



TSS EX1 sc Inline suspended solids probe, stainless steel, ATEX

Product #: LXV328.99.30001

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). For the installation in tanks and closed vessels with a ball valve armature.

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

Specifications

Accuracy:	Turbidity up to 1000 FNU/NTU: < 5 % of measurement value or ±0.01 NTU, whichever is greater
Ambient temperature:	0 - 50 °C
Application:	Hazardous locations
Automatic wiper:	No
Cable length:	10 m (optional extension cables available)
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:	Ball Valve Insertion
Length:	488 mm
Maintenance interval:	1 h/month
Material:	Optics Carrier and Sleeve: stainless steel 1.4460 / stainless steel 1.4404; Wiper Arm: stainless steel 1.4581; Wiper Rubber: silicone rubber (standard) Optional: FKM/FPM (LZX578); Wiper Shaft: stainless steel 1.4104
Max Temperature:	50 °C
Measurement method:	Combined multiple beam alternating light method with infrared diode system and beam focusing
	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
Measuring principle:	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 Solids (TS): 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:	Insertion
Operating temperature range:	-10 - 50 °C
Parameter:	Turbidity, Suspended Solids
Pressure range:	<10 bar or <100 m
Repeatability:	TSS content: < 4 % Turbidity: < 3 %
Response time:	1 - 300 s adjustable
Special Features:	Simple Inline installation
Special notes:	Installation note: Distance sensor–wall > 50 cm (Turbidity) > 10 cm (TSS)
Warranty:	24 months

Weight:	2.7 kg
What's included?:	Turbidity & Suspended Solids sensor, user manual

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Turbidity & Suspended Solids sensor, user manual