



OXIPANEL

IK-765 Series Oxidizer + pH Analyzers for Drinking Water

Product Description

The IK-765 Series are dual-parameter inline water analyzers specifically designed as a 'Turn-Key' monitoring solution for clean water applications including drinking water networks, secondary water supply & decorative/swimming water applications. The IK-765 Series offer highly accurate, real-time measurement, display and data logging of Oxidizer, pH & Temperature utilizing proprietary Pyxis Lab® smart sensor technology, coupled with a Pyxis Lab® UC-50 micro display & data logging terminal. The IK-765 Series is offered in convenient & easy to integrate panel mounted format for rapid installation and simple maintenance.

The IK-765 Series analyzer is offered in three sensor formats depending on the desired oxidant being measured. The panel design is equipped with the proprietary Pyxis Lab® ST-765SS Series of smart sensors based on application needs. The ST-765SS Series sensors measure Free Chlorine or Chlorine Dioxide, pH & Temperature of the sample water. This sensor design is membrane-free, based on unique principles & incorporates Pyxis' advanced technology in the field of bare-gold electrochemical detection. The ST-765SS-FCL (Free Chlorine + pH) and ST-765SS-CLO (Chlorine Dioxide + pH) sensors measure the oxidant level and pH simultaneously while performing temperature & pH compensation for measurement of oxidant based on conditions present in the application of use. Each IK-765 panel is also provided with the FR-50 Flow Reservoir and UC-50 Micro Display/Data Logging Terminal prewired to the ST-765SS Series sensor in RS-485 Modbus format with fully integrated sensor diagnostics & calibration interface.

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

Turn-Key Installation

The IK-765 Series analyzer requires a small installation footprint, offers simple operation & maintenance and is specifically designed for use in domestic & drinking water applications. The analyzer may also be integrated with the optional Pyxis Lab® PowerCloud™ 4G Remote Gateway, which can upload on-site analyzer data to a cloud server in real-time & allow for additional sensor/device inputs for cloud access. Contact Pyxis Lab® for details on the Power-Cloud™ and our Cloud™ Data Management Platform.

Typical Applications

- Drinking Water / Domestic Water / Secondary Water Supply
- Sanitary Water
- Decorative Water
- Food & Beverage Process Water
- RO Feedwater



Features

Pyxis Lab® spent years of advanced researching & developing sensor technologies to achieve highly accurate and stable measurement of Free Chlorine or Chlorine Dioxide as well as pH & Temperature for real-time measurement & internal sensor compensation.

The ST-765SS-FCL (Free Chlorine + pH/Temperature) and ST-765SS-CLO (Chlorine Dioxide + pH/Temperature) are three parameter composite sensors used for the measurement of residual free chlorine, total chlorine or chlorine dioxide, pH and temperature in compliance with USEPA 334.0 & 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 residual chlorine 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 colorimetric chlorine measurement or 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 Free Chlorine or Chlorine Dioxide wet chemistry test measurement of active sample.

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

FR-50 Flow Reservoir

FR-50 single-sensor flow reservoir provides sample calming for dissipation of air-bubbles & settling of suspended solids, foam or other impurities commonly observed in drinking water influent. This unique flow reservoir design results in the highest level of oxidizer resolution on the market & greatly extends the maintenance cycle of the sensor while providing a large buffer capacity to mitigate pressure fluctuations. The minimum inlet pressure of FR-50 flow reservoir is only 7.5psi (0.05mpa) making it highly suitable for the end of pipe networks and secondary supply influent sampling. One FR-50 is provided with the purchase of each ST-765SS Series sensor and comes equipped with inlet PRV and Rotameter for the recommended flow range 600–1,800mL/minute. The FR-50 outlet flow & sewer overflow lines should be divert-ed to drain or the inlet of the pretreatment system for those desiring NSF compliance.

UC-50 Micro-Display

Micro display & data logger interface with sensor calibration integrated. Display/Data Logger offers (1) 4-20mA I/O as well as RS-485 with remote diagnosis & parameter adjustment. PowerCloud™ 4G Gateway available as an optional accessory.



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

Sensor Specifications

Item	IK-765SS-FCL	IK-765SS-CLO
P/N	42082	42085
Sensor Body	304SS	304SS
Sensor Name	ST-765SS-FCL	ST-765SS-CLO
Oxidizer Measured	Free Chlorine	Chlorine Dioxide
Oxidizer Range	0.00–5.00ppm	0.00–5.00ppm
Oxidizer Precision	±0.01mg/L or 1%	±0.01mg/L or 1%
pH Range	0–14	0–14
pH Precision	±0.01 pH	±0.01 pH
Operating Temp	4-40 °C (40-104 °F)	4-40 °C (40-104 °F)
Inlet Pressure	7.25-30psi	7.25-30psi
Response Time	T95≤60s (≤5s pH)	T95≤60s (≤5s pH)
Measure Interval	Continuous	Continuous
Installation	FR-50 Reservoir	FR-50 Reservoir

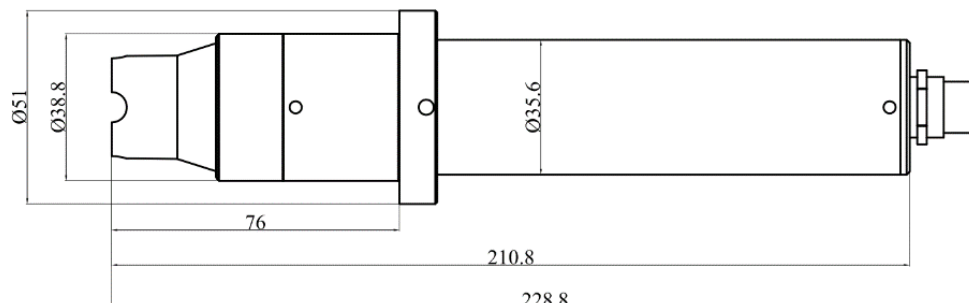
FR-50 Specifications

Item	IK-765SS-FCL	IK-765SS-CLO
Suggest Flow Rate	600–1,800mL/minute	600–1,800mL/minute
Sample Inlet	1/4 - inch OD	1/4 - inch OD
Sample Outlet	20mm to Drain	20mm to Drain
Overflow Outlet	20mm to Drain	20mm to Drain
Sewage Drain	1/2in NPT	1/2in NPT

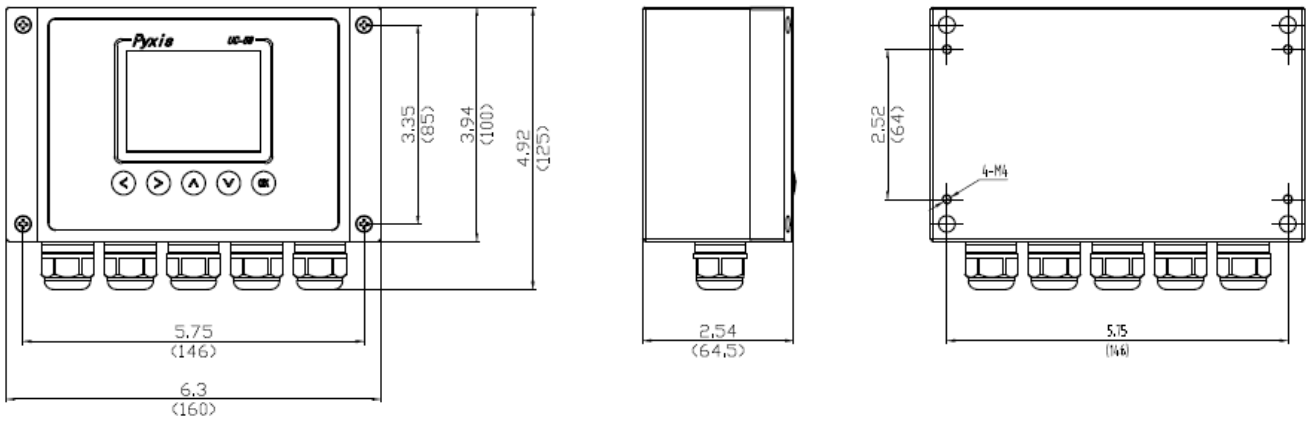
Panel Specifications

Item	IK-765SS-FCL-B
Power Supply	110/220 VAC 50/60 Hz, 0.6A
Storage Temp.	-4–158 °F (-20–70 °C)
Operating Temp.	32–122 °F (0–50 °C)
Dimensions	Panel 590H x 250W x 330D mm
Approx. Weight	Panel ~ 5kg
Wet Material	UPVC / Polycarbonate
Rating	IP-65 Panel & Display / IP-67 Sensors
Compliance	EPA 334.0 / ISO 7393
Regulation	CE Marked / RoHS
Electrode Life	2 Years
Electrode Warranty	6 Months
Sensor Warranty	13 Months
UC-50 Display	2.8" Color 320x240 Resolution
Input	(1) 4-20mA / RS-485 Modbus RTU
Output	(1) 4-20mA / RS-485 Modbus RTU / (1) Contact Relay
Data Storage	32M Flash
USB	(1) USB Host for Data Downloading
Relative Humidity	5-95% (No Condensation)
Altitude	<6,561ft (<2,000m)

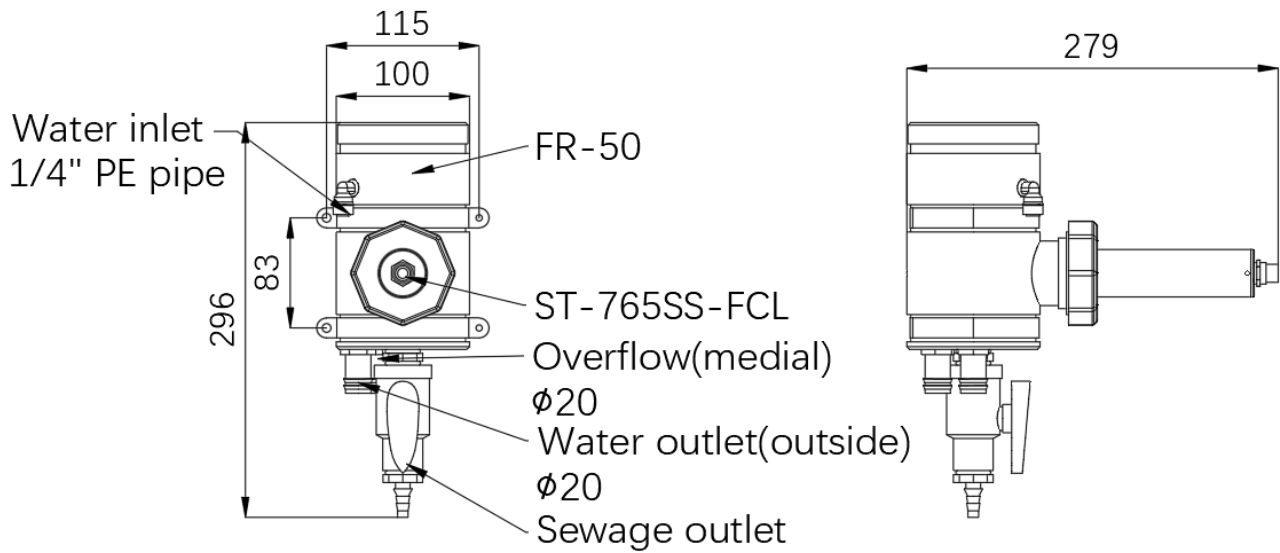
Sensor Diagram



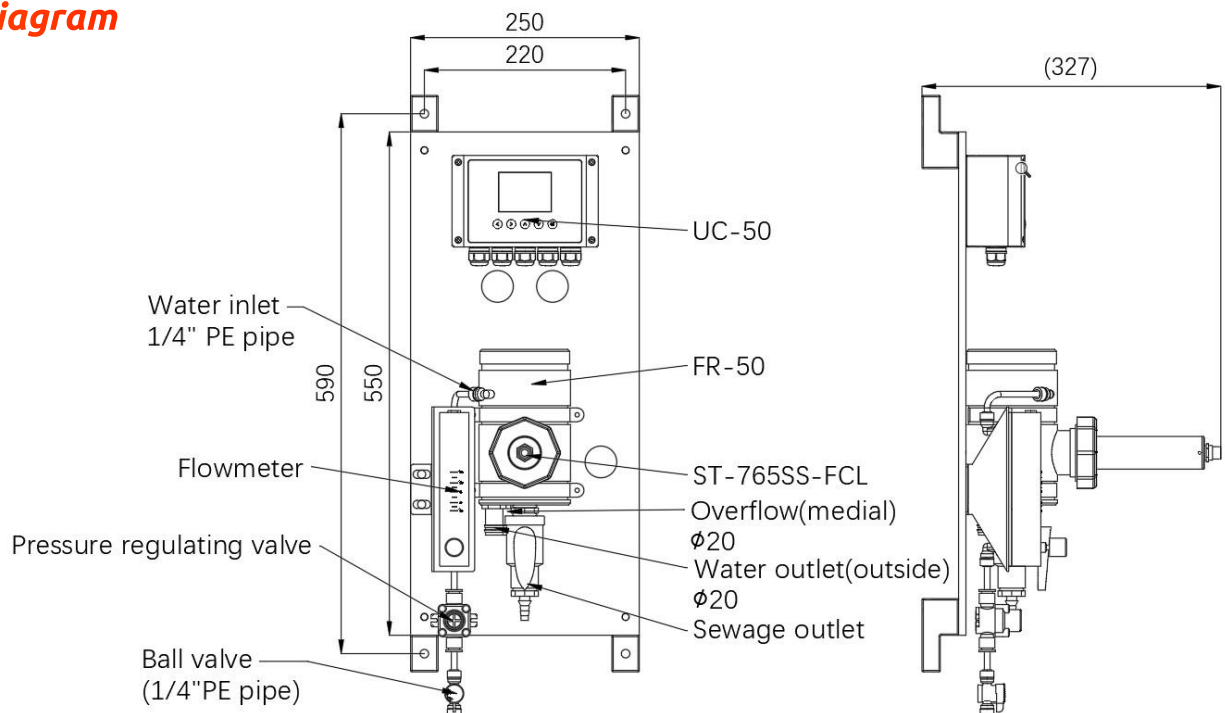
UC-50 Diagram



FR-50 Diagram



Panel Diagram



Order Information

IK-765SS-FCL (Free Chlorine Panel)

IK-765SS-CLO (Chlorine Dioxide Panel)

Part Number

42082

42085

Optional/Replacement Accessories Information

ST-765SS-FCL (Free Chlorine + pH + Temperature Sensor)

ST-765SS-CLO (Chlorine Dioxide + pH + Temperature Sensor)

EH-765 (Replacement Electrode Head for Sensor)

FR-50 (Flow Reservoir)

UC-50 Display & Data Logging Terminal

SP-200 OXIPOCKET Handheld

Part Number

53607

53608

53061

50700-A01

43007

50802

