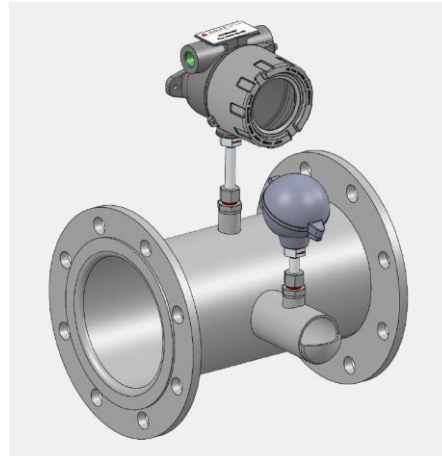


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New product introduction: BinderGroup introduces new mass flow measuring system for syngas at IFAT - Hall A5 Booth 139

The newly developed gas flow measuring system COMBIMASS® syngas is based on the gas flow meters of the COMBIMASS® eco and flaremass series, that have been successful in the marketplace for many years. It is designed for measuring gases with variable composition, particularly fluctuating, unknown proportions of hydrogen in the gas mix. It uses thermal dispersion technology to measure mass flows of dry gases at standard conditions.



The thermal sensors are calibrated for a constant composition of the gas, taking into account the installation details (e.g. pipe orientation etc.) of the sensor. When the composition of the gas fluctuates and the influence is not compensated, the accuracy of the measurement suffers. The hydrogen component of the gas mix causes particularly high cooling rates of the sensor, so fluctuations can cause significant measurement errors.

The COMBIMASS® syngas system features a second sensor (on the right in the picture) in a flow stabilized space to measure the hydrogen concentration. It sends the signal to an analog input in the first sensor (left in the picture), which compensates for the measured hydrogen component in real time. Additional circuitry or a compensation module is not needed. A measurement error of about 5% to 8% can be achieved.

If higher measurement accuracy of the generated gas is specified, or if the energy content of the gas needs to be measured, then the system needs to be linked to a gas analysis unit of the COMBIMASS® GA-s hybrid series. This uses various methods to measure the individual gas components, and auto calibration ensures measurement accuracy for extended periods. This allows the gas measurement signal to be precisely corrected and the energy content can be calculated.



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