

# pH/ORP Monitor

INDICATING CONTROLLER, MODEL 7766



- **TRIPLE DIGITAL DISPLAY... pH, ORP, AND TEMPERATURE PLUS ALARMS AND CONTROLS!**
- **SAMPLE VESSEL GETS CONTINUOUS FLOW FROM AN OVERSIZED PUMP!**
- **LONGEST POSSIBLE ELECTRODE LIFE! LEAST POSSIBLE RECALIBRATIONS!**

It's made for rough service  
Like Indigo Dye Ranges running Hydro  
and Caustic  
And stronger Caustic yet on Mercerizers...  
Plus Scouring, Washing, Bleaching and  
Neutralizing...  
It's Strandberg all the way!

If yours is top pH and ORP accuracy  
and least maintenance  
In a tough environment,  
It's the Strandberg pH/ORP Monitor



FLOW-THROUGH pH/ORP  
SENSOR, TYPE 6970



**STRANDBERG ENGINEERING LABORATORIES, INC.**  
1302 N. O. HENRY BLVD. (U.S. 29 N.) • GREENSBORO, N.C. 27405 • U.S.A.  
TEL: (336) 274-3775 • FAX: (336) 272-4521 • EMAIL: [sensors@strandberg.com](mailto:sensors@strandberg.com) • <http://www.strandberg.com>

## -GENERAL INFORMATION-

What makes Strandberg excel in pH and ORP measurement and control is its robust sample circulation. Liquid literally gushes through its sample vessel and keeps its probes continually drenched and clean as a pin. A low mounting position keeps the sample vessel full of liquid even when the tank runs dry.

Fast sampling means fast response and high accuracy. Continually wet probes mean clean probes, long probe life, and an unbelievable reduction in maintenance and recalibration.

Add these top features to a compact electronic workhorse that does the job with either tank immersion sensors or a flow-through sensor to digitize pH numbers big enough to read across the room plus ORP and temperature at the same time.

Now, add alarms, controls, or both... it's your choice. Just enter your set points and walk away.

pH is an electrical measure, actually a voltage or potential difference between chemical solutions of different magnitudes of hydrogen-ion activity. It is referred to as the effective concentration of a chemical solution, because it directly determines reaction rates and equilibria.

Hydrogen-ion activity ranges from  $10^0$  for strong acids to  $10^{-14}$  for strong bases. The corresponding pH range is 0 - 14. In the middle of this range is pure water at a pH of 7. pH is the negative base-ten logarithm of hydrogen-ion activity.

ORP or oxidation-reduction potential is also an electrical measure, again a voltage or potential difference. It is expressed in millivolts d-c from -1200 to +1200.

ORP along with the temperature of the liquid inside the sample vessel is displayed continually on an LCD just below the the pH display.

Oxidation-reduction is an important concept of chemical reactions which is useful in systematizing the chemistry of many substances. Oxidation results from a loss of electrons by one molecule and reduction by the absorption of electrons by another. They occur simultaneously and in equivalent amounts during any reaction involving either process.

Replacement electrodes are standard worldwide, off-the-shelf anywhere.

pH/ORP on line, another Strandberg top gun!

## -SPECIFICATIONS-

Monitor, Model 7766 .....	pH display 20 mm (0.8") LED, ORP and temperature displays 5 mm (0.2") LCD, accurate within 0.5%, separate pH and ORP alarm or control set points open or close one ampere at 250 volts a-c, inputs and outputs 4-20 mA d-c for 0-14 pH, -1200 to +1200 mV ORP, and optional 0-100 °C temperature, includes RS-232C output, fiberglass enclosure with hinged door, rated NEMA-4X (IP66) for wall or post mount, weight 1.6 kg (3.4 lb), dimensions 259 mm (10.2") high, 175 mm (6.9") wide, and 112 mm (4.4") deep, maximum temperature 50 °C (122 °F), 0 -95% relative humidity, for use on 85 -265 volts a-c
Interface, Type 6995A .....	For Immersion Sensors in tanks or a single Flow-Through Sensor, weight 1.3 kg (2.8 lb), dimensions 173 mm (6.8") high, 121 mm (4.75") wide, and 83 mm (3.25") deep, NEMA-13 (IP65)
Flow- Through Sensor, Type 6970 .....	Weight 3.1 kg (6.8 lb), dimensions 508 mm (20") high, 178 mm (7") wide, and 178 mm (7") deep, includes glass sample reservoir
Sample Pump, Type 6974 .....	Pneumatic diaphragm type, 6.35 mm (1/4"), weight 1.7 kg (3.7 lb), dimensions 142 mm (5.6") high, 142 mm (5.6") wide, 188 mm (7.4") deep, requires air 1.4 to 6.9 bar (20 - 100 psi) (ARO 666023-344 or equal)
Immersion Electrode, Type 6972 (pH)	
Immersion Electrode, Type 6973 (ORP)	
For Alternate Mounting On Tank Wall .....	Weight 1.3 kg (2.9 lb), dimensions 645 mm (25.4") high, 68 mm (2.7") wide, and 149 mm (5.9") deep
Electrode, pH .....	Weight 0.05 kg (0.11 lb), dimensions 165 mm (6.5") long and 19 mm (0.75") in diameter (Mettler Toledo 405-DXK-S8/120 or equal)
Electrode, ORP .....	Weight 0.05 kg (0.11 lb), dimensions 184 mm (7.25") long and 19 mm (0.75") in diameter (Mettler Toledo P14805-DXK-S8/120 or equal)
Probe, Temperature .....	Weight 0.31 kg (0.68 lb), dimensions 197 mm (7.75") long by 4.8 mm (0.1875") diameter (Minco S854PD or equal)



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