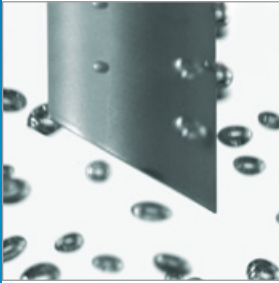


The Anti-Bubble Oxygen Sensor Noise-Free Measurement Signal



Stable reproducible yields

Consistent batches and product quality is achieved by reliable oxygen measurement. The proprietary hydrophilic surface finish and tilted tip design prevent bubble accumulation falsifying the results.



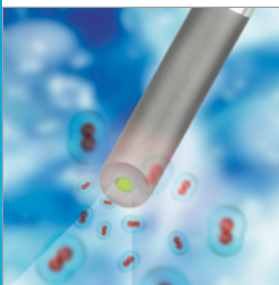
Hygienic and durable design

The PTFE layer on the OptoCap™ oxygen-sensing element contributes to signal stability by preventing biofouling from affecting measurements. The OptoCap has excellent durability and withstands autoclaving and standard CIP/SIP cycles.



Uncompromised reliability

Pre-batch sensor maintenance, thanks to advanced diagnostics data, ensures that the installed sensor will operate reliably throughout the batch.



Exceptional performance

Low handling time and running costs due to reduced calibration and maintenance needs. This is achieved by an electrolyte-free, one-piece replacement part.



ISM®



HART
COMMUNICATION PROTOCOL

Modbus
over RS485

InPro 6860iHD

Reliable Oxygen Measurements

Continuous dissolved oxygen (DO) measurement is critical during fermentation and cell culture. The InPro 6860iHD Anti-Bubble™ Oxygen Sensor is mechanically modified with a hydrophilic surface and a tilted tip design to prevent bubble accumulation, therefore creating a highly stable measurement signal. The main cause of signal noise found in fermentation and cell culture is air or oxygen bubbles from the sparger that accumulate on the DO sensor's tip. This creates a noise floor that is difficult to eliminate. Productivity, batch-to-batch consistency and product quality can all be adversely affected. InPro 6860i HD stops bubbles from adhering to the sensor: no bubbles – no noise.

METTLER TOLEDO

Technical data of the InPro 6860i HD

Measurement technology	Optical fluorescence quenching
Measurement range	0 ... 60% O ₂ saturation
Accuracy	± (1 % of the reading + 8 ppb)
Operating temperature	0 ... 60 °C
Mechanical temperature resistance	-20 ... 140 °C (32 ... 284 °F)
Operating pressure	0.2 ... 6 bar (0 ... 87 psi)
Mechanical pressure resistance	Max. 6 bar (87 psi)
Steam sterilizable and autoclavable	Yes
Cable connection	VP6/VP8 (analog/digital)
Wetted membrane material	PTFE
Shaft diameter	12 mm
Available lengths (a)	125 mm, 225 mm, 325 mm, 425 mm, 595 mm
Response time t ₉₈ at 25 °C Air to N ₂	< 90 s
Digital Integration (RS 485)	ISM®, Modbus™ RTU
Analog Integration	Simulated electrochemical nA signal or 4/20 mA HART active output
Power supply	24 VDC; 0.1 A
Certificates	Quality certificate, Material certificate 3.1, Surface finish certificate 2.1, ATEX certificate, USP Class VI

Additional information

Digitally Compatible Transmitters

M800 Process 1-/2-/4-channel

M400 4-wire, HART™, FOUNDATION Fieldbus™

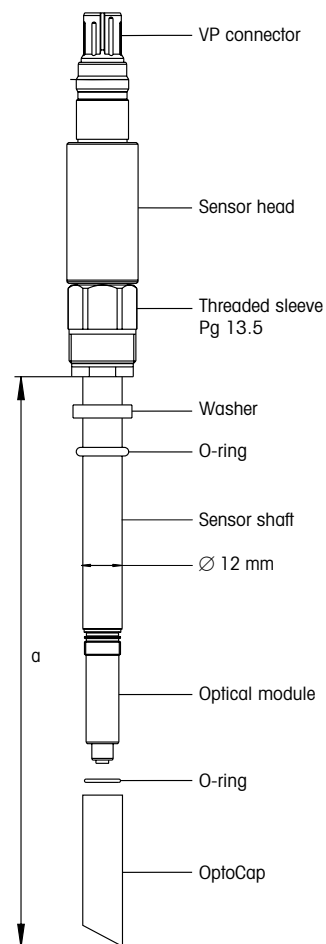
M400 2-wire, HART, FOUNDATION Fieldbus, PROFIBUS™ PA

M100SM RS485, 4-wire

Accessories

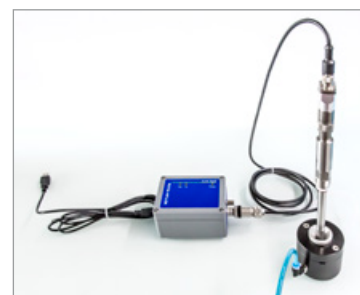
Order Nr.

iLink™ Multi (USB interface to PC)	30 130 631
iLink Multi cable/set oDO (cable set)	30 355 582
CalBox™ (calibration box for calibration gas connection)	52 300 400
iSense™ 2.4/2.4 CFR	30 130 614/30 283 620



iSense and iLink Multi

PC software tool to calibrate sensors and to manage historic sensor data. iLink Multi connectivity tool automatically compensates for local pressure and humidity levels, delivering best possible calibration results.



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www.mt.com/pro

For more information



Management System certified according to ISO 9001 / ISO 14001

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Process Analytics
Local contact: www.mt.com/pro-MOs

Subject to technical changes.
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