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ДАТЧИКИ МУТНОСТИ

OPTISENS TSS

OPTISENS TSS 2000
Optical TSS sensor for wastewater applications

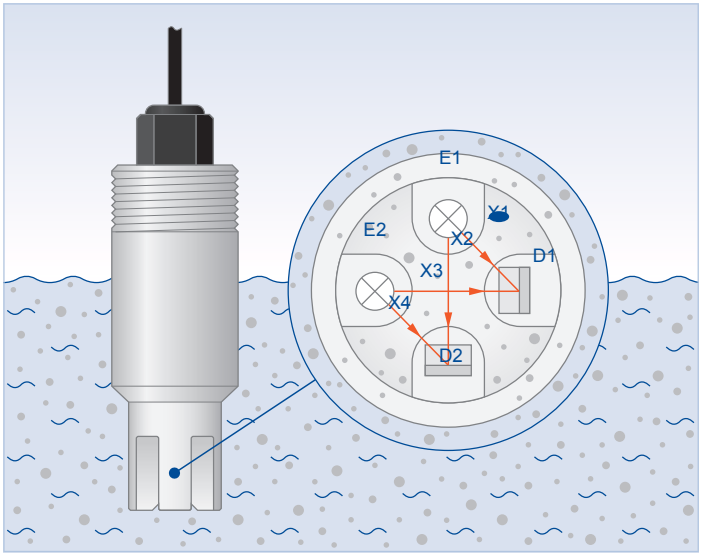
OPTISENS TSS 3000
Optical TSS sensor for wastewater applications

OPTISENS TSS 7000
Optical TSS sensor for hygienic applications

Accessories

Alternating light absorption method: 4 beam technology

The two light sources (E1, E2) pulse alternately. At each pulse the light is measured by the 2 detectors (D1, D2). This provides two ratios (X1/X2 and X3/X4) which give an overall ratio. Effec-tively this principle is therefore measuring the ratiometric change of light, not the actual change. This compensates for build-up of contaminants or degradation of electronics.



Typical applications for OPTISENS TSS 2000 and OPTISENS TSS 3000

Wastewater industry
- Open basin installation
- Quality control in industrial and municipal wastewater applications
- Sludge discharge of primary and secondary sedimentation (clarifier) tanks
- Monitoring of biological treatment in wastewater aeration basins
- Product loss monitoring in open channels

Metal and mining industry
- Final effluent monitoring

Easy to integrate

The TSS sensors also provide immediate results for process control and reduce the need for the time-consuming suspended solids lab analysis. Online sensors are best used after calibration or correlation to the gravimetric TSS procedure. The advantage of using NIR as light source is that this sensor is not affected by the colour of the medium measured.

OPTISENS TSS 2000

OPTISENS TSS 3000

Total suspended solids (TSS) sensors and systems

	Optical TSS sensor for wastewater applications	Optical TSS sensor for wastewater applications	Optical TSS sensor for hygienic applications
	OPTISENS TSS 2000	**OPTISENS TSS 3000**	**OPTISENS TSS 7000**
			
Parameter	Total suspended solids	Total suspended solids	Total suspended solids
Measuring principle	180° absorption light principle, Near infrared (NIR)-LED, single beam sensor	180° absorption light principle, Near infrared (NIR)-LED, four beam self compensating sensor	180° absorption light principle, Near infrared (NIR)-LED, four beam self compensating sensor
Type	Digital sensor for connection to MAC 100 transmitter	Digital sensor for connection to MAC 300 transmitter	Digital sensor for connection to MAC 300 transmitter
Measuring range	0...4AU, 0...18.5 g/l	0...25 g/l, 0...10 g/l, 0...2.5 g/l	0...25 g/l; 0...40% milk fat 0...10 g/l; 0...20% milk fat 0...2.5 g/l; 0...1.5% milk fat
Measuring accuracy	2.5%	±2% of reading	±2% of reading
Temperature range	0...+70°C/+32...+158°F	0...85°C/+32...+185°	PP: 0...+85°C/+32...185° PVDF: 0...+105°C/+32...221°F
Pressure range	1 bar/14.5 psi	10 bar at +25°C/145 psi at +77°F	10 bar at +25°C/145 psi at +77°F
Process connections	none	1 1/4" NPT (male) on cable side	2"/3"Triclamp, Varivent® N
Installation	Immersion	Immersion/Insertion	Insertion
Materials	Stainless Steel (1.4404; 316L), Sapphire glass	Polypropylene (PP)	PP; PVDF
Ingress protection rating	IP68	IP68	IP68
Connector/cable	Attached cable 11 m/36.08 ft	Attached cable 10 m/32.8 ft	Attached cable 10 m/32.8 ft
Options	Immersion assembly air pressure cleaning unit	Immersion assembly air pressure cleaning unit	–
Certificates	–	–	3A, EC 1935/2004, EU 10/2011, EC2023/2006

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