

# **Current Highlights in Sensor and Automation Technology**





















# Products. Systems. Solutions.

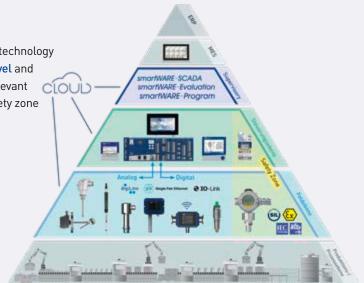
What happens when innovative products work together perfectly to form a high-performance system from a single source? When comprehensive engineering and services can also be utilized? Then the door opens to the world of JUMO, where accuracy and excellence ensure smooth processes, cost savings, and freedom for the core business.

# Precise and efficient complete solutions

#### From the sensor to the cloud

As a leading system and solution provider of sensor and automation technology we provide you with expert advice from the **field to the monitoring level** and effectively combine the stages of the automation pyramid that are relevant for the production and process industry. The requirements of the safety zone are also taken into account. What you get from us:

- Intelligent, network-capable sensors
- High-performance automation systems
- User-friendly software
- Cutting-edge communication via SPE/IO-Link
- Individual engineering solutions
- Extensive services









# Digital sensor communication

#### IO-Link, SPE, and JUMO digiLine

The switch from analog to digital sensor technology offers enormous opportunities, strengthens competitiveness, and is considered a **key element of smart manufacturing**. After all, it enables seamless networking and data integration at all process levels. It also increases the quantity and quality of the plant output. IO-Link, SPE, or JUMO digiLine: we will find the right technology mix for you and thereby offer you communication that is not only smart, but also future-oriented. You benefit from:

- Interference-free data transmission in real time
- Convenient startup and calibration
- Reduction of service and maintenance costs
- An increase in process efficiency
- Versatile and flexible application possibilities
- A solid foundation for Industry 4.0 applications

# A perfect example of a modern end-to-end system

#### The JUMO brewing plant

We also happily take unconventional paths to develop tailor-made solutions for specific industries. A prime example is our brewing plant - an overall solution that automates the entire brewing process from mashing to filling. Advanced sensor technology, smart automation technology, and intuitive software solutions enable precise control of all process parameters, which results in consistently high product quality. The most important features in a nutshell:

- Fully automated system in compact skid design
- Implemented exclusively with JUMO products
- Integrated Cleaning in Place function
- Automation via analog and digital technologies
- Use of Single Pair Ethernet, IO-Link, and JUMO digiLine



# H2 ready

#### Tested according to HGV 3.1

In a dynamic industry such as hydrogen technology keeping up with the latest norms and standards is crucial. Our sensors have been extensively tested in accordance with the current HGV 3.1 standard for hydrogen refueling systems. The tests included hydrostatic strength and corrosion resistance, insulation resistance, resistance to stress corrosion, and atmospheric exposure. H2 ready at a glance:

- Sensor and automation technology for electrolyzers, fuel cells, hydrogen refueling stations, and H2 storage
- Pressure and temperature sensor technology specifically for hydrogen applications







# JUMO meroTRON 104/108/116

Modular one-channel/two-channel controllers with PLC function

- Customizable device menu for user-friendly integration into a wide range of applications
- PLC function with programming via ST code including real-time clock as well as with direct access to operation and display
- Planning security through scalable hardware with Plug and Play
- Communication via USB, PROFINET, Ethernet, and RS485 (Modbus master/slave TCP/RTU)
- Calibration of analog inputs according to CQI-9 and AMS2750
- Large variety as well as large number of analog and digital inputs and outputs

Types 703051, 703052, 703053, 703054



## JUMO flowTRANS MAG H20

#### Electromagnetic flowmeter

- Measurement of small quantities to avoid overdosing
- Long operating life for CIP processes
- More compact design of skids and frame-mounted equipment from OEMs
- Reduction of plant downtimes
- Direct connection to the cloud through Single Pair Ethernet



### **JUMO DELOS S02**

Precision pressure transmitter with switching contacts and display

- Pressure transmitter for liquid and gaseous media
- High degree of process reliability due to maximum accuracy and long-term stability
- Easy configuration via Bluetooth/smartphone app or IO-Link
- Ethernet-based version available
- Direct cloud connection possible

Type 405056



#### JUMO variTRON 500 touch

Touch panel with integrated central processing unit for the automation system

- Touch panel and central processing unit in one device
- Application creation with CODESYS V3.5 and with Node-RED
- Creation of clear process and plant visualizations as well as user interfaces
- Full connectivity to systems and components thanks to support for numerous fieldbus systems (such as PROFINET IO-Controller and EtherCAT master) as well as modern communication protocols like OPC UA
- Reliable control technology with independent PID controllers including autotuning function



