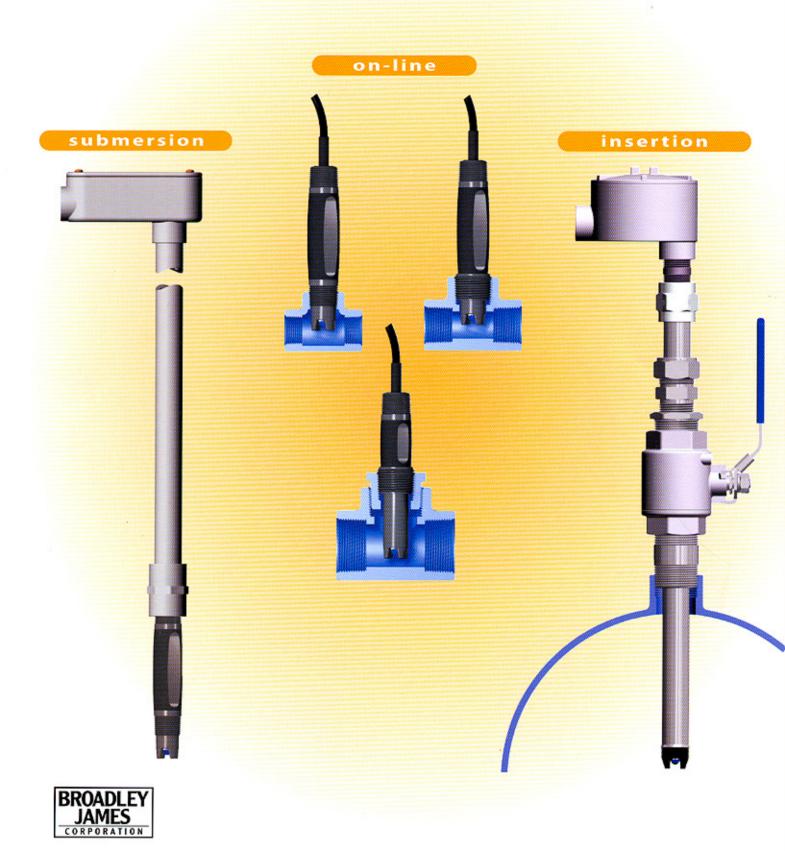
# pH, ORP and D.O. Sensors for **Industrial Applications**



# S400 Series ProcessProbe



# pH and ORP Sensors with Ryton Housings



## S400 Series ProcessProbe™

# **Broadley-James pH and ORP Sensors** for the Process Industries

These sensors are designed for rugged service in submersion or on-line applications. The reference cell features a Double Junction design for extended service life in harsh applications. The body, with integral pipe threads, is molded from chemical-resistant Ryton (PPS) and the reference junction is porous Teflon or ceramic. Built-in temperature compensators are available. Optional sensor guard on the front of the sensor protects the sensor tip from impact. Sensor also available in ORP (Redox) version.

## **Specifications**

pH Range . . . . . . . . 0 - 14 pH

ORP Range..... ± 5000 mV

Temperature Range .. 0 - 105° C

Max. Pressure/Temp . . 150 psig at 100° C

Reference . . . . . . . . Ag-AgCl

Wetted Materials . . . . . Ryton, Teflon, Glass

Std. Cable Length ..... 10 Feet

#### **Maximum Flow Rate:**

10 ft. (3 m) per second

#### **Output Impedance:**

< 250 megohms at 25° C

#### **Chemical-resistant Wetted Materials**

These high quality sensors are constructed of corrosion-resistant wetted materials including Ryton®, Teflon® and glass.

#### Coaxial Porous Teflon Reference Junction

The large annular junction resists fouling. Also, the sealed, double-junction reference electrode is highly resistant to poisoning.

#### **Options Include:**

- · Built-in temperature compensation
- · Built-in solution ground
- Custom cable lengths
- Choice of cable connectors

Suitable for High Temperature Applications Compatible With Most pH and ORP Analyzers





#### Coaxial Teflon Junction

Designed to withstand tough industrial applications. Best overall performance with rugged dome pH bulb.



#### **Dual Ceramic Pin Junction**

For use in highly alkaline processes. Best choice for use at higher pressures.



#### Flat pH Bulb/Self Cleaning

Designed for obstructionless contact with the sample stream for self cleaning service. Features coaxial, porous Teflon junction.

# DynaProbe II<sup>®</sup> pH and ORP Sensors

# **High Pressure and High Temperature Sensors**

DynaProbes were designed to withstand the aggressive environment of pulp and paper manufacturing. The patented internal design features a solid state, reference half-cell with the unique lonTrap™ for extended sensor life in the most severe applications. Choose from the different body styles, body materials, reference materials and bulb designs to create a sensor to fit any industrial application. The three primary sensor designs are: Twist Lock, Pipe Thread, and Valve Retraction.

#### Twist Lock

Seals into the twist-lock housing adapter via dual o-rings for in-line measurements. The body is molded from chemical-resistant Ryton (PPS) and the reference junction is porous Teflon.

### ST851 Series Specifications

pH Range	0 – 14 pH
ORP Range	± 5000 mV
Temperature Range	0 - 120° C
Maximum Pressure	50 psig at 120° C
Standard Wetted Materials	Ryton, Teflon, Glass, Viton o-rings
Options Available	Dome bulb, Flat bulb, or High pH glass
Compatible Housings	Twist-Lock Adapter for threaded tee



### **Pipe Thread**

These DynaProbes are designed for in-line or submersion applications. The sensor body threads directly into a tee or end of a pipe and is molded from chemical-resistant Ryton.

### ST873 and ST956 Series Specifications

pH Range	. 0 – 14 pH
ORP Range	. ± 5000 mV
Temperature Range	. 0 - 140° C
Maximum Pressure	. 150 psig at 120° C
Standard Wetted Materials	. Ryton, Teflon and Glass
Options Available	. Dome bulb, Flat bulb, or High pH glass
Compatible Housings	. 1" NPT or 3/4" NPT fittings



These sensors are also available with a flat bulb design to allow the turbulence of the process to clean the sensor, minimizing clogging.

#### **Valve Retraction**

This sensor model is designed for use with the insertion/retraction assemblies. The sensor body, with integral bulb guard and antiblowout restraint, is molded from chemical-resistant materials and the reference junction is porous Teflon.

### ST977 Series Specifications

pH Range	0 – 14 pH
ORP Range	± 5000 mV
Temperature Range	0 - 120° C
Maximum Pressure	100 psig at 90° C
Standard Wetted Materials	Ryton, Teflon and Glass
Compatible Housings	Valve retraction assembly
	Insertion sensor assembly



All three designs are available with the following options:

- ORP Measurement
- Built-in Temperature Compensation
- Solution Ground
- Custom Cable Length