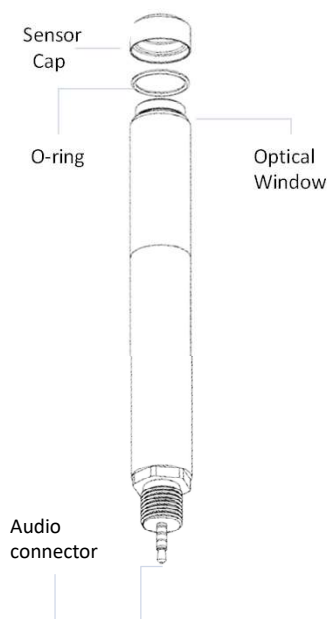


## Optical Dissolved Oxygen Sensor



## Optical Dissolved Oxygen Sensor



The BroadSensor optical DO sensor is coated with a luminescent material. Blue Light from an LED strikes the luminescent chemical on the sensor. The luminescent chemical instantly becomes excited and then as the excited chemical relaxes, it emit red light. The red light is detected by a photo diode. The time it takes for the chemical to return to a relaxed state is measured by referring an independent red led light. Oxygen has a dampening effect on this reaction. The oxygen concentration is proportional to the time it takes for the luminescent material to return to a relaxed state.

### Key Advantages:

- Smart sensor retains all calibration in the sensor
- Membrane less, no electrodes design
- Flow Independent and No oxygen consumption
- No warm-up time required
- Easy to store, air or water are all ok
- User-replaceable sensor cap
- Low drift and long life time
- All made by BroadSensor, including fluorescent film
- Support leakage alarm and salinity compensation
- Digital output, support RS485 Modbus protocol
- POM, SS316, TA body are selectable

# Specification



## Technical Specifications

Measurement Method	luminescence quenching technique
Range	0-20mg/L or 0-200% Air Sat.
Resolution	0.01mg/L
Accuracy	DO +/-0.3mg/L, Temperature +/-0.3°C (0~45°C)
Operating temperature	0~45°C
Storage Temperature	-10~50°C
Min. Detection Limit	0.05mg/L
Warranty	1 year
Depth	IP68, 10m Max
Power	DC 5~12V 15mA (normal)
Output	RS485 and Modbus protocol
Materials	Titanium, SS316(default), POM
Dimensions	Length 186mm, diameter 22mm
Flow rate	< 3 m/s
Response time	Minimum 45s T90
Field life*	Sensor 2 years or greater, sensor cap 1.5 years or greater
Recommended Calibration maintain Frequency *	Sensor 6 months

Note: \*Field life and calibration frequency dependent on site conditions.

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### Order info:

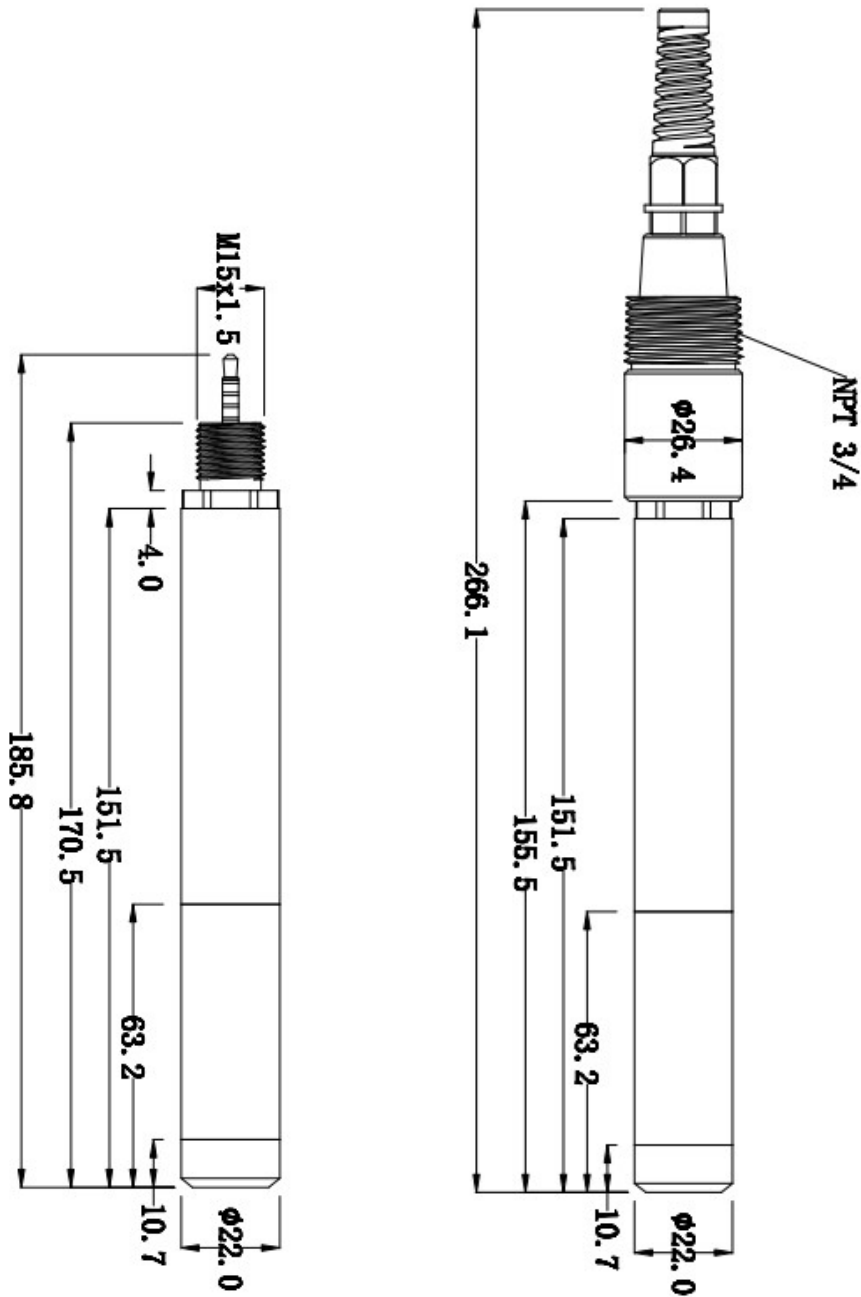
PN: 610114 SS316 and POM shell  
PN: 610115 TA2 shell  
PN: 710001 DO Sensor Cap  
PN: 810005-xx PUR cable  
xx is cable length, unit: meter

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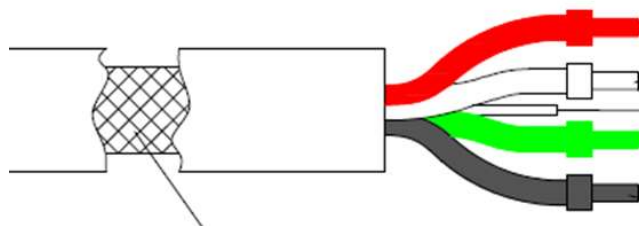
# Dimensions and Cable information



**BROADSENSOR**  
蛙视传感



Note:  
1, Unit: mm  
2, Tolerance: +/-0.2mm



Red—VCC  
White--RS485-B  
Bare—Shielding  
Green--RS485-A  
Black--GND