

ST-525 Fluorescein Inline Sensors

For Industrial Boiler and Process Water Applications

Product Description

The ST-525 Series inline sensor platform is a proprietary design for the direct measurement of Fluorescein (Fluorescein Sodium Salt/Uranine, CAS# 508-47-8) utilizing LED light sources for use in industrial boiler water and process treatment applications.

The ST-525 Series offers Pyxis Lab® proprietary algorithms to determine the concentrations of Fluorescein at levels as high as 60ppb while simultaneously measuring light loss through the optical channel to determine sensor cleanliness. The ST-525 series offers a combination of 4–20mA as well as RS-485 Modbus output signals and is Bluetooth® enabled for wireless cleanliness diagnostics and calibration when used with the MA-CR or PowerPACK Bluetooth® Adapters and the uPyxis® mobile and desktop app.

The ST-525 Series is provided in CPVC with the standard Pyxis Lab® ST-001 inline 3/4in FNPT tee assembly, 5ft bulk-head cable with quick adapter and 1.5ft flying lead cable with quick adapter, enabling rapid wiring to any microprocessor controller, PLC or DCS system. The ST-525SS is offered in 304L Stainless Steel with 3/4in FNPT ports for high pressure or boiler feedwater applications.

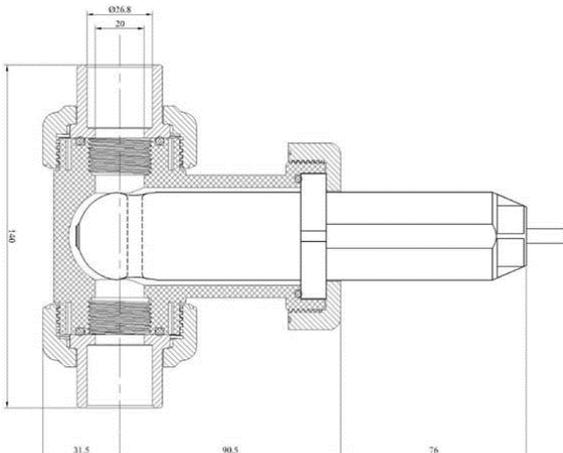


Contact Us at info@pyxis-lab.com for More Information...

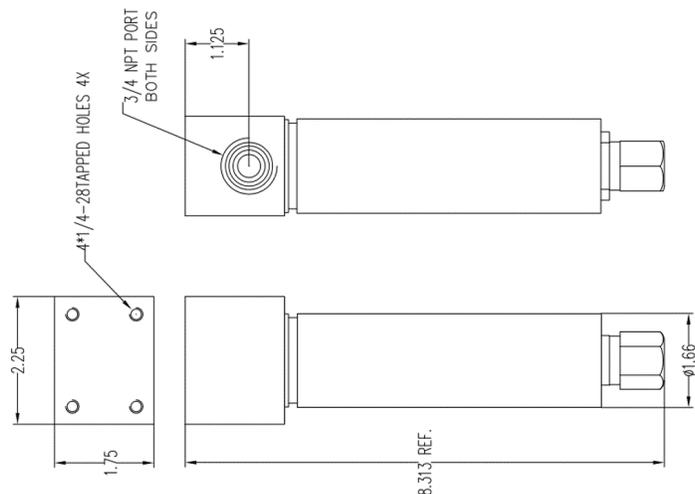
Specifications

Item	ST-525	ST-525SS
Part Number	50665	50666
Fluorescein Output Scale	0–60ppb	
4-20mA SPAN <i>via uPyxis®</i>	20mA SPAN Value May Be Adjusted to <60ppb via uPyxis®	
Fluorescein Resolution	±0.2ppb	
Calibration	2-Point Calibration against DI Water + Fluorescein Solution	
Power Supply	22–26VDC, Power Consumption - 1W	
Outputs	Isolated 4–20mA Analog & Isolated RS-485 Digital - 7Pin	
Installation	ST-001 Tee, 3/4in FNPT	3/4in FNPT Threading
Weight	170g (0.37lbs)	1,148g (2.5lbs)
Operational Pressure	100psi (6.9Bar)	290psi (20Bar)
Operational Temperature	4–49 °C (40–120 °F)	
Storage Temperature	-20–60 °C (40–120 °F)	
Material	CPVC	304 Stainless Steel
Rating	IP67, Dust-Proof & Water-Proof	
Regulation	CE Marked + RoHS	
Dimensions	6.8in (172.7mm) Length x 1.44in (36.6mm) Diameter	
Cable Length	5ft, Terminated with IP67 Adapter + 1.5ft Flying Lead	

ST-525 Assembly Diagram



ST-525SS Diagram



Optional Accessories

Part Number

ST-001 Spare Tee (3/4in FNPT Inline Tee)	50704
FLUO-20 (Fluorescein Calibration Solution - 500mL)	21001
FLUO-50 (Fluorescein Calibration Solution - 500mL)	57013
MA-WB Bluetooth Adapter (7-Pin Adapter)	MA-WB
PowerPACK 1 (Single Channel Power Supply w/ Bluetooth)	MA-BLE-1
PowerPACK 4 (Four Channel Power Supply w/ Bluetooth)	MA-BLE-4
MA-NEB (USB Bluetooth® Adapter for uPyxis® Desktop)	MA-NEB
SP-380 PTSA + Fluorescein Handheld (Dual-Channel)	SER-02
MA-C10 (10ft Extension Cable for 7-Pin Sensors)	50208
	50738

Cleaning & Calibration

Pyxis Lab® recommends cleaning and calibrating the ST-525 Series inline sensors at a minimum frequency of once per month. For clean water applications this period may be increased. For heavily contaminated applications, diagnosis, cleaning and calibration may be considered more frequently. The ST-525 Series sensor contains internal hardware and algorithms that enable compensation of color and turbidity as well as sensor cleanliness diagnostics. When powered by and connected to the MA-WB (7Pin) or PowerPACK Series Bluetooth® Adapter options, the ST-525 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 Fluorescein as well as sensor cleanliness check and calibration function. The cleanliness check can be conducted rapidly to determine if a cleaning is required prior to sensor calibration. Once the sensor is properly cleaned it can be re-diagnosed to confirm the cleaning was effective and then calibrated with its corresponding Pyxis Lab® Calibration Standard (ie. FLUO-20/FLUO-50). *Contact service@pyxis-lab.com for Support...*

Calibration & Diagnostics made easy with uPyxis® App

www.pyxis-lab.com/upyxis-app

