



MORE THAN SENSORS
AND AUTOMATION

digiLine

More power for the JUMO digiLine family

JUMO digiLine O-DO H10/H20: Digital optical sensors for dissolved oxygen in hygienic applications

Your clever overall solution for trace and standard concentration measurements



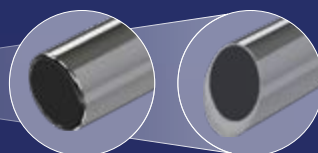


JUMO digiLine O-DO H10/H20

The high-quality sensors enable reliable measurement of all dissolved oxygen concentrations from the trace level to the saturation level. Both versions have been especially developed for hygienic as well as demanding applications and represent different measuring ranges. Common field devices and process control systems can be connected via an integrated analog and digital interface. The connection to the intelligent, bus-compatible JUMO digiLine system is quick and easy via Plug and Play.



digiLine



A sensor with character and personality

Your benefits in concrete terms

- Available as a trace sensor (H20) or standard sensor for aerobic processes (H10)
- Can be used as a single measuring point or as a component of a sensor network
- Process reliability even under the most demanding operating conditions
- Sensor membrane especially developed for bioprocesses according to USP Class VI
- Use also possible in aggressive media
- Flexible connection and integration options
- Reduction of installation and maintenance times
- Simple and reliable calibration also possible on the PC/laptop with JUMO DSM

Technical data

Product name	JUMO digiLine O-DO H10/H20	
Product designation	Digital optical sensors for dissolved oxygen in hygienic applications	
Data sheet	202612	
Sensor material	Stainless steel 1.4435	
Measuring principle	Optical	
Dimensions	12 mm diameter, 120 mm shaft length; other lengths upon request	
Connection	VP plug head Pg 13.5	
Measuring range	JUMO digiLine O-DO H10: Standard version* • 0 to 22.5 ppm (mg/L) • 0 to 248 % SAT • 0 to 50 % O₂	JUMO digiLine O-DO H20: Standard version* • 0 to 2000 ppb (µg/L) • 0 to 5 % O₂; 0 to 50 hPa
Temperature compensation	Automatic	
Process temperature	0 to 50 °C optimally; -10 to +90 °C max.	
Process pressure	At 20 °C: -1 to +12 bar max.	
CIP	2 % NaOH, 80 °C	
SIP	Max. 140 °C, 1.5 bar	
Output	Digital; 4 to 20 mA	
Serial interface	RS485 with Modbus RTU protocol	
Cross sensitivity	Chlorine gas; organic solvents such as acetone; toluene; chloroform; chloroacetic acid	

*at 20 °C, 1013 hPa in air

JUMO digiLine O-DO H10/H20

Reliable oxygen monitoring in brewing processes



The secret of success for great beers

Beers are masterpieces of the brewing art and rank high on the popularity scale of alcoholic beverages. In addition to a unique composition, the consistent control of dissolved oxygen ensures the distinctive taste of the aromatic beverage.

The new JUMO digiLine O-DO H20, a high-quality trace sensor for dissolved oxygen, impresses with its reliable measurement of even the smallest O₂ concentrations. Suitable for CIP and SIP processes, the stainless steel sensor meets the highest hygienic standards and can be used safely and flexibly in wort coolers as well as in fermentation and storage tanks.

And that is by no means everything. After all, the digital optical sensor can be quickly and conveniently integrated into the intelligent, bus-compatible JUMO digiLine system via Plug and Play and addressed via the JUMO AQUIS touch S/P multi-channel measuring device. It serves as a platform for the measurement, control, recording, and visualization of all relevant parameters in liquid analysis and is capable of managing more than 20 different measurement signals.

Its JUMO digiLine functionality allows the smart sensor to be calibrated via JUMO DSM. Evaluated data can be used for predictive maintenance. The calibration data is stored in the sensor head so that calibration on a PC or laptop is also possible. As a result you get a sophisticated, holistic, end-to-end system solution from a single source that makes brewing processes more efficient, safer, and more user-friendly.

Data evaluation and archiving can be performed worldwide, from any location, and browser-based via the JUMO Cloud or JUMO smartWARE SCADA using the JUMO variTRON as a gateway. Multiple plants, processes, or sites can be securely monitored in a single dashboard; deviations in measurement data are indicated by alarms.

Accelerated cell growth due to oxygen enrichment



Production increase in bioreactors

Medicines are often essential for the recuperation of humans and animals. However, advancing technologization and high quality demands are making more and more effective manufacturing processes necessary. Oxygen gassing during fermentation creates optimal living and growth conditions for microorganisms which leads to a significant increase in production.

This is where the JUMO digiLine O-DO H10 makes an important contribution with its precise measurement that has long-term stability. Together with the JUMO AQUIS touch S/P multichannel measuring device it can acquire and control the oxygen content in the bioreactor in detail so that the dissolved oxygen concentration remains stable throughout the entire fermentation process. In addition to the O₂ concentration,

other parameters that are important in bioreactors (such as pH value, conductivity, temperature, reactor pressure, or level) can also be monitored, adjusted, and recorded. If data from several measuring points or different plants is managed, a connection to the JUMO Cloud or JUMO smartWARE SCADA is also recommended here.

Thanks to factory calibration the optical sensor is immediately ready for use, can be easily integrated into standard fittings using the 13.5 Pg screw connection, and can be used in numerous other hygienic and demanding applications due to its flexible connection options. Its automatic error diagnostics, low drift, and relative low maintenance make it a top seller in the field of oxygen measurement.



Services & Support

It is the quality of our products that is responsible for such a high level of customer satisfaction. But our reliable after-sales service and comprehensive support are also valued. Let us introduce you to the key services we provide for our innovative JUMO products. You can count on them – anytime, anywhere.

JUMO Services & Support – so that it all comes together!

Manufacturing Service



Are you looking for a competitive and efficient system or component supplier? Regardless of whether you seek electronic modules or perfectly fitting sensors – either for small batches or mass production – we are happy to be your partner. From development to production we can provide all the stages from a single source. In close cooperation with your business our experienced experts search for the optimum solution for your application and incorporate all engineering tasks. Then JUMO manufactures the product for you.

As a result you profit from state-of-the-art manufacturing technologies and our uncompromising quality management systems.

Customer-specific sensor technology

- Development of temperature probes, pressure transmitters, conductivity sensors, or pH and redox electrodes according to your requirements
- A large number of testing facilities
- Incorporation of the qualifications into application
- Material management
- Mechanical testing
- Thermal test



Electronic modules

- Development
- Design
- Test concept
- Material management
- Production
- Logistics and distribution
- After-sales service



Metal technology

- Toolmaking
- Punching and forming technology
- Flexible sheet metal machining
- Production of floats
- Welding, jointing, and assembly technology
- Surface treatment technology
- Quality management for materials





Information & Training



Would you like to increase the process quality in your company or optimize a plant? Then use the offers available on the JUMO website and benefit from the know-how of a globally respected manufacturer. For example, under the menu item "Services and Support" you will find a broad range of seminars. Videos are available under the keyword "E-Learning" about topics specific to measurement and control technology. Under "Literature" you can learn valuable tips for beginners and professionals. And, of course, you can also download the current version of any JUMO software or technical documentation for both newer and older products.

Product Service



We have an efficient distribution network on all continents available to all of our customers so that we can offer professional support for everything concerning our product portfolio. Our team of professional JUMO employees is near you ready to help with consultations, product selection, engineering, or optimum use of our products. Even after our devices are commissioned you can count on us. Our telephone support line is available to give you answers quickly. If a malfunction needs to be repaired on site our Express Repair Service and our 24-hour replacement part service are available to you. That provides peace of mind.

Maintenance & Calibration



Our maintenance service helps you to maintain optimum availability of your devices and plants. This prevents malfunctions and downtime. Together with the responsible parties at your company we develop a future-oriented maintenance concept and are happy to create all required reports, documentation, and protocols. Because we know how important precise measurement and control results are for your processes we naturally also professionally calibrate your JUMO devices – on site at your company or in our accredited DAkkS calibration laboratory for temperature. We record the results for you in a calibration certificate according to EN 10 204.



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