



4-Electrode Conductivity Sensor

User Manual (Version V1.1)



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Thanks for choosing Yosemite Technologies' instrument !

Please read this manual carefully before using this product, and keep this manual in safe place for future reference.

Please follow the instructions and procedures stated in this manual.

To ensure after sales warranty coverage, please follow the user instructions and maintenance procedures stated in this manual. Any damage and lost caused by improper use of this product will not be covered by factory warranty. Please keep all documents, and if you have any questions, please do not hesitate to contact Yosemite Technologies' customer services.

Remove the instrument from package material and examine it to make sure that there is no damage occurred during shipment. If there is any damage, please contact Yosemite Technologies Customer Service immediately. Save all materials until you are sure that the instrument functions properly. Any damage or defective items must be returned in their original packaging material.

Y520-A 4-Electrode Conductivity Sensor



- ⑩ Digital RS-485 output, support MODBUS
- ⑩ 0~50 °C; IP68 rating
- ⑩ Range: 1 uS/cm to 100 mS/cm, precision: 1%
- ⑩ No polarization effect, low maintenance
- ⑩ Automatic temperature compensation
- ⑩ Wide range and excellent interference rejection



Ordering:

| Model Description | Model # |
|---------------------------------|---------|
| 4-Electrode Conductivity Sensor | Y521-A |
| | |

Accessory:

| Model Description | Model # |
|-------------------|---------|
| | |

Y520-A Sensor Dimensions

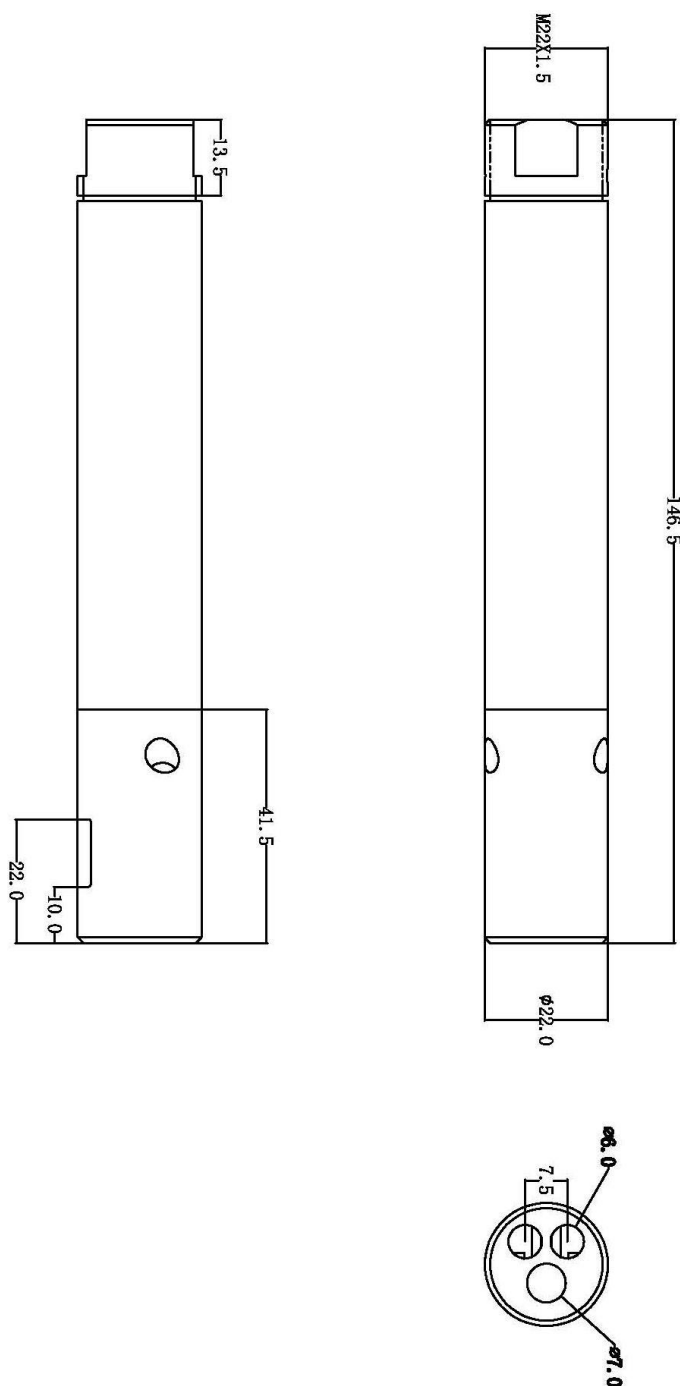


Figure 2: Sensor dimensions

Y520-A Technical Specifications



| | |
|---------------------------|---|
| Range | 1uS/cm~100 mS/cm |
| Response Time | 10 sec |
| Housing IP Rating | IP68 |
| Accuracy | 1% |
| Working Temperature Range | 0 ~ 50°C |
| Interface | Support RS-485, MODBUS protocols |
| Construction | M22x1.5 |
| Power Requirements | DC 5~12V +/-5%, current <50mA |
| Temperature Sensor Type | NTC |
| Sensor OD | 22mm |
| Sensor Length | 146.5 mm |
| Cable Length | 10m standard; 5m, 15m, and 30m optional |
| Calibrations | Support one point and two-points calibrations |
| Body materials | POM and PEEK |

1.Maintenance Schedule

Unlike traditional 2-electrode conductivity sensors, 4-electrode conductivity sensors require low maintenance.

| Maintenance task | Frequency |
|---------------------------------------|--|
| Sensor cleaning | Every 30 days |
| Calibration (if required of agency) | Calibration based on required schedule |

Note: above schedule is only for reference, customers should make on their own judgment based on their applications.

2.Routine Maintenance

4-electrode conductivity sensor:

- Inspect all sensor connectors for corrosion and replace sensors if necessary.
- Inlet and outlet hole of sensor
use a cotton swab or a soft cloth to wipe, for some stubborn dirt, can be added to the water in the washing liquid to wash;

Cable:

Cable's minimum bending radius is 15mm. The wires inside the cable may break if it is under long term stressed condition.

Y20-A Cable



1、 Sensor Dimensions

22x146.5 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

Yosemite Technologies online dissolved oxygen sensor and controller are warranted for one (1) year from date of purchase against any material and manufacturing workmanship. Within the warranty period, Yosemite Technologies Environmental Technologies will repair or replace, free of charge, any product that Yosemite Technologies determines to be covered by warranty.

Limitation of Warranty

This limited warranty does not cover any damage, deterioration or malfunction resulting from any alternation, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to fire, improper packing and shipping, lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Yosemite Technologies.

This limited warranty does not cover cost of shipping the product back to Yosemite Technologies, or any travel cost related the repair work.

Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.



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