



## **TSS EX1 sc Suspended Solids Sensor, Class1, Div1, Tank Immersion, without wiper**

**Product #:** LXV328.99.10002

**ZAR Price:** Contact Hach

### **Measures on-line suspended solids in virtually all applications under the strictest regulatory conditions.**

TSS sc probes can measure both online suspended solids and turbidity in one instrument. They cover the total measurement range from the finest turbidity to solids over a wide range. TSS sc probes have been specially developed for industrial applications in production processes in the chemical and pharmaceutical sector and for the requirements of industrial wastewater plants. TSS EX1 sc is suitable for use in potentially explosive atmospheres (ATEX Zone 1). Connects directly to all Hach sc controllers for immediate use. Probes are available as tank probes and for inline installation.

#### **Unique Multi-Beam Pulsed Infrared Light System**

TSS sc probes have a double optical system with two pulsating infrared LEDs and four receivers. This combined multiple beam alternating light method with beam focusing facilitates accurate color independent measurement of turbidity from 0.001 to 4,000 FNU and suspended solids from 0.001 to 500 g/l.

#### **Automatic Compensation for Air Bubbles and Temperature Swings for Accuracy**

Special software enables the system to recognize gas bubbles or temperature swings for a more accurate suspended solids or turbidity measurement.

#### **Standard Compliant and Precise - Ease of Calibration**

The turbidity measurement complies with the standard DIN EN 27027 (ISO 7027). Calibration is not necessary. If the probe is used to measure the solids content, a one-point calibration suffices. For special applications, curves can be defined using several calibration points.

#### **Withstands Difficult Conditions and Harsh Environments**

Probes are made of highly polished stainless steel with a scratch resistant sapphire window. They are design to withstand harsh environments and keep particles from sticking to the surface.

#### **Suitable for Use in Potentially Explosive Atmospheres**

TSS EX1 sc probes have been specially designed for measurement in hazardous locations with Class I Div 2 requirements.

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## **Specifications**

Accuracy:	Turbidity up to 1000 NTU:  < 5% of the measured value $\pm 0.01$ NTU
Ambient Temperature:	0 - 50 °C
Application:	Hazardous locations
Automatic Wiper:	No
Cable Length:	10 m
Calibration:	Turbidity (TRB): Factory calibrated  Solids (TS): To be calibrated by customer on site  Zero point: Permanently calibrated in the factory

Calibration Method:	Turbidity Formazin or Stablcal Standard (at 800 NTU). Requires a calibration kit.
	Suspended Solids Sample specific, based on gravimetric analysis with a correction factor procedure.
Controller Compatibility:	SC200, SC1000, SC4500. All controllers sold separately
Diameter:	48.5 mm
Flow:	Max. 3 m/s (the presence of air bubbles affects the measurement)
Includes:	Turbidity & Suspended Solids sensor, user manual
Installation style:	Tank Immersion
Length:	385 mm
Maintenance Interval:	1 h/month
Material:	Optics Carrier and Sleeve: stainless steel 1.4460 / stainless steel 1.4404
Max Temperature:	50 °C
Measurement method:	Combined multiple beam alternating light method with infrared diode system and beam focusing
	<i>Turbidity</i> (TRB): 2-channel 90° scattered light measurement in accordance with DIN EN ISO 7027, wavelength = 860 nm
	<i>Solids</i> (TS): 90° and 120° scattered light measurement, wavelength = 860 nm
Measuring range:	Turbidity (TRB): 0.001 - 9999 NTU
	Solids (TSS): 0.001 - 500 g/L
Model:	TSS EX1 sc
Mounting Configurations:	Immersion
Operating temperature range:	-10 - 50 °C
Parameter:	Turbidity, Suspended Solids
Pressure Range:	<lte/> 10 bar or <lte/> 100 m
Repeatability:	TSS content: < 4 %
	Turbidity: < 3 %
Response time:	1 s < T90 < 300 s (adjustable)
Response Time T90:	1 - 300 s adjustable
Warranty:	12 months
Weight:	approx. 2.7 kg
What's included?:	Turbidity & Suspended Solids sensor, user manual

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Turbidity & Suspended Solids sensor, user manual