Oxix®

DISSOLVED OXYGENE TRANSMITTER

BROCHURE

EN 5.40 OXIX BROCHURE 1401

mjk a xylem brand

SENSOR WITH MINIMAL MAINTENANCE

The Oxix® transmitter is a unique dissolved oxygen measurement system with an optical sensor that communicates with a state-of-the-art electronic converter. No other system for measurement of dissolved oxygen can compare with the features and advantage of the Oxix®.

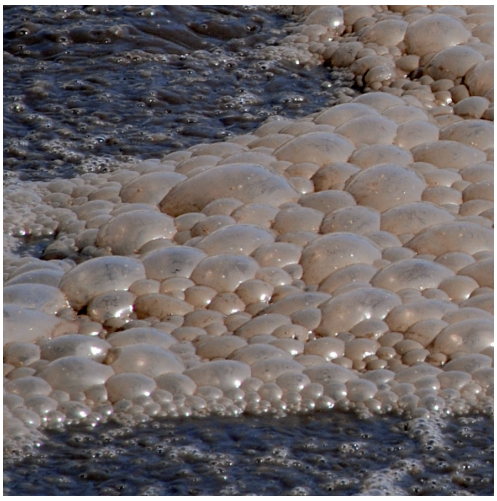
Oxix® is ideal for the measurement of dissolved oxygen in process and wastewater. The Oxix® sensor has no membrane to change, contains no chemicals to foul, and requires little or no calibration.

The timed relays in the converter can activate valves to automatically clean the sensor's optical window, and thus keeps the system practically maintenance free.

SUPERIOR SENSING TECHNIQUE

The Oxix® optical sensor does not deplete oxygen. The sensor contains a light source with a specific wavelength that shines on the back of a membrane containing a special compound immobilized in a gel matrix.

When the light hits the gel, a fluorescence process is initiated and the sensor detects the fluorescence which is proportional to the amount of dissolved oxygen. The resulting signal is sent to the converter for processing and calculation of a proportional, analog 4-20 mA output signal.



The sensor has a measuring range of 0 – 25 mg/l, with a resolution of 0.01 mg/l and an accuracy of <1 % or 0.02 mg/l. The temperature range is 0 - 50°C.

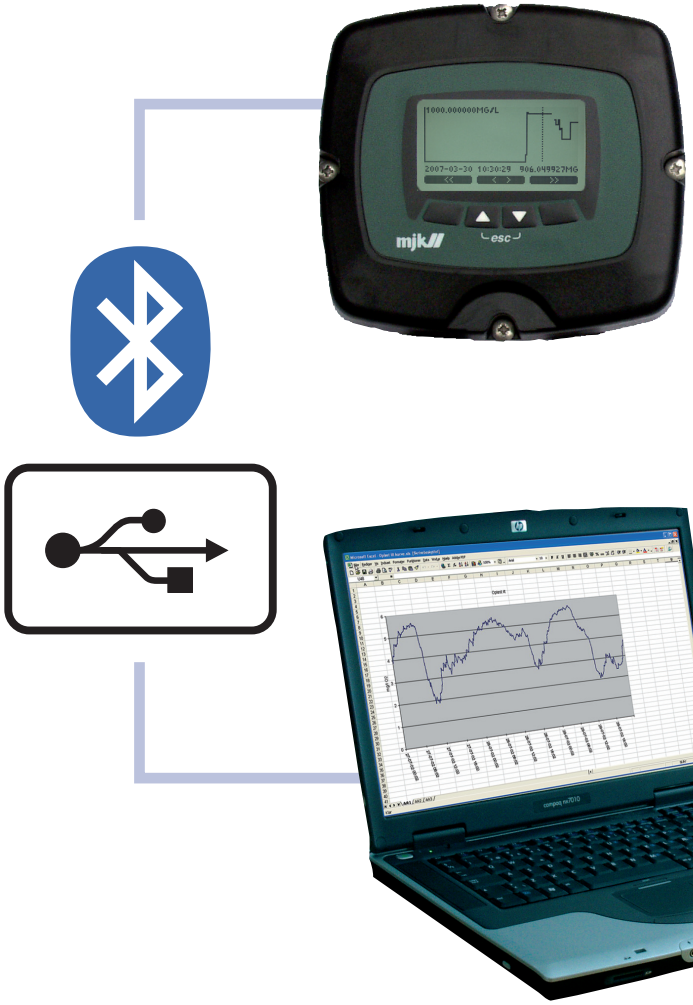
The digital signal in the Oxix® sensor is an advanced communication technology that allows cable lengths up to 600 m between sensor and converter.

MULTI-TASKING DISPLAY

When a sensor is connected to the Oxix® converter, the measurement is immediately displayed in the range 0 – 25 mg/l with a resolution of 0,01 mg/l.

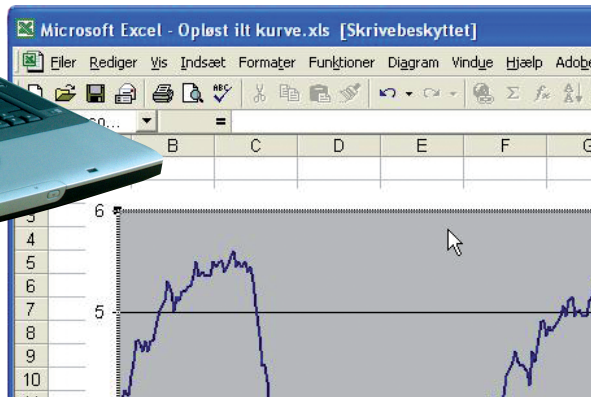
The Oxix® display contains a built-in datalogger with a capacity of 30.000 stored and time-stamped measurements. The values can be transferred to a PC in csv file format via the display's USB port or by using Bluetooth®.

CONVERTER WITH COMMUNICATION



The Oxix® converter is easy to use with a logical menu structure and a mobile phone-like user interface. Oxix® USB and Bluetooth® connections are used for transferring set-up configurations, software updates, or to transfer data from the internal data logger to a standard PC.

The Oxix® converter and display are related to the MJK SuSix® (turbidity and suspended solids transmitter) and the MJK MagFlux® (electromagnetic flow meter) converers and displays. This series of MJK instruments has a 4-20 mA current output, two relays for controlling or alarms, and a digital input for activation of flushing cycle (Oxix®), wiper cycle (Susix®), initiate a batch (MagFlux®), or to reset an alarm. The alarms are displayed in pop-up windows and are concurrently stored in the Oxix® converter's alarm log. Oxix® can operate in networks with other Oxix® or MJK instruments, where one display can be shared by up to 4 converter-sensor combinations. Oxix® uses Modbus® communication for direct connection to a PLC.



NETWORK

Oxix® can work in networks with other Oxix® transmitters and other MJK units where one display can be common for up to 4 units. Each connected unit can be displayed from the display and the datalogger can simultaneously log data from all 4 units. Oxix® have modbus cummunication to PLC.

The MJK developed display system has a number of remarkable features of:

- Built-in data logger for 30,000 data values with time stamp
- Graphical display with soft keys and auto scaling trends from the data logger.
- USB port for downloading logged data from the data logger to a PC and PC setup and remote firmware upgrade.
- Bluetooth communication so a PC can be connected without opening the lid.
- Editable language file for implementing of new expressions and languages.

RETROFIT KIT FOR EXISTING DO TRANSMITTERS

It is often an advantage to measure DO close to the surface. We have developed a mounting kit with a float which holds the Oxix® sensor at the optimal measurement depth other manufactures DO floatfittings so the Oxix® float and Oxix® sensor can be mounted on other manufacturer's existing bracket and pipes.

Oxix® Sensor	
Measuring range	Dissolved oxygen 0 – 25 mg/l (0-25 ppm)
Resolution	0,02 mg/l
Principle of operation	Optical fluorescence
Response time (t_{90})	Less than 1 sec.
Dimensions	50 mm (diameter) × 130 mm
Materials	Epoxy, silicone and PU, PVC 316 SS
Cable	4 x 0,34 mm², Ø 5,0 mm
Cable length	Standard 10 m

Oxix® Converter	
Input	RS 485
Analog output	Active 4 - 20 mA, galvanically isolated (max. 800 Ω)
Digital output	One potential-free, electro-mechanical relay (max. 50 V DC / 1 A) One optically isolated MOSFET relay (max. 50 VAC / V DC / 120 mA)
Digital input	For activation of flushing and resetting alarms
Communication	Modbus® RTU-mode, 9600 baud, 2-wire RS 485, slave-mode
Interface	RS 485 for connection to display unit or PLC
Power supply	10-30 V DC or 24 V AC, 50 / 60 Hz ± 10 % or 115 V AC, 50 / 60 Hz ± 10 % or 230 V AC, 50 / 60 Hz ± 10 %
Power consumption	10 W
Materials	Polycarbonate, glass reinforced
Enclosure rating	IP 67

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