

# OMD-675 Oxygen Analyzer

## Product Specification Sheet

### Online Trace Oxygen Analyzer w/ Integral Sample System



The OMD-675 is designed to measure trace oxygen in the sub 1 ppm region. The unit combines an advanced set of electronic features with our industry leading precision electrochemical oxygen sensor technology. The result is a highly reliable and cost effective design with an easy-to-use user interface.

The analyzer comes with a 0 - 1 PPM full scale low range with a resolution of 0.001 ppm. The analyzer can also be configured for 0 - 1 ppm, 0 - 10ppm, 0 - 100ppm, 0 - 1000ppm and 0 - 25% in auto-range or manual-range mode.

The analyzer offers the user 2 different digital communication options, both of which are bi-directional. These come in the form of MODBUS RS485 ASCII or RS232.

Alarm functionality comes in the way of 2 fully adjustable form C non-latching relay contacts. These can be configured as NO or NC and can be set as HIGH or LOW with optional delay mode. A power failure alarm is also standard and comes as a form C non-latching relay contact.

The oxygen sensor used in the OMD-675 is based on the galvanic electrochemical fuel cell principal. All oxygen sensors are manufactured in house by Southland Sensing Ltd. under a strict quality program.

The standard cell (TO2-133T) is unaffected by other background gases such as H<sub>2</sub>, He, or Hydrocarbons. The optional acidic cell (TO2-233T) works well when acid gases such as CO<sub>2</sub> or Natural Gas are present.

The sensors are self-contained and minimal maintenance is required -

no need to clean electrodes or add electrolyte.

#### Applications:

Air Liquefaction and Separation  
Pure, Gaseous Hydrocarbon Stream Monitoring  
Gas Purity Certification  
Process Monitoring of Gaseous Monomers  
Semiconductor Manufacturing  
Protective Atmosphere Blanketing of Feedstock

0 - 1 PPM Low Range; 0 - 25% High Range  
Resolution of 0.001 Parts-Per-Million Oxygen  
Integral Sample System w/ Bypass Valve  
Bi-Directional Communication Link  
Extensive Electronic Features & Outputs  
19" Rack Mount Configuration  
Electrochemical Sensor Technology

#### Specifications

|                           |                                                                         |
|---------------------------|-------------------------------------------------------------------------|
| Accuracy:                 | < +/- 1% of Full Scale Range*                                           |
| Alarms:                   | (2) Adjustable Relay Contacts<br>(1) Power Fail Relay Contact           |
| Analysis Range:           | 0-1/10/100/1000ppm/25%                                                  |
| Calibration:              | Periodically Bi-Directional                                             |
| Communication:            | RS232 MODBUS RS485 ASCII<br>19.0 x 5.125 x 7.75 inch Large              |
| Dimensions:               | with Backlight Brushed                                                  |
| Display:                  | Stainless Steel 0.5 - 5 SCFH                                            |
| Enclosure:                | 1/8" Compression Tube 0 - 1V                                            |
| Flow Sensitivity:         | DC, 0 - 10V DC Isolated 4 -                                             |
| Gas Connections:          | 20mA 100 - 240 VAC Inlet, 0 -                                           |
| Output (Analog):          | 50 PSIG 4 - 20 mA analog<br>output 0 - 1 V DC analog                    |
| Power:                    | output T90 in 10 Seconds                                                |
| Pressure:                 | Flow Control, 4-way sample /                                            |
| Range ID:                 | Bypass Valve, Flow Indicator<br>TO2-133T Trace O <sub>2</sub> Sensor 20 |
| Response Time:            | - 25 months 0 - 50 deg C                                                |
| Sample System:            | Digital 12 months Analyzer &<br>Sensor 13.0 lbs                         |
| Sensor:                   |                                                                         |
| Sensor Life:              |                                                                         |
| Temperature:              |                                                                         |
| Temperature Compensation: |                                                                         |
| Warranty:                 |                                                                         |
| Weight:                   |                                                                         |

\*Accuracy at constant conditions

#### Optional:

Panel Mount Oxygen Configuration (OMD-677)  
[Dimensions: 10.78 x 7.47 x 7.75 inch]  
TO2-233T Oxygen Sensor (for use in CO<sub>2</sub>)