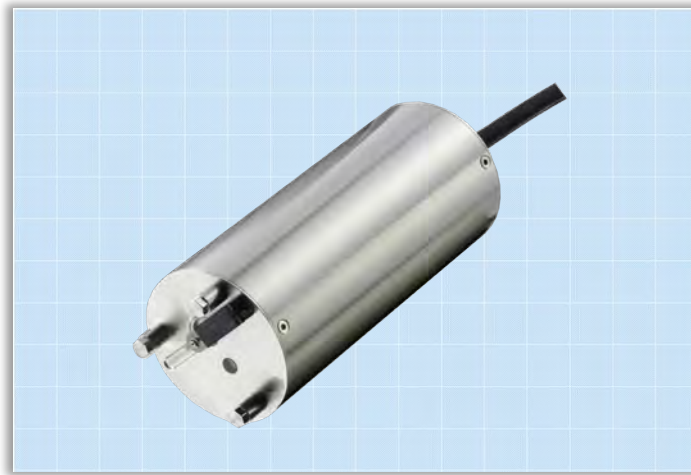


CROSS SMART SENSOR

TS7: Turbidity & Suspended Solid Sensor

DIGITAL TECHNOLOGY FOR OPTIMIZED MEASURES



GENERAL


The **TS7** Sensor is a measuring system best suited to continuously and consistently measure the Turbidity and the concentration of Suspended Solid in drinking water, surface water, ground water, sewage or industrial wastewater treatment facilities.

The sensor uses a measuring method that compares transmitted light with scattered light. The sensor is designed with due care to the arrangement of the optical system. These design makes the sensor less susceptible to disturbing light. The cleaning wiper unit permits continuous and consistent measurement even in an application where the sensor is exposed to contaminants.

APPLICATIONS

- Urban wastewater treatment (inlet/outlet controls)
- Sanitation network
- Industrial effluent treatment
- Surface water monitoring
- Drinking Water

Conform to the following EU Directives & Standards:

	Low Voltage Directive 2014/35/EU
	Electromagnetic Compatibility Directive 2014/30/EU
	RoHS 2 Directive 2011/65/EU
	EN 61010-1:2010; EN 61326-1:2013



OPTICAL TECHNOLOGY

The **TS7** Sensor is composed of a light source and a light detector (photodetector). When the incident light is scattered by the particles in the sample, the detector collects the scattered light. The amount of scattering measured by the sensor is mainly determined by the concentration of particles in the sample, the size and physical characteristics of the particles, and the wavelength of the emitted light used. The light source of the sensor adopts a near-infrared LED (880nm), and the 90°scattered light method is used for measurement, which complies with ISO 7027/EN 27027 to ensure accurate measurement of the turbidity value.



In addition, the built-in automatic wiper can keep the surface clean and remove air bubbles that may be attached to the optical measurement window, thereby minimizing unplanned downtime and maintenance, and ensuring the effectiveness of the measurement.

SPECIFICATIONS

Principle	Near infrared LED (880nm) and 90° scattered light method in accordance with ISO 7027/EN 27027
Range	0.00 to 1000 NTU, 4000NTU, 9999NTU 0.00 to 1300 mg/L, 50 g/L, 120 g/L
Resolution	0.1 to 10 NTU, mg/L
Unit	ppm, mg/L, g/L, NTU, FNU
Accuracy	<±1% FS (Turbidity), < ±5% FS (SS)
Repeatability	±2% FS
Operate Temp.	32 to 122 °F (0 to 50°C)
Store Temp.	14 to 140 °F (-10 to 60°C)
Protection	Immersible, >IP68
Pressure	5 bar
Weight	2.53 lbs. (1.15kg Sensor with 30' cable)
Material	316L, Sapphire Glass, Titanium Body is Optional
Digital Interface	Modbus RTU
Power	24VDC from GDC
Consumption	At regular operation: 50mA (Max) At cleaning operation: 240mA (Max)
Auto-Cleaning	Automatic Wiper cleaning system



ORDER CODE

TS7	Turbidity & Suspended Solid Sensor		
	Measuring Range		
	-1 0 to 1000NTU (0 to 1250 mg/l)	-2 0 to 4000NTU (0 to 50 g/l)	
	-3 0 to 9999NTU (0 to 120 g/l)		Other range contact factory
	Cable Length		
	-C10 10" Cable	-C20 20" Cable	-C30 30" Cable More length please contact manufactory
TS7	-1	-C30	

Specifications subject to change without notice.



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