

Setup of the Omega DP-41 TC for monitoring the EIO Collector

The temperature controller is set to alarm when the Thermocouple detects a reading above 35 C on the collector.

It is necessary to make sure the controller is set to read the appropriate thermo couple type. In this case type T.

Press MENU until INPUT is displayed.

Press MIN until TC is displayed.

Press MAX, selecting TC.

Press MENU. Stored will be displayed. You have told the Controller that you are using a thermocouple.

Press MIN once to start selecting types.

Press Max until T is displayed.

Press Menu to store selection.

Next it is time to set the alarm options. You can hit reset twice to go back to RUN mode.

Now press MENU until you see SP CNF.

Press MIN until you see the SPC.7 option.

Press MAX until it is set on 1.

This has turned off set point 1 and 2. We are using set point 3 and 4 (alarm 1 and 2 respectively)

Now the alarm configuration.

Press MENU until you see AL CNF. Press MIN to start cycling through the sub options. Set them as follows. (MAX changes the option, MIN moves to the next one, MENU stores and exits the submenu, RESET twice will put you in run mode)

ALC.1=0	Alarm 1 is active when measurement is above setpoint
ALC.2=1	Open-collector output off when alarm 1 active
ALC.3=0	Compares alarm 1 value to unfiltered measurement
ALC.4=0	Alarm 2 is active when measurement is above setpoint
ALC.5=0	Open-collector output off when alarm active 2
ALC.6=0	Compares alarm 2 value to unfiltered measurement
ALC.7=0	Alarm 1 & 2 active (don't know how to turn 2 off)
ALC.8=0	Disables alarm reset at the P2-11 connector (I don't believe we use this)

Now press MENU to save the changes, and it should advance you to AL FNC (get there by pressing MENU some more, if it doesn't)

Press MIN and adjust the following options.

ALF.1 =0	Alarm 1 operates independent of the other setpoints
ALF.2 =0	Circuit is non-latching. When the alarm 1 triggers, it will reset once the measurement leaves the alarm area.
ALF.3 =0	Alarm 2 operates independent of the other setpoints
ALF.4 =0	Circuit is non-latching. When alarm 2 triggers, it will reset once the

measurement leaves the alarm area.

The dead-band and delays should be off. If someone has been doing crazy stuff with hysteresis and other tricky alarm thingies, you are going to be stuck reading through the manual to reset everything.

One changes the set points by pressing setpoint until Setpoint 3 is displayed. This is your alarm level. Change it by pressing MIN until you get to the digit you want to change, then press MAX to change the digit. Then press stpnt to store and move to the next set point. Set Setpoint 4 to a higher value than 3, because 4 is also on, and you don't want it triggering at a lower level than 3.

Box P6, pins 2 and 3 are the relay that is normally closed. When the alarm triggers, the connection between them breaks. It reconnects when the measurement falls below set point 3.