Beneficial operation of Oxygen supply measurement for reaction vessel by digitalYEWFLO Multivariable type!

Productivity enhancement is expected by utilizing temperature correction function!

A chemical company has been using a variable-area flowmeter at raw material oxidative reaction line. The replacement of flowmeter for productivity enhancement was planned.

The customer was considering about temperature correction to adjust temperature error (about 10%) for this replacement, because the customer did not adjust temperature error by variable-area flowmeter.

digitalYEWFLO Multivariable type has the following advantages.

① Extra temperature is not necessary because of built-in temperature sensor.
② Temperature correction can be calculated by flowmeter side.
③ Available the same wiring for replacement to two-wired flowmeter.
④ Low cost installation is possible.

Process Summary

Specification
digitalYEWFLO: 3qty
Temp.: 25℃
Press.: 0.17MPa
Flowrate: 100—150Nm3/h
Field Data

On this process, temperature correction is necessary for the most suitable flow supply for the reaction vessel. Previous variable-area flowmeter did not compensate for temperature so that temperature fluctuation had been occurred by seasonal condition (Summer/Winter).

digitalYEWFLO Multivariable type can operate the accurate flowrate control by temperature correction of built-in temperature sensor.

Advantage for operation

digitalYEWFLO Multivariable type could realize the installation cost reduction by using the existing wiring. As a comparison, a mass flowmeter is not possible to use the existing wiring because it is 4-wire system flowmeter. This brings installation cost increase. Therefore, almost 25% cost reduction was realized by operation of digitalYEWFLO Multivariable type, comparing with mass flowmeter.

These graphs are cost comparison of digitalYEWFLO when Mass flowmeter is reference.

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**NOTICE**
- Before operating the product, read the instruction manual thoroughly for proper and safe operation.
- If this product is for use with a system requiring safeguards that directly involve personnel safety, please contact the Yokogawa sales offices.

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