

# 17.10.2018 | Press Release Flow Monitors

The Fludix flow meters of the Center of Competence Honsberg.

# Flow meters – just three selection steps for the appropriate device.

Cooling and lubricant circuits are the life-sustaining veins in industrial processes. Interruption of a fluid circuit can entail shut-downs of entire plants. Reliable flow monitoring is therefore vitally important. The Fludix flow meters of the Center of Competence Honsberg of GHM GROUP offer the demanded reliability with a proven measuring principle combined with a modular configuration of the measuring devices and easily selectable parameters to provide the highest degree of individual configuration possibilities, which is an advantage that cannot be overstated.

Fluid circuits in industrial applications handle the tasks of cleaning, cooling and lubricating the plants. An interruption of the fluid flow means that there is a risk of consequential damages. Therefore, flow monitors and meters must always provide maximum reliability in an alarm-ready state and react immediately and as necessary. In this context, Honsberg devices are based on an extremely reliable measuring principle. The spring-supported piston acting as the central element of the Fludix measuring units is distinguished by mechanical durability and insensitivity to dirt and contamination. It is also delivered in a compact design and enables position-independent installation.

As diverse as the demands in various applications can be, so too are the selection criteria to be observed, which can include, for instance, the measured medium, the measuring or switching range, the operating temperature range, the pressure resistance, the dynamic behaviour or the signal outputs. How is the right solution found in the multitude of possible device configurations?

The Fludix flow meters answer this question with a modular design that allows for a wide variety of individual configuration possibilities. Only three simple steps are necessary for configuration: First, selection of the signal unit, then identification of the suitable float and, finally, determination of the housing and its nominal width.

#### Interface to the outside world: the signal units.

The signal units are located outside of the flow space and are magnetically coupled to evaluate the position of the spring-supported piston in the housing interior. Three basic methods are available. In the simplest case, a position indicator can be used to for visual readings of the speed of the fluid flow. An electrical signal is not available in this case. If electrical evaluation should be used to determine whether a flow rate has been exceeded or undercut, the measuring instrument can be provided with a contact and the switching value is determined by the position of the contact. To facilitate this, its mounting position on the housing can be shifted. Switching signal units of this type are available in different versions and for use in explosion-prone atmospheres (ATEX version).

Electronic signal units are available for display and transmission of current flow rates in analogue form. With magnetically-sensitive sensors, they detect the position of the float



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and issue the measured result in the form of various industrially-standardised signals. In addition to analogue output, limit value monitoring with adjustable hysteresis is also possible. With electronic measurement of the entire path of piston travel, a mechanical shift of the signal units is not necessary. Parameterisation and configuration are carried out entirely by software.

## The float assembly determines the measuring range.

The internal values of Fludix measuring units are represented by the float assemblies. They consist of a float equipped with magnet, a spring and a guide element. The float assembly determines the measuring or switching range with its dimensioning. Therefore, different assemblies are available for different flow ranges and fluids – depending on which medium with which viscosity and speed should be measured in the circuit.

## Compensation takes place for changes in viscosity.

The viscosity of a liquid depends heavily on the temperature. In order to also ensure reproducible measurements and switching in fluctuating temperatures, the Fludix instruments intended for use with oils are designed so that they can compensate for changes in viscosity within wide ranges.

## The housing: robust and high-pressure resistant.

Not only does the Fludix housing accommodate the float, it also serves as a pressure-containing enclosure with mounting surfaces for the signal units. Various housing shapes are available for the standard widths DN8 to DN50. Brass and stainless steel are offered as construction materials. All housings have a minimum standard pressure resistance of 200 bar. Special versions withstanding up to 500 bar are also available.

With knowledge of the desired signal unit, measuring range, nominal width and housing material, customised flow meters can be configured from a wide variety of selection options. The Center of Competence Honsberg also offers individual consultation to solve specific measuring tasks.



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#### **About GHM Messtechnik GmbH**

GHM Messtechnik GmbH is a pioneering specialist and complete provider for innovative measuring a regulation technology. With more than 330 employees in 15 locations worldwide, the company develops and produces a wide assortment of more than 2 000 high-quality device types for all significant areas of industrial sensors and electronics.

From the fusion of the Greisinger, Honsberg, Martens, Imtron, Delta OHM and Val.co companies, the GHM GROUP still considers itself a tradition-oriented company. With an eye on the vision of the founders, the company continues in its consistent efforts to permanently advance measuring and regulation technology with innovative developments and application-specific solutions with high customer value.

The central focus is the bundling of technological expertise for development of customer-oriented solutions that are appropriate for the market and tailored to the high demands of industry and producing industry. In addition to long-term expertise and state-of-the-art production methods, the GHM GROUP offers competent application consultation and comprehensive customer service, high flexibility even for small part quantities, quick device adaptations and short delivery times. This is all offered at an outstanding price-performance ratio.

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