

Industrial areas

- Biotechnology
- Pharmaceuticals
- Breweries
- Food and beverage

Your benefits

- Enhanced process safety
- Improved product quality
- Ease of operation



**Dissolved oxygen measuring systems.
Leading in quality and performance.**

When quality and performance count.



The high performance, inline oxygen sensors from METTLER TOLEDO stand the test of time under challenging operating conditions, whether in the biotechnology, pharmaceutical, brewing or food and beverage industry.

Fermentation in the pharmaceutical industry.



Process reliability

Our high quality standards provide assurance of enhanced process reliability. All relative certificates are supplied free of charge. This overall attention to quality guarantees full measurement traceability.

Improved product quality

High measurement accuracy and low detection limit capability provide the appropriate basis for optimization of product quality.

Brewing process.

Ease of operation and installation

The measuring system can be installed within the shortest possible time, and is particularly easy to operate.



Low maintenance costs

The modular design of the sensor makes maintenance extremely straightforward, which provides savings in both time and effort.

Wastewater treatment.

Specifications

DO Sensors	InPro 6900	InPro 6800	InPro 6050
Industry	Brewing/Beverage	Biotechnology	Wastewater
Detection limit	1 ppb	6 ppb	30 ppb
Temperature range °C	-5 ... 121	-5 ... 140	0 ... 60
Temperature range °F	23 ... 250	23 ... 284	32 ... 140
Pressure range in bar (overpressure)	0.2 ... 9	0.2 ... 6	0.5 ... 2
Pressure range in psi (overpressure)	2.9 ... 130	2.9 ... 87	7.2 ... 29
Accuracy	≤ ± [1 % + 1 ppb]	≤ ± [1 % + 6 ppb]	≤ ± 30 ppb
Autoclavable/sterilizable	-/•	•/•	-/-
Certificates	Quality / Test Certificates EHEDG Material Certificate 3.1 B ATEX / FM FDA + USP Class VI		Quality and Test Certificates

Best performance with InPro 6900.



Perfect flavor and long shelf-life of beverages can only be achieved by ensuring an absolute minimal content of residual oxygen. An extremely low detection limit and outstanding hygienic design features establish the InPro 6900 as the ideal oxygen sensor for the beverage industry.

The low ppb inner body with an especially low detection limit and "Stop of flow" resistance.



Low detection limit

- The specially developed membrane body with Teflon coating allows a detection limit of down to 1 ppb (1 µg/l)

High signal stability

- The annular protective cathode provides increased signal stability, ensuring a minimum loss of product in the event of any brisk stop of the filling plant

Reinforced membrane for high process pressures.



Waterproof design

Internationally proven

VarioPin (VP) connector: absolutely watertight.

- The imperviousness of the plug head (VarioPin connector) has been verified in an immersion test at 1 bar overpressure for 1000 hours

- Eight out of the ten largest brewing companies worldwide place their confidence in the proven quality of InPro 6900 sensors

Also for gas measurements

- Ideal for the measurement of O₂ in the gas phase in the recovery of high purity CO₂ for carbonization

Wastewater and water applications with InPro 6050.

In the field of biological wastewater treatment and for the monitoring of water generally, we recommend the use of our special robust and easy-to-use measuring system.

The durable oxygen sensor InPro 6050 is ideal for such demanding applications.



O₂ sensor
InPro 6050



Immersion
housing
InDip 550



Transmitter
O₂ 4050 e



InPro 6900 sensors in
the brewing industry

Proven quality, hygienic design: InPro 6800.

METTLER TOLEDO
N5/Ra16 Quality

300 µm

No adherence of microorganisms thanks to a smooth surface finish (N5).

Competitor
N6/Ra32 Quality

300 µm

Standard surface N6: there are visible grooves to which organic material can adhere.

The modular concept of the inline dissolved oxygen sensors of the InPro 6800 Series allows straightforward installation and maintenance. A comprehensive package of certificates supports traceability and process reliability.

Hygienic sensor design

- Microorganisms cannot adhere to the sensor surface due to the enhanced finish (N5/Ra16 Quality)
- The sensor is fully sterilizable and autoclavable

Time-saving maintenance

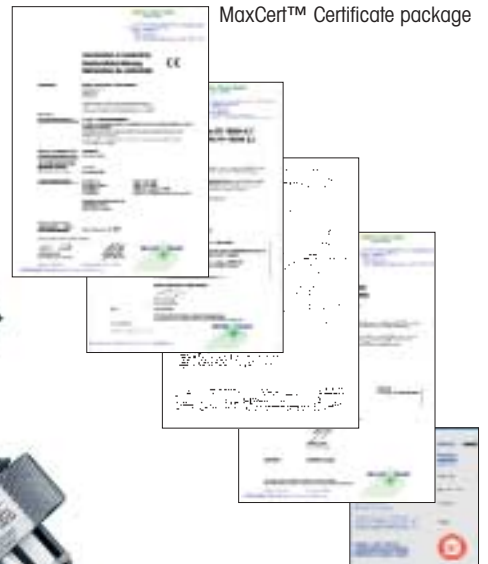
- Change of membrane body and sensor inner body can be carried out very quickly. A simple membrane body replacement takes just two minutes and can be made on site by the user
- Due to the modular design, the different sensors have basically the same spare parts. This minimizes inventory stocking requirements

Quality guarantee with MaxCert™

- MaxCert™ comprises a package of quality certificates and therefore provides support for your "cGMP" compliance and in the validation process. The package includes: Certificate of Conformity (CE), confirmation of surface roughness value N5, inspection certificate (3.1 B), certificate of sensor quality inspection (sensor accuracy), Materials conformity (FDA + USP Class VI) for medium-wetted O-rings

Inner body replacement can be accomplished very quickly.

MaxCert™ Certificate package



InPro 6800 sensors for biotechnology applications



It's the system that makes the difference!

We take every step to ensure that you employ the right system combination to achieve best possible performance, whether in biotechnology, in the beverage industry or in wastewater processes.

	Pharma and Biotechnology	Brewing/Beverage industry
Transmitters	M 700S O ₂ 4100e 	M 700S O ₂ 4100ppb 
Housings	INGOLD safety socket for direct side-mounting of the sensor  InTrac 797 e with sterile test certificate 	Static housing InFit 761 e 
Sensors	InPro 6800/6810 	InPro 6900/6910 
Measuring systems		

METTLER TOLEDO products are certified according to the following standards:



Our service: professional and customer-oriented.

METTLER TOLEDO offers a wide range of technological measurement solutions for the area of industrial Process Analytics:

- A complete range of electrodes/sensors for pH/ORP, DO, conductivity, CO₂, and turbidity measurements
- A wide variety of static and retractable housings, cables and dedicated accessories as well auxiliary systems such as automatic sensor cleaning and calibration devices
- We have a comprehensive line of transmitters to meet your most demanding requirements, including compatibility with sophisticated, modern communication and automation systems



Professional service and support is always close at hand.

Our professional worldwide distribution and service network provides you with the best possible technical and application support, ranging from consulting through to trouble-shooting.



Technical documentation (TD) for dissolved oxygen measuring systems:

With detailed product information and ordering numbers

TD for O ₂ sensors InPro 6800, InPro 6900 and InPro 6050	Order no. 52 200 954
TD for "Advanced Line" transmitters O ₂ 4100e und O ₂ 4100 ppb	Order no. 52 121 132
TD for "Advanced Line" transmitter M 700S	Order no. 52 121 232

For technical data sheets of other electrodes and transmitters please contact your METTLER TOLEDO sales representative.

Documentation material for products and systems (available in English, German and French):



Transmitters

- "Value Line"
- "Advanced Line"
- "Premium Line"



pH/ORP

- Gel / polymer electrodes
- Liquid electrodes
- Non-glass electrodes
- Polymer body electrodes



O₂/DO

- Value sensors
- Advanced sensors
- Premium sensors
- Portable instruments



Conductivity

- Value sensors
- 2/4-electrode sensors
- Inductive sensors



Turbidity

- Low to medium turbidity
- Medium to high turbidity



CO₂

- In-situ measurement for in-line fermentation control



Housings

- For Ø 12 mm electrodes/sensors
- For liquid and gel electrolyte electrodes
- InTrac® series



Cleaning & calibration systems

- EasyClean family

Sales and service:



Management System certified according to ISO 9001 / ISO 14001