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THE GENBA

1/2 inch remote sealed-type transmitter Note on measuring steam flow

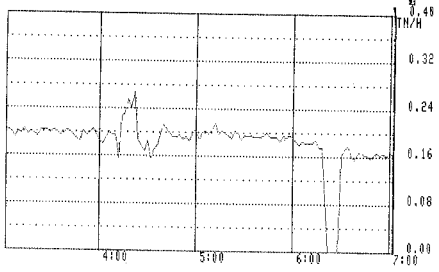
Lines for steam flow measurement consist of the orifice assembly, impulse pipes, condenser pots and the differential pressure transmitter with remote sealed type. Each impulse pipe lead pressure to the differential transmitter by mediating the condenser pot. The impulse pipe, condenser pot, and differential transmitter meter body (capsule part) are thermal insulated to prevent temperature loss and each of these are steam traced.* The cost to install all of these parts, and the cost of steam trace operation are immense.

**: For freezing ambient temperature*

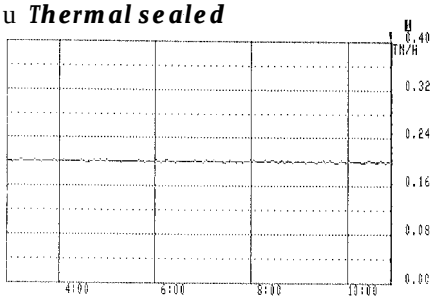
1/2 inch remote sealed-type transmitters no longer require impulse pipe, sealed pot, or steam trace.Therefore, they are becoming more popular for use in various applications.
With this in mind, we chose a 1/2 inch remote sealed type transmitter.
First, a 1/2 inch remote sealed-type transmitter was connected to flange no. 1, which was attached to the tip of the impulse pipe about 50 cm from an orifice flange. The impulse pipe, condenser pot, and steam trace were all located away from the 1/2 inch remote sealed type transmitter.
The result was a simpler piping system with the indicator of the transmitter being much more stable than before.

A tip on how to use transmitters in steam flow measurement lines

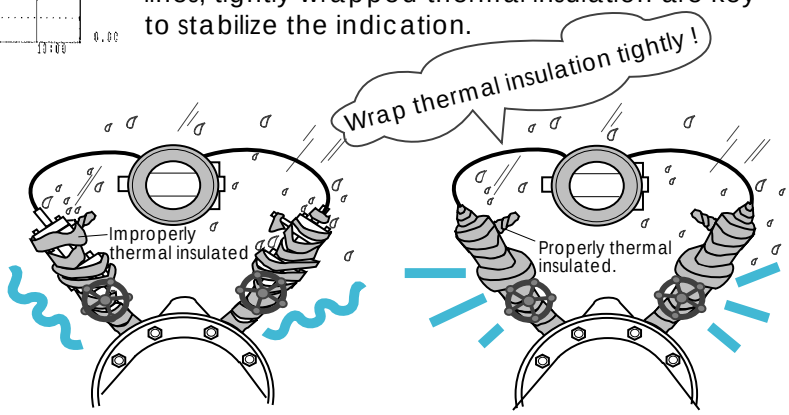
u ***Fluctuation due to heavy rain***

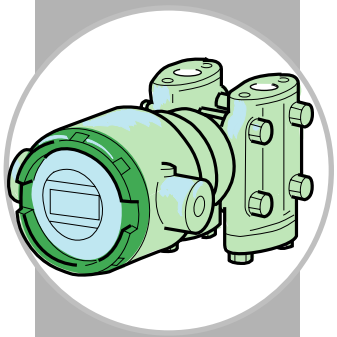


u ***Thermal sealed***



For steam flow rate measurement lines, you should wrap thermal insulation to stabilize the indication. Here's one example;
One day in an early summer, it rained heavily and the indicator of the transmitter showed a dramatic drop in pressure. The reason for this was later summarized to be since the thermal insulation was wrapped loosely from the orifice flange to impulse pipe, first flange, and the insulated part of the transmitter's diaphragm, the rain cooled these parts down, thus drastically causing the vapor to liquefy. To correct this, we wound the parts tightly with thermal insulation tape. There were no problems after the next rainfall. The indicator proved to be stable, and there was no fluctuation caused by rain.
Therefore, for steam flow rate measurement lines, tightly wrapped thermal insulation are key to stabilize the indication.





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Contact to: