



# 840 Transmitter

## Loop Powered Dissolved Oxygen Measurement

PRODUCT DATASHEET

### APPLICATIONS

Aeration Control  
River Monitoring  
Filter Bed Health Check

### MEASUREMENT PRINCIPLE

Galvanic Cell  
Self Polarizing  
Self Temperature Compensating

### FEATURES

Self Cleaning Installation System  
No routine refurbishment  
Simple, effective calibration  
Fouling Tolerant  
Not effected by ambient light

### BENEFITS

Long term reliability  
Efficient Blower Control  
Reduced Energy Costs

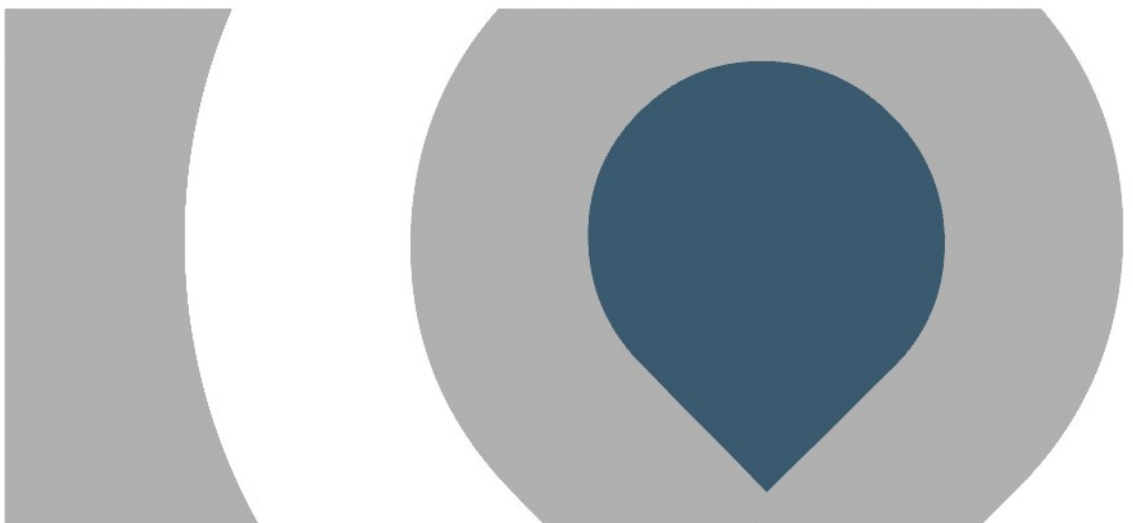


The 840 Transmitter has been designed to provide accurate, highly reliable measurements in difficult highly fouling applications. The specifically designed sensor utilises a rugged, 100 micron membrane, in combination with a unique electrolyte to provide excellent long term stability, without the need for sensor replenishment or replacement.

The result is amazing - the 840 is so stable that it can measure accurately for years with practically no attention. Service intervals of five years have been reported! Maintenance is as simple as wiping the membrane clean and checking the calibration from time to time. If it should ever be necessary to replace the membrane, this can be done quickly, easily and at very little cost.

When combined with the EasyCal calibration is carried out in 2 minutes with the probe in water. As the sensor does not need to acclimatise in air, errors do not occur by hurried calibrations. As with all aspects of the 840 Transmitter the calibration routine is extremely simple and involves no tables or complicated software features.

To make installation as easy as possible and to help achieve the best possible results we recommend using the Pioneer Probe holder. This places the sensor approximately 300 mm below the surface away from the surface effects of rain, sunshine and fouling. The flexible joint in the mounting shaft allows the sensor to move, providing an anti-fouling and anti-ragging action.



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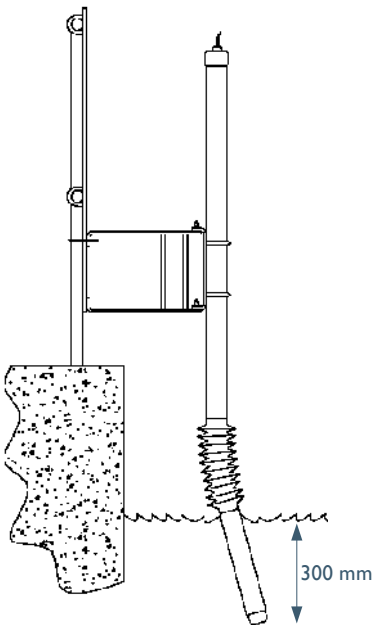
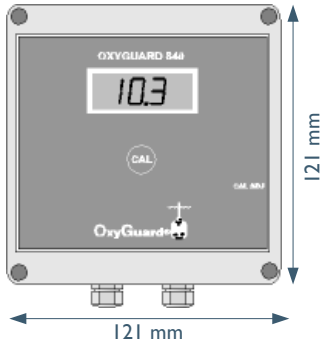




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### Physical

Weight  
Dimensions (h x w x d)  
Enclosure Rating  
Enclosure Material  
Cable Entries  
Cable Type  
Cable Length

### Environmental Data

Operating Temperature  
Storage Temperature  
Location  
Power Supply  
Voltage

### Analog Output

Number  
Type  
Max Load Resistance

### Measurement Details

Response Time  
Accuracy  
Resolution  
Measurement Principle  
Flow Rate  
Maximum Range  
Minimum Range

### Relay Outputs and Set Points

No

### User Interface

Display  
Setup  
Units of Measurement

### Software

Remote Programming

### Mounting

Type  
Probe Mounting

### Transmitter

1 kg  
121 x 121 x 60 mm  
IP67  
ABS  
2x (cable 5 to 10 mm)  
3 Core Polyurethane Coated  
10 metres standard

### Probe

0.4 kg (inc 5 metres of cable)  
58 mm diameter x 56 mm long  
IP68  
Polyoxymethylene (POM)  
Integral Cable Gland

-20 to 60°C  
-20 to 60°C  
Indoor or Outdoor

0 to 50°C  
-20 to 60°C

15-35 VDC Loop Power

1  
4-20 mA  
50 ohms at 15 VDC, 1000 ohms at 35 VDC

90% of End Point in 2 minutes  
Better than +/- 2% FSD  
Better than +/- 0.5% FSD  
Galvanic Cell, Self Polarising  
Typically > 10 m/sec  
0 - 40 mg/l or 400%Sat  
0 - 5 mg/l or 50%Sat

0

3 1/2 Digit  
via Dip Switches.  
mg/l, ppm, %Sat

No

Transmitter Surface, Probe Dip or Flowcell  
Pioneer Probe Holder

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The company reserves the right  
to alter the specification without  
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