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IK-766-BPT SERIES

Auto-Cleaning Oxidizer + pH + ORP + Conductivity Analyzers for Extreme Waters

DESCRIPTION

The OXIPANEL Platinum IK-766-BPT series is a preformatted, in-line, multi-parameter analyzer built for the toughest water. Each panel integrates a mechanical brushing reservoir, ultrasonic flow control, auto fresh-water flush, and detergent feed relays, delivering a true Turn-Key monitoring solution for cooling water, food and industrial process water, raw water, and treated wastewater effluent. Every system is provided pre-plumbed and factory-configured for rapid startup and consistent performance including the Pyxis UC-80-PLUS color touch display/data-logging terminal plus the Pyxis FS-100 ultra-sonic flow meter with regulating valve.

At its core, the OXIPANEL Platinum uses ST-766SS-Series smart sensors to provide highly accurate, repeatable, real-time measurement of multiple oxidizer species and pH, ORP, conductivity, and temperature, with automatic temperature and pH compensation to keep readings on-spec under real operating conditions. The IK-766-BPT platform is available in eight sensor formats to match your chemistry: Free Chlorine (FCL), Total Chlorine (TCL), Free + Total Chlorine (TFCL), Bromine (Br), Chlorine Dioxide (ClO₂), Monochloramine (NCL), Peracetic Acid (PAA), and Chlorine + Sulfite (DCL).

For contaminated and variable streams, the OXIPANEL Platinum adds a fresh-water flush line input with a 3-way motorized valve for user-programmed auto-flush, 110VAC detergent feed relays, and the FR-306-PLUS clear-chamber mechanical brush flow assembly to maintain optimum sensor electrode cleanliness in waters laden with food byproduct, oil, line-lube, grease, paper fines, and other foulants. The rugged flow-path design and self-cleaning/anti-fouling features keep sensors free of fouling, delivering stable measurements, longer maintenance intervals, and minimal downtime where conventional membrane amperometric or wet-chemistry analyzers quickly fail.

FEATURES

ST-766SS Series Oxidizer + pH + Conductivity + ORP Sensors

The ST-766SS are multi-parameter composite sensors used for the measurement residual Free Chlorine, Total Chlorine, Bromine, Chlorine Dioxide, Monochloramine, PAA and Sulfite as well as pH, ORP, Conductivity and Temperature in compliance with US-EPA 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 residual oxidizer measurement eliminates membranes and electrode solution replenishment commonly associated with conventional sensors. The ST-766SS 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-766-01) for this sensor allowing for years of reliable service. The ST-766SS Series may be calibrated in-situ after cleaning via DPD Free Chlorine, Total Chlorine, Bromine or Chlorine Dioxide wet chemistry test measurement of active sample.

FR-306 PLUS Auto-Brushing Flow Reservoir

The FR-306 PLUS is a magnetic coupling motorized brush flow assembly that provides an inline mechanical cleaning of the ST-766SS Series bare gold electrode enabling sensor accuracy in challenging industrial cooling and process waters. This unique device enhances the convective mass transport of the oxidizer analyte to the sensor surface eliminating the need for precision flow control commonly required for other amperometric sensors on the market. The FR-306-PLUS also provides supplemental deactivation protection of the bare gold electrode for long life, stability and accuracy. The brushing operation of the FR-306-PLUS is activated by the pre-mounted FS-100 ultrasonic flow meter included on the OXIPANEL Platinum Series analyzers. The FR-306-PLUS also contains a 'chemical detergent injection port' in the assembly housing allowing for the optional injection of cleaning agents at the brush head for extremely challenged industrial waters containing oils and grease. The FR-306-PLUS may be operated at a broad range of sample flow from 200 and 800mL per minute with an inlet pressure of 7.5–87 psi. The FR-306-PLUS outlet flow line may be diverted to atmospheric tank/sump within the process itself for reuse or to a lower pressure zone of the recirculating water network.

FS-100 Ultrasonic Flow Meter

The FS-100 is a state-of-the-art ultrasonic flowmeter that operates on the principle of transit time difference with a measurement range of 0–3,000 mL/min and resolution of 1mL. The sensors advanced PCB design offers built-in temperature compensation to eliminate the effect of temperature with instantaneous, accumulated, and controlled water flow based on user setpoint within the sensor itself. The sample flow rate is controlled via PID logic from the flow sensor to the pre-mounted motor valve on the OXIPANEL Platinum analyzer.

UC-80 PLUS Display & Data Logging Terminal

All sensors are connected to the UC-80-PLUS display/data logger via RS-485 modbus (RTU) allowing for integrated sensor calibration interface and diagnostics within the display touch screen. Display/data logger offers 6 x 4-20mA outputs as well as RS-485 and TCP-IP with remote diagnosis and parameter adjustment.

CloudLink™ 4G LTE Gateway

The OXIPANEL Platinum contains the 4G CloudLink™ and global SIM card as a comprehensive data gateway to cloud device for live mobile APP trend view, data download and reporting. Contact Pyxis Lab, Inc. for activation details.

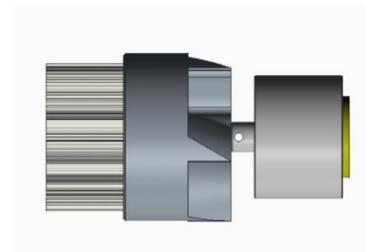
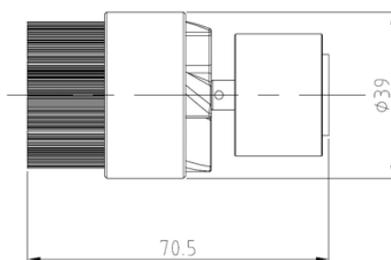
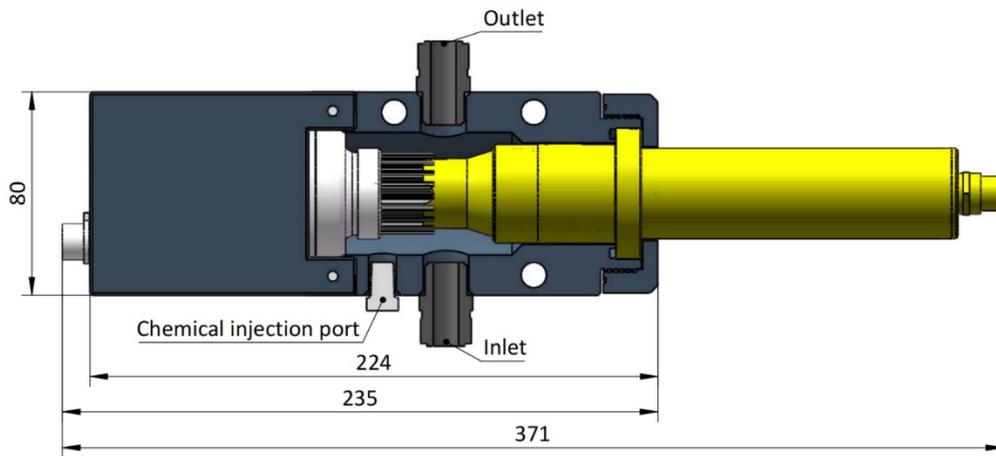
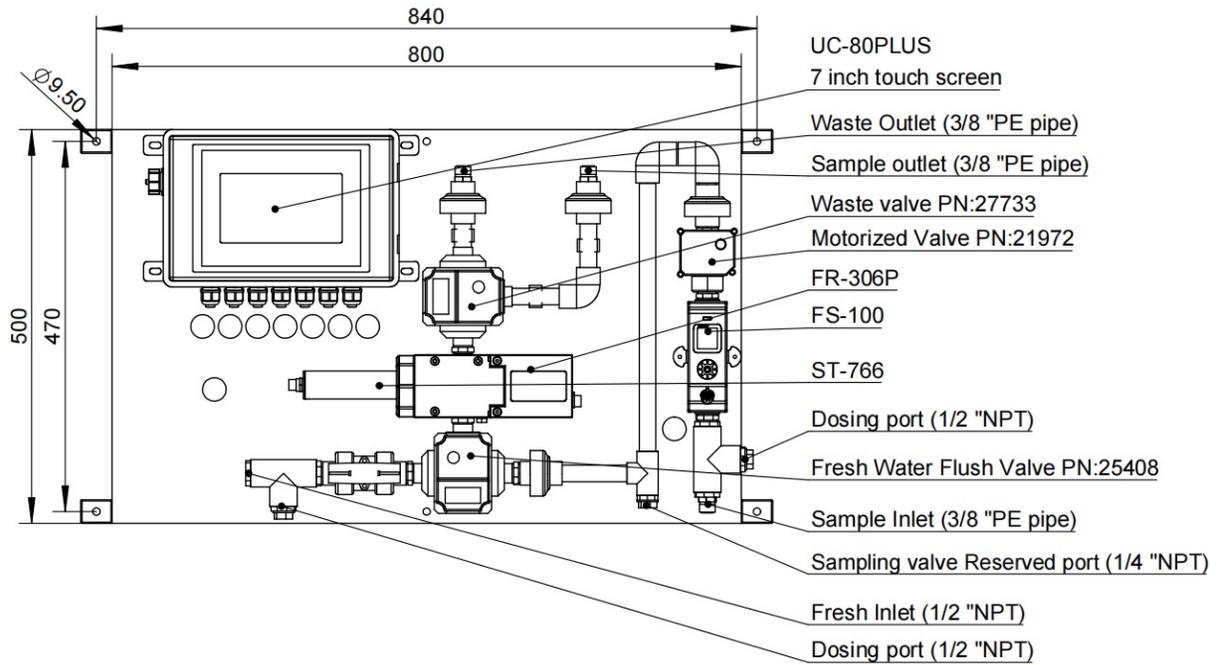
SPECIFICATIONS - TABLE 1

Item	IK-766SS-FCL-BPT	IK-766SS-CLO-BPT	IK-766SS-Br-BPT	IK-766SS-TCL-BPT
Part Number	48751	48512	47939	46990
Sensor Body Material	316L Stainless Steel			
Sensor Model	ST-766SS-FCL	ST-766SS-CLO	ST-766SS-Br	ST-766SS-TCL
Oxidizer Measured	Free Chlorine	Chlorine Dioxide	Bromine	Total Chlorine
Oxidizer Range	0.00–5.00ppm			
Oxidizer Precision	±0.01mg/L or 1%; pH Compensated up to 9.0			
pH/ORP/Conductivity	0.00–14.00 (±0.01pH) / ±1,500mV (±1mV ORP) / 0–10,000µS/cm (±5%)			
Measurement Interval	Continuous			
Sensor Response Time	T95≤60s - Oxidant / T95≤5s - pH/ORP/Conductivity			
Sensor Install Method	FR-306 PLUS Magnetic Coupling Brushing Flow Reservoir INCLUDED			
Sensor Flow Interlock	Sensor Powers Down when in AUTO-Mode if Flow is <50mL/min and >200mL/min			
Sample Operating Temp.	4–49 °C (40–120 °F)			
Sample Inlet/Outlet Size	¾ inch OD inserted into ½ inch NPT Port			
FS-100				
Method of Measure	Ultrasonic Flow Detection			
Rated Flow Range	0–3,000mL/min			
Resolution / MAX Error	1mL/min or 2% of the Value			
Display	1.44" Color LCD with Resistive Touch			
Flow Regulating Valve	4-20mA from FS-100 (Internally Connected)			
FR-306 PLUS				
Suggested Flow	200–800mL/min (Flow Setting Done through FS-100 Interface)			
Flow Interlock	Brush Motor Turns OFF when in AUTO-Mode if Flow <50mL/min and ON if >200mL/min			
Rotation Speed	200RPM - Motorized Brush			
UC-80 PLUS				
Display	7" LCD Color Resistive Touch Screen			
Input	(2) 4-20mA / RS-485 Modbus-RTU			
Output	(5) 4-20mA / RS-485 Modbus-RTU / Modbus-TCP			
Relay	(2) VAC Relays / (1) 24VDC Relay (Passive or Active - User Selected) / (1) Analog PID Output			
Data Storage	Built-In 128MB of RAM for Storing up to 1-Million Data/Event Records			
USB	(1) USB Host for Data Downloading and Screen Upgrade			
Relative Humidity	20–90% (No Condensation)			
Altitude	<6,561ft (<2,000m)			
PANEL				
Power Supply	96–260VAC / 50–60Hz; 60W USA Type-B Plug			
Storage Temperature	-4–158 °F (-20–70 °C)			
Dimensions & Weight	500mm H x 800mm W x 230mm D / ~20kg			
Panel Wet Material	Polycarbonate / 304SS / 316SS / Glass / Gold / Platinum / CPVC / PTFEPOM / ABS / PEEK / PET / NBR			
Rating	IP-65 Panel & Display / IP-67 Sensors			
Compliance	CE, RoHS, UKCA			
Selectivity	Non-Selective, Cross Sensitive to Other Oxidizing Species			
Warranty	Electrode - 6 Months / Sensor Body & Panel - 13 Months			
Typical Service Life	Electrode - 2 Years / FR-306 Brush - 12-18 Months depending on the application of use			
Pyxis 4G LTE CloudLink™	INCLUDED & Activated on Request with Enrollment - Contact Pyxis Lab, Inc. for Details			

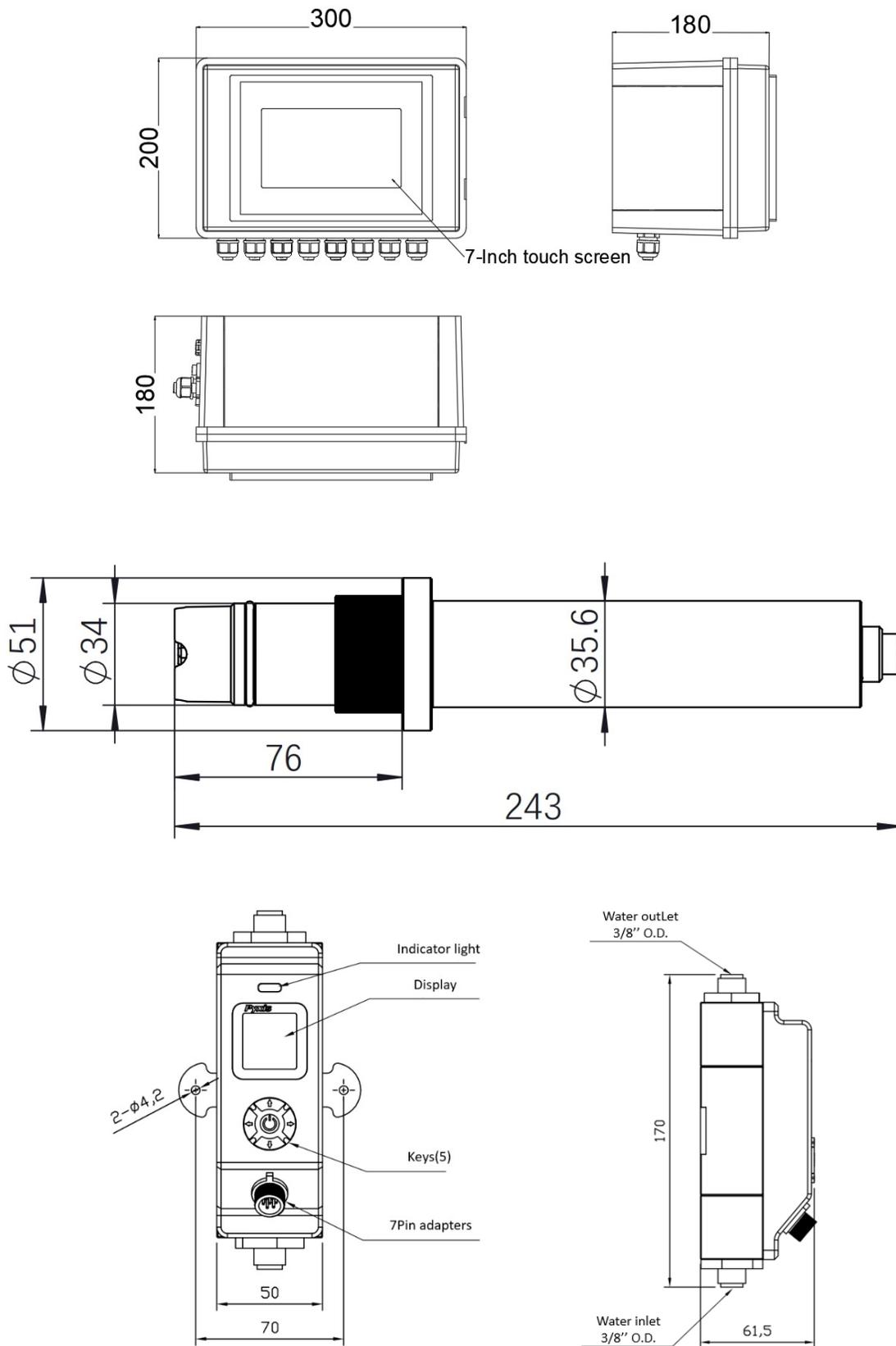
SPECIFICATIONS - TABLE 2

Item	IK-766SS-NCL-BPT	IK-766SS-PAA-BPT	IK-766SS-TFCL-BPT	IK-766SS-DCL-BPT
Part Number	46117	48150	42270	40759
Sensor Body Material	316L Stainless Steel			
Sensor Model	ST-766SS-NCL	ST-766SS-PAA	ST-766SS-TFCL	ST-766SS-DCL
Oxidizer Measured	Monochloramine	PAA	Free + Total Chlorine	Free Chlorine + Sulfite
Oxidizer & Sulfite Range	0.00–5.00ppm	0.00–100ppm	0.00–5.00ppm	0.00–5.00ppm + 0–100ppm
Oxidizer Precision	±0.01mg/L or 1%; pH Compensated up to 9.0			
pH/ORP/Conductivity	0.00–14.00 (±0.01pH) / ±1,500mV (±1mV ORP) / 0–10,000µS/cm (±5%)			
Measurement Interval	Continuous			
Sensor Response Time	T95≤60s - Oxidant / T95≤5s - pH/ORP/Conductivity			
Sensor Install Method	FR-306 PLUS Magnetic Coupling Brushing Flow Reservoir INCLUDED			
Sensor Flow Interlock	Sensor Powers Down when in AUTO-Mode if Flow is <50mL/min and >200mL/min			
Sample Operating Temp.	4–49 °C (40–120 °F)			
Sample Inlet/Outlet Size	¾ inch OD inserted into ½ inch NPT Port			
FS-100				
Method of Measure	Ultrasonic Flow Detection			
Rated Flow Range	0–3,000mL/min			
Resolution / MAX Error	1mL/min or 2% of the Value			
Display	1.44" Color LCD with Resistive Touch			
Flow Regulating Valve	4-20mA from FS-100 (Internally Connected)			
FR-306 PLUS				
Suggested Flow	200–800mL/min (Flow Setting Done through FS-100 Interface)			
Flow Interlock	Brush Motor Turns OFF when in AUTO-Mode if Flow <50mL/min and ON if >200mL/min			
Rotation Speed	200RPM - Motorized Brush			
UC-80 PLUS				
Display	7" LCD Color Resistive Touch Screen			
Input	(2) 4-20mA / RS-485 Modbus-RTU			
Output	(5) 4-20mA / RS-485 Modbus-RTU / Modbus-TCP			
Relay	(2) VAC Relays / (1) 24VDC Relay (Passive or Active - User Selected) / (1) Analog PID Output			
Data Storage	Built-In 128MB of RAM for Storing up to 1-Million Data/Event Records			
USB	(1) USB Host for Data Downloading and Screen Upgrade			
Relative Humidity	20–90% (No Condensation)			
Altitude	<6,561ft (<2,000m)			
PANEL				
Power Supply	96–260VAC / 50–60Hz; 60W USA Type-B Plug			
Storage Temperature	-4–158 °F (-20–70 °C)			
Dimensions & Weight	500mm H x 800mm W x 230mm D / ~20kg			
Panel Wet Material	Polycarbonate / 304SS / 316SS / Glass / Gold / Platinum / CPVC / PTFEPOM / ABS / PEEK / PET / NBR			
Rating	IP-65 Panel & Display / IP-67 Sensors			
Compliance	CE, RoHS, UKCA			
Selectivity	Non-Selective, Cross Sensitive to Other Oxidizing Species			
Warranty	Electrode - 6 Months / Sensor Body & Panel - 13 Months			
Typical Service Life	Electrode - 2 Years / FR-306 Brush - 12-18 Months depending on the application of use			
Pyxis 4G LTE CloudLink™	INCLUDED & Activated on Request with Enrollment - Contact Pyxis Lab, Inc. for Details			

DIMENSIONS



DIMENSIONS



OPTIONAL/REPLACEMENT ACCESSORIES**PART NUMBER**

OXIPANEL Platinum IK-766SS-FCL-BPT	48751
OXIPANEL Platinum IK-766SS-TCL-BPT	46990
OXIPANEL Platinum IK-766SS-CLO-BPT	47939
OXIPANEL Platinum IK-766SS-Br-BPT	48512
OXIPANEL Platinum IK-766SS-NCL-BPT	46117
OXIPANEL Platinum IK-766SS-PAA-BPT	48150
OXIPANEL Platinum IK-766SS-DCL-BPT	40759
OXIPANEL Platinum IK-766SS-TFCL-BPT	42270

OPTIONAL/REPLACEMENT ACCESSORIES

ST-766SS-FCL Free Chlorine Sensor Variant	51154
ST-766SS-CLO Chlorine Dioxide Sensor Variant	55821
ST-766SS-Br Bromine Sensor Variant	52743
ST-766SS-TCL Total Chlorine Sensor Variant	51379
ST-766SS-NCL Monochloramine Sensor Variant	54731
ST-766SS-PAA PAA Sensor Variant	54803
ST-766SS-TFCL Total + Free Chlorine Sensor Variant	55659
ST-766SS-DCL Dechlorination Sensor Variant	57300
EH-766 Replacement Electrode Head	22093
EH-766-01 Replacement Electrode Head (PAA, TFCL, DCL)	22277
FR-306 PLUS Replacement Flow Reservoir	24236
FRP-306-01 Replacement Brush Assembly	20802
FR-300-03 Brush Extraction Tool	23504
FS-100 Replacement Flow Meter	54200
Sample Flow Regulating Valve Replacement	21972
Fresh Water Flush Valve - 3 Way Replacement	25408
Discharge Water Diversion Valve - 3 Way Replacement	27733
UC-80 PLUS Display & Data Logging Terminal Replacement	72875

CLEANING & CALIBRATION ACCESSORIES

PART NUMBER

pH Combo Calibration Standard Solution Pack (4-7-10)	57007
ORP 200mV Calibration Standard Solution	57020
Conductivity Calibration Standard Solution	57008
Zero Oxidizer Calibration Standard Solution	21002
Pyxis Lab, Inc. Probe Cleaning Kit	SER-01

