



## **TSS EX1 sc Suspended solids probe, stainless steel, immersion style, ATEX**

**Product #:** LXV328.99.10001

**AED Price:** Contact Hach

### **Measurements in potentially explosive atmospheres (ATEX Zone 1): TSS EX1 sc**

Digital process probe for turbidity and suspended solids measurements, for use in potentially explosive atmospheres (ATEX Zone 1). Installation in open basins and channels.

The TSS sc probes can measure both on-line suspended solids and turbidity in one instrument. This flexibility enables the measurement of both parameters under the same application.

They have a double optical system with two pulsating infrared LEDs and four receivers. As the transmitted light is scattered, the receivers pick up the incident light at 90° and 120° angles effectively doubling the accuracy of the instrument. This eight channel measurement system, with an integrated bubble and temperature compensating software, enables the instrument to have a wide measuring range that effectively covers most applications, from the darkest pre-treated water to the freshest of spring waters, with one instrument.

The probes are made of polished stainless steel with a scratch resistant and easy to clean sapphire window design to withstand harsh environments.

**TSS sc probes have been specially developed for industrial applications**

**Measures both turbidity and suspended solids**

**8 measurement signals cover the total range and deliver measured values in conformity with the relevant standards**

**Excellent stability thanks to comprehensive compensation for interference factors**

**TSS sc has a unique compensation system to overcome the effects of air bubbles**

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### **Specifications**

Accuracy:	Turbidity up to 1000 FNU/NTU: < 5 % of measurement value or $\pm 0.01$ NTU, whichever is greater
Ambient temperature:	0 - 50 °C
Application:	Hazardous locations
Automatic wiper:	No
Cable length:	10 m
Calibration:	Turbidity: Factory calibrated
	Suspended solids: 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)
Installation style:	Tank Immersion
Length:	385 mm
Maintenance interval:	1 h/month
Material:	stainless steel 1.4571
Max Temperature:	50 °C
Measurement method:	Combined multiple beam alternating light method with infrared diode system and beam focusing
Measuring principle:	Turbidity (TRB): 2-channel 90° scattered light measurement in accordance with DIN EN ISO 7027, wavelength = 860 nm
	Solids (TS): 90° and 120° scattered light measurement, wavelength = 860 nm
	Combined multiple beam alternating light method with infrared diode
	system and beam focussing
	Turbidity (TRB): 2-channel 90° scattered light measurement in accordance with DIN EN ISO 7027, wavelength = 860 nm
Measuring range:	Solids (TS): 120° scattered light measurement, wavelength = 860 nm
	Turbidity (TRB): 0.001 - 9999 NTU
Model:	Solids (TSS): 0.001 - 500 g/L
	TSS EX1 sc
Mounting configurations:	Immersion
Operating temperature range:	-10 - 50 °C
Parameter:	Turbidity, Suspended Solids
Pressure range:	<10 bar or <100 m
Repeatability:	TSS content: < 4 %
	Turbidity: < 3 %
	1 - 300 s adjustable
Response time:	Installation note:
Special notes:	Distance sensor–wall
	> 50 cm (Turbidity)
	> 10 cm (TSS)
Warranty:	24 months
Weight:	approx. 2.7 kg
What's included?:	Turbidity & Suspended Solids sensor, user manual

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**What's included?**

Turbidity & Suspended Solids sensor, user manual

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**Required Accessories**

- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 100-240 VAC, without power cord (Item LXV525.99A11551)
- SC4500 Controller, Prognosys, 5x mA Output, 1 digital Sensor, 100-240 VAC, without power cord (Item LXV525.99A11501)
- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 24 VDC, without plug (Item LXV525.99Z11551)