

Industrial Oxygen Sensors



TRACE AND PERCENT — PRECISION FUEL CELL OXYGEN SENSORS



P/N: TO2-1

Min Range: 0 - 10 PPM
Max Range: 0 - 10,000 PPM
Signal Output: 330 - 590 μ A
Expected Life: 15 - 18 Months
Warranty: 6 Months

Field Replacement For:

Teledyne	B-2C
All	PSR-12-223
GE Sensing	OX-1



P/N: TO2-1L

Min Range: 0 - 10 PPM
Max Range: 0 - 10,000 PPM
Signal Output: 330 - 585 μ A
Expected Life: 15 - 18 Months
Warranty: 6 Months

Field Replacement For:

Teledyne	L-2; L-2C
----------	-----------

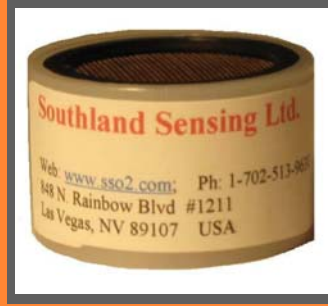


P/N: TO2-2

Min Range: 0 - 10 PPM
Max Range: 0 - 10,000 PPM
Signal Output: 330 - 585 μ A
Expected Life: 15 - 18 Months
Warranty: 6 Months
** Required for CO₂ > 0.5%

Field Replacement For:

Teledyne	A-2C
All	XLT-12-123
GE Sensing	OX-2



P/N: PO2-1

Range: 0 - 25%
Signal Output: 245 - 385 μ A
Expected Life: 12—15 Months
Warranty: 6 Months

Field Replacement For:

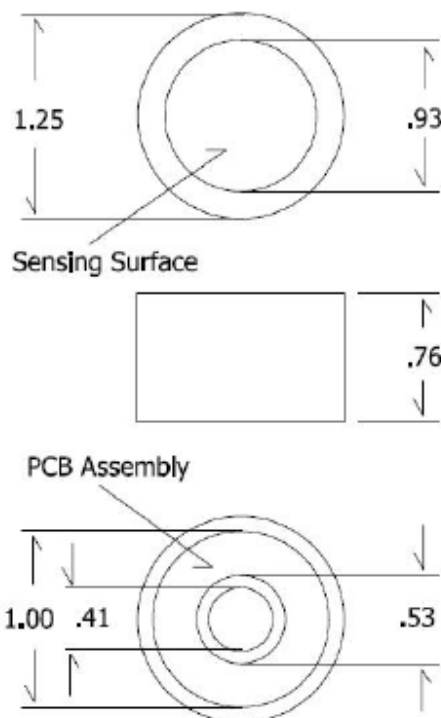
Teledyne	B-1, B-3
All	PSR-11-21
GE Sensing	OX-3

TO2-1 ppm痕量氧传感器|微量氧传感器

长寿命，高性价比

TO2-1氧传感器|O2传感器|氧气传感器技术指标:

传感器技术:	微型燃料电池
信号输出 ¹ :	330 - 585 uA
测量范围:	0 - 10 PPM (最小)
	0 - 10000 PPM (最大)
响应时间 (T90) :	13s
精度 ² :	± 2%
重复性:	± 0.5%
温度系数:	2.5 % / °C
工作温度	0~50°C
储存温度	0~45 °C
推荐流量:	0.5 ~2 SCFH(0.24-0.94 ml/min)
湿度:	0~100% RH (不冷凝)
期望寿命 ³ :	15~21个月
储存时间:	3个月
质保 ⁴ :	6个月
PCB连接	Center Foil Negative Outer Foil Positive



完全替代:

Teledyne:B-2, B-2C, S-2, Z-2;

Panametrics(GE Sensing):OX-1;

All:PSR-12-223

AMI公司:T-1 Trace

- 1.) 信号输出是在25°C，空气中，1atm条件下测试得到的。
- 2.) 满量程精度是在恒定的压力和温度和恰当的校准的条件下得到的，剧烈的温度变化可能导致最大10%的误差。
- 3.) 期望寿命在O2 < 1000 ppm @ 25°C, 1atm条件下计算得到的。
- 4.) Southland Sensing公司保证这些传感器没有缺陷，由于客户使用不当，不在质保范围内

完全替代



TELEDYNE
ANALYTICAL INSTRUMENTS
A Teledyne Technologies Company

PANAMETRICS



Advanced Instruments Inc.

Principal of Operation: Southland Sensing's line of precision fuel cell oxygen sensors can be considered as a lead-oxygen battery which incorporates a lead anode, an oxygen cathode made of gold and an alkaline or acid electrolyte. Oxygen Molecules enter the electrochemical cell through a non-porous fluorine resin membrane and are reduced at the gold electrode. The current that flows between the electrodes is directly proportional to the oxygen concentration in the gas mixture being measured.

All models are sealed, disposable, aqueous based galvanic cell designed to generate a linear electrical current output directly proportional to the partial pressure of oxygen in a gaseous sample stream. The sensors are maintenance free requiring no replacement of membranes or electrolyte and no cleaning of electrodes. For convenience, when expired the precision fuel cell oxygen sensors are discarded.



Precision Fuel Cell Chemical Reaction

- (1) Cathodic reaction: $4e^- + 4H^+ + O_2 \rightarrow 2H_2O$
- (2) Anodic reaction: $2Pb + 2H_2O \rightarrow 2PbO + 4H^+ + 4e^-$
- (3) Overall reaction: $2Pb + O_2 \rightarrow 2PbO$

Industrial Applications

- Industrial Gas Plants,
- PSA, VPSA, Specialty Gas
- Petrochemical
- Nuclear
- Metals / Steel / Heat Treating
- Chemical & Chemical Storage
- Aerospace & Defense
- Natural Gas Extraction & Processing
- Coal Bed Methane
- Landfill Gas Monitoring
- Bio-Research & Glove Box
- Light Bulb Manufacturing
- Semiconductor
- Area Monitoring
- Welding
- Hydrogen Production
- Glass & Window Manufacturing
- Food & Beverage
- Smog Check Stations
- Ethylene Production
- CO₂ production
- Solar Energy

