



Oxix[®]

DISSOLVED OXYGEN TRANSMITTER



BROCHURE

US 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.

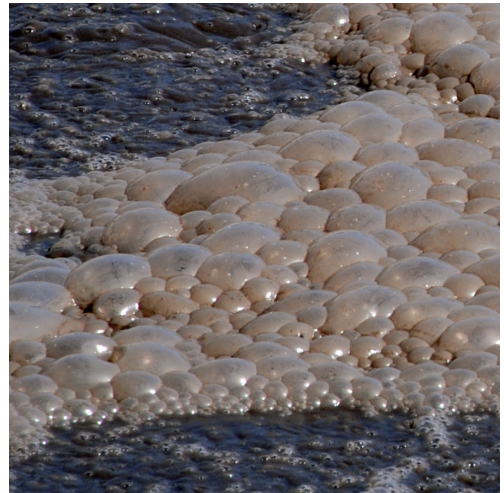


SUPERIOR SENSING TECHNIQUE



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 lens 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.

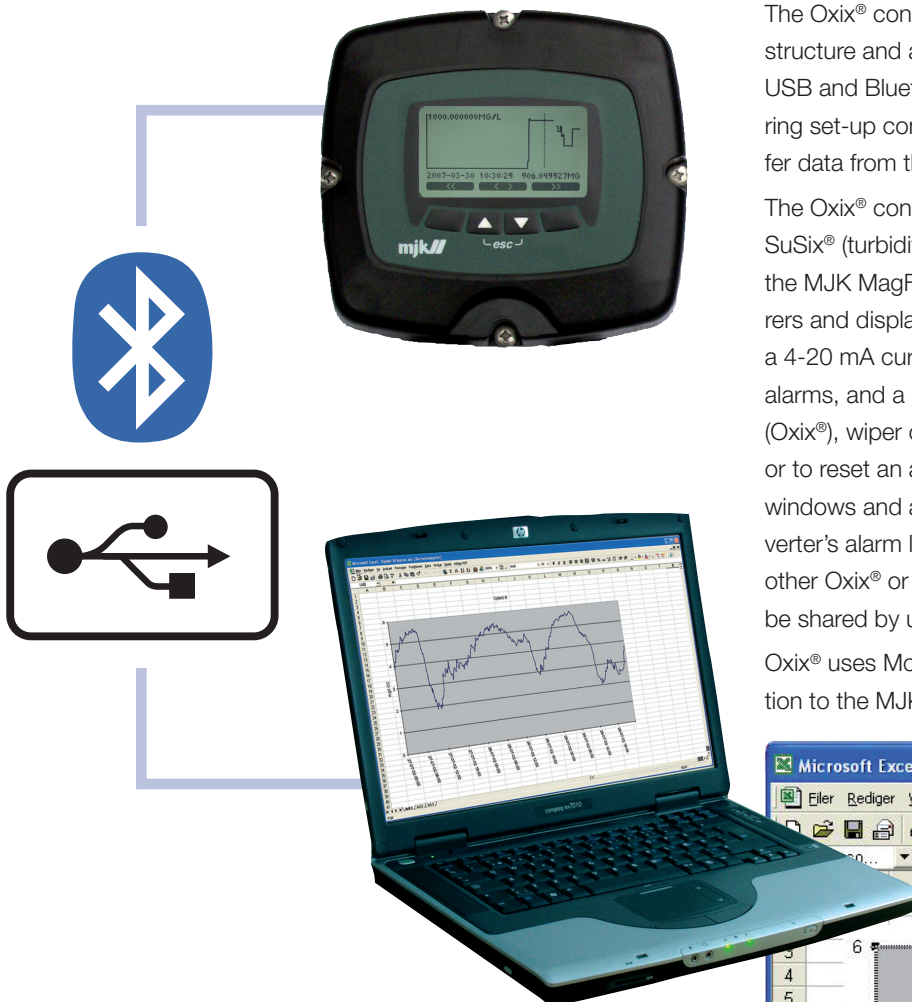
MULTI-TASKING DISPLAY

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 data logger with a capacity of 160,000 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[®]

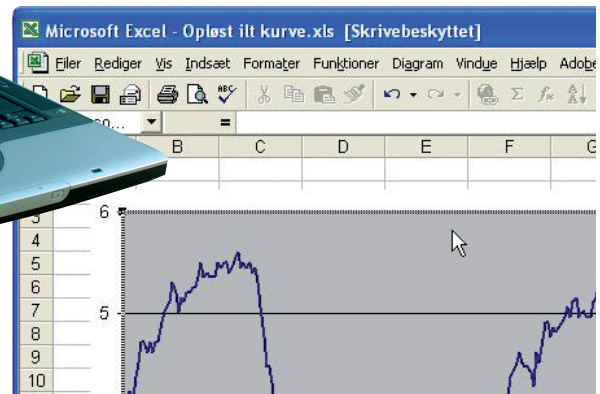


CONVERTER WITH COMMUNICATION



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) converters 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 the MJK Connect® RTU or 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 communication to PLC.



Invented by MJK, the display system has a number of remarkable features:

- Built-in data logger for 160,000 data values with time stamp
- Graphical display with soft keys and auto scaling trend graph from the data logger.
- USB port for downloading logged data from the data logger to a PC, firmware upgrade.
- Bluetooth communication so a PC can be connected without opening the lid.
- Editable language files for implementing new expressions and languages.



RETROFIT KIT FOR EXISTING DO TRANSMITTERS

Generally the D.O. concentration varies with water depth. For applications with distinct water level changes it is therefore an advantage to measure D.O. at a well defined distance from the surface in order to gain comparable measurements. For this we have developed a mounting kit with a float which holds the Oxix® sensor at a fixed measurement depth independent of the overall level in the basin.

Furthermore we offer retrofit accessories for the Oxix® sensor and float. With these the Oxix® sensor and float can easily be mounted on other manufacturer existing brackets and pipes.



Oxix® Sensor	
Measuring range	Dissolved oxygen 0 – 25 mg/l (0-25 ppm)
Resolution	0.01 mg/l
Principle of operation	Optical fluorescence
Response time (t ₉₀)	Less than 1 sec.
Dimensions	1.97 in (diameter) × 5,12 in
Materials	Epoxy, silicone and PU, PVC 316 SS
Cable	4 x 24 awg., Ø 0.2 in mm
Cable length	Standard 32.8 ft
Enclosure rating	IP 68 / NEMA 6x

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 / NEMA 6



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