



THERMAL RECs CORRESPONDENCE

1. The initial value for the flow of the heat loop will be established by the portable flow meter as opposed to the nameplate of the motor. Otherwise we risk invoking the 10% discrepancy clause after the first check. We'll still use the nameplate capacity internally to evaluate the health of the loop.

2. I would like to use IFM Efector temperature sensors as opposed to Endress+Hauser.

Here is the cut sheet of the E+H sensor series the PUCO application specified:

https://portal.endress.com/wa001/dla/5000001/5756/000/01/TI00108ren_0111.pdf

We were planning on using the TMT82 transmitter which has a specified accuracy of ± 0.25 °C

Here's the IFM Efector sensor series I'd like to use (Specifically the TA2333 installed with the E37210 thermowell)

<https://www.ifm.com/ifmus/web/ta1.htm>

Accuracy is specified as ± 0.3 °C $\pm 0.1\%$ of the measurement span. I'll have the measurement span be 50 °C (122 °F - 212 °F) so accuracy should be ± 0.35 °C.

I have attached the cut sheet of the TA2333

The IFM Efector version is slightly less accurate than the E+H, it is up to you to decide if this difference is significant.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

1/6/2016 10:39:59 AM

in

Case No(s). 14-2249-EL-REN

Summary: Reply electronically filed by Mr. Bruce Bailey on behalf of Haviland Energy, LLC