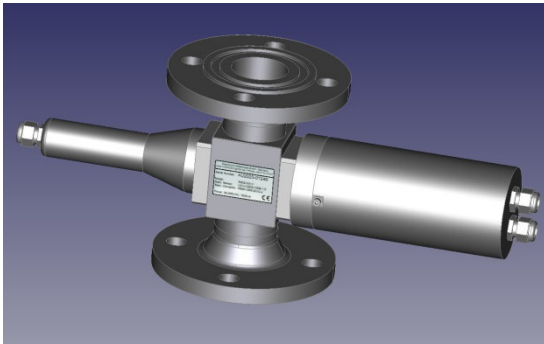


# Model UVI-II

## Process UV- /VIS- /NIR- Absorption Photometer



- **Low maintenance**
- **Calibration interval 12 month**
- **Material measuring windows: Sapphire alternative Quart**
- **Measurement wavelength: 240nm to 880nm**
- **Reference wavelength: 360nm to 880nm (optional)**
- **Available Line sizes 1" up to 5"**
- **Optional flanges: DIN, ANSI, Clamp, APV, TH, ...**
- **Cleaning: CIP / SIP, cleaning jets (optional)**
- **Installation in hazardous area (optional)**
- **Protection class: Nema 4X (IP65)**

### Description:

The sensor model UVI-II detects the UV- absorption of liquids Typically at wavelength of 254nm or 280nm. Other wavelengths (240 - 880nm) are configurable on request. The lifetime of the deep UV LED light sources (240nm up to 340nm) is 2 to 5 years. At wavelengths above 360nm, the life of the LEDs is typically higher than 5 years. The receiver optics captures the absorption of the purely UV-absorbing substances as well as the absorption of solids / turbidity. The absorption signal is measured and evaluated by the measuring transmitter. The dual wavelength option allows measuring the absorption at a second wavelength (typically NIR at 850nm). The NIR- absorption signal responds primarily to the solids / turbidity inside the measured liquid. The transmitter calculates the measuring results from the difference between UV- absorption and NIR- absorption ([UV-absorbing substances + absorption of solids] – absorption of solids). So these measuring results represent the absorption caused by UV-absorbing substances only. The absorption caused by the solid particles in the measured liquid will be eliminated. For applications in the visible spectrum (400nm up to 680nm / color measurement), the measured value is calculated in the same way ([color absorption + solids absorption] – solids absorption), so the effect of solid particles is eliminated and the adjusted color signal is displayed only. The calibration (up to 8 points) depends by application, and can be done in the desired measuring range and unit. Different optical path lengths (measuring gaps) allow the sensors to be adapted to a wide span of measuring ranges.

### Applications:

- UV<sub>254</sub>
- UV<sub>280</sub>
- Spectral Absorption Coefficient (SAC)
- TOC / DOC / PAC / ASTM, .....
- Toluene, Benzene, ... ..
- Color measurements in the visible spectrum

### Industries:

- Potable water / wastewater treatment
- Food and beverage industry
- Biotechnology
- Chemical Industry
- Pharmaceutical
- .....

### Technical Data:

Line sizes:	DN25 – DN125 / 1" to 5"	Optical path length:	2mm up to 250mm
Process pressure:	PN16 /150lbs (higher on request)	Reproducibility:	± 1 %
Process temperature:	Max. 80° / 130°C with air purge	Measuring wavelength:	254nm or 280nm (other on request)
Sensor material:	1.4404 (316L)	Reference wavelength:	850nm (Option)
Window material:	Sapphire / Quart / Suprasil	Protection class:	IP65 / NEMA 4X
Gasket material:	EPDM (other on request)	Cleaning:	CIP / SIP (Sanitary flow cell only)
Measuring range:	Typical: 0–4AU		