



ST-723 Inline Conductivity Sensor

High Temperature/Pressure Conductivity Sensor for Boiler & Process Water

Product Description

The Pyxis ST-723 is a uniquely designed high temperature boiler water conductivity sensor ideal for applications in measuring boiler water and other process water samples at elevated temperature and pressure. The sensor is constructed from a Hastelloy 2-pole electrode head and high temperature plastic body. The sensor is designed with a PEEK type plastic and 316L stainless steel body with integrated cooling fin assembly between the electronic portion of the sensor and the electrode head, allowing this sensor to be utilized on water samples as high as 200°C (392°F) and 300psi.

The sensor has a built-in RTD for temperature measurement and utilization allowing sensor configuration with or without Automatic Temperature Compensation (ATC) and a user defined compensation coefficient. The ST-723 offers both 4-20mA & RS-485 Modbus outputs in 8Pin format with Bluetooth access capability for wireless data trending and configuration and calibration using the MA-CR Bluetooth® adapter.

Typical Applications

- Boiler Feedwater
- Pressurized Boiler Surface Sample (Timed Capture)
- Pre-Cooled Boiler Surface Sample (Constant Flow with ATC)
- Process Water or High Temperature/Pressure

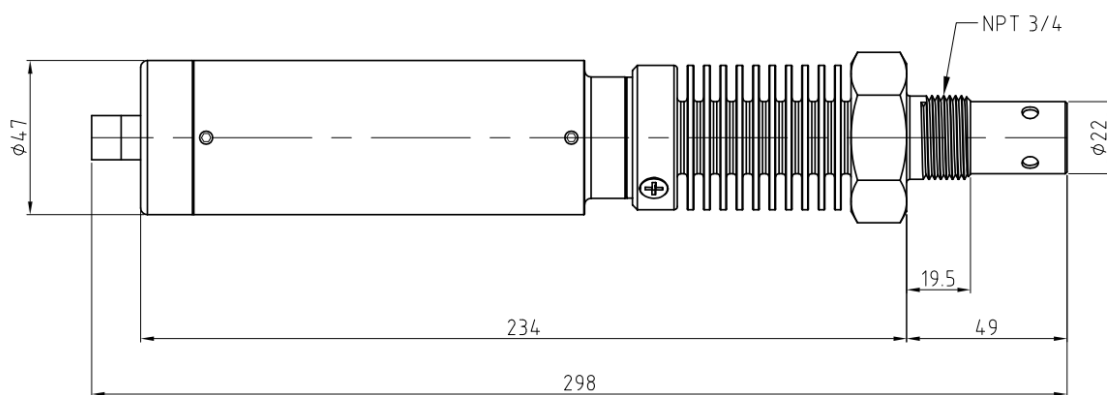
Features

- Dual 4-20mA Analog & RS-485 Modbus Digital Outputs for Conductivity & Temperature
- Wireless Configuration & Calibration via MA-CR Bluetooth® Adapter & the uPyxis app
- Rugged all 316L Stainless Steel & PEEK Construction
- Hastelloy 2-Pole Electrode Head

Sensor Specifications

Item	ST-723
P/N	53106
Conductivity Range	0–20,000µS/cm
Temperature Range	32–392 °F (0–200 °C)
Conductivity Precision	±10% µS/cm or ±3.5% FS, whichever is greater
Sensor Resolution	0.1µS/cm
Lower Detection Limit	1µS/cm
Cell Constant (K)	K = 0.3
Configuration	MA-CR Bluetooth® Adapter with uPyxis 2.0 mobile or desktop app
Power Supply	24VDC, 2W
Signal Output	(2) 4–20mA and RS-485 Modbus 8-PIN Conductivity & Temperature Outputs
Rating	IP-67 Electrode Head; IP-65 Enclosure and Cooling Fins
Installation	3/4in - NPT
Op. Temperature	41–392 °F (5–200 °C)
Sample Pressure	Up to 300psi (20.6Bar) at 390 °F
Material Construction	2-Pole Electrode: Hastelloy; Body: 316L Stainless Steel and PEEK; O-Ring: Perfluoro Elastomer
Dimension	273mm (10.74") L x 52mm (2.047") D
Weight	1.1kg (2.4lbs)
Cable	1.5m 8-PIN Bulkhead Cable; 1.5m 8-PIN Flying Lead Cable
Regulation	CE / RoHS / UKCA

Sensor Dimensions (mm)



Wiring Guide

Wire Color	Designation
Red	24V +
Brown	Power Ground
White	Conductivity, 4-20mA +
Pink	Temperature, 4-20mA +
Grey	4-20mA -, Internally Connected to Power Ground
Blue	RS-485 A
Yellow	RS-485 B
Green	RS-485 Ground

Optional Accessories Information

ST-723 High Temperature/Pressure Conductivity Sensor

Part Number

53106

Optional Accessories Information

MA-CR Bluetooth® Adapter

MA-10CR 10' 8-PIN Extension Cable

MA-50CR 50' 8-PIN Extension Cable

MA-100CR 100' 8-PIN Extension Cable

Part Number

MA-CR

50741

50743

50744