## Viqua 410982R-20

# VIQUA 410982R-20 UV Flow Meter Sensor Instruction Manual

Model: 410982R-20

## Introduction

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of the VIQUA 410982R-20 UV Flow Meter Sensor. This sensor is designed as a direct replacement for the flow meter sensor found in the VIQUA/UVMAX PRO 20 UV System, ensuring accurate real-time UV dose delivery calculations for water treatment applications.

## Product Overview



*Figure 1: The VIQUA 410982R-20 UV Flow Meter Sensor. This image shows the black flow meter sensor with a white arrow indicating flow direction, and connection points on both ends. A wire extends from the top of the sensor.*

The VIQUA 410982R-20 is a crucial component for the VIQUA PRO 20 UV water treatment system. It accurately measures water flow, allowing the system to calculate and deliver the correct UV dose for effective water purification. This genuine Viqua OEM part ensures compatibility and optimal performance with your existing PRO 20 system.

## Setup and Installation

Proper installation is essential for the accurate operation of the flow meter sensor. Follow these steps carefully:

1. **Safety First:** Before beginning installation, ensure the UV system is powered off and depressurized. Close all relevant water supply valves.
2. **Locate Existing Sensor:** Identify the current flow meter sensor on your VIQUA/UVMAX PRO 20 UV System.
3. **Disconnect Wiring:** Carefully disconnect the electrical wiring from the existing sensor. Note the orientation for re-connection.
4. **Remove Old Sensor:** Loosen the unions or connections securing the old flow meter sensor in the water line. Remove the sensor. Be prepared for residual water.
5. **Prepare New Sensor:** Inspect the new VIQUA 410982R-20 sensor for any damage. Ensure O-rings or gaskets are properly seated.
6. **Install New Sensor:** Insert the new sensor into the water line, ensuring the flow arrow on the sensor body points in the direction of water flow. Tighten the unions or connections securely, but do not overtighten.
7. **Connect Wiring:** Reconnect the electrical wiring to the new sensor, matching the connections noted during removal.
8. **Check for Leaks:** Slowly open the water supply valves and check for any leaks around the newly installed sensor. Tighten connections slightly if leaks are present.
9. **Restore Power:** Once installation is complete and no leaks are detected, restore power to the UV system.

*Note:* If you are unsure about any step, consult a qualified professional or refer to the complete VIQUA PRO 20 UV System manual.

## Operating Principles

The VIQUA 410982R-20 flow meter sensor operates by detecting the rate of water flow through the UV system. This data is transmitted to the UV system's controller, which then adjusts the UV lamp output to ensure the water receives the optimal UV dose for disinfection, regardless of flow variations. This real-time monitoring is critical for maintaining water quality and system efficiency.

## Maintenance

The VIQUA 410982R-20 flow meter sensor is designed for durability and minimal maintenance. However, periodic checks are recommended to ensure continued optimal performance:

- **Visual Inspection:** Periodically inspect the sensor for any signs of physical damage, leaks, or mineral buildup.
- **Connection Integrity:** Ensure all electrical and plumbing connections remain secure.
- **Cleaning:** If mineral buildup is observed on the exterior, gently clean with a soft cloth and mild detergent. Do not use abrasive cleaners or solvents.
- **System Performance Monitoring:** Regularly check the UV system's display or indicators for any flow-related error codes or warnings.

*Note:* The internal components of the flow meter sensor are not user-serviceable. If the sensor is malfunctioning, replacement is typically required.

## Troubleshooting

If you experience issues with your VIQUA PRO 20 UV System that you suspect are related to the flow meter sensor,

consider the following:

| Problem | Possible Cause | Solution |
|---|---|---|
| UV System displays flow error or incorrect flow readings. | Sensor wiring loose or disconnected.<br>Sensor installed in wrong direction (flow arrow).<br>Sensor fouled by debris or mineral buildup.<br>Sensor malfunction. | Check and secure all electrical connections.<br>Verify flow arrow direction matches water flow.<br>Inspect sensor for blockages; clean if possible (exterior only).<br>If other solutions fail, the sensor may need replacement. |
| Water leakage around the sensor. | Loose plumbing connections.<br>Damaged O-rings or gaskets.<br>Cracked sensor housing. | Tighten connections (do not overtighten).<br>Inspect and replace O-rings/gaskets if damaged.<br>If housing is cracked, replace the sensor. |

For persistent issues, contact VIQUA customer support or a certified technician.

## Specifications

- **Model Number:** 410982R-20
- **Product Type:** UV Flow Meter Sensor
- **Compatibility:** VIQUA/UVMAX PRO 20 UV System
- **Manufacturer:** Viqua
- **Color:** Black
- **Item Weight:** Approximately 3 pounds
- **Product Dimensions:** Approximately 7 x 9.5 x 3.5 inches
- **Included Components:** Flow Meter Sensor

## Warranty Information

For detailed warranty information regarding the VIQUA 410982R-20 UV Flow Meter Sensor, please refer to the warranty documentation provided with your complete VIQUA UV system or visit the official Viqua website. Warranty terms typically cover defects in materials and workmanship under normal use and service.

## Customer Support

If you require further assistance, technical support, or have questions not covered in this manual, please contact VIQUA customer support. You can typically find contact information on the official Viqua website or through your product distributor. When contacting support, please have your product model number (410982R-20) and any relevant system information ready.
**Online Resources:** Visit the Viqua Store on Amazon

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## Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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**Question**

Example: How do I reset this device or fix this error?

**Details**

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question