ST-765SS-PAA

Inline Peracetic Acid + pH Sensor for Cooling, Process & Drinking Applications

Description

The Pyxis ST-765SS-PAA is a stainless-steel multi-parameter membrane-less sensor based on unique electrochemical principles to determine Peracetic Acid (PAA) plus pH and temperature of water. This sensor incorporates Pyxis' advanced technology in the field of bare-gold electrochemical detection. The ST-765SS-PAA can simultaneously compensate for temperature and pH in the measurement of PAA based on real-time conditions present in the application of use. This unique internal compensation results in a highly accurate PAA measurement as high as a pH of 9.0+.   This sensor should be utilized in conjunction with the FR-300-PLUS auto brushing flow reservoir for a wide range of applications from clean to very dirty.

The ST-765SS-PAA sensor offers a replaceable, front loading reference dual gold electrode head assembly (EH-765-01) that has been independently developed by Pyxis Lab eliminating the shortcomings associated with membranes and gel replacement while offering reduced polarization time on startup with an electrode life span potential of up to 2-years. The flat front-end design of the ST-765SS-PAA makes this platform less prone to contamination or fouling and is easy to clean. The ST-765S-PAA sensor body is composed of 304 stainless steel and is well suited for aggressive environments.

The ST-765SS-PAA sensor offers 2x 4-20mA and RS-485 Modbus outputs and is Bluetooth 5.0 enabled when used in conjunction with the MA-CR Bluetooth Adapter or PowerPACK Series Adapters. This four-electrode composite sensor provides three measured parameters including PAA, pH and temperature with one sensor equipped with fully integrated 2x 4-20mA and RS-485 Modbus outputs.

ST-765SS-TCL
Total Chlorine + pH Sensor

EH-765-01
Replacement Electrode for all ST-765SS-PAA

Key Features

- Real-Time pH + Peracetic Acid (0-100ppm) Detection
- Dual 4-20mA Outputs (Peracetic Acid + pH) and RS-485
- Bluetooth Enabled when used with MA-CR or PowerPACK Adapters for wireless uPyxis 2.0 applications
- Integrated RTD & pH Compensation to pH 9.0+ of the PAA Value
- Replaceable EH-765-01 Reference Electrode Assembly – Simple Maintenance

Common Applications

- Cooling Water / Food-Beverage-Vegetable Process Water (NON-POULTRY)
- Wastewater Effluent
- Potable and Drinking Water

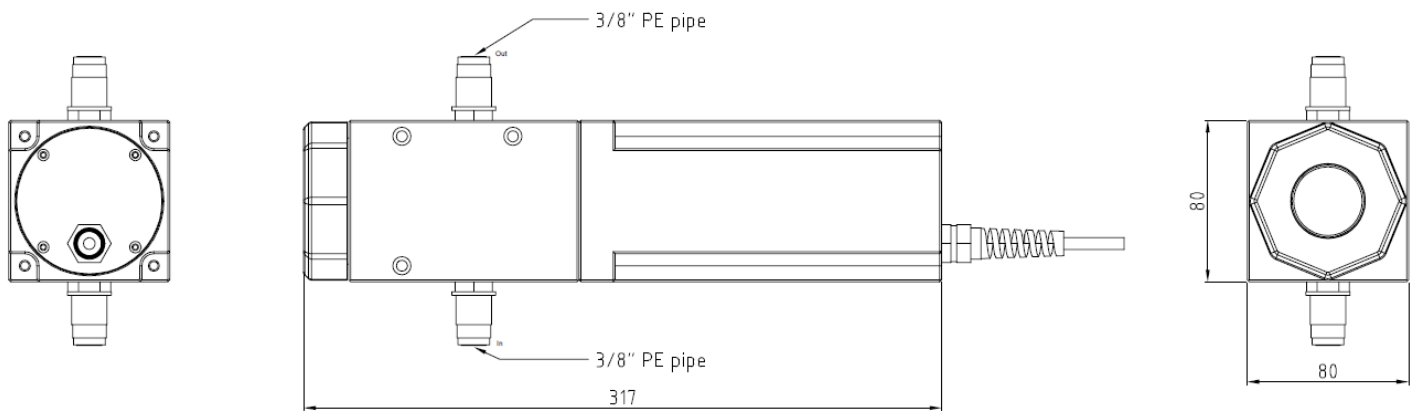| Item	ST-765SS-PAA
P/N	53610
Sensor Body Material	304SS
Oxidizer Range	0.00-100.00 ppm Peracetic Acid
Oxidizer Precision	± 5ppm or ±10% of the value w/pH compensation up to 9.0+
pH Range	0-14
pH Precision	±0.01 pH
Sample Inlet Pressure	7.25 – 30 psi (0.05 – 0.2MPa)
Flow Installation	FR-300-PLUS Magnetic Coupling Brushing Flow Reservoir
Sensor Power Supply	22 – 26VDC, Power Consumption 2W
Storage Temperature	-7 °C – 60 °C (20 – 140 °F)
Outputs	Dual Isolated 4 – 20 mA Analog Outputs + Isolated RS-485 Digital Output
Dimension (L x D)	Length 8.3 inch (210.8 mm), body diameter 1.4 Inch (35.6 mm)
Weight	530 g (1.16lbs)
Maximum Sensor Pressure	100 psi (6.9 Bar) – Sensor Only
Operating Temperature	4 °C – 49 °C (40 – 120 °F)
Wet Material	UPVC
Rating	IP67, Fully Dustproof & Waterproof
Selectivity	Non-Selective / Cross Sensitive to other Oxidizing Species
Compliance	EPA 334.0 / ISO 7393
Regulation	CE Marked / RoHS
Cables Included	MA-4.9CR Cable (8Pin Adapters – 1.5m) MA-1.5CR Cable (8 Pin Adapter / Flying Leads – 1.5m)
Typical Electrode Service Life	2 Years
Electrode Warranty	6 Months
Sensor Body Warranty	13 Months

FR-300-PLUS for DIRTY WATER APPLICATIONS *(Sold Separately)*	
Item	FR-300-PLUS
P/N	50700-A44
Sample Inlet Pressure	7.25 – 30 psi (0.05 – 0.2MPa)
Installation	FR-300-PLUS Self-Brushing Flow Reservoir for DIRTY Water Applications
FR-300-PLUS Suggested Flow Rate	200 – 800 mL/minute
FR-300-PLUS Sample Inlet /Outlet	3/8 - inch OD
FR-300-PLUS Operation	24VDC/2.5W Powered Constant ON Mode for Relay Control and RS-485
FR-300-PLUS Rotational Speed	200 RPM – Motorized Brush Preset for Constant Operation

NOTE FR-300-PLUS is purchased separately and **IS REQUIRED** for use in **DIRTY/INDUSTRIAL/CLEAN WATER APPLICATIONS**.
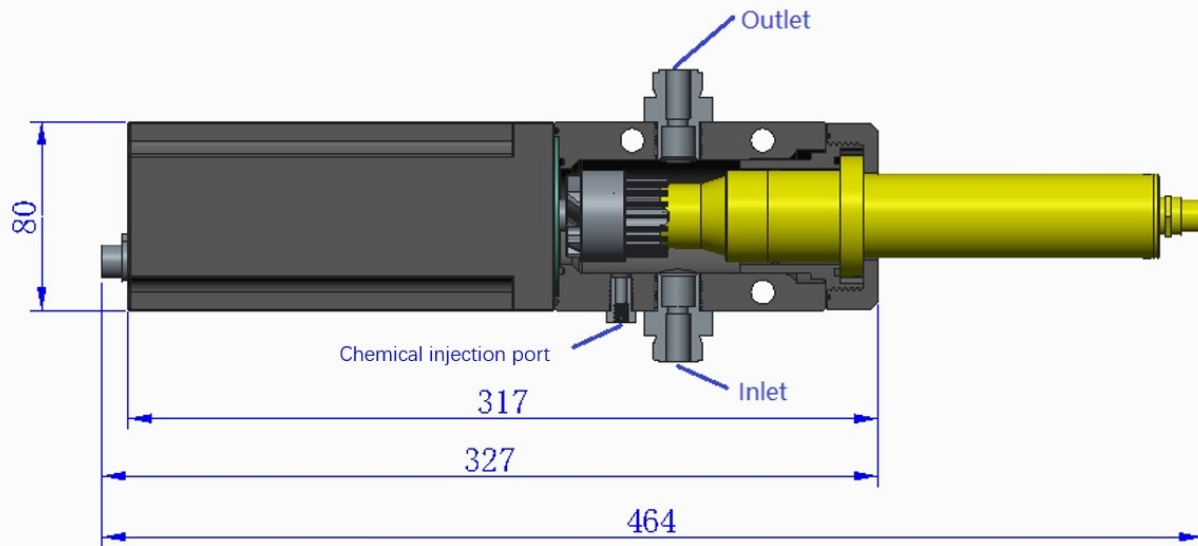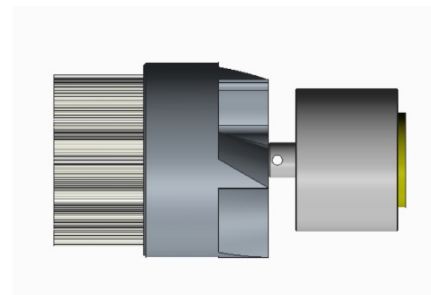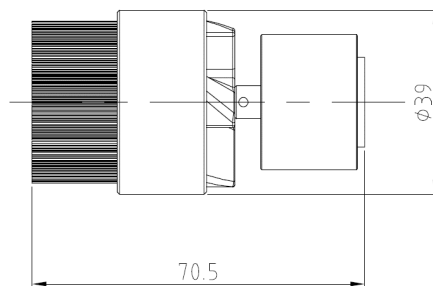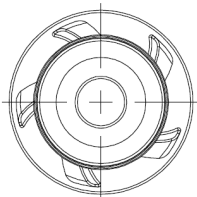
Dimensions of ST-765SS-PAA (mm)

FR-300 Flow Cell Dimensions (mm) – FOR DIRTY/INDUSTRIAL WATER USE ONLY

Pyxis

FR-300-PLUS Component Schematic

Outlet

80

Chemical injection port

Inlet

317

327

464

FR-300-01 Replacement Brushing Assembly Dimensions (mm) & Image

Ø39

70.5

uPyxis Mobile & Desktop APPS for Wireless Setup, Diagnostics & 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 connected to the Pyxis ST-765SS Series inline sensors, the uPyxis APP enables users to conduct a wireless probe calibration of pH and oxidizer from the touch of their smart device. The uPyxis direct calibration of the sensor eliminates unnecessary time wasted with calibrating the probe through the receiving controller and ensures the highest degree of accuracy and minimizes time spent in the field.

Note The uPyxis Mobile APP is evolving rapidly and users can find the latest version at no cost on Apple iStore or Google Play. The uPyxis Desktop APP may be downloaded at https://pyxis-lab.com/support-2/

For wireless access to all Pyxis devices via uPyxis, users will require the inline Bluetooth Adapter (P/N: MA-CR). Details can be found in the Order Information section of this Data Sheet.

Order Information	P/N
ST-765SS-PAA *(Inline PAA + pH Sensor 0-14 pH / 0- 100ppm)*	53610

Optional-Replacement Accessories	P/N
EH-765-01 *(ST-765SS-PAA Replacement Reference Electrode Assembly)*	27918
FR-300-PLUS *(Auto-Brushing Flow Assembly for INDUSTRIAL WATER ONLY)*	50700-A44
FRP-300-1 *(Replacement Brush Head for FR-300-PLUS)*	50700-A49
MA-AC-7US *(110VAC Power Supply Adapter for FR-300-PLUS with USA Plug)*	26398
MA-AC-7EU *(230VAC Power Supply Adapter for FR-300-PLUS with EU-DIN Plug)*	28787
NANO-FLOW *(Pyxis Ultrasonic Flow Measurement and Regulation Module)*	21329
MA-CR Bluetooth Adapter *(Optional 8-Pin Bluetooth Adapter for use with uPyxis APP)*	MA-CR
PowerPACK-2 *(Dual Sensor Power Supply & Bluetooth Adapter for use with uPyxis APP)*	MA-BLE-2
MA-50CR *(50-ft Cable Extension 8-Pin for ST765SS Series)*	50743
SP-200 OxiPocket™ *(Pocket All-Oxidizing Disinfectants Colorimeter & Fluorometer)*	50802
OxiPanel PLUS IK-765SS-PAA-BP *(Auto Brushing Peracetic Acid + pH Analyzer w/Flow Control)*	49511