UCC X3 Sequencer V8.00 BMS Points

Analogue Variables

BMS Address	Modbus Address	BacNet Address	Variable name	Description	Units of Measure/ Status Description	Read/Write
19	19	19	AMBIENT	outside ambient air temperature	Degrees Celsius (°C)	Read Only
20	20	20	RETURN_W_TEMP	common return water temperature	Degrees Celsius (°C)	Read Only
21	21	21	SUPPLY_W_TEMP	common supply water temperature	Degrees Celsius (°C)	Read Only
22	22	22	SETPOINT_OFFSET	remote 0 – 10VDC offset input	Volts (V)	Read Only
23	23	23	SET_TEMP	actual temperature setpoint	Degrees Celsius (°C)	Read Only
24	24	24	FREE_COOLING_DEMAND	free cooling demand	Percent (%)	Read Only
25	25	25	PROP_TEMP	DX cooling demand	Percent (%)	Read Only
26	26	26	UNIT1_DX_REQ	DX cooling demand chiller 1	Percent (%)	Read Only
27	27	27	UNIT2_DX_REQ	DX cooling demand chiller 2	Percent (%)	Read Only
28	28	28	UNIT3_DX_REQ	DX cooling demand chiller 3	Percent (%)	Read Only
29	29	29	UNIT4_DX_REQ	DX cooling demand chiller 4	Percent (%)	Read Only
30	30	30	UNIT5_DX_REQ	DX cooling demand chiller 5	Percent (%)	Read Only
31	31	31	UNIT6_DX_REQ	DX cooling demand chiller 6	Percent (%)	Read Only
32	32	32	UNIT7_DX_REQ	DX cooling demand chiller 7	Percent (%)	Read Only
33	33	33	UNIT8_DX_REQ	DX cooling demand chiller 8	Percent (%)	Read Only
34	34	34	UNIT1_FREECOOL_REQ	actual free cooling demand chiller 1	Percent (%)	Read Only
35	35	35	UNIT2_FREECOOL_REQ	actual free cooling demand chiller 2	Percent (%)	Read Only
36	36	36	UNIT3_FREECOOL_REQ	actual free cooling demand chiller 3	Percent (%)	Read Only
37	37	37	UNIT4_FREECOOL_REQ	actual free cooling demand chiller 4	Percent (%)	Read Only
38	38	38	UNIT5_FREECOOL_REQ	actual free cooling demand chiller 5	Percent (%)	Read Only
39	39	39	UNIT6_FREECOOL_REQ	actual free cooling demand chiller 6	Percent (%)	Read Only
40	40	40	UNIT7_FREECOOL_REQ	actual free cooling demand chiller 7	Percent (%)	Read Only
41	41	41	UNIT8_FREECOOL_REQ	actual free cooling demand chiller 8	Percent (%)	Read Only
42	42	42	RETURN_W__TEMP_AVERA	average temperature of all chiller's return water	Degrees Celsius (°C)	Read Only
43	43	43	SUPPLY_W__TEMP_AVERA	average of all chillers supply water temperature	Degrees Celsius (°C)	Read Only
44	44	44	ROOM_TEMP	room temperature	Degrees Celsius (°C)	Read Only
45	45	45	ROOM_HUMID	room humidity	Relative Humidity (RH)	Read Only
46	46	46	ROOM_ENTHALPY	room enthalpy	Enthalpy (kJ/kg)	Read Only
47	47	47	ROOM_DEWP	room dew point setpoint temperature	Degrees Celsius (°C)	Read Only
79	79	79	STRAT_VERSION	strategy version	N/A – Actual Value Returned Has No Units	Read Only
80	80	80	4648	test variable	0 = Communication Failure, 1 = Communication Established	Read Only
110	110	110	s_temp_setpoint	Standard Control setpoint	Degrees Celsius (°C)	Read/Write
111	111	111	sec_temp_setpoint	Second set point via digital input activation	Degrees Celsius (°C)	Read/Write
112	112	112	dt_value	Cooling control proportional band	Degrees Celsius (°C)	Read/Write
113	113	113	Dead_Zone	Cooling control dead band	Degrees Celsius (°C)	Read/Write
114	114	114	FC_Dem_Stand	FC demand to start standby unit	Percent (%)	Read/Write

Integer Variables

BMS Address	Modbus Address	BacNet Address	Variable name	Description	Units of Measure/ Status Description	Read/Write
1	129	1001	CURRENT_HOUR	current hour	Hour of the Current Day from 0 - 23	Read Only
2	130	1002	NEW_HOUR	new hour	Hour of the Current Day from 0 - 23	Read/Write
4	132	1004	CURRENT_MINUTE	current minute	Minute of the Current Hour from 0 - 59	Read Only
5	133	1005	NEW_MINUTE	new minute	Minute of the New Hour from 0 - 59	Read/Write
7	135	1007	CURRENT_DAY	current day	Day of the Current Month from 1 - 31	Read Only
8	136	1008	NEW_DAY	new day	Day of the New Month from 1 - 31	Read/Write
10	138	1010	CURRENT_MONTH	current month	Month of the Current Year from 1 - 12	Read Only
11	139	1011	NEW_MONTH	new month	Month of the New Year from 1 – 12	Read/Write
13	141	1013	CURRENT_YEAR	current year	Current Year from 0 – 99 with the year 2000 being 0	Read Only
14	142	1014	NEW_YEAR	new year	New Year from 0 – 99 with the year 2000 being 0	Read Only
16	144	1016	DAY_WEEK	current day	Current Day of the Current Week from 1 – 7	Read Only
17	145	1017	NEW_WEEKDAY	new day	New Day of the Current Week from 1 - 7	Read Only
19	147	1019	UNIT_STATUS	unit status	0 = Unit Enabled, 1 = Off by Alarms, 2 = Off by Supervisor, 3 = Off by Time Zone, 4 = Off by Digital Input, 5 =Off by Display, 6 = Manual Mode, 7 = Off by Rem Pump, 8 = NOT USED, 9 = NOT USED, 10 = Unit Standby	Read Only
20	148	1020	X_H_SYSON	sequencer run hours – high component	Hours (HRS)	Read Only
21	149	1021	X_L_SYSON	sequencer run hours – low component	Hours (HRS)	Read Only
22	150	1022	TOTAL_NUM_COMP_STAGES	current number of compressor stages available in the entire system	N/A – Value Has No Units	Read Only
23	151	1023	N_SEQ_REQUEST	sequencer requested DX cooling stages	N/A – Value Has No Units	Read Only
24	152	1024	N_SEQ_TOTAL	sequencer total active DX cooling stages	N/A – Value Has No Units	Read Only
26	154	1026	ORDER_START_U1	chiller number 1 starting sequence	Value from 1 - 8	Read Only
27	155	1027	ORDER_START_U2	chiller number 2 starting sequence	Value from 1 – 8	Read Only
28	156	1028	ORDER_START_U3	chiller number 3 starting sequence	Value from 1 – 8	Read Only
29	157	1029	ORDER_START_U4	chiller number 4 starting sequence	Value from 1 – 8	Read Only
30	158	1030	ORDER_START_U5	chiller number 5 starting sequence	Value from 1 – 8	Read Only
31	159	1031	ORDER_START_U6	chiller number 6 starting sequence	Value from 1 - 8	Read Only
32	160	1032	ORDER_START_U7	chiller number 7 starting sequence	Value from 1 - 8	Read Only
33	161	1033	ORDER_START_U8	chiller number 8 starting sequence	Value from 1 - 8	Read Only
34	162	1034	X_H_PUMP1	pump 1 run hours – high component	Hours (HRS)	Read Only
35	163	1035	X_L_PUMP1	pump 1 run hours – low component	Hours (HRS)	Read Only
36	164	1036	X_H_PUMP2	pump 2 run hours – high component	Hours (HRS)	Read Only

37	165	1037	X_L_PUMP2	chiller number 3 starting sequence	Value from 1 – 8	Read Only
80	208	1080	4648	test variable	0 = Communication Failure, 1 = Communication Established	Read Only

Digital Variables

BMS Address	Modbus Address	BacNet Address	Variable name	Description	Units of Measure/ Status Description	Read/Write
3	3	3	SET_HOUR	request to copy NEW_HOUR into HOUR	0 = No Action, 1 = BIOS copies value of NEW_HOUR into CURRENT_HOUR	Read/Write
6	6	6	SET_MINUTE	request to copy NEW_MINUTE into CURRENT_MINUTE	0 = No Action, 1 = BIOS copies value of NEW_MINUTE into CURRENT_MINUTE	Read/Write
9	9	9	SET_DAY	request to copy NEW_DAY into CURRENT_DAY	0 = No Action, 1 = BIOS copies value of NEW_DAY into CURRENT_DAY	Read/Write
12	12	12	SET_MONTH	request to copy NEW_MONTH into CURRENT_MONTH	0 = No Action, 1 = BIOS copies value of NEW_MONTH into CURRENT_MONTH	Read/Write
15	15	15	SET_YEAR	request to copy NEW_YEAR into CURRENT_YEAR	0 = No Action, 1 = BIOS copies value of NEW_YEAR into CURRENT_YEAR	Read/Write
18	18	18	SET_WEEKDAY	request to copy NEW_WEEKDAY into DAY_WEEK	0 = No Action, 1 = BIOS copies value of NEW_WEEKDAY into DAY_WEEK	Read/Write
19	19	19	REMOTE_ON_OFF	status of remote on/off by digital input (option)	0 = Off, 1 = On	Read Only
20	20	20	SUMMER_WINTER_DIN	status of 2nd temperature setpoint by digital input (option)	0 = 1st Setpoint, 1 = 2nd Setpoint	Read Only
21	21	21	KEYB_ON_OFF	keyboard/unit on/off by display	0 = No, 1 = Yes	Read Only
22	22	22	ASSIST_REQUIRED	temperature assist required (option)	0 = No, 1 = Yes	Read Only
23	23	23	GO_UNIT1	start chiller number 1	0 = No, 1 = Yes	Read Only
24	24	24	GO_UNIT2	start chiller number 2	0 = No, 1 = Yes	Read Only
25	25	25	GO_UNIT3	start chiller number 3	0 = No, 1 = Yes	Read Only
26	26	26	GO_UNIT4	start chiller number 4	0 = No, 1 = Yes	Read Only
27	27	27	GO_UNIT5	start chiller number 5	0 = No, 1 = Yes	Read Only
28	28	28	GO_UNIT6	start chiller number 6	0 = No, 1 = Yes	Read Only
29	29	29	GO_UNIT7	start chiller number 7	0 = No, 1 = Yes	Read Only
30	30	30	GO_UNIT8	start chiller number 8	0 = No, 1 = Yes	Read Only
31	31	31	GO_UNIT1_DX	start chiller 1 DX cooling	0 = No, 1 = Yes	Read Only
32	32	32	GO_UNIT2_DX	start chiller 2 DX cooling	0 = No, 1 = Yes	Read Only
33	33	33	GO_UNIT3_DX	start chiller 3 DX cooling	0 = No, 1 = Yes	Read Only
34	34	34	GO_UNIT4_DX	start chiller 4 DX cooling	0 = No, 1 = Yes	Read Only
35	35	35	GO_UNIT5_DX	start chiller 5 DX cooling	0 = No, 1 = Yes	Read Only
36	36	36	GO_UNIT6_DX	start chiller 6 DX cooling	0 = No, 1 = Yes	Read Only
37	37	37	GO_UNIT7_DX	start chiller 7 DX cooling	0 = No, 1 = Yes	Read Only
38	38	38	GO_UNIT8_DX	start chiller 8 DX cooling	0 = No, 1 = Yes	Read Only
39	39	39	GO_UNIT1_FC	start chiller 1 freecool	0 = No, 1 = Yes	Read Only
40	40	40	GO_UNIT2_FC	start chiller 2 freecool	0 = No, 1 = Yes	Read Only
41	41	41	GO_UNIT3_FC	start chiller 3 freecool	0 = No, 1 = Yes	Read Only
42	42	42	GO_UNIT4_FC	start chiller 4 freecool	0 = No, 1 = Yes	Read Only
43	43	43	GO_UNIT5_FC	start chiller 5 freecool	0 = No, 1 = Yes	Read Only
44	44	44	GO_UNIT6_FC	start chiller 6 freecool	0 = No, 1 = Yes	Read Only
45	45	45	GO_UNIT7_FC	start chiller 7 freecool	0 = No, 1 = Yes	Read Only
46	46	46	GO_UNIT8_FC	start chiller 8 freecool	0 = No, 1 = Yes	Read Only
47	47	47	ENABLE_UNIT1	enable chiller 1	0 = No, 1 = Yes	Read Only
48	48	48	ENABLE_UNIT2	enable chiller 2	0 = No, 1 = Yes	Read Only
49	49	49	ENABLE_UNIT3	enable chiller 3	0 = No, 1 = Yes	Read Only
50	50	50	ENABLE_UNIT4	enable chiller 4	0 = No, 1 = Yes	Read Only
51	51	51	ENABLE_UNIT5	enable chiller 5	0 = No, 1 = Yes	Read Only
52	52	52	ENABLE_UNIT6	enable chiller 6	0 = No, 1 = Yes	Read Only
53	53	53	ENABLE_UNIT7	enable chiller 7	0 = No, 1 = Yes	Read Only
54	54	54	ENABLE_UNIT8	enable chiller 8	0 = No, 1 = Yes	Read Only
55	55	55	RELAY_PUMP1	system pump 1 on/off	0 = Off, 1 = On	Read Only
56	56	56	PUMP1_STATUS	digital input status - pump 1	0 = Open, 1 = Closed	Read Only
57	57	57	RELAY_PUMP2	system pump 2 on/off	0 = Off, 1 = On	Read Only
58	58	58	PUMP2_STATUS	digital input status - pump 2	0 = Open, 1 = Closed	Read Only
59	59	59	EN_PUMP_OAT	pumps enabled by outdoor air temperature	0 = No, 1 = Yes	Read Only
60	60	60	RELAY_PUMP3	system pump 3 on/off	0 = No, 1 = Yes	Read Only
61	61	61	PUMP3_STATUS	digital input status - pump 3	0 = Open, 1 = Closed	Read Only
62	62	62	RELAY_PUMP4	system pump 4 on/off	0 = Off, 1 = On	Read Only
63	63	63	PUMP4_STATUS	digital input status - pump 4	0 = Open, 1 = Closed	Read Only
64	64	64	SYSON_S	sequence manager on/off	0 = Off, 1 = On	Read Only
80	80	80	1	test variable	0 = Communication Failure, 1 = Communication Established	Read Only
101	101	101	MANUAL_ON_OFF	manual override mode alarm, unit in manual operation	0 = Healthy, 1 = Alarm	Read Only
102	102	102	LIGHT_ALARMS	non-critical alarm	0 = Healthy, 1 = Alarm	Read Only
103	103	103	SERIOUS_ALARMS	critical alarm	1 = Healthy, 1 = Alarm	Read Only
104	104	104	AL_CLOCK32	controller real time clock failure alarm	0 = Healthy, 1 = Alarm	Read Only
105	105	105	LAN_DISCONNECT	PLAN network disconnection alarm (1 or more units not connected)	1 = Healthy, 1 = Alarm	Read Only
106	106	106	AL_HOUR_SYSON	system maintenance hours alarm	0 = Healthy, 1 = Alarm	Read Only
107	107	107	AL_PASSWORD	password alarm - password entered wrong 3 times	0 = Healthy, 1 = Alarm	Read Only
108	108	108	AL_RETURN_W_TEMP	return water temperature probe fault alarm	0 = Healthy, 1 = Alarm	Read Only
109	109	109	AL_SUPPLY_W_TEMP	supply water temperature probe fault alarm	0 = Healthy, 1 = Alarm	Read Only
110	110	110	AL_AMBIENT	ambient air temperature probe fault alarm	0 = Healthy, 1 = Alarm	Read Only
111	111	111	AL_FREEZE_C	freeze protection alarm	0 = Healthy, 1 = Alarm	Read Only
112	112	112	AL_RET_W_HI_1	high return water temperature alarm	0 = Healthy, 1 = Alarm	Read Only
113	113	113	AL_PLAN1	chiller 1 PLAN network disconnected	0 = Healthy, 1 = Alarm	Read Only
114	114	114	AL_PLAN2	chiller 2 PLAN network disconnected	0 = Healthy, 1 = Alarm	Read Only
115	115	115	AL_PLAN3	chiller 3 PLAN network disconnected	0 = Healthy, 1 = Alarm	Read Only
116	116	116	AL_PLAN4	chiller 4 PLAN network disconnected	0 = Healthy, 1 = Alarm	Read Only
117	117	117	AL_PLAN5	chiller 5 PLAN network disconnected	0 = Healthy, 1 = Alarm	Read Only
118	118	118	AL_PLAN6	chiller 6 PLAN network disconnected	0 = Healthy, 1 = Alarm	Read Only
119	119	119	AL_PLAN7	chiller 7 PLAN network disconnected	0 = Healthy, 1 = Alarm	Read Only
120	120	120	AL_PLAN8	chiller 8 PLAN network disconnected	0 = Healthy, 1 = Alarm	Read Only
121	121	121	AL_PUMP1	pump 1 status alarm	0 = Healthy, 1 = Alarm	Read Only

122	122	122	AL_PUMP2	pump 2 status alarm	0 = Healthy, 1 = Alarm	Read Only
123	123	123	SER_PUMP_AL	serious flow alarm within 24 hours	0 = Healthy, 1 = Alarm	Read Only
124	124	124	AL_PUMP3	pump 3 status alarm	0 = Healthy, 1 = Alarm	Read Only
125	125	125	AL_PUMP4	pump 4 status alarm	0 = Healthy, 1 = Alarm	Read Only
126	126	126	AL_REM_VDC	remote 0 – 10VDC input fault alarm	0 = Healthy, 1 = Alarm	Read Only
127	127	127	AL_ROOM_HUMID	humidity alarm	0 = Healthy, 1 = Alarm	Read Only
128	128	128	AL_ROOM_TEMP	room temperature alarm	0 = Healthy, 1 = Alarm	Read Only
129	129	129	AL_INV_P1	inverter pump 1 alarm	0 = Healthy, 1 = Alarm	Read Only
130	130	130	AL_INV_P2	inverter pump 2 alarm	0 = Healthy, 1 = Alarm	Read Only
131	131	131	AL_PUMP_PRESS_1	pump pressure alarm 1	0 = Healthy, 1 = Alarm	Read Only
132	132	132	AL_PUMP_PRESS_2	pump pressure alarm 2	0 = Healthy, 1 = Alarm	Read Only
133	133	133	AL_DIFF_WATER1	water differential alarm 1	0 = Healthy, 1 = Alarm	Read Only
134	134	134	AL_DIFF_WATER2	water differential alarm 2	0 = Healthy, 1 = Alarm	Read Only
181	181	181	SUPERV_ONOFF	on/off by bms	0 = Off, 1 = On	Read/Write
182	182	182	ALARMS_RESET	reset alarms	0 = No, 1 = Yes	Read/Write
183	183	183	TEMP_CONTROL	temperature control option	0 = Return Water Control, 1 = Supply Water Control	Read/Write
185	185	185	DX_DEMAND_LOAD	specify how demand is shared across units	0 = 100% Demand on Unit Before Next Unit is Requested, 1 = Share Demand Between All Run Units	Read/Write
187	187	187	DIS_STANDBY_FC	Enable standby units when free cooling is available	0 = No, 1 = Yes	Read/Write
188	188	188	EN_SLAVE_DEM	enable standby units with no cooling demand	0 = No, 1 = Yes	Read/Write
189	189	189	MASTER_SLV	enable master slave mode of operation	0 = No - Run/Standby, 1 = Yes - Master/Slave	Read/Write