

# LuminOxO<sub>2</sub>SensorS

# LuminOx Fluorescent Oxygen Sensor

## Luminescence-based Optical Series

### Fluorescence Series

#### characteristic

- Fluorescence technology, non-electrochemical
- Does not contain harmful materials; complies with RoHS & REACH
- Can be directly connected to the microprocessor, without any additional circuits
- Plant calibration
- High precision
- Free repairs



<b>Package</b> 	<b>Service Voltage</b> 	<b>working temperature</b> 	<b>numeric output</b> 	<b>Response Time</b> 
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#### superiority

- Solid, diffusion type package with bottom seal
- Low power consumption, based on non-consumptive sensing principle, with long life
- low cost

#### Output Value

Oxygen range 0—25%O<sub>2</sub>  
 oxygen pressure range 0—300mbar ppO<sub>2</sub>  
 response time T90 <30s (typical)  
 precision

#### technical specifications

**service voltage (Vs)** 4.5—5.5Vdc  
**supply current (Is)** <7.5mA (one sample per second), <20mA peak  
**Output type** 3.3V TTL power USART  
**temperature**  
 work : -30°C to +60°C  
 memory : -30°C to +60°C  
**humidity** 0-99%Rh relative humidity (no condensation)  
 Range of atmospheric pressure 500—1200mbar

ppO<sub>2</sub> (oxygen bias) temperature  
 pressure  
 O<sub>2</sub>  
 definition  
 ppO<sub>2</sub> 0.1mbar  
 temperature 0.1°C  
 pressure mbar  
 O<sub>2</sub> 0.01%  
 life span > 5 years

<2%FS is only indicating ±5 mbar  
 Depends on ppO<sub>2</sub> (oxygen bias) & pressure accuracy

Need help? Find an expert

Ask "technical support"



- a) The sensor housing can be cleaned with a damp cloth. Do not soak the sensor in any cleaning agent.  
 b) All performance parameters are measured under ambient conditions through STP, unless otherwise specified. If temperature fluctuations are extremely high, recalibration may be required.

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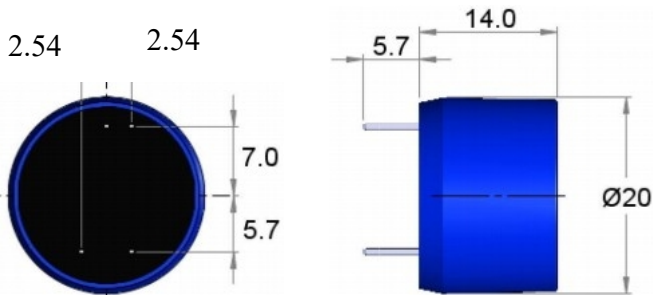
Fax: 0755-83952401

Official website: cn-sensor.com

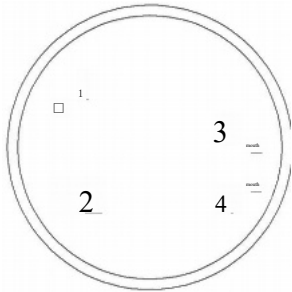
Email: jackson@jmcomponents.com

## design drawing

All 3D views are in mm. Error = ±0.5mm.



## 电气接口



pin	nominate
1	Vs (+5V)
2	GND (0V)
3	3.3V USART sensor output terminal Tx
4	3.3V USART sensor receiver Rx

**linkage :** The four gold-plated pins (0.64mm<sup>2</sup>) on the 2.54 mm grid can be used for PCB installation, which can be installed by base or manual soldering without cleaning flux.

**pay attention to :** Do not wash the sensor with a current through the PCB.

**pay attention to :** Before trying to communicate through pins 3 and 4, keep powering the sensor's pins 1 and 2.



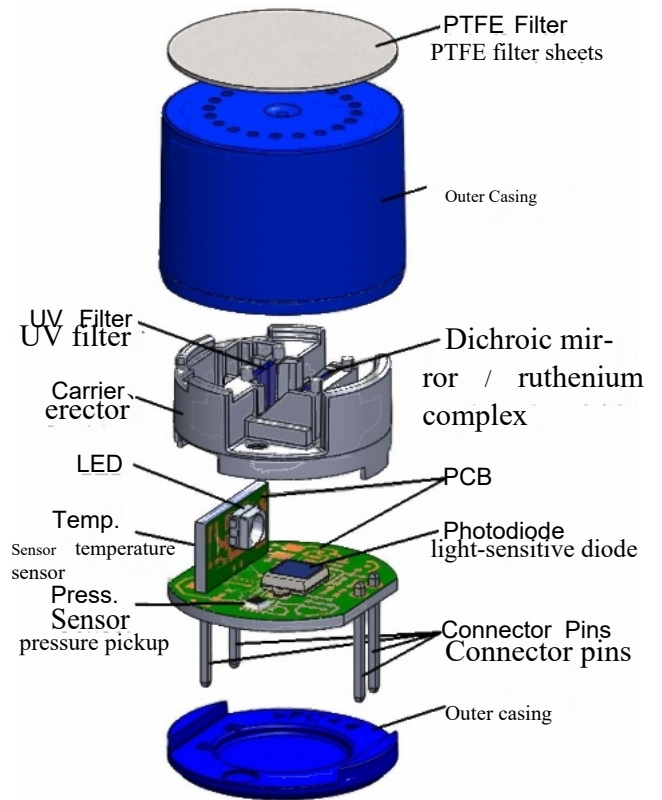
Sensors should be treated as electrical components and proper ESD (electrostatic breakdown) prevention measures should be used.

### ! take care

Do not exceed the maximum range and ensure that the sensor is operated as required.  
Pay attention to all wiring instructions. Incorrect wiring may cause permanent damage to the equipment.  
Do not use chemical cleaners.

Failure to follow these instructions may result in damage to the product.

## Sensor structure



## Order information

Specify the following material numbers when ordering:

L 0 X - 0 2 - S

### Information

Due to the uncontrollable actual application scenarios of users, it is impossible to cover all of them. The information provided in this document is for reference only and does not restrict any legal liability. Users should first test the application to be used to ensure the applicability of the device.