Pyxis®

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DATA SHEET



ST-730SS-T Series

Removable Stainless Steel Turbidity Sensor for High Pressure Critical Cooling AI Server Applications

Product Description

The ST-730SS-T Series of sensors are a new 316L-stainless steel design allowing insertion and removal of the sensor into the new Pyxis ST-009 Series (Stainless Steel) inline tee and multi-sensor flow manifolds for high pressure applications up to 290psig. These sensors use temperature-tolerant and humidity-resistant optical filters that can be operated under a wide range of ambient conditions without the need of humidity and temperature regulation. With this design the performance of the ST-730SS-T series can remain stable and consistent for an extended period time. Additionally, it has a high tolerance to fouling, particulate matter and air bubbles, making it more reliable than alternative turbidity meters.

The ST-730SS -T series of sensor are available in two detection range formats: 0-10NTU (ST-731SS-T) and 0-100NTU (ST-730SS-T). Each device uses infrafred light with a 90° surface scatter optical channel configuration.

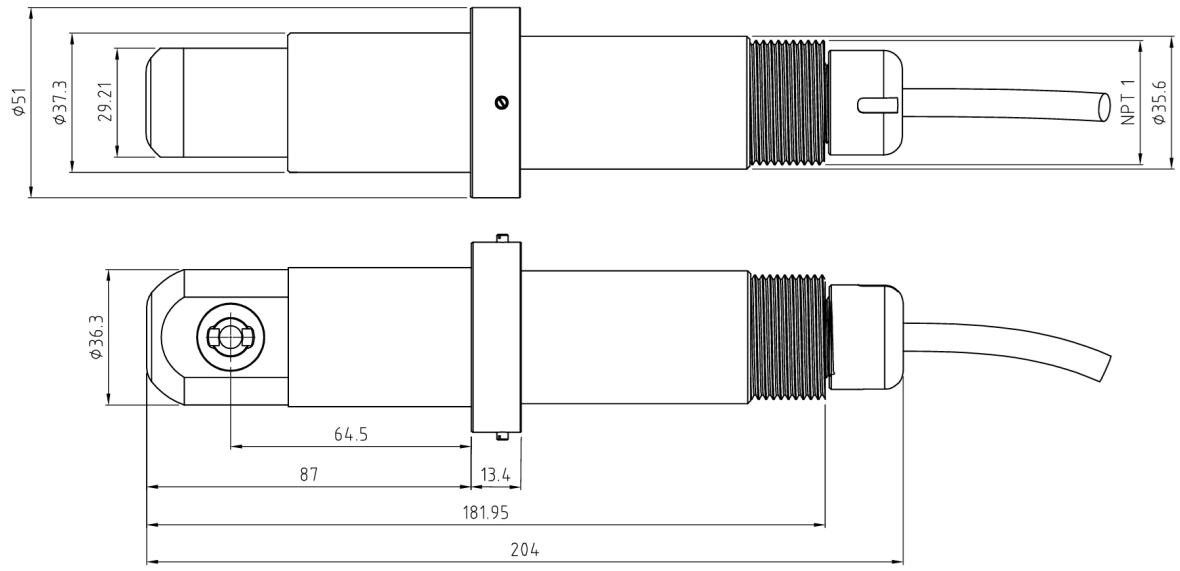
The ST-730SS -T series sensors offer a combination of 4-20mA as well as RS-485 Modbus output signals and are Bluetooth® 5.0 Enabled for wireless cleaning and calibration when used with MA-WB or PowerPACK Bluetooth Adapters and the uPyxis® APP for Mobile or Desktop devices. Pyxis Lab Formazin standard solutions in the range of 5-100 NTU can be used for the calibration of these sensors. The calibration standard may also be the water sample itself if the Turbidity concentration of the sample is measured and validated by a calibrated offline turbidimeter. This allows the ST-730SS-T sensors to be calibrated online without being removed from the system.

Sensor Specifications

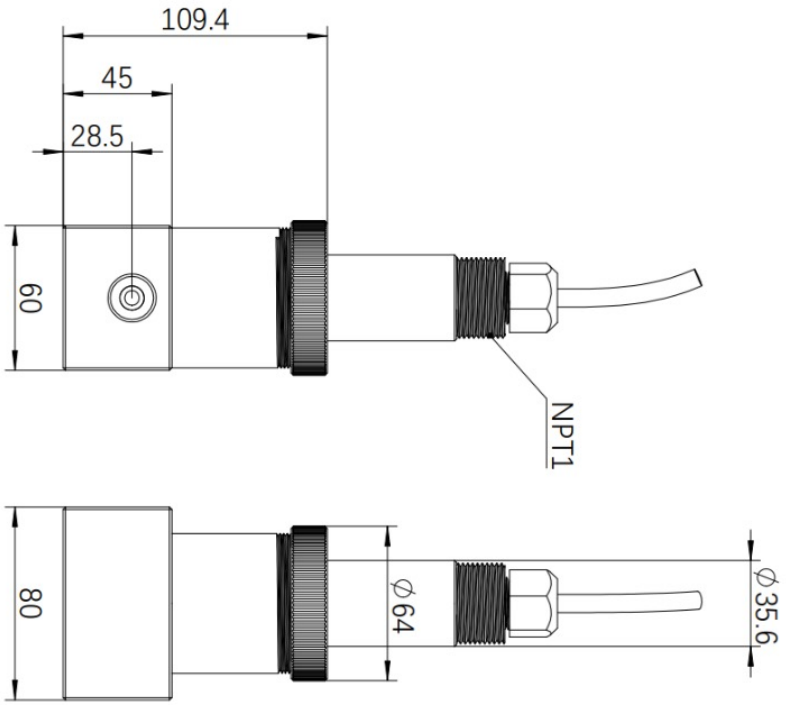
Item	ST-730SS-T	ST-731SS-T
P/N	56377	55995
Range	0–100NTU	0–10NTU
Resolution	0.1NTU	0.05NTU
Accuracy	±2% of the Reading	
Method	Nephelometric Turbidity Unit (NTU)	
Light Source	InfraRed	
Light Format	LED	
Power Supply	22–26V DC, Power Consumption - 1W	
Outputs	Isolate 4-20mA Analog Output, Isolated RS-485 Modbus Output	
Dimensions†	182mm Length, 37mm Body Diameter	
Weight	1.1lbs (500g)	
Installation	ST-009 Stainless Steel Tee - ¾in FNPT Threaded Ports (SOLD SEPARATELY)	
Material	316L Stainless Steel	
Operational Pressure	290psi (20Bar) when used with the ST-009 Tee	
Operating Temp.	4–49 °C (40–120 °F)	
Storage Temperature	-20–60 °C (-4–140 °F)	
Cable Length	1.5m 7-PIN Bulkhead with Adapter + 1.5m 7-PIN Flying Lead with Adapter	
Calibration	Two-Point Calibration against Formazin Calibration Standards	
Rating	IP67, Fully Dustproof & Waterproof	
Regulation	CE, RoHS, UKCA	
Compliance	ISO-7027	

Specifications are subject to change without notice.
†See ST-730SS-T Dimension Diagrams

Sensor Dimensions (mm)



Sensor + Tee Dimensions (mm)

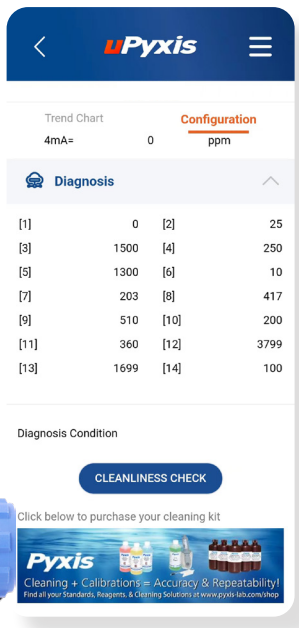


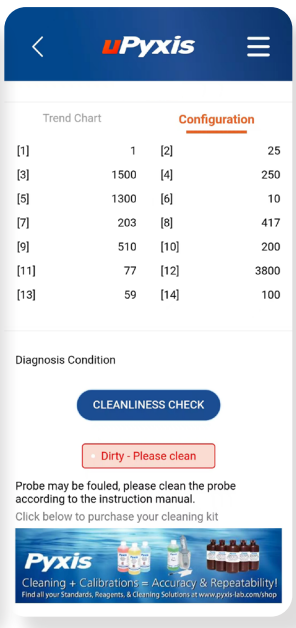
Sensor Cleaning & Calibration

Pyxis Lab recommends cleaning and calibrating the ST-730SS-T Series inline sensors at a minimum frequency of once per month. For clean water applications this period may be increased. For heavily contaminated applications, cleaning and calibration may be considered more frequently. When powered by and connected to the MA-WB (7Pin) or PowerPACK Series Bluetooth Adapter options, the ST-730SS-T Series sensor can both be wirelessly accessed via Bluetooth from any mobile or desktop device using the uPyxis APP. The APP features a live graphical display of the sensors value outputs for Turbidity as well as a sensor calibration function. Once the sensor is properly cleaned it can then be calibrated with its Pyxis Calibration Standard (ie. Turbidity Standard-100 NTU).

Contact service@pyxis-lab.com for support.







Optional Accessory Order Information	*Part Number*
ST-009 Inline Stainless Steel Tee Assembly	22624
ST-009-03 Three Sensor Flow Manifold	24397
MA-WB Bluetooth Adapter for 8PIN Sensors	MA-WB
TURB-2 (2NTU Calibration Solution 500mL)	57010-6
TURB-10 (10NTU Calibration Solution 500mL)	57010-4
TURB-100 (100NTU Calibration Solution 500mL)	57010
TURB-2-PG25 (2NTU Calibration Solution with Glycol 500mL)	36828
TURB-10-PG25 (10NTU Calibration Solution with Glycol 500mL)	36777
TURB50 -PG25 (50NTU Calibration Solution with Glycol 500mL)	34210
Sensor Cleaning Kit	SER-01
MA-10CR 10’ Extension Cable for 8PIN Sensors	50738
MA-50CR 50’ Extension Cable for 8PIN Sensors PowerPACK-5 PRO	50705
Bluetooth® & Power Auxiliary Adapter	MA-PS-5