

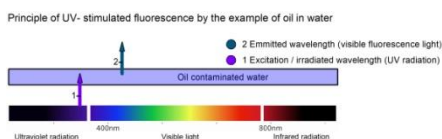
Model FLUORImat (FLU-I)

Inline- fluorescence measuring unit, Oil in Water Monitor

Abb. 1: Sensor FLUORImat



Abb. 2: Principle of Measurement



- **Method of measurement UV- stimulated fluorescence**
- **Low maintenance / long service life**
- **Optimized measuring cell for simplified maintenance/cleaning**
- **Typical calibration/maintenance interval 24 months (depending by application)**
- **UV emitter (λ 365nm Deep UV-LED), service life approx. 3 years**
- **Protection class: IP65 / Nema 4x**
- **Material measuring cell: stainless steel (optional titanium, PTFE, ...)**
- **Material measuring window: sapphire (optional Suprasil)**
- **Gasket material: FKM (optional FFKM, EPDM, Silicone, ...)**
- **Process connections: EN flanges, ANSI flanges, NPT, ...**
- **Measuring range: 0-0.5ppm to 0-100ppm**

Description:

The oil monitor model FLUORImat uses the measuring principle of UV- stimulated fluorescence to detect oil in water.

In the fluorescence of mineral oils, UV- light is absorbed by the unsaturated hydrocarbons inside the oil. These absorbed UV- light is converted into light with longer wavelength. If this effect were visible to the human eye, we would see that the UV light is converted into yellow-green fluorescent light. As higher the oil concentration, as higher the fluorescence intensity. The intensity of the fluorescence increases proportionally to the oil concentration and ensures high measurement sensitivity.

The model FLUORImat is designed for continuous operation with long service life.

Transmitter model C or C1 will be used as measuring amplifiers.

Calibration is application specific in the specified measuring ranges and units of measurement, depending on the application.

Any influence of turbidity, aging of the UV source or window contamination on the measured values is compensated by a ratio measurement.

The sensor can be installed directly in a pipeline up to a nominal diameter of DN50. For larger nominal diameters it is recommended to measure in bypass.

Process connections and sealing materials are specifically designed for your application.

Application:

- Oil in potable Water
- Oil in Condensate
- Oil in cooling Water
- Oil in produced Water

Operational areas:

- Chemical Industry
- Petro chemical Industry
- Beer and Beverages
- Food

Technical Data:

Line size:	DN 25 – DN 50 / 1" to 2"	Measuring range:	typical 0–0,5ppm, 0–100ppm
Process pressure:	PN 16 / ANSI class 150	Reproducibility:	$\pm 2 \%$
Temperature range:	maximum 80°C	Detector system:	Silica pin diodes
Sensor material:	1.4404	Environment:	IP65 / NEMA 4X
Window material:	Sapphire	Cleaning:	optional cleaning jet probe / CIP
Gasket material:	Application specific		