Selectronix, Inc.

16419 199th Court Northeast
Woodinville, Washington 98077-5401
selectronix.us
(425) 788-2979

SLC4075TechNote213_Non-DDC PID Control Using Voltage Driver

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Subject: Method to use only hardware output signals to isolate from direct digital control via the Selectronix communication link (SLCnet)

This mode may be used by those who wish to be able to be select between using an optional Auxiliary Controller and the Selectronix Building Management Interface (BMI), without using the integrated software-controlled Aux/DDC switch on the touchscreen (TSGW). This option directs the SLC4060 (PGW) PID output to the voltage driver, without using the digital signal across SLCnet.
Note that this isolation technique is software controlled,
An alternate solution which disables communication over SLCnet is to disconnect power to the TSGW and PGW, as detailed in "**Alternate Hardware Solution**" , below.

1 Software Isolation - Auxiliary Controller and BMI

Additional Equipment Required:

- DPDT 2-position switch to select either Auxiliary Controller or BMI

There are 2 PID loops which may generate outputs.

- PID1 uses the RTDs to monitor the control variable
- PID2 uses the general purpose analog input to monitor the control variable.

There are 2 non-DDC PID modes which do not change the digital step command. For DDC modes, the digital step command is transmitted via the cascading cables on SLCnet, the Selectronix internal communication link..

Set up for Voltage-Only PID Control

1. Set the desired PID Mode Select for Non-DDC PID mode
    a. PID mode 3 for Heat mode or 4 for Cool mode
2. Set the PGW (SLC4060) Voltage Driver Source Select to one of the following
    a. 5 for PID1 0-10V
    b. 7 for PID2 0-10V
3. Set the SLC4000 input configuration for 0-10V
4. Set the Auxiliary controller input configuration for 0-10V
5. Connect the (+) and (-) output from the Auxiliary controller to the 2-position switch
6. Connect the output from the SLC4060 TB19 (+) and TB20 (-).to the 2-position switch
7. Connect the (+) common terminal of the switch to the SLC4000 TB2 (+).
8. Connect the (-) common terminal of the switch to the SLC4000 TB3 (-).
9. Use a selector switch to select between the PGW output OR the Auxiliary Controller

2 Alternate Hardware Isolation - Auxiliary Controller and BMI

Additional Equipment Required:

- Switch to control power to the TSGW and (PGW

1. Connect the Auxiliary Controller (+) to the SLC4000 TB2 (+)
2. Connect the Auxiliary Controller (-) to the SLC4000 TB3 (-)
3. Switch power OFF to the TSGW and PGW to exclusively use the Auxiliary Controller.