

oxygen sensor

SKU:SEN0322

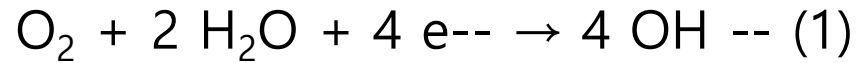
위성은 정수연

산소 센서 종류

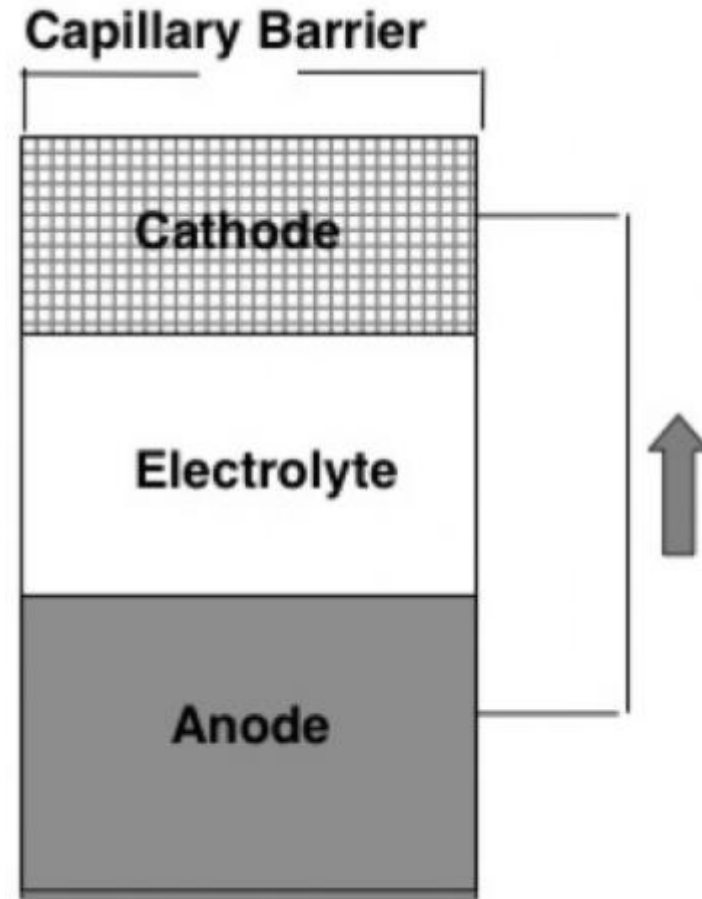
- 전기 화학 산소 센서
- 지르코니아 산소 센서
- 광학 산소 센서
- Clark 산소 센서
- 적외선 산소 센서
- 전기 갈바닉 센서
- 초음파 산소 센서
- 레이저 산소 센서
- 상자성 산소 센서

전기 화학 센서

- Electrochemical Cells 을 사용한 산소 분석

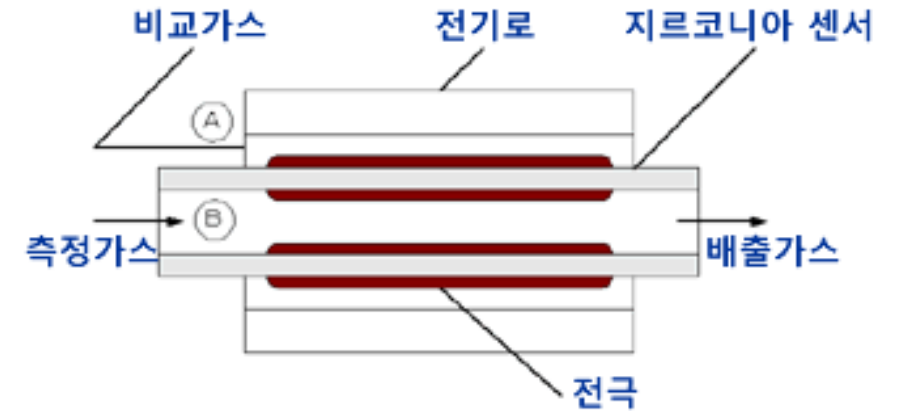


저비용, 짧은 수명



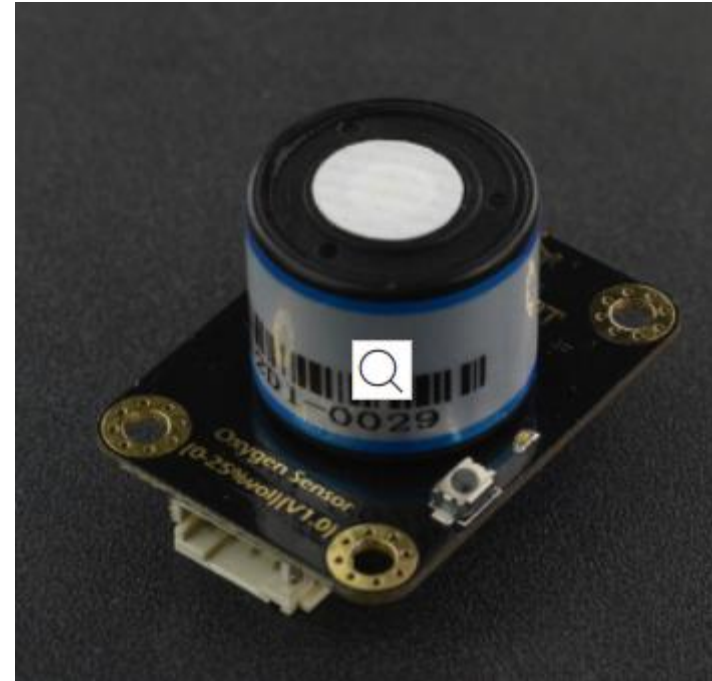
지르코니아 산소 센서

- 40 지르코늄이 고온에서 산소와 화학 반응
- 자동차 산소 체크에서 활용



Gravity: I2C Oxygen Sensor

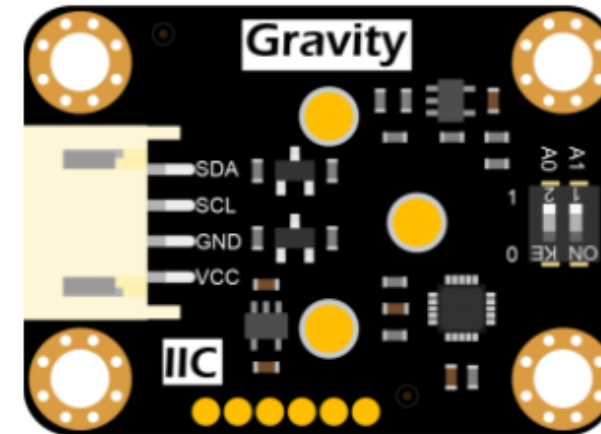
- DFROBOT 사의 제품
- [SKU:SEN0322](#)
- Electrochemical sensor
- I2C 통신 이용



Gravity: I2C Oxygen Sensor

- Compatible with both 3.3V and 5V micro-controllers
- Measurement Range: 0~25%Vol
- Lifetime:> 2 years (in the air)
- Response Time: ≤ 15 seconds
- Operating Temperature: $-20 \sim 50^{\circ}\text{C}$
- Pressure Range: standard atmospheric pressure $\pm 10\%$

Board Overview



Num	Label	Description
1	SDA	I2C System Data Line
2	SCL	I2C System Clock Line
3	GND	-
4	VCC	+

Gravity: I2C Oxygen Sensor

```
#include "DFRobot_OxygenSensor.h"

#define COLLECT_NUMBER    10          // collect number, the collection range is 1-100.
#define Oxygen_IICAddress ADDRESS_3
/*  iic slave Address, The default is ADDRESS_3.
    ADDRESS_0      0x70    // iic device address.
    ADDRESS_1      0x71
    ADDRESS_2      0x72
    ADDRESS_3      0x73
*/

DFRobot_OxygenSensor Oxygen;
void setup()
{
    Serial.begin(9600);
    while(!Oxygen.begin(Oxygen_IICAddress)) {
        Serial.println("I2c device number error !");
        delay(1000);
    }
    Serial.println("I2c connect success !");
}

void loop()
{
    float oxygenData = Oxygen.ReadOxygenData(COLLECT_NUMBER);
    Serial.print(" Oxygen concentration is ");
    Serial.print(oxygenData);
    Serial.println(" %vol");
    delay(1000);
}
```