SLC4075TechNote216_BMIRunConditionChecklist

08/16/24

This document is a checklist for the Selectronix Building Management Interface boiler run condition.

1   Minimum Program Parameter Verification

Referenced Page numbers may be different depending on firmware version.

1.1 Hot Water Boilers

Touchscreen Page	Touchscreen Title	Description	BACnet Datapoint	Modbus Datapoint	Required Data Value	Remarks
1		"Aux/DDC" ("Aux/BMS") switch set to "DDC" (or BMS)	AV0001	400001	90	
1		DDC Step Cmd	AV0002	400003	Non-zero	
3	SPM1	Setpoint modifier (usually 0)	AV0016	400031	As desired	
3	Unm Setpt	Unmodified Setpoint	AV0017	400033	As desired	
3	PID1 Proportion	Proportion is multiplier of error between setpoint and actual temperature	AV0020	400039	As desired	Normal range 500-2000
3	PID1 Integral	Integral adjusts output based or error between setpoint and actual temperature	AV0021	400041	As Desired	Normal range 0-10
3	PID1 Derivative	Derivative adjusts output based on rate of change of temperature	AV0022	400043	As Desired	Normal range 0
5	PID2	PID2 Mode Select = 0 Disabled	AV0031	400061	0	
7	RTD	Verify the temperature for RTD1 is reasonable for current condition	AI0031	300061	Matches current conditions	
9	GPDI	General Purpose Digital Input for **Single Boiler** 1. Low Water 2. High Limit 3. Status	AI0038	300075	Not 1,2, or 3 indicating lockout	Ready to run=4
	GPDI	General Purpose Digital Input for **2 Boilers** 1. Blr L/O #1 2. Blr L/O #2 3. Status #1 4. Status #2	AI0038	300075	Run Both Blrs = 12 Run Blr 1 only = 4 Run Blr 2 only = 8	
	GPDI	General Purpose Digital Input for **3 or 4 Boilers** 1. Blr L/O #1 2. Blr L/O #2 3. Blr L/O #3 4. Blr L/O #4	AI0038	300075	Blr L/O Bit for respective Blr must be 0	
16	SLC4000 Information	DDC Load Limit	AV0003	400005	-1 or 0	-1 uses Aux load limit

Touchscreen Page	Touchscreen Title	Description	BACnet Datapoint	Modbus Datapoint	Required Data Value	Remarks
16	SLC4000 Information	S4K Load Limit %	AI0012	300023	0	Hardware terminals
16	SLC4000 Information	S4K Master % output	AI0026	300051	As applicable	
16	SLC4000 Information	S4K Exp01 % output	AI0027	300053	As applicable	
16	SLC4000 Information	S4K Exp02 % output	AI0028	300055	As applicable	
16	SLC4000 Information	S4K Exp03 % output	AI0029	300057	As applicable	
20	Classic Lead/Lag	Desired Boiler switches are "ON"	AV0012	400023	Boiler bit is set when enabled	Non-zero

1.2 Steam Boilers

Touchscreen Page	Touchscreen Title	Description	BACnet Datapoint	Modbus Datapoint	Required Data Value	Remarks
1		"Aux/DDC" ("Aux/BMS") switch set to "DDC" (or BMS)	AV0001	400001	90	
1		DDC Step Cmd	AV0002	400003	Non-zero	
3	PID1	PID2 Mode Select = 0 Disabled	AV0015	400029	0	
5	PID2	PID2 Mode Select = 1 Heat Mode DDC	AV0031	400061	1	
5	SPM2	Setpoint modifier (usually 0)	AV0032	400063	As desired	
5	Unm Setpt	Unmodified Setpoint	AV0033	400065	As desired	
5	EU	Engineering Units	AV0034	400067	4	4=PSI
5	PID2 Proportion	Proportion is multiplier of error between setpoint and actual temperature	AV0036	400071	As desired	Normal range 500-1000
5	PID2 Integral	Integral adjusts output based or error between setpoint and actual temperature	AV0037	400073	As Desired	Normal range 0-10
5	PID2 Derivative	Derivative adjusts output based on rate of change of temperature	AV0038	400075	As Desired	Normal range 0
9	GPDI	General Purpose Digital Input for Single Boiler 1. Low Water 2. High Limit 3. Status	AI0038	300075	Not 1,2, or 3 indicating lockout	Ready to run=4
	GPA	General Purpose Analog 1 Verify the pressure for GPA1 is reasonable for current condition	AI0036	300071	Matches current condition	
16	SLC4000 Information	DDC Load Limit	AV0003	400005	-1 or 0	-1 uses Aux load limit
16	SLC4000 Information	S4K Load Limit %	AI0012	300023	0	Hardware terminals
16	SLC4000 Information	S4K Master % output	AI0026	300051	As applicable	
16	SLC4000 Information	S4K Exp01 % output	AI0027	300053	As applicable	
16	SLC4000 Information	S4K Exp02 % output	AI0028	300055	As applicable	
16	SLC4000 Information	S4K Exp03 % output	AI0029	300057	As applicable	

| 20 | Classic Lead/Lag | Desired Boiler switches are "ON" | AV0012 | 400023 | Boiler bit is set when enabled | Non-zero |

For additional questions email <u>techsupport@selectronix.us</u> or call us.