GREENSPAN

# OR-1000A & OR-1000L

## OXYGEN REDUCTION POTENTIAL SENSOR

# OR-1000A & OR-1000L

## OXYGEN REDUCTION POTENTIAL SENSOR

### DESCRIPTION

The OR-1000 is a fully submersible sensor, well proven to withstand harsh field conditions. Applications include the salty or acidic water conditions found in sewer, surface and groundwater. The sensor requires low voltage power supply and provides a calibrated 4–20 mA output.
The OR-1000 includes the Greenspan 3000 data logger for a complete sensor solution.
Key features include the ability to re-range the sensor, as well as adjust the fluid density and gravity to suit specific applications.

Designed with input and support from real users, the OR-1000 is a rugged sensor that is also easy to service and clean in the field. The smooth lines of the durable Acetal body with double O-ring design minimise ragging in sewer applications. The shrouds that protect the electrode from impact are easily removed for cleaning. The sensor is fitted with a moulded cable with a tough, polyurethane outer sheath that is reinforced with strong Aramid fibres that can support many times the sensor weight.

The sensor utilises a robust Platinum electrode together with optical isolation and advanced signal conditioning to ensure long term accurate data. A special feature of the electrode is a reference protection ring. Made from porous PTFE which is impregnated with a special conductive gel, this ring prevents chemical or biological fouling from reaching the reference. The low cost protection ring can be simply replaced if it is contaminated or fouled, extending the life of the combination electrode. At the end of its life, the electrode can be replaced by the user in the field without the need to return the sensor to the factory.

The OR-1000 sensor is easy to install and provides a reliable solution to long term monitoring. For more information please contact your nearest sales office.

### FEATURES

- Innovative, optically isolated signal conditioning
- Field proven platinum electrode
- Inovative replaceable reference protection ring
- Robust, easy clean design
- Low power energy requirements
- Wide operating temperature range

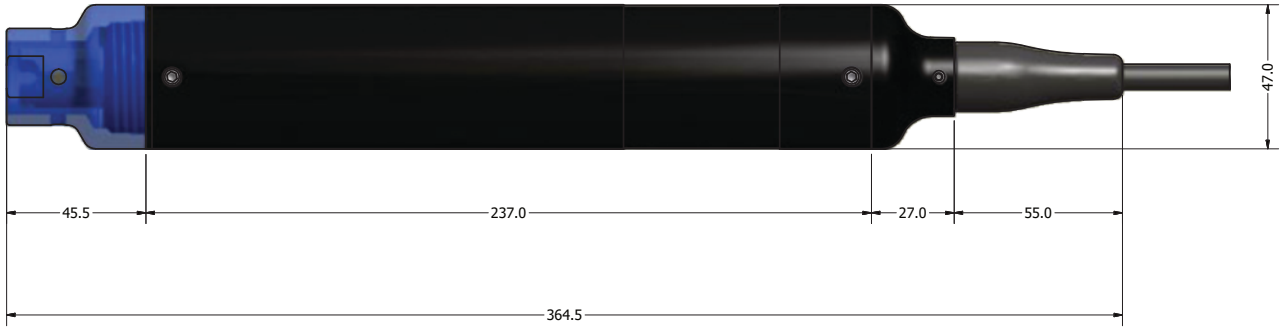
### BENEFITS

- Rugged electrode design provides unparalleled remote operations
- Operation on remote power source for long periods
- High reliability means critical measurements are not lost through sensor down time
- Minimal field servicing and reduced field visits
- Long term unattended operation

### APPLICATIONS

- Monitoring of streams and rivers, lakes and urban waterways
- Water and wastewater treatment monitoring
- Groundwater analysis and monitoring
- Industrial water process monitoring

### DIMENSIONS



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### ORP1000 SPECIFICATION

| | |
|---|---|
| Measurement technique | Platinum electrode with internal reference |
| Sensor range (factory calibrated) | +/–500 mV, +/–1000 mV, 0–1000 mV |
| Sensor output | Analogue 4-20mA |
| Accuracy | +/–20 mV(+/–0.2 mA) |
| Cable type | Polyurethane sheathed cable, OD 8mm, Aramid reinforced, moulded entry, bare wire connection |
| Standard cable lengths | 10, 20, 30, 50, 100, 150m |
| Non-standard cable lengths | Yes (Extra cable moulding time may be required) |
| Power supply | 11–13.2 VDC (at sensor) |
| Reverse polarity protection | Yes |
| Surge current protected | To 2 kV |
| Warm-up time to stable reading | 2 sec |
| Current consumption | 10 mA to 30 mA while turned on |
| Operating temperature | 0–50°C |
| Storage temperature | –5°C – +60°C |
| Depth rating (water column) | 100 m |
| Weight | 500 g plus cable weight (665 g per 10 m length) |
| Dimensions (L×OD) | 364.5 mm× 47 mm(1"4.35""× 1.85") |
| Wetted materials | Platinum, acetal, 316 passivated stainless steel, polyurethane, viton |

### OPTIONAL EXTRAS AND ACCESSORIES

- Field replaceable electrode kit
- Reference protection ring
- Copper electrode shroud

### HOW TO ORDER

The following information will be required:

- Range
- Cable length (m)
- Any other accessories

GREENSPAN

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