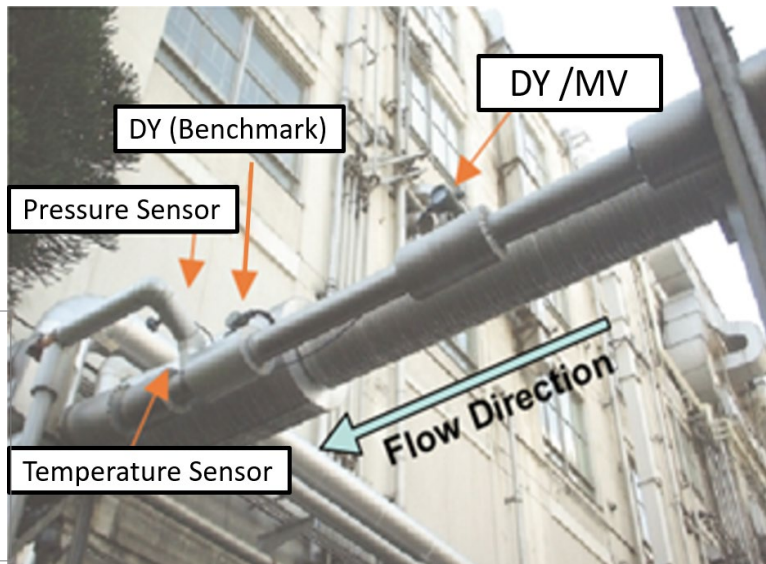


Massflow Measurement of Steam

- ❑ **Application :** Saturated steam measurement for massflow rate
- ❑ **Products:** [digitalYEWFLO DY_/MV \(Vortex Flowmeter\)](#)
- ❑ **Requirements**

Need to improve the current unstable measurement of steam flow rate. Besides stable measurement, mass flow rate needs to be confirmed at this measuring point but minimize the number of additional measurement points.

Model : DY050/MV
 Process Condition :
 Size : 50mm
 Fluid : Saturated Steam ;
 155°C, 5.3kg/cm2 abs
 Flowrate : 0 – 1500 m3 /h



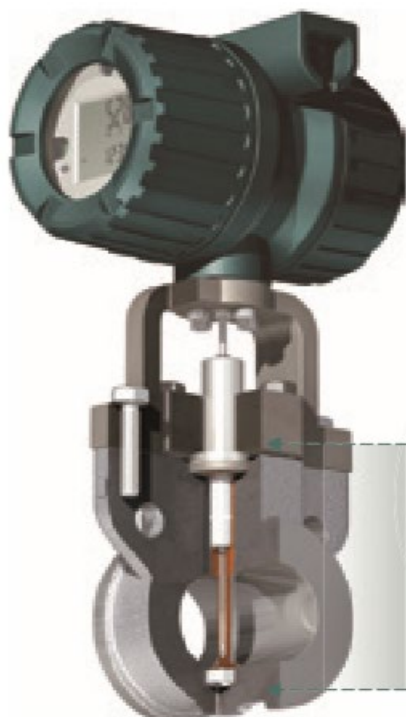
❑ Proposal

digitalYEWFLO Multi-Variable type can measure flow rate and flow temperature in real time. Temperature fluctuation is simultaneously followed for the output. This enables high accuracy measurement with temperature offset calculation by steam table, and limits the effect of flow change and boiler oscillation.

Multi-Variable Type

Shedder bar with built-in temperature sensor:

- The shedder bar, which is strong enough to be used as a thermowell, incorporates RTD sensor (Pt1000, Class A) for temperature measurement.
- Mass flow rate is calculated based on measured temperature.
- A high level of safety is assured without the expense or installation of a temperature sensor, and additional process connection is not required.



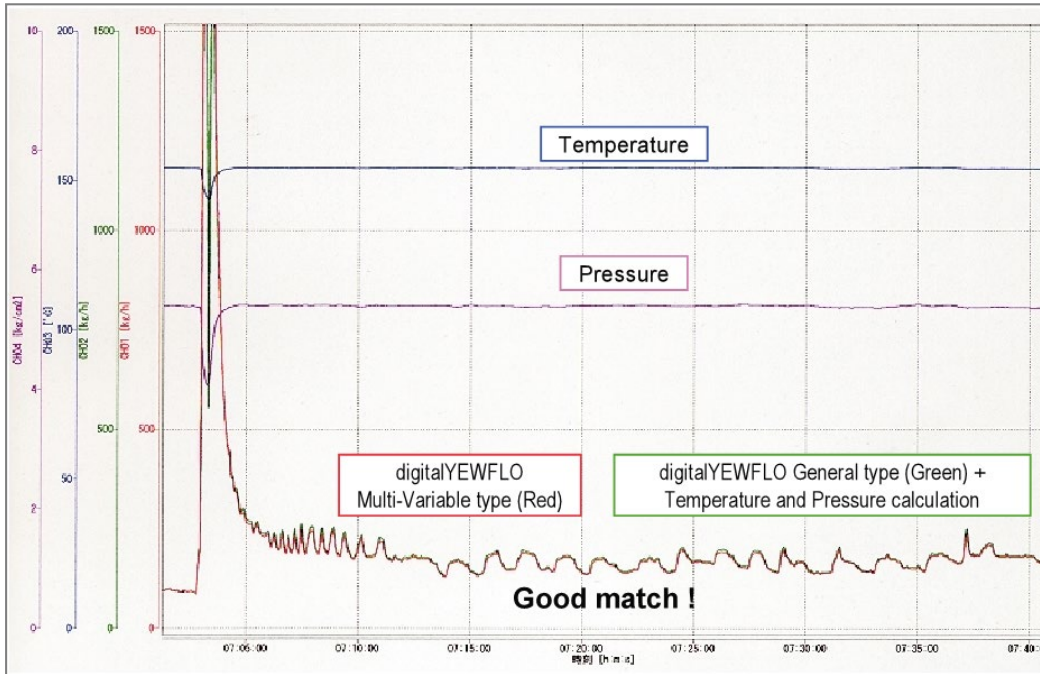
Temperature Sensor

Built-in temperature sensor housed inside the shedder bar. Based on signals from the temperature sensor, which is protected by the shedder bar serving as a protector tube, the mass flow rate of saturated steam is calculated.

Comparison test DATA of saturated steam measurement

digitalYEWFLO vs YEWFLO (general type) + Temperature input + Pressure input

Beneath data shows the equality of output signal from “digitalYEWFLO Multi-Variable type” and “mass flow computer, receiving the data from digitalYEWFLO(General type), temperature sensor and pressure gauge”.

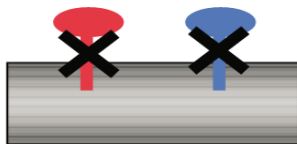


digitalYEWFLO always output the optimal vortex signal with making full use of the latest Digital signal processing technology, and minimize the effect of fluctuation or vibration noise coming from boiler.

Advantage

digitalYEWFLO Multi-Variable type contributes to cost down, save-energy, and production efficiency of Saturated Steam measurement.

NO temp. sensor!
NO press. gauge! → **COST DOWN**
Installation Cost
Operation Cost



Simplify Installation
Enhance Plant Safety

PLAN and DO! → **Production efficiency!**
Save-Energy



Directly output of MASS flow
Save-energy plan by integration function
Simple setting for central control

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