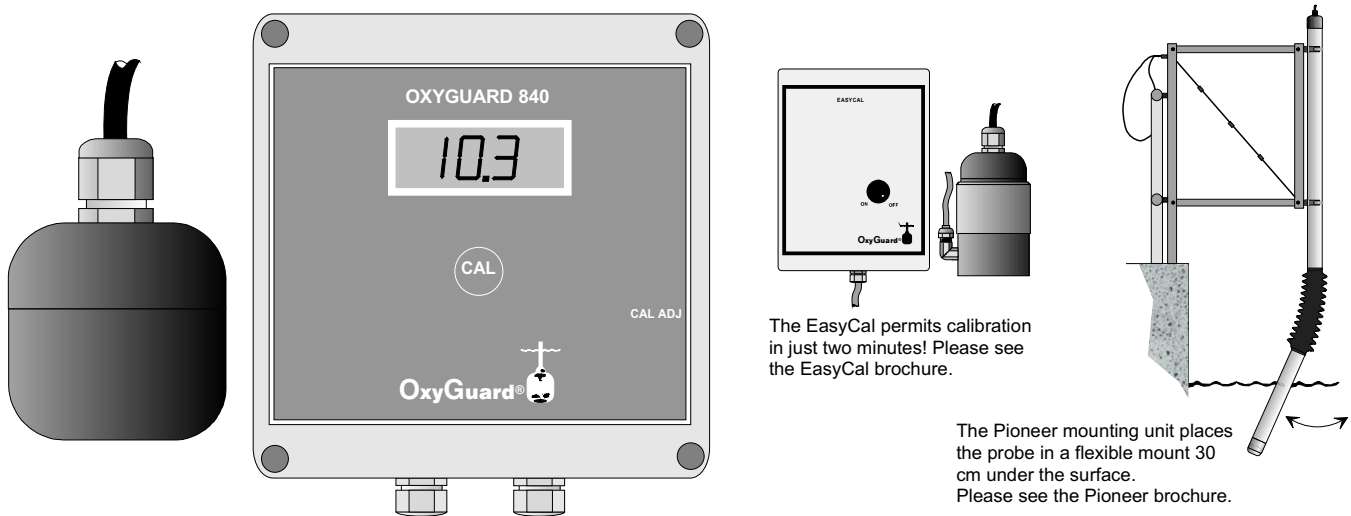


# OxyGuard 840 System

*2-wire 4-20 mA Dissolved Oxygen Measurement System for Aeration Tanks*



840 Probe and Display Box shown half size

**The 840 System has been designed to overcome the disadvantages that traditional dissolved oxygen measurement systems have when measuring in waste water treatment tanks, and consists of an OxyGuard Model 840 dissolved oxygen probe with display box and an OxyGuard Pioneer probe mount. An EasyCal calibrator can be used to give near-instantaneous calibration. The system has the following advantages:**

- \* **2-wire connection (current loop) - loop supply 15 to 35 VDC.**
- \* **Output 4-20 mA.**
- \* **Measures in ppm (mg/l) or % saturation.**
- \* **No need for calibration tables.**
- \* **If you use the EasyCal you can calibrate in 2 minutes total time.**
- \* **Fully galvanically isolated.**
- \* **Correct measurements - measures 30 cm under the surface.**
- \* **Measurement unaffected by torrential rain, wind or strong sunshine.**
- \* **Self-cleaning action, no build-up of fatty deposits on membrane.**
- \* **True zero - no zero adjustment.**
- \* **Excellent long-term stability.**
- \* **Extremely long calibration and cleaning intervals (6-12 months).**
- \* **Tough membrane, 100 micron thick, practically unbreakable.**
- \* **No need for ANY service - just calibrate and keep the membrane clean!**
- \* **Gives closer aerator control, better economy.**
- \* **Easy to use - no microprocessor routines.**

# Technical Information

## Technical Advantages

This system gives several advantages over traditional systems:

- 1) Consistently accurate measurements are obtained under all normal weather conditions;
- 2) The probe can function for 20 years without renovation - just calibrate it and keep the membrane clean.
- 3) Calibration and cleaning intervals are so long that the cost of performing these functions is negligible;
- 4) The system does not use throw-away measurement cells - an OxyGuard probe lasts "forever";
- 5) Calibration is performed WITHOUT THE USE OF TABLES in air or air-saturated water.
- 6) If you use the EasyCal you can calibrate in 2-minutes total time with the probe in the water! No need to wait for the probe to acclimatize in the air, as with all other systems, also those claiming "Automatic Calibration".
- 7) All procedures connected with the 840 System are very simple and straightforward.
- 8) Extremely tough membrane, but should the membrane be damaged a complete probe renovation can be performed by anyone in two minutes - even outdoors in pouring rain. Parts are included.

## Specifications

Dimensions:	Probe Diameter = 58 mm, length = 56 mm. Supplied with 10 m cable. Display-transmitter 121 x 119 x 60 mm (w x h x d). 4 mounting holes 4.1mm dia on centers 90 mm (width) x 110 mm (height).
Principle of Measurement:	Galvanic cell, self polarizing, fully temperature compensated.
Operating Conditions:	-20 to +60°C. Probe 0 to +50°C.
Minimum Flow Requirement:	Dependent on DO and temperature, typically 1 cm/sec.
Loop Power Supply:	Min. 15 VDC (max 50 ohm in loop) to max. 35 VDC (max 1050 ohm in loop).
Input/Output Isolation:	1000 V RMS input/output.
Range:	See ordering information.
Accuracy:	Error less than +/- 2% of actual value when calibrated using the EasyCal or when measuring temperature is the same as calibrating temperature (barometric pressure unchanged). The probe has true zero.
Response Time:	90% of end value within 2 minutes.
Delivery comprises:	4-20 mA (2-wire) Display-transmitter with Probe, 10 m cable, 840-type membrane set, 50 ml electrolyte, cleaning needle.

## Ordering Information:

B032A: Range set to 0-5 ppm. Can also be used for 0-10 ppm and 0-100% saturation

B032B: Range set to 0-10 ppm. Can also be used for 0-5 ppm and 0-100% saturation

B032C: Range set to 0-20 ppm. Can also be used for 0-40 ppm, 0-200% and 0-400% saturation

B032D: Range set to 0-40 ppm. Can also be used for 0-20 ppm, 0-200% and 0-400% saturation

B032S: Special range - please state actual range when referring to this unit.

On request the above can be supplied with a back-lit display.

The Pioneer and the EasyCal must be ordered separately - please see the appropriate brochures.

## Connection Example

