 2A		Real	
78	Motor Current L2 Starter 2A		Real	
79	Motor Current L3 Starter 2A		Real	
80	Motor Current L1 Starter 2B		Real	
81	Motor Current L2 Starter 2B		Real	
82	Motor Current L3 Starter 2B		Real	
83	Motor Current L1 % RLA Starter 1A		Real	
84	Motor Current L2 % RLA Starter 1A		Real	
85	Motor Current L3 % RLA Starter 1A		Real	
86	Motor Current L1 % RLA Starter 1B		Real	
87	Motor Current L2 % RLA Starter 1B		Real	
88	Motor Current L3 % RLA Starter 1B		Real	
89	Motor Current L1 % RLA Starter 2A		Real	
90	Motor Current L2 % RLA Starter 2A		Real	
91	Motor Current L3 % RLA Starter 2A		Real	
92	Motor Current L1 % RLA Starter 2B		Real	
93	Motor Current L2 % RLA Starter 2B		Real	
94	Motor Current L3 % RLA Starter 2B		Real	
95	Number of Circuits		Real	
96	Number of Compressors, Ckt 1		Real	
97	Number of Compressors, Ckt 2		Real	
98	Chiller Design Capacity		Real	

Object Identifier	Object Name	Description	Units	Configuration Dependency
100	Output Power AFD 1A		Real	
101	Output Power AFD 2A		Real	
102	Discharge Temperature Cprsr 1A		Real	
103	Discharge Temperature Cprsr 2A		Real	
106	Frequency Command Cprsr 1A		Real	
107	Frequency Command Cprsr 2A		Real	
108	Average Motor Current % RLA AFD 1A		Real	
109	Average Motor Current % RLA AFD 2A		Real	

Object Identifier	Object Name	Description	Units	Relinquish Default	Valid Range
1	BAS Chilled Water Setpoint		Real	44°F (6.7°C)	–12.22°C to 18.3°C (a)
2	BAS Current Limit Setpoint		Real	100% RLA	0% to 120%

Object Identifier	Object Name	Object Status
500	AFD Fault – 1A	
502	AFD Fault–2A	
504	AFD Motor Current Overload – 1A	
506	AFD Motor Current Overload – 2A	
508	AFD Interrupt Failure – 1A	
510	AFD Interrupt Failure – 2A	
512	Starter Did Not Transition - 1A	
513	Starter Did Not Transition - 1B	
514	Starter Did Not Transition - 2A	
515	Starter Did Not Transition - 2B	
516	Phase Reversal - 1A	
517	Phase Reversal - 1B	
518	Phase Reversal - 2A	
519	Phase Reversal - 2B	
520	Starter Dry Run Test - 1A	
521	Starter Dry Run Test- 1B	
522	Starter Dry Run Test - 2A	
523	Starter Dry Run Test - 2B	
524	Phase Loss - 1A	
525	Phase Loss - 1B	
526	Phase Loss-2A	
527	Phase Loss-2B	
528	Power Loss - 1A	
529	Power Loss - 1B	
530	Power Loss - 2A	
531	Power Loss - 2B	
532	Severe CurrentPhase UnbalanceImbalance - Cprsr 1A	
533	Severe CurrentPhase UnbalanceImbalance - Cprsr 1B	
534	Severe CurrentPhase UnbalanceImbalance - Cprsr 2A	
535	Severe CurrentPhase UnbalanceImbalance - Cprsr 2B	
536	Starter Fault Type I – 1A	
537	Starter Fault Type I – 1B	
538	Starter Fault Type I – 2A	

Object Identifier	Object Name	Object Status
539	Starter Fault Type I –2B	
540	Starter Fault Type II – 1A	
541	Starter Fault Type II –1B	
542	Starter Fault Type II –2A	
543	Starter Fault Type II – 2B	
544	Starter Fault Type III – 1A	
545	Starter Fault Type III –1B	
546	Starter Fault Type III –2A	
547	Starter Fault Type III –2B	
548	Transition Complete Input Shorted –1A	
549	Transition Complete Input Shorted –1B	
550	Transition Complete Input Shorted –2A	
551	Transition Complete Input Shorted –2B	
552	Transition Complete Input Opened –1A	
553	Transition Complete Input Opened –1B	
554	Transition Complete Input Opened –2A	
555	Transition Complete Input Opened –2B	
556	Motor Current Overload Trip - Cprsr 1A	
557	Motor Current Overload Trip - Cprsr 1B	
558	Motor Current Overload Trip - Cprsr 2A	
559	Motor Current Overload Trip - Cprsr 2B	
560	Starter Contactor Interrupt Failure - 1A	
561	Starter Contactor Interrupt Failure - 1B	
562	Starter Contactor Interrupt Failure - 2A	
563	Starter Contactor Interrupt Failure - 2B	
564	Over Voltage	
565	Under Voltage	
566	MP: Reset Has Occurred	
567	Low Evaporator Rfgt Temperature - Ckt1	
568	Low Evaporator Rfgt Temperature - Ckt2	
569	Low Oil Flow - Cprsr 1A	
570	Low Oil Flow - Cprsr 1B	
571	Low Oil Flow- Cprsr 2A	

Object Identifier	Object Name	Object Status
572	Low Oil Flow - Cprsr 2B	
573	Low Differential Rfgt Pressure - Ckt1	
574	Low Differential Rfgt Pressure - Ckt2	
575	High Differential Rfgt Pressure - Ckt1	
576	High Differential Rfgt Pressure - Ckt2	
577	High Oil Temperature – 1A	
578	High Oil Temperature –1B	
579	High Oil Temperature –2A	
580	High Oil Temperature – 2B	
581	Oil Temperature Sensor – 1A	
582	Oil Temperature Sensor – 1B	
583	Oil Temperature Sensor–2A	
584	Oil Temperature Sensor–2B	
585	Evaporator Liquid Level Sensor– Ckt1	
586	Evaporator Liquid Level Sensor– Ckt2	
587	Condenser Fan VFD Fault - Ckt 1 Dr 1	
588	Condenser Fan VFD Fault - Ckt1 Dr 2	
589	Condenser Fan VFD Fault - Ckt2 Dr 1	
590	Condenser Fan VFD Fault - Ckt2 Dr 2	
593	Low Evaporator Liquid Level – Ckt1	
594	Low Evaporator Liquid Level – Ckt2	
595	High Evaporator Liquid Level – Ckt1	
596	High Evaporator Liquid Level – Ckt2	
597	Evaporator Rfgt Drain – Circuit 1	
598	Evaporator Rfgt Drain – Circuit 2	
599	External Chilled Water Setpoint	
600	External Current Limit Setpoint	
601	Evap Water Flow (Entering Water Temp)	
602	Evaporator Entering Water Temp Sensor	
603	Evaporator Leaving Water Temp Sensor	
604	Condenser Rfgt Pressure Transducer - Ckt1	
605	Condenser Rfgt Pressure Transducer - Ckt2	
606	Suction Refrigerant Pressure Sensor- 1A	

Object Identifier	Object Name	Object Status
607	Suction Refrigerant Pressure Sensor - 1B	
608	Suction Refrigerant Pressure Sensor - 2A	
609	Suction Refrigerant Pressure Sensor - 2B	
610	Intermediate Oil Press Xdcr - Cprsr 1A	
611	Intermediate Oil Press Xdcr - Cprsr 1B	
612	Intermediate Oil Press Xdcr - Cprsr 2A	
613	Intermediate Oil Press Xdcr - Cprsr 2B	
614	Oil Flow Protection Fault - 1A	
615	Oil Flow Protection Fault - 1B	
616	Oil Flow Protection Fault - 2A	
617	Oil Flow Protection Fault - 2B	
618	Low Suction Rfgt Pressure – Ckt 1	
620	Low Suction Rfgt Pressure – Ckt 2	
622	Very Low Evaporator Rfgt Pressure - Ckt1	
623	Very Low Evaporator Rfgt Pressure - Ckt2	
624	Pumpdown Terminated - Ckt1	
625	Pumpdown Terminated - Ckt2	
626	Low Evaporator Water Temp (Unit Off)	
627	Low Evaporator Temp (Unit Off) - Ckt1	
628	Low Evaporator Temp (Unit Off) - Ckt2	
629	Low Evap Leaving Water Temp: Unit On	
630	Evaporator Water Flow Overdue	
631	Evaporator Water Flow Lost	
632	High Evaporator Refrigerant Pressure	
633	High Evaporator Water Temperature	
634	High Pressure Cutout - Cprsr 1A	
635	High Pressure Cutout - Cprsr 1B	
636	High Pressure Cutout - Cprsr 2A	
637	High Pressure Cutout - Cprsr 2B	
638	Emergency Stop	
639	Outdoor Air Temperature Sensor	
640	Starter Panel Thermostat Cutout - 2A	
641	Starter Panel Thermostat Cutout - 1B	

Object Identifier	Object Name	Object Status
642	Starter Panel Thermostat Cutout - 2B	
643	Starter Module Memory Error Type 1 - 1A	
644	Starter Module Memory Error Type 1 - 1B	
645	Starter Module Memory Error Type 1 - 2A	
646	Starter Module Memory Error Type 1 - 2B	
647	Starter Module Memory Error Type 2 - 1A	
648	Starter Module Memory Error Type 2 - 1B	
649	Starter Module Memory Error Type 2 - 2A	
650	Starter Module Memory Error Type 2 - 2B	
651	MP: Invalid Configuration	
652	MP Application Memory CRC Error	
653	MP: Non-Volatile Memory Reformatted	
654	Check Clock	
655	MP: Could not Store Starts and Hours	
656	MP: Non-Volatile Block Test Error	
657	Starter Failed to Arm/Start - 1A	
658	Starter Failed to Arm/Start - 1B	
659	Starter Failed to Arm/Start - 2A	
660	Starter Failed to Arm/Start - 2B	
661	Software Error 1001: Call Trane Service	
662	Software Error 1002: Call Trane Service	
663	Software Error 1003: Call Trane Service	
664	Excessive IPC Comm Loss	
665	Comm Loss: Slide Valve Unload - 1A	
666	Comm Loss: Slide Valve Load - 1A	
667	Comm Loss: Slide Valve Unload - 1B	
668	Comm Loss: Slide Valve Load - 1B	
669	Comm Loss: Slide Valve Unload - 2A	
670	Comm Loss: Slide Valve Load - 2A	
671	Comm Loss: Slide Valve Unload - 2B	
672	Comm Loss: Slide Valve Load - 2B	
673	Comm Loss: Step Load - 1A	
674	Comm Loss: Step Load - 1B	

Object Identifier	Object Name	Object Status
675	Comm Loss: Step Load - 2A	
676	Comm Loss: Step Load - 2B	
677	Comm Loss: External Auto/Stop	
678	Comm Loss: Emergency Stop	
679	Comm Loss: External Ckt Lockout - Ckt1	
680	Comm Loss: External Ckt Lockout - Ckt2	
681	Comm Loss: External Ice Building Command	
682	Comm Loss: Outdoor Air Temperature	
683	Comm Loss: Evap Leaving Water Temp	
684	Comm Loss: Evap Entering Water Temp	
685	Comm Loss: Oil Temperature – 1A’	
686	Comm Loss: Oil Temperature – 1B’	
687	Comm Loss: Oil Temperature – 2A’	
688	Comm Loss: Oil Temperature – 2B’	
689	Comm Loss: Ext Chilled Water Setpoint	
690	Comm Loss: Ext Current Limit Setpoint	
691	Comm Loss: High Pressure Cutout Sw - 1A	
692	Comm Loss: High Pressure Cutout Sw - 1B	
693	Comm Loss: High Pressure Cutout Sw - 2A	
694	Comm Loss: High Pressure Cutout Sw - 2B	
695	Comm Loss: Evaporator Water Flow Switch	
696	Comm Loss: Condenser Rfgt Pressure - Ckt1	
697	Comm Loss: Condenser Rfgt Pressure - Ckt2	
698	Comm Loss: Intermediate Oil Pressure - 1A	
699	Comm Loss: Intermediate Oil Pressure - 1B	
700	Comm Loss: Intermediate Oil Pressure - 2A	
701	Comm Loss: Intermediate Oil Pressure - 2B	
702	Comm Loss: Evaporator Water Pump Relay	
703	Comm Loss: Ice Building Status Relay	
704	Comm Loss: Suction Rfgt Pressure - 1A	
705	Comm Loss: Suction Rfgt Pressure - 1B	
706	Comm Loss: Suction Rfgt Pressure - 2A	
707	Comm Loss: Suction Rfgt Pressure - 2B	

Object Identifier	Object Name	Object Status
708	Comm Loss: Fan Control Ckt1, Stage 1	
709	Comm Loss: Fan Control Ckt1, Stage 2	
710	Comm Loss: Fan Control Ckt1, Stage 3	
711	Comm Loss: Fan Control Ckt1, Stage 4	
712	Comm Loss: Fan Control Ckt2, Stage 1	
713	Comm Loss: Fan Control Ckt2, Stage 2	
714	Comm Loss: Fan Control Ckt2, Stage 3	
715	Comm Loss: Fan Control Ckt2, Stage 4	
716	Comm Loss: Evap Rfgt Liquid Level - Ckt1	
717	Comm Loss: Evap Rfgt Liquid Level - Ckt2	
718	Comm Loss: Fan Inverter Power- Ckt1	
719	Comm Loss: Fan Inverter Speed Cmd - Ckt1	
720	Comm Loss: Fan Inv Fault, Ckt1, Dr 1	
721	Comm Loss: Fan Inv Fault, Ckt1, Dr 2	
722	Comm Loss: Oil Return Solenoid Valve - 1A	
723	Comm Loss: Oil Return Solenoid Valve - 2A	
724	Comm Loss: Oil Return Solenoid Valve - 1B	
725	Comm Loss: Oil Return Solenoid Valve - 2B	
726	Comm Loss: Starter 1A	
727	Comm Loss: Starter 1B	
728	Comm Loss: Starter 2A	
729	Comm Loss: Starter 2B	
730	Comm Loss: Electronic Expansion Valve 1	
731	Comm Loss: Electronic Expansion Valve 2	
734	Comm Loss: Fan Inverter Power - Ckt2	
735	Comm Loss: Fan Inverter Speed Cmd - Ckt2	
736	Comm Loss: Fan Inv Fault, Ckt 2, Dr 1	
737	Comm Loss: Fan Inv Fault, Ckt 2, Dr 2	
738	Starter 1A Loss of Comm with MP	
739	Starter 1B Loss of Comm with MP	
740	Starter 2A Loss of Comm with MP	
741	Starter 2B Loss of Comm with MP	
742	Comm Loss: Local BAS Interface	

Object Identifier	Object Name	Object Status
743	Comm Loss: Programmable Relay Board 1	
744	Starter Panel Thermostat Comm Loss 2A	
745	Starter Panel Thermostat Comm Loss 1B	
746	Starter Panel Thermostat Comm Loss 2B	
747	Comm Loss: Evap Rfgt Drain Valve - Ckt1	
748	Comm Loss: Evap Rfgt Drain Valve - Ckt2	
749	Comm Loss: AFD 1A	
750	Comm Loss: AFD 2A	

Object Identifier	Object Name	Description	Object Status	Configuration Dependency
1	Run Enabled		0 = Stop 1 = Auto	
2	Local Setpoint Control		0 = Remote 1 = Local	
3	Chiller Limit Mode Indicator		0 = Not limited 1 = Limited	
4	Chiller Running Indicator		0 = Off 1 = On	
6	Maximum Capacity		0 = Off 1 = On	
9	Compressor 1A Running		0 = Off 1 = Running	
10	Compressor 1B Running		0 = Off 1 = Running	
11	Compressor 2A Running		0 = Off 1 = Running	
12	Compressor 2B Running		0 = Off 1 = Running	
17	Evaporator Water Pump Command		0 = Off 1 = On	
22	Evaporator Water Flow Status		0 = No flow 1 = Flow	
23	Alarm Present		0 = No alarm 1 = Alarm	
24	Shutdown Alarm Present		0 = No alarm 1 = Alarm	

Object Identifier	Object Name	Description	Property Values	Relinquish Default	Valid Range
2	BAS Diagnostic Reset		0=false (no reset); 1=true (can reset)	0=false; 1=true (can reset)	0 or 1

Object Identifier	Object Name	Description	Object States	Configuration Dependency
1	Chiller Running Status		1 = Chiller off 2 = Chiller in start mode 3 = Chiller in run mode 4 = Chiller in pre-shutdown mode	
2	Operating Mode		1 = Cool 3 = Ice	
4	Refrigerant Type		5 = R134a 15 = R514A	
5	Model Information		1 = RTA	
6	Cooling Type		2 = Air cooled	
7	Manufacturing Location		1 = Field Applied 3 = Pueblo 4 = Charmes 14 = Curitiba 15 = Taicang 17 = Epinal 18 = Golbey	

Object Identifier	Object Name	Description	Property Values	Relinquish Default	Valid Range
1	BAS Chiller Auto Stop Command		1= Stop 2= Auto	2= Auto	1 or 2
2	BAS Chiller Mode Command		1 = Cool 3 = Ice	1= Cool	1 to 3

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	Data Format	Units	Invalid Values
Binary	u16, int	•0 = false/off/no/disabled/stop •1 = true/on/yes/enabled/auto	
Concentration	u16, int	PPM	
Count	u32, int	NA	
Current	u16, int	Amps	
Enumeration	u16, int	NA	
Enumeration 2	u32, int	Hex Codes	
Flow, Air	u16, int	Liters/Second (100 = 212 cfm)	
Flow, Water	u16, int	Liters/Minute (1,000 = 264 gpm)	
Frequency	u16, int	0.1 Hz (600 = 60 Hz)	
Percent	s16, int	0.005% (20,000 = 100%)	
Percent_1	s16, int	1% (100 = 100%)	
Power	u16, int	kW (3517 = 1,000 tons)	
Power Factor	s16, int	0.005 (200 = 1)	
Pressure	u16, int	0.1 kPa absolute (1,000 = 14.5 psi)	
Differential Pressure	s16, int	0.1 kPa absolute (1,000 = 14.5 psi)	
Temperature	s16, int	0.01 C (100 = 1 C) $F = \left[\frac{\text{Register} \times 1.8}{100}\right] + 32$	
Time Interval	u32, int	Seconds	
Voltage	u16, int	Volts	
None	u16, int	NA	

Register Address	Object Name	Description	Register Type	Register Value	Valid Range
40001	BAS Chiller Auto Stop Command		Enumeration	0 = Stop 1 = Auto	0,1
40002	BAS Chiller Mode Command		Enumeration	0 = Cool 2 = Ice	0,2
40003	Chilled Water Setpoint		Temp		-12.22 Deg C to 18.3 deg C) (Dependent on installed options)
40004	Current Limit Setpoint		Percent		0 to 120
40008	Remote Diagnostic Reset Command		Binary	0 = False (no reset) 1 = True (can reset)	0,1

Register Address	Object Name	Description	Register Type	Register Value	Valid Range
30001	Software Type		NA		
30002	Software Revision		NA		
30003	Active Chilled Water Setpoint		Temp		
30004	Active Current Limit Setpoint		Percent		
30005	Actual Running Capacity		Percent		
30006	Evaporator Refrigerant Pressure - Ckt1		Pressure		
30007	Evaporator Refrigerant Pressure - Ckt 2		pressure		
30008	Evaporator Saturated Refrigerant Temperature- Ckt 1		Temp		
30009	Evaporator Saturated Refrigerant Temperature- Ckt 2		Temp		
30010	Condenser Refrigerant Pressure - Ckt 1		Pressure		
30011	Condenser Refrigerant Pressure - Ckt 2		Pressure		
30012	Condenser Saturated Refrigerant Temperature - Ckt 1		Temp		
30013	Condenser Saturated Refrigerant Temperature - Ckt 2		Temp		
30014	Local Atmospheric Pressure		Pressure		
30015/16	Starts- Compressor 1A		Count		
30017/18	Run Time- Compressor 1A		Time		
30019/20	Starts- Compressor 1B		Count		
30021/22	Run Time- Compressor 1B		Time		
30023/24	Starts- Compressor 2A		Count		
30025/26	Run Time- Compressor 2A		Time		
30027/28	Starts- Compressor 2B		Count		
30029/30	Run Time- Compressor 2B		Time		
30031	Airflow Percentage- Circuit 1		Percent		
30032	Airflow Percentage- Circuit 2		Percent		
30033	Evaporator Entering Water Temp		Temp		
30034	Evaporator Leaving Water Temp		Temp		

Register Address	Object Name	Description	Register Type	Register Value	Valid Range
30035	High Side Oil Pressure - Compressor 1A		Pressure		
30036	High Side Oil Pressure - Compressor 1B		Pressure		
30037	High Side Oil Pressure - Compressor 2A		Pressure		
30038	High Side Oil Pressure - Compressor 2B		Pressure		
30039	Oil Temp - Compressor 1A		Temp		
30040	Oil Temp - Compressor 1B		Temp		
30041	Oil Temp - Compressor 2A		Temp		
30042	Oil Temp - Compressor 2B		Temp		
30043	Outdoor Air Temperature		Temp		
30044	Motor Voltage AB Starter 1A		Voltage		
30045	Motor Voltage AB Starter 1B		Voltage		
30046	Motor Voltage AB Starter 2A		Voltage		
30047	Motor Current L1 Starter 1A		Current		
30048	Motor Current L2 Starter 1A		Current		
30049	Motor Current L3 Starter 1A		Current		
30050	Motor Current L1 Starter 1B		Current		
30051	Motor Current L2 Starter 1B		Current		
30052	Motor Current L3 Starter 1B		Current		
30053	Motor Current L1 Starter 2A		Current		
30054	Motor Current L2 Starter 2A		Current		
30055	Motor Current L3 Starter 2A		Current		
30056	Motor Current L1 Starter 2B		Current		
30057	Motor Current L2 Starter 2B		Current		
30058	Motor Current L3 Starter 2B		Current		
30059	Motor Current L1 % RLA Starter 1A		Percent		
30060	Motor Current L2 % RLA Starter 1A		Percent		
30061	Motor Current L3 % RLA Starter 1A		Percent		
30062	Motor Current L1 % RLA Starter 1B		Percent		
30063	Motor Current L2 % RLA Starter 1B		Percent		

Register Address	Object Name	Description	Register Type	Register Value	Valid Range
30064	Motor Current L3 % RLA Starter 1B		Percent		
30065	Motor Current L1 % RLA Starter 2A		Percent		
30066	Motor Current L2 % RLA Starter 2A		Percent		
30067	Motor Current L3 % RLA Starter 2A		Percent		
30068	Motor Current L1 % RLA Starter 2B		Percent		
30069	Motor Current L2 % RLA Starter 2B		Percent		
30070	Motor Current L3 % RLA Starter 2B		Percent		
30071	Number of Circuits		Count		
30072	Number of Compressors, Ckt 1		Count		
30073	Number of Compressors, Ckt 2		Count		
30074	Chiller Design Capacity		Number		
30075	Output Power AFD 1A		Power		
30076	Output Power AFD 2A		Power		
30077	Discharge Temperature Cprsr 1A		Temp		
30078	Discharge Temperature Cprsr 2A		Temp		
30079	Frequency Command Cprsr 1A		Frequency		
30080	Frequency Command Cprsr 2A		Frequency		
30081	Average Motor Current % RLA AFD 1A		Percent		
30082	Average Motor Current % RLA AFD 2A		Percent		
30083	Run Enabled		Binary		
30084	Local Setpoint Control		Binary		
30085	Chiller Limit Mode Indicator		Binary		
30086	Chiller Running Indicator		Binary		
30087	Maximum Capacity		Binary		
30088	Compressor 1A Running		Binary		
30089	Compressor 1B Running		Binary		
30090	Compressor 2A Running		Binary		
30091	Compressor 2B Running		Binary		
30092	Evaporator Water Pump Command		Binary		
30093	Evaporator Water Flow Status		Binary		
30094	Alarm Present		Binary		
30095	Shutdown Alarm Present		Binary		

Register Address	Object Name	Description	Register Type	Register Value	Valid Range
30097	Chiller Running Status		Enumeration	0 = Not running 1 = Starting 2 = Running 3 = Stopping	
30098	Operating Mode		Enumeration	0 = Cool 2 = Ice	
30099	Refrigerant Type		Enumeration	4 = R134a 14 = R513A	
30100	Model Information		Enumeration	0 = RTA	
30101	Cooling Type		Enumeration	1 = Air Cooled	
30102	Manufacturing Location		Enumeration	2 = Pueblo 3 = Charmes 13 = Curitiba 14 = Taicang	
30103	Last Diagnostic Code		Enumeration		