IK-765SS-O3

Inline Ozone + pH Analyzer for Bottled/Beverage Water
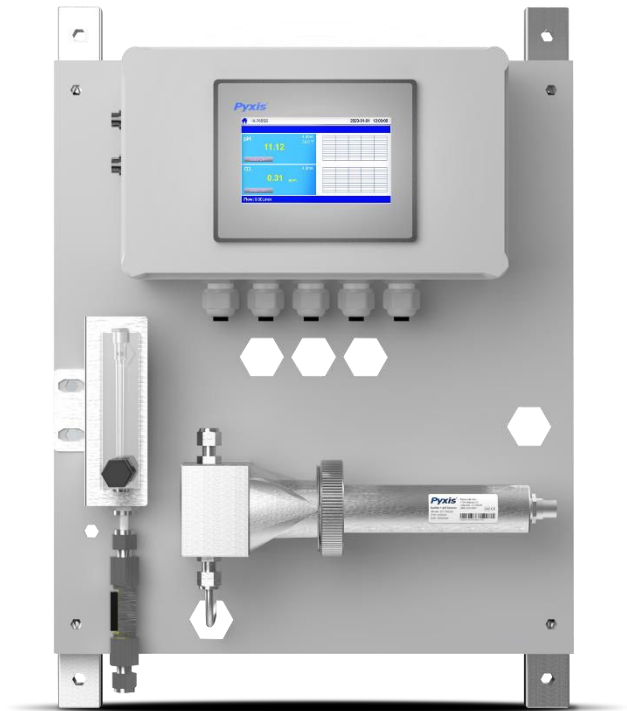
Product Description

The IK-765SS-O3 is a dual-parameter inline water analyzer specifically designed as a 'Turn-Key' monitoring solution for clean water applications including bottled water production, drinking water networks, secondary water supply and alternative clean-water ozone treatment applications. The IK-765SS-O3 offers highly accurate, real-time measurement, display and data-logging of Ozone (O_3), pH and Temperature utilizing proprietary Pyxis Lab smart sensor technology, coupled with a Pyxis UC-80 touch screen display and data logging terminal. The IK-765 series is offered in a convenient and easy to integrate panel mounted format for rapid installation and simple maintenance.

The IK-765 Ozone analyzer is equipped with the propriety Pyxis ST-765SS-O3 smart sensor design which is membrane-free and based on unique principles and incorporates Pyxis' advanced technology in the field of bare-gold electrochemical detection. The sensor measures the Ozone level and pH simultaneously while performing temperature and pH compensation for the measurement of oxidant based on conditions present in the application of use. The IK-765SS-O3 panel is also provided with the ST-007 stainless steel flow reservoir with inlet rotameter, digital flow meter and UC-80 display/data logging terminal prewired to the sensor in RS-485 modbus format with fully integrated sensor diagnostics and calibration interface.

IK-765SS-O3

This unique platform with internal sensor compensation and self-cleaning results in a highly accurate ozone measurement consistent with DPD wet chemistry methodology as high as pH 9.0+ and meets EPA-334.0 and ISO-7393 compliance.

Turn-Key Installation

All Pyxis IK-765 series analyzers require a small installation footprint, offer simple operation and maintenance and are specifically designed for use in commercial water and beverage bottling, domestic and drinking water applications. The analyzer may also be integrated with the optional Pyxis PowerCloud™ 4G remote gateway, which can upload on-site analyzer data to a cloud server in real time and allow for additional sensor/device inputs for cloud access. Contact Pyxis Lab for details on PowerCloud™ and Pyxis Cloud™.

Typical Applications

- Bottled Water Post Ozone – Pre Filler
- Spring Water Offload
- Drinking Water and Domestic Water
- Sanitary Water
- Decorative Water
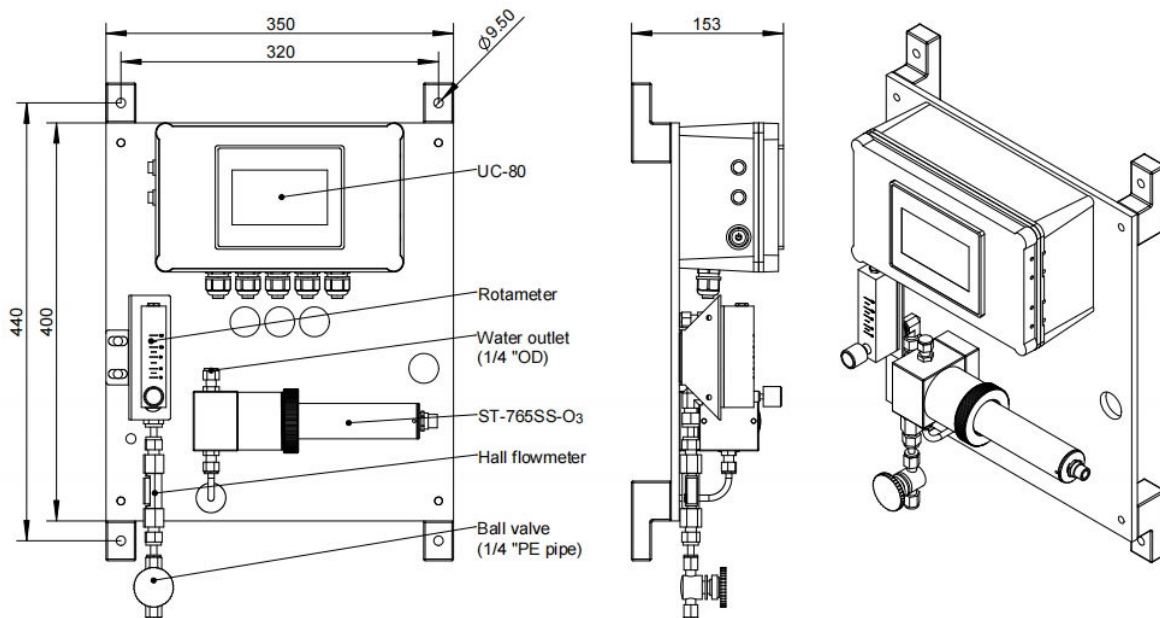- Food & Beverage Process Water

Features

- Pyxis Lab's advanced research and development sensor technologies to achieve highly accurate and stable measurement of Ozone, pH and Temperature.

- Pyxis ST-765SS-O3 is a three-parameter composite sensor used for the measurement residual ozone, pH and temperature in compliance with USEPA 334.0 and ISO-7393 guidelines. The sensors advanced PCB offers built-in temperature and pH parameter compensation (up to pH 9.0+) algorithms eliminating the need for a supplemental pH sensor and controller. Unique Bare-Gold electrode technology for ozone measurement eliminates membranes and electrode solution replenishment commonly associated with conventional sensors. The ST-765SS Series has a uniquely designed flat bubble pH electrode design for reduced fouling potential. Reduce your maintenance and cost versus conventional electrochemical sensors by utilizing Pyxis replaceable Electrode Head (EH-765) for this sensor allowing for years of reliable service. The ST-765SS Series may be calibrated in-situ after cleaning via DPD or similar Ozone wet chemistry test measurement of active sample.

- Pyxis ST-007 Single-Sensor inline stainless steel flow cell provides an ozone demand-free environment for the safe installation and accurate operation of the ST-765SS-O3 sensor. The inlet and outlet to the ST-007 are 316L stainless steel with SwageLok fittings in ¼-inch OD. The IK-765SS-O3 panel is also equipped with inlet PRV, Rotameter and digital Hall Effect inlet flow meter for precise control and recording of the recommended flow range of 200-400 mL/minute. The outlet flow should be diverted to drain or the inlet of the pretreatment system for those desiring NSF compliance.

- Simple sensor removal and replacement. The ST-765SS Series sensors are connected to the display/data logger via RS-485 modbus (RTU) allowing for integrated sensor calibration interface and diagnostics within the display screen.

- Convenient and simple to install Back-Panel (IK-765) for rapid and easy installation. Truly a plumb and power to go platform with intense factory setup, testing and sensor calibration prior to shipment.

- UC-80 touch screen color display/data logger prewired to the Pyxis sensor via RS-485 with calibration interface. Display/data logger offers 2x 4-20mA, RS-485 and TCP Modbus output with remote diagnosis and parameter adjustment. Pyxis PowerCloud™ 4G Gateway available as an optional accessory.
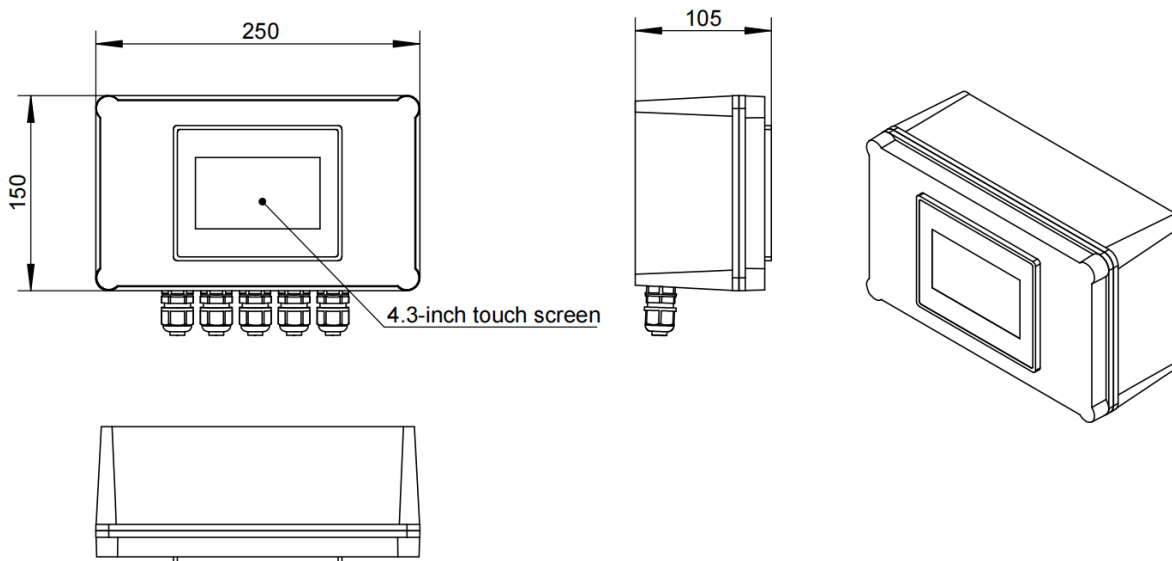
Specifications

Item	IK-765SS-O3
P/N	42091
Sensor Body Material	304SS
Sensor Name	ST-765SS-O3
Ozone Range	0.01-2.00 ppm Ozone (auto-range)
Ozone Precision	± 0.01mg/L or 1% of the value w/pH compensation up to 9.0+
pH Range	0-14
pH Precision	±0.01 pH
Sample Operating Temperature	4 °C – 40 °C (40 – 104 °F)
Sample Inlet Pressure	7.25 – 30 psi (0.05 – 0.2MPa)
Sensor Maximum Pressure	100 psi (6.9 Bar)
Sensor Response Time	T95≤60s – Oxidizer / T95≤5s - pH
Measurement Interval	Continuous
Installation	ST-007 (316L) Flow Cell w/PRV-Rotameter-Hall Effect Flow Meter Included
ST-007 Minimum Flow Rate	200 mL/minute
ST-007 Maximum Flow Rate	400 mL/minute
ST-007 Sample Inlet	1/4 - inch OD
ST-007 Sample Outlet	1/4 - inch OD
Panel Power Supply	96-260VAC / 50-60 Hz; 200 W
Panel Storage Temperature	-4 – 158 °F (-20 – 70 °C)
Panel Operating Temperature	32 – 122 °F (-0 – 50 °C)
UC-80 Display	4.3-inch LCD Color 480 x 272 Pixel Resolution / Resistive Touch
UC-80 Input	RS-485 Modbus – RTU
UC-80 Output	2 x 4-20 mA / RS-485 Modbus-RTU / Modbus-TCP
UC-80 Data Storage	Built-In 1GB of Ram for Storing up to 1-Million Data/Event Records
UC-80 USB	1 x USB host, for data downloading and screen upgrade
UC-80 Relative Humidity	20% - 90% (No Condensation)
UC-80 Altitude	<6,561 feet (<2,000 Meter)
Dimension (H x W x D)	Panel (IK-765SS-O3) 440H x 350W x 153D mm
Approximate Weight	Panel (IK-765SS-O3) ~ 15 kg
Wet Material	316L Stainless Steel / Polycarbonate
Rating	IP-65 Panel-Display / IP-67 Sensor
Selectivity	Non-Selective / cross sensitive to other oxidizing species
Compliance	EPA 334.0 / ISO 7393
Regulation	CE Marked / RoHS
Typical Electrode Service Life	2 years
Electrode Warranty	6 Months
Sensor Body Warranty	13 Months

NOTE - Pyxis Lab is consistently updating technologies, as such, specifications may change without notice.

Technical specifications on the ST-765SS Series sensors can also be found in their respective Operation Manuals.

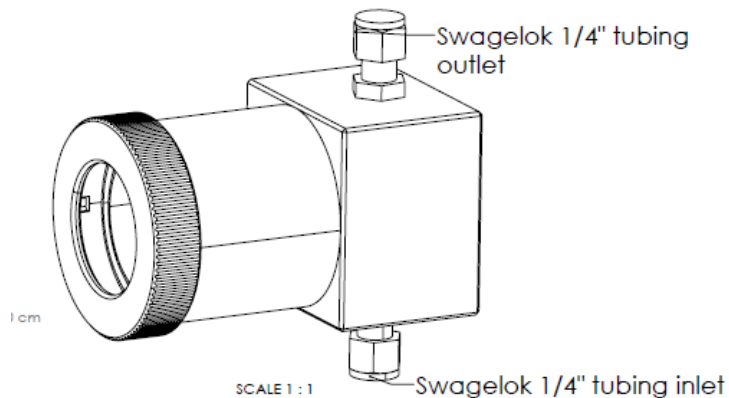Contact info@pyxis-lab.com for details or www.pyxis-lab.com .
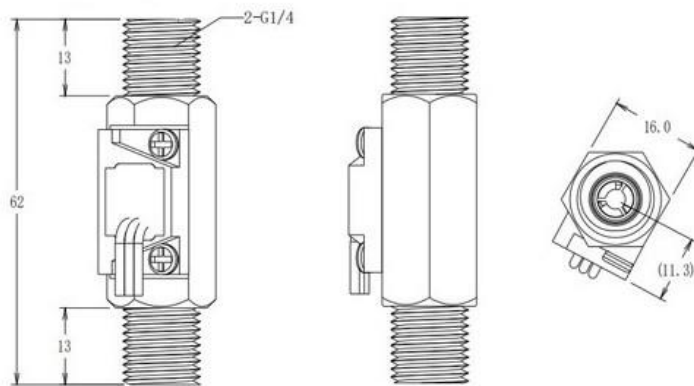
IK-765SS-O3 Panel Dimensions (mm)

IK-765SS-O3 - UC-80 Display/Data Logger Dimensions (mm)
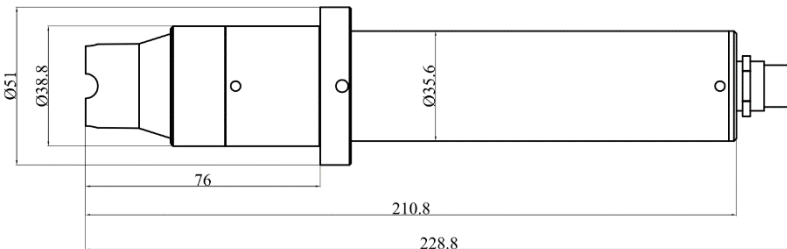
IK-765SS Series ST-007 – Flow Cell Dimensions (mm)

Hall-Effect Digital Flow Sensor Dimensions (mm)

ST-765SS Series Sensor Dimensions (mm)

ST-765SS-Series Oxidizer + pH Sensor

Order Information   P/N

IK-765SS-O3 *(Ozone + pH + Temperature Analyzer)*   42091

Optional / Replacement Accessories Information   P/N

ST-765SS-O3 *(Ozone + pH + Temperature Sensor w/Internal Compensation)*   53614

EH-765 *(Replacement Electrode Head for ST-765SS-Series Sensors)*   53061

ST-007 *(Replacement ST-007 Stainless Steel Flow Cell)*   50700-A51

Rotameter Assembly Kit *(Replacement 0- 1.8LPM)*   22876

Stainless Steel Hall Effect Digital Flow Meter *(1/4-inch OD)*   22501

UC-80 Display + Data Logging Terminal *(Replacement)*   14003

Pyxis pH Combo Calibration Pack *(pH 4-7-10 Calibration Solution 3-Pack - 500mL ea.)*   57007

SP-200 OxiPocket™ *(Pocket All-Oxidizing Disinfectants Colorimeter & Fluorometer)*   50802