

Intelligent Solutions for Highest Demands
New Filling Level Technology Completes an Innovative Actuator Concept



bürkert
FLUID CONTROL SYSTEMS

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Modular high-tech Solutions

Bürkert is introducing a new series of sensors to meet the demanding tasks of the pharmaceutical and food industries. It is modular, intelligent and fulfills the stringent requirements regarding design, appearance and ease of cleaning in these industries, in the hygiene sector and in water treatment systems. Our innovations implement process connections and measuring technology for application in ultra-pure water circuits used in the pharmaceutical branch as well as in sewage treatment plants. Whether aggressive or neutral media: high-tech from Bürkert quickly and efficiently solves your problems. Different measuring principles integrated into a single housing are available:

- Tuning fork for ON/OFF monitoring or overflow protection
- Ultrasound for water treatment on the basis of a 2-wire circuit
- Guided microwave
- Radar



Microwave



Tuning fork



Ultrasound

One Concept – Many Variants

The new filling level concept allows a variety of options thanks to its modular structure and diverse possibilities in regards to measuring technology and connection types. It offers a uniform housing in a smooth, clean design with an IP67 type of protection, making it especially easy to adapt process connections to a wide range of requirements. The modular operation features a display which can be turned through 90° and comprises a multilingual operating menu and dot matrix screen. Storing the sensor data ensures quick servicing.

Including Ex “ia”

Our filling level technology range complies with the regulations for the following fields of application with respect to its design, structure and use of modules and components:

- EHEDG regulations pertaining to requirements in hygienic areas
- Ex “ia” Atex approvals
- Regulations on the use of materials resistant to cleaning fluids

Integrative and Communicative

Due to its 2-wire circuit, our new product range is optimally tailored to process systems and offers individual signal processing:

- 2-wire circuit with 4–20 mA output
- Optional interface for Profibus PA or FOUNDATION Fieldbus
- Hart protocol
- Limit detection via contactless output, transistor or NAMUR signal

This technology can therefore be integrated into almost any system configuration. Modularity from Bürkert means: infinite possibilities.

OVERVIEW OF TUNING FORK DEVICES

- Medium temperature: -20 °C to +150 °C
- Pressure rating: PN16
- Process pressure: up to 64 bar
- FDA-compliant materials: 316 L, Hastelloy, Monel, ECTFE, PFA
- Also suitable for contaminated and/or aggressive media
- Enhanced protection due to hinged cover
- FDA-approved design
- NAMUR signal (ATEX-approved)

OVERVIEW OF ULTRASONIC DEVICES

- Medium temperature: -40 °C to +80 °C
- Process pressure: max. 3 bar
- FDA-compliant materials
- Also suitable for contaminated and/or highly viscous and/or aggressive media
- FDA-approved design
- NAMUR signal (ATEX-approved)

OVERVIEW OF GUIDED MICROWAVE DEVICES

- Medium temperature: -40 °C to +150 °C
- Process pressure: up to 40 bar
- FDA-compliant materials: 316L or Hastelloy C 22
- Also suitable for low viscous to adhering media such as solvents, hydrocarbons and aqueous media
- Cable diameter: 4 mm
- Rod diameter: 6 mm
- Insensitive to dust atmosphere, condensate, caking and deposits
- Measuring range: up to 32 m



Systematic Filling Level Control

The efficient combination of sensor systems and intelligent process valves creates systematically optimized control loops which deploy state-of-the-art technology not only for filling level and flow control, but for analysis tasks as well. The communication module, which is based on optimized interfaces, PID process controller and local sensor feed are integrated into the valve head. In particular, this also enables implementation of low-cost local control loops, which communicate with superordinate systems such as PLCs and DCSs via standard interfaces.