



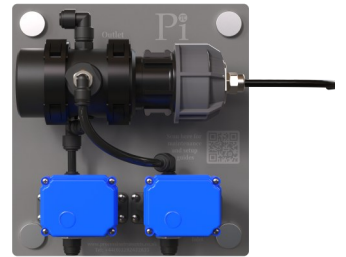
# UV254Sense Probe

## Online UV254 Absorption and Transmission

The UV254Sense Probe UVA and UVT sensor is designed in modular form so that it can be integrated with other sensors such as pH, turbidity and streaming current to provide all the tools needed for either a stand alone UV254 analyser, a coagulation monitor or as part of a monitoring instrumentation package. All UV254Sense Probe sensors can come with automatic cleaning.

As a stand alone instrument the UV254 analysers can be correlated and used as a surrogate measurement for TOC, BOD or COD, or in UV Transmission mode, can be used to control UV disinfection processes.

- **Tough - field proven**
- **Stable and reliable - excellent process control**
- **Surrogate for TOC, BOD or COD**
- **Suitable for all waters**
- **UVT for UV disinfection control**
- **UVA for water quality monitoring**



The UV254Sense Probe sensors are available with different controllers giving you the same great performance with different communication, display, and control options. With the Pi range of UV254 monitors, you get everything that you need - and nothing that you don't, without sacrificing the quality of measurement.

*"Using an LED UV254 probe is simply the best way of measuring UV254 online, no moving parts, reliable and accurate."*

### CRONOS® UV254Probe



- High Quality - Lowest Cost
- Multilingual
- High resolution grayscale display
- 9 buttons for easy navigation
- Graphing and datalogging
- Enclosure; wall, panel, pipe or pole mounting. IP65/Nema 4x.
- Options:
  - **Modbus RS485/LAN**
  - **Profibus DPV 1**
  - **Up to 2 sensors**
  - **PID/flow proportional controls**
  - **Remote sensors**
  - **Colour display**
  - **Downloadable data logs**

### CRIUS® 4.0 UV254Probe

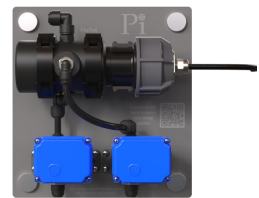


- High Quality - Lowest Cost
- Multilingual
- High resolution colour display
- Intuitive user interface
- Downloadable data logs
- Customisable home pages
- All CRONOS® options plus:
  - **Up to 8 sensors**
  - **Remote access via LAN**
  - **Remote access via 3G/4G**
  - **Expandable to 16 sensors**

***For more information please see the individual brochures for CRONOS® and CRIUS® 4.0***

### Sensor Options

- **At Line**



- **Dip**



- **Different Path Lengths for Different UV254 Ranges**



- **Automatic Cleaning Sample Strainer for Raw Water**



## Principle of Operation

Pi's UV254 LED online UV254 sensor has at its heart, a long life (approx. 10 years life) UV254 LED. LED's are known to be stable and reproducible, meaning that as a light source for a UV254 sensor, a good quality UV254 LED provides the low energy, long life and stability that's required.

As with all of Pi's sensors, the UV254Probe comes with an automatic cleaning system, and together they provide trouble free monitoring of UVA and UVT on any water source.



Fig. 1. Dip Mounting Self Cleaning

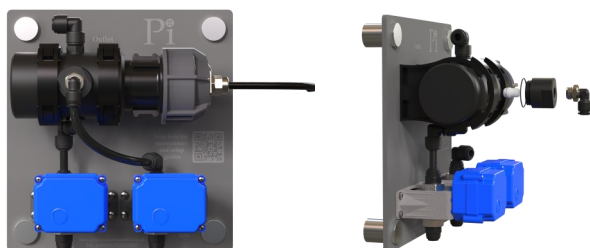


Fig. 2. At Line Self-Cleaning

The UV254Probe provides online continuous organics monitoring utilising a 254nm ultraviolet light source. The amount of light absorbed provides an ongoing indication of natural organic matter (NOM) in a flowing sample, and serves

as a continuous surrogate measurement for total organic carbon (TOC). More specifically, UV254 is the best detector of aromatic or reactive organics which when combined with chlorine, can form disinfection by products (DBPs).

This information, along with pH, turbidity, and streaming current monitoring (all available from Pi) can give all the information required to control coagulation in a Water Treatment plant.

## Applications

When using the transmission mode (UVT) the UV254Probe can be used to optimise the light level in UV disinfection equipment providing confidence whilst minimising power levels.

When used in absorbance mode (UVA) the instrument can monitor the NOM levels present. This value can then be used in a feed forward control manner to regulate coagulant dosage levels in water treatment plants. For more information see the [CoagSense](#) brochure.

The UV254Probe can be combined with other sensors like pH, turbidity, and streaming current to give a full monitoring instrumentation package.

## Standard Features

- Online continuous operation
- 254nm wavelength UV LED light source
- Display both UV transmittance and UV absorbance values

## Optional Features

- Automatic cleaning system (no moving parts)
- Dip or at-line mounting

## Specification\*

Measurements	UVA and UVT Surrogate measurements TOC, BOD, COD and others
Range	0-100% UVT , 0-2.5 ABS
Accuracy	±0.5% UVT
Repeatability	±0.5% UVT
Path Length	2, 5, 10 or 20mm
Sampling Time	10 Seconds
Material	316 Stainless Steel
Wavelength	254nm
Light Source	Deep UV LED, Long life, self monitoring
Dimensions	Probe: 39mm diameter, Height 150mm + path length
Operating Conditions	0 to 45C, max 80% relative humidity (non-condensing)
Storage Conditions	-20 to 60C, max 80% relative humidity (non-condensing)
Enclosure Rating	Probe IP67
Submersible	To 1 metre (IP67)
Warranty	2 years
Cleaning System	Spray wash (Optional)
Conformity Safety	EN61010
Conformity EMC	EN61326
Cable Length	Standard 10m (longer available)

\*All subject to change without notice