



ST-722 / ST-724 / ST-725 / ST-728

Ultra-Low Inline Conductivity Sensor Series

Product Description

The ST-722, ST-724, ST-725 and ST-728 are industrial grade in-line ultra-low to mid-range conductivity sensors specially designed for non-pure, pure and ultra-pure water applications. They can be used for conductivity measurement of mid-range water, pure water, ultra-pure water and deionized water including Boiler Feedwater and Condensate, RO and EDI/EDR process water, Ion Exchange, Distillation, Semi-Conductor Cleaning, Degas conductivity and other process applications. These are 'smart sensors' with a built-in transmitter supporting digital and analog signal outputs and are designed to simplify field installation, calibration and operation.

The sensors offer simple ¾" MNPT threaded installation or installation in the Pyxis inline Tee assemblies and are constructed with a Hastelloy electrode tip and stainless-steel body. The ST-722, ST-724, ST-725 and ST-728 sensors can be wirelessly calibrated with uPyxis 2.0 app for mobile or desktop devices when used with the MA-CR Bluetooth adapter. The sensors both offer two 4-20mA Analog outputs, one for conductivity and one for temperature, as well as RS-485 Modbus output for a broad array of installations that desire to connect the smart sensor directly to receiving controller, PLC or DCS network. Both sensors have built-in RTD for the automatic compensation of sample temperature.

Typical Applications

- *Ultra-Pure EDI / EDR / Ion Exchange Applications*
- *Conventional RO / Feedwater / Concentrate or Concentrator*
- *Temperature - Utilization for All Application Types*
- *Broad Versatility Operating Temperature & Pressure*
- *Desired Direct Connection Applications to PLC, Controller or DCS*
- *Multi-Drop Modbus Sensor Installations direct to PLC or DCS*

Features

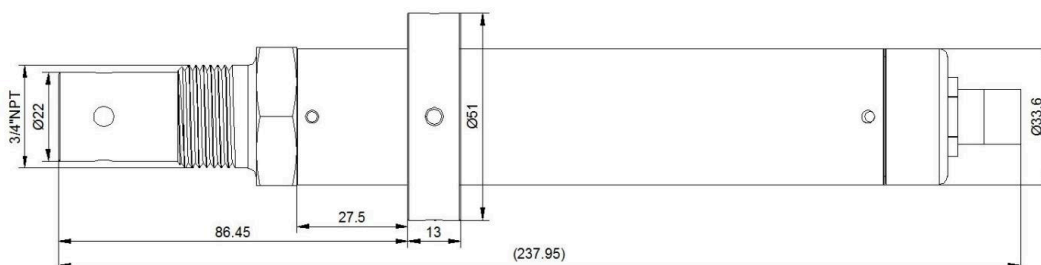
- (2) 4-20mA Analog Outputs for Temperature and Conductivity
- RS-485 Digital Output for Temperature & Conductivity
- Calibration and Diagnostics by uPyxis® App via Pyxis MA-CR Bluetooth Adapter
- Rugged Stainless Steel and Hastelloy Construction
- Two Sensor Range Options Available

Sensor Specifications

Item	ST-724	ST-725	ST-728	ST-722
P/N	10009	53108	53117	53103
Conductivity Range	0.02–1,000.0µS/cm	0.02–200.0µS/cm	0.02–10.0µS/cm	0.02–10,000µS/cm
Conductivity Precision	±0.2µS/cm or 1% (<500µS)	±0.1µS/cm or 1% Value		±10µS/cm or 2% Value
4-20mA Range (Temp.)	32 - 212 °F (0 - 100 °C)			
Temp. Precision	±1% of the Value			
Cell Constant (K)	0.3			
Response	T90 = 92 seconds			
Sample Pressure	Up to 100psi (0.7MPa)			
Power Supply	22–26V DC, Power Consumption 2W			
Dimensions	8.46in (215mm) Length, 1.32in (33.6mm) Body Diameter			
Installation	¾in NPT or Pyxis Lab® Inline Tee Assembly (ST-001/ST-009)			
Body Material	304 Stainless Steel			
Weight	530g (1.10lbs)			
Operational Pressure	100psi (6.9Bar)			
Operating Temp.	40–120 °F (4–49 °C)			
Storage Temperature	20–140 °F (-7–60 °C)			
Outputs	8-PIN, Isolated 4-20mA Analog Output & Isolated RS-485 Digital Output			
Wet Material	HASTELLOY			
Rating	IP67, Fully Dustproof and Waterproof			
Regulation	CE, UKCA, RoHS Marked			
Cable Length	5ft (1.5m) - Extension Cables Available			

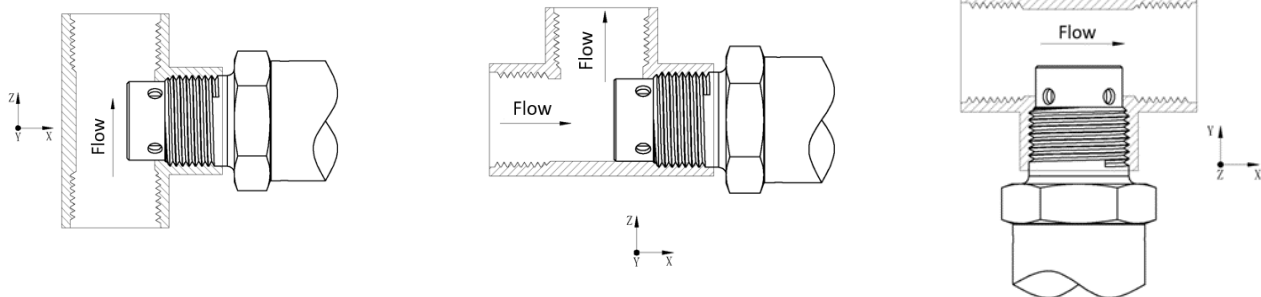
Specifications are subject to change without notice.

Sensor Dimensions (mm)

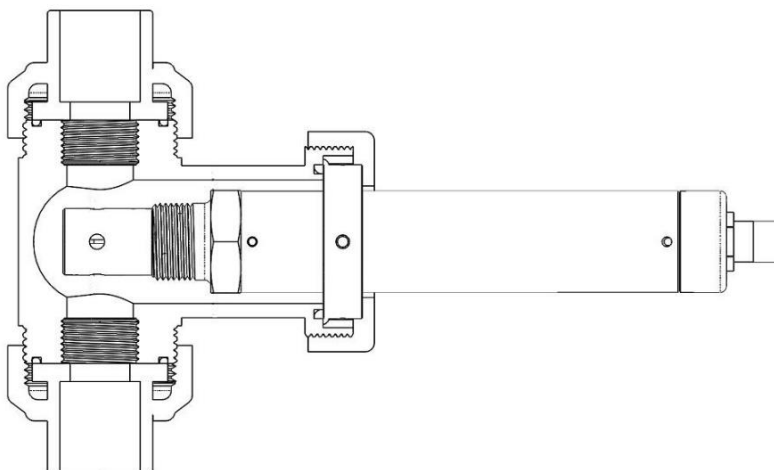


Proper Flow Installations

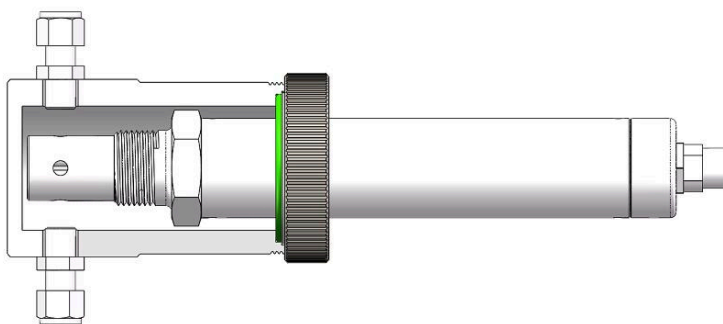
To maximize accuracy, it is critical the ST-722, ST-724, ST-725 and ST-728 sensors be installed in a method to minimize air bubbles or entrainment. The flow direction should be as outlined below to ensure proper flooding of the sensor electrode.



Proper Installation Using 3/4-inch NPT Threaded Liquid End



Proper Installation Using ST-001 (CPVC) Inline Tee Assembly



Proper Installation Using ST-007 (Stainless Steel) Inline Tee Assembly

Sensor Cleaning & Calibration

The uPyxis® app manages all Pyxis portable meter and inline sensors on mobile and desktop devices, including Apple iPhones and Samsung Android smartphones. When the MA-CR Bluetooth Adapter accessory is connected to the Pyxis ST-724, ST-725 and ST-728 Ultra-Low Conductivity sensors, users may utilize the uPyxis APP to diagnose, clean and calibrate their sensor at both zero and slope points, preventing the need to calibrate the sensor through the receiving controller or PLC.

Contact service@pyxis-lab.com for support.



Order Information

ST-724 Conductivity Sensor

ST-725 Conductivity Sensor

ST-728 Conductivity Sensor

ST-722 Conductivity Sensor

Part Number

10009

53108

53117

53103

Optional Accessory Order Information

MA-CR 8-PIN Bluetooth® Adapter

MA-CR

MA-NEB USB Bluetooth® Adapter for Desktop App

MA-NEB

ST-001 CPVC Inline Tee System

50704

ST-007 Stainless Steel Inline Tee System

50700-A51

UC-50 Micro-Display & Data Logging Terminal

43007

MA-10CR 10ft Extension Cable

50741