

Online Self-cleaning Turbidity Sensor

User Manual (Version V1.1)



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Y511-A Turbidity Sensor

Y511-A Turbidity Sensor



0.1~1000 NTU

Accuracy < 5% or 0.3 NTU

0~50 °C; IP68 rating, 10m underwater

90° Angle of scattered light principle

Temperature sensor built-in

RS-485; MODBUS protocol compatible

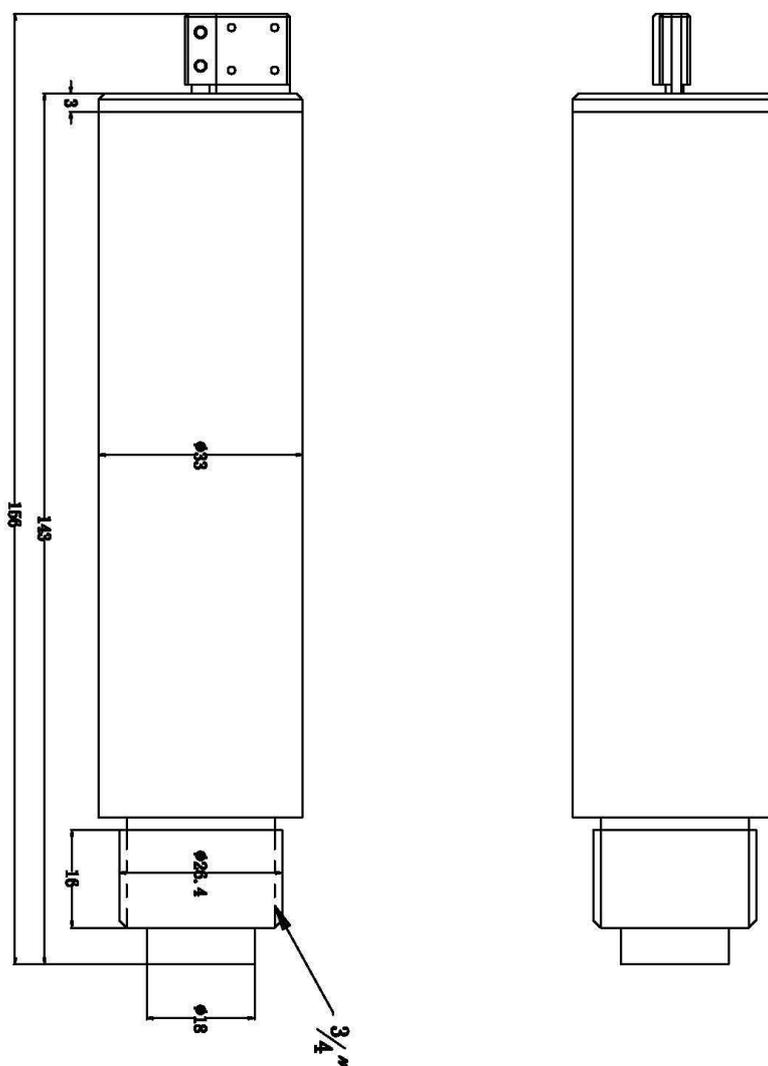
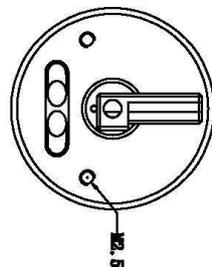
Convenient, fast, stable, easy to maintain

With automatic cleaning wiper, effectively eliminate the bubbles, reducing contamination without interference by the light interference from the outside world

Ordering :

Model Description	Model #
Turbidity Sensor	Y511-A
Online Controller	Y610-A

Y511-A Sensor Structure chart



Y511-A Sensor structure chart

Y511-A Technical Parameters

Range	0.1~1000 NTU
Housing IP Rating	IP68
Deepest Depth	10m underwater
Accuracy	<5% or 0.3NTU
Temperature Range	0 ~ 50℃
Interface	Support RS-485, MODBUS protocols
Assembly	Immersion or circulation installation
Power Requirements	DC 5~12V, current<50mA
Sensor OD	33 mm
Sensor Length	156 mm
Cable Length	10m standard, 5m、15m or30m optional
Body Materials	POM

Y511-A Maintenance

Maintenance schedule and methods

1、Maintenance Schedule

Unlike traditional electrical chemical sensors, the turbidity sensors with wiper require low maintenance. There are no need for frequent solution filling and calibrations

Maintenance tasks	Maintenance frequency
Calibration (if required of agency)	Calibration based on required schedule

2、Maintenance methods

Routine Maintenance

1) **surface:** Wash the outer surface of sensor with tap water, if there is still a clastic residues, using wet soft cloth to wipe, for some stubborn dirt, can add household detergents in tap water to clean.

2) **Check the cable :** The cable should not be tight when work properly, otherwise it easy to make the internal wire break and the sensor can't work normally.

3) Check the sensor measurement window whether have smudge and cleaning wiper whether is normal or not

4) Check the sensor shell whether is damaged or not.

Attention:

Probe contains sensitive optical components and electronic components. Ensure that the probe far away from severe mechanical impact.

FAQ:

ERROR	POSSIBLE CAUSE	SOLUTION
Unstable turbidity reading	connection error	Reconnect controller and cable
	Cable failure	Contact customer service
Measured value is too high, too low or instability	Sensor outside window is attached	Wash the surface

Y511-A Cable Definition

1、 Turbidity Sensor Dimensions

33x156 mm(Φ xL)

2、 Power Supply Requirements

Power Supply DC 5~12V +/-5%, Current <50mA

3、 Sensor Cable

4 wire AWG-24 OR AWG-26 shielding wire. OD=5mm



1, Red—Power (VCC)

2, White—485 Date_B (485_B)

3, Green ---485 Date_A (485_A)

4, Black --- Ground (GND)

5, Bare wire ---- shield

Quality Assurance

Yosemite Technologies online self-cleaning turbidity sensor and controller are warranted for one (1) year from date of purchase against any material and manufacturing workmanship.

If there are defects found during the warranty period, Yosemite technologies promises to repair or replace the defective products, or return the payment of product except the charge for the first time for transport and related formalities. In the warranty period, repair or replacement of any product will only enjoy the rest of the original warranty.

This warranty does not apply to consumables, such as the consumption parts (including but not limited to the lamp, piping, etc.).

Contact Yosemite technologies or your agents to start technical support within the guarantee period.

After receiving feedback for the product quality problems from the customer, Yosemite technologies will confirm whether the product need repair within two weeks; It can't be returned without approval to repair the product.

Limitation of Warranty

This warranty does not include the following

- Damage caused due to force majeure, natural disasters, social unrest, war (published or unpublished), terrorism, civil war or any government forced.
- Damage caused due to improper use, negligence, accident, or caused by the improper application and installation.
- Freight for the product shipped back to Yosemite technologies
- Freight for parts or products express or express delivery within the warranty.
- Travel expense for repair in local in warranty

Quality Assurance

The quality assurance includes all content of products provided by Yosemite technologies

It constitutes the final, complete and exclusive statement about the quality guarantee, no person or agent is authorized in the name of Yosemite technologies to develop other warranty.

As described above, the remedial measures such as repair, replacement or return the payment for product is not in violation of the warranty, and it aim at our own products only. Based on the strict liability or other legal theory, Yosemite technologies is not responsible for defects or any other damage due to careless operation , including the subsequent damage with a causal connection between these situations.