

Turbidity and total suspended solids sensor for industrial wastewater and processes

Reliable process monitoring with Turbimax CUS50D

Your absorption sensor for total suspended solids and turbidity measurement in the middle and high measuring range

Reliable process monitoring

- Turbidity measurement based on the light attenuation principle in accordance with ISO 7027.
- High level of measurement accuracy and repeatability for stable measurements.
- Digital Memosens protocol guarantees secure data transmission.

Low maintenance

- Sensor head made from dirt-repellent Teflon derivative is easy to keep clean using the air purification unit.
- Long sensor service life thanks to the resistant materials in the sensor shaft and head.

Easy commissioning

- Sensor is pre-calibrated ex-works and includes various application models.
- Automatic sludge model independently selects the optimum signal path for every sludge type.
- Single-point calibration is sufficient in most applications.





Where can I use Turbimax CUS50D?

Turbimax CUS50D ensures reliable measurements and efficient process monitoring, even in aggressive media:

Industrial wastewater and utilities:

- Measurement of the solids content in process and wastewater sludge
- Flocculent dosing
- Concentration measurement of milk products in the wastewater

Process media:

- Concentration measurement in the product, e.g. in titanium dioxide

Highly absorptive media:

- Concentration measurement in very dark media, e.g. activated carbon concentration in the fourth cleaning step of sewage treatment plants



The turbidity, solids content and concentration are measured in order to monitor industrial processes, utilities and industrial wastewater. The requirements for the material and measuring principle of a sensor are sometimes very demanding: The media may contain salt and may in some cases even be aggressive. The sensor must be resistant to high temperatures and provides reliable measured values even in dark, highly absorptive media.

Reliable process monitoring

Turbimax CUS50D is suitable for absorption measurements and for turbidity measurements in accordance with ISO 7027. The digital signal processing within the sensor and the Memosens protocol ensure reliable measured values.

Low maintenance

The materials used in the Turbimax CUS50D guarantee a durable measurement. The entire sensor head consists of the dirt-repellent Teflon derivative PCTFE. Traces of dirt are removed by the sensor's air purification system immediately. In the plastic version, the sensor shaft consists of PPS, a material that impresses thanks to its excellent resistance to chemicals. This makes Turbimax CUS50D suitable for use even in corrosive media. The sensor has no wetted parts that are stuck to one another, eliminating the risk of detachment.

Easy commissioning

The Memosens technology enables true plug-and-play thanks to automatic sensor detection in the transmitter. Turbimax CUS50D is also pre-calibrated ex-works for turbidity and absorption measurements. Saved models are available for measurement in kaolin and in return, activated and waste activated sludge. A general model of the sensor is also available for measuring the solids content in any sludge and liquid. This makes single-point calibration possible for most applications – and ensures that the sensor is easy and fast to put into operation.

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