ITX40

Low Range Submersible Suspended Solids Sensor

Wide application range
- Monitors suspended solids after secondary clarifier, final effluent, filtrate, sewer losses, etc.

Low maintenance
- Heavy duty stainless steel sensor head
- Wide 1.57” (40 mm) measuring gap
- Flushing system with no moving parts

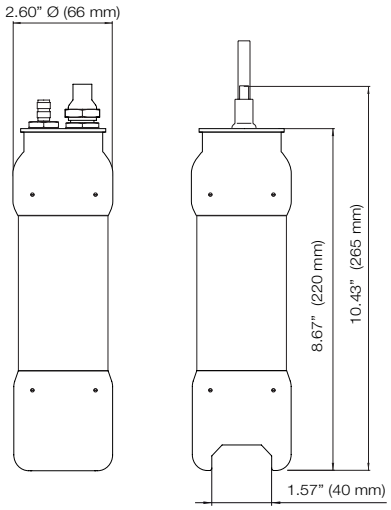
Stable measuring principle
- Built-in LED compensation loop to alleviate frequent recalibration of sensor
- Temperature compensation loop
- Measurement by 880 nm NIR-light

Easy to use
- Self-instructing menu
- Calibration with lab test in ppm (mg/l)

The ITX40 Suspended Solid Sensor is the ultimate tool for effective process control and monitoring. The sensor is used for continuous measurement of suspended solids in the low range from 0-50 up to 2,000 ppm from secondary clarifiers, final effluent and sewer monitoring in industrial plants. The measuring principle is a single beam of pulsed NIR-light. The LED light source pulses at 880 nm. In each installation the meter is calibrated using actual lab tests for up to five sample points. An automatic cleaning system with built-in flushing nozzles ensures accurate measurements with little maintenance.

Technical specifications

Material	316SS (SIS2343)	The sensor is manufactured in stainless steel which limits corrosion. The head of the sensor is designed to achieve the highest self-cleaning effect.
Weight	3.5 lbs (1.6 kg)	
Cable	33 ft (10 m)	The cable shield is made of Hytrel and is highly resistant to aggressive materials and fluids.
Enclosure	NEMA 4x (IP68)	
Process temp.	32 - 140°F (0 - +60°C)	
Measuring Principle	Straight transmission 1.57" (20 mm) measuring line	The detected measuring signal is inversely logarithmical proportional to the consistency or suspended solids. Particals will not be stucked. Lens in glass.
Measuring range	Min 0 - 50 ppm (mg/l) Max 0 - 2 000 ppm (mg/l)	Depending on type of solids
	GaAs, Diod 880 nm	ITX measures transmitted light which facilitates a zero-point calibration. At 880 nm no colours can be seen which eliminates a source of error.
Accuracy	±0,5% FS	
Repeatability	±3 ppm (mg/l) Typically for 0–100 ppm (mg/l)	
Mounting	In liquid	Immersion of sensor in liquid, see accessories for alternatives.
Cleaning	Air or water	Flush pressure max 87 psig (6 bar). For air 29 psig (2 bar) is usually sufficient.
Flushing hose	5/16" black pvc, 33' (10 m)	
Sealing	EPDM/Viton	
Accessories		Mounting bracket for handrail. Telescopic rod, 5 - 12 ft (1.5 - 4 m) incl. transmitter holder. Solenoid valve for flushing. Other mounting arrangements.



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BB2 Control Box All our sensors in the X-series can be combined and connected to a Control Box; BB2. The BB2 is equipped with the latest in communication protocols for compatibility with a wide array of automation systems. The control box comes with two 4 - 20 mA outputs as standard. It can support up to four sensors for 4 - 20 mA or Profibus DP output signals. Relay outputs in the BB2 are used for high and low alarms or to provide a pulse for automatic cleaning for sensors with that function. Further information can be found in our leaflet for BB2.

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