

# General Specifications

## Models PH87 & PH97 Retractable pH Assemblies and Electrodes

GS 12B6K9-01E-A

The Model PH97 electrodes are designed to be durable and rugged for use with the PH87 assemblies. Each PH97 holds four separate elements in a rugged Ryton™ body which includes a pH bulb guard and an anti-blowout restraint. A metal impregnated Ryton solution ground, a double-junction reference, universal pH glass (0-14 pH) and a PT1000 temperature element compose this pH system. In many applications the large volume reference reservoir will provide an extended functional life.

Optional ORP ( $\pm 5000$  mV) or patented solid state reference electrodes with a unique ionic trapping system are available for specialized applications.

### RETRACTION/INSERTION ASSEMBLIES

The Model PH87 assemblies are constructed of chemically-resistant titanium sheathes and are used with Model PH97 sensors. The retractable assembly is suitable for "Hot-Tap" service and is removable from a pressurized process line or vessel without interrupting the flow or draining the tank. The insertion assembly is suitable for service in a process line or tank where variable insertion lengths are required. Blowout protection is provided by the flared tip design of the titanium sheath which provides a metal to metal stop during retraction. Integral junction boxes are provided for simple installation and wiring.

### APPLICATIONS

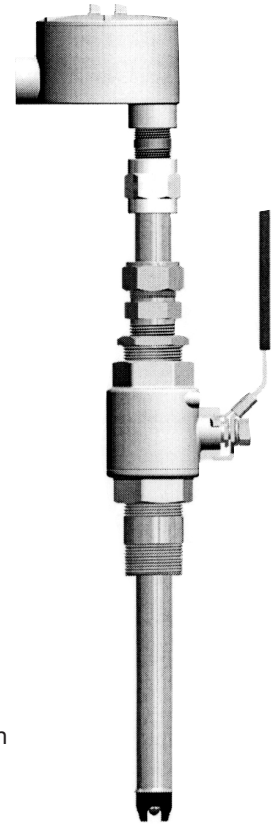
- Pulp and paper stock
- Slurries
- Process Tanks

### FEATURES-ELECTRODE

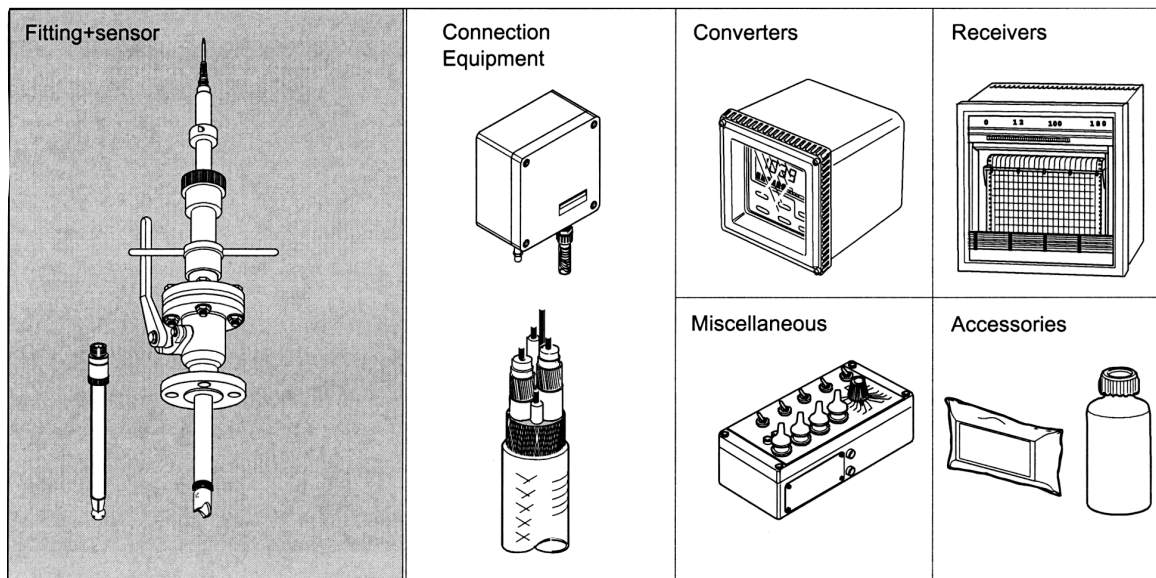
- Each electrode is 100% factory tested
- Cost effective, long life
- Integral anti-blowout guard
- Built-in solution ground
- Coaxial porous PTFE reference junction

### FEATURES-RETRACTABLE

- Suitable for "Hot-Tap" applications with ball valve
- Integral Junction box for simple installation
- Titanium sheath for chemical protection
- Adjustable insertion lengths
- Optional electrodes

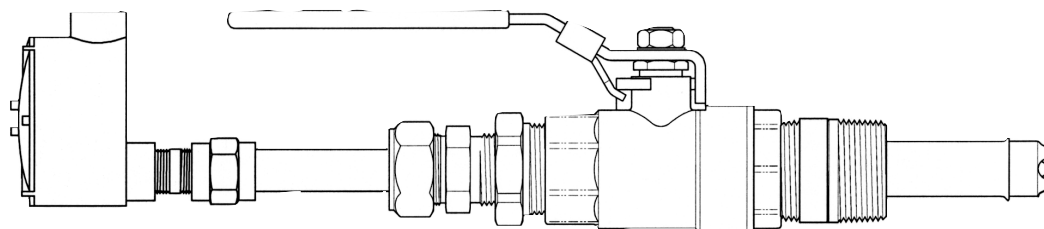


### SYSTEM CONFIGURATION



**Model PH87/B**

Valve Retraction Sensor Assembly with ball valve

**SPECIFICATIONS**

pH range:	0-14pH	Wetted materials	
ORP range:	-5000 mV to 5000 mV (requires/ORP option which replaces pH bulb)	Probe Sheath:	Titanium
Temperature range:	0-221°F (0-105°C)	Compression fitting:	316SS or Titanium (optional)
Maximum pressure:	100 psig @ 212°F (100°C)	Body and sensor guard:	Ryton (PPS)
Maximum flow:	10 feet per second (3 meters per second)	O-Rings:	Viton
Reference electrode:	Ag-Ag/Cl	Liquid junction:	Porous PTFE
		Dome pH bulb:	Glass Platinum (/ORP option)
		Standard cable length	
		PH97-07	24" (terminated in J-box)
		PH97-21	36" (terminated in J-box)

**ORDERING THE ASSEMBLY**

The assembly and the pH sensor are ordered separately. Order from the part number and descriptions listed below.

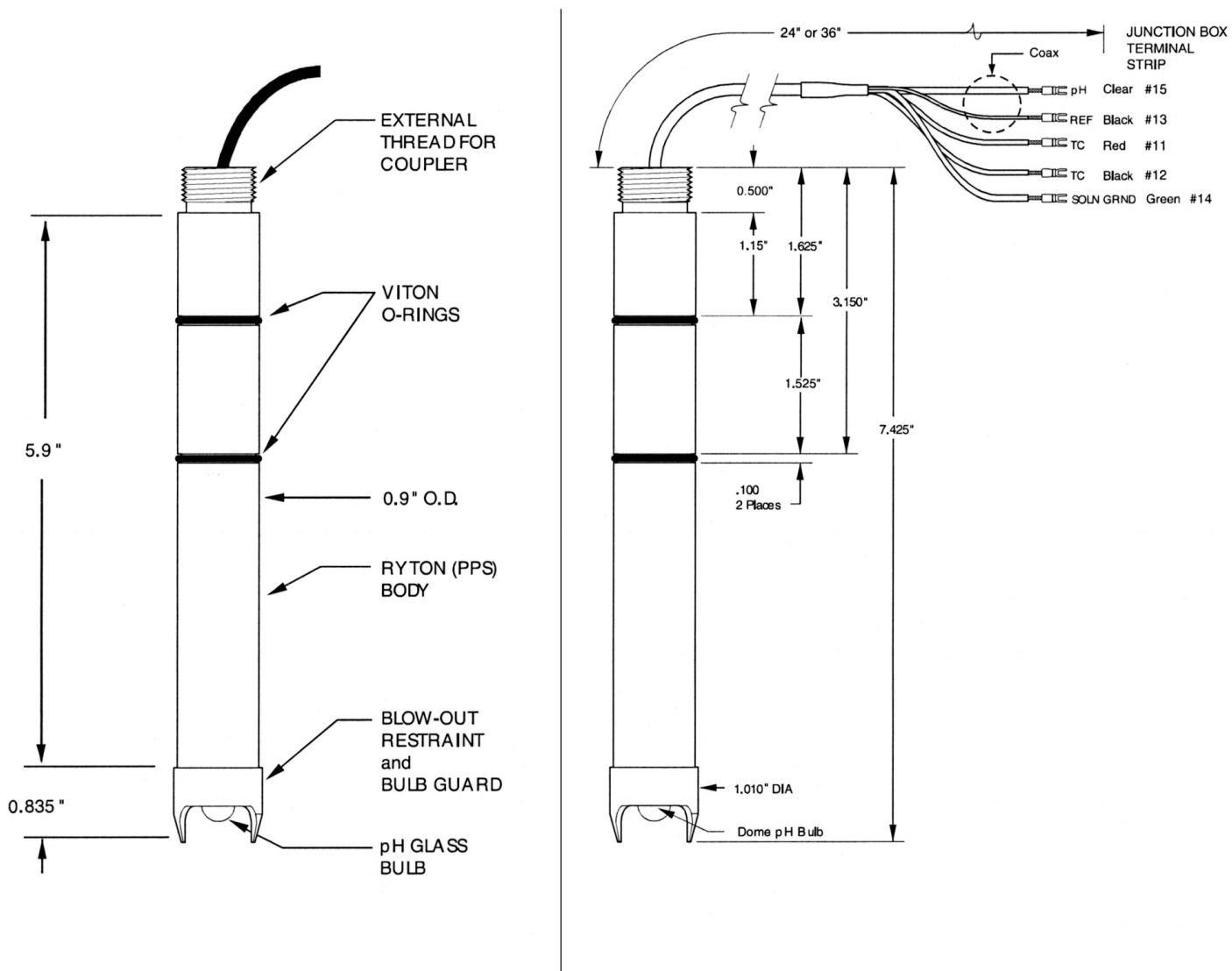
Model Code	Description
PH87	Retractable pH assembly with titanium sheath and cable connection junction box
	<b>Insertion Length</b>
-07	7 inch insertion length
-21	21 inch insertion length
	<b>Mounting Options</b>
/B	1 1/4 inch 316 SS ball valve
	<b>Accessory</b>
	M1234DY: Titanium compression fitting body (wetted part only)

**ORDERING THE PH SENSOR**

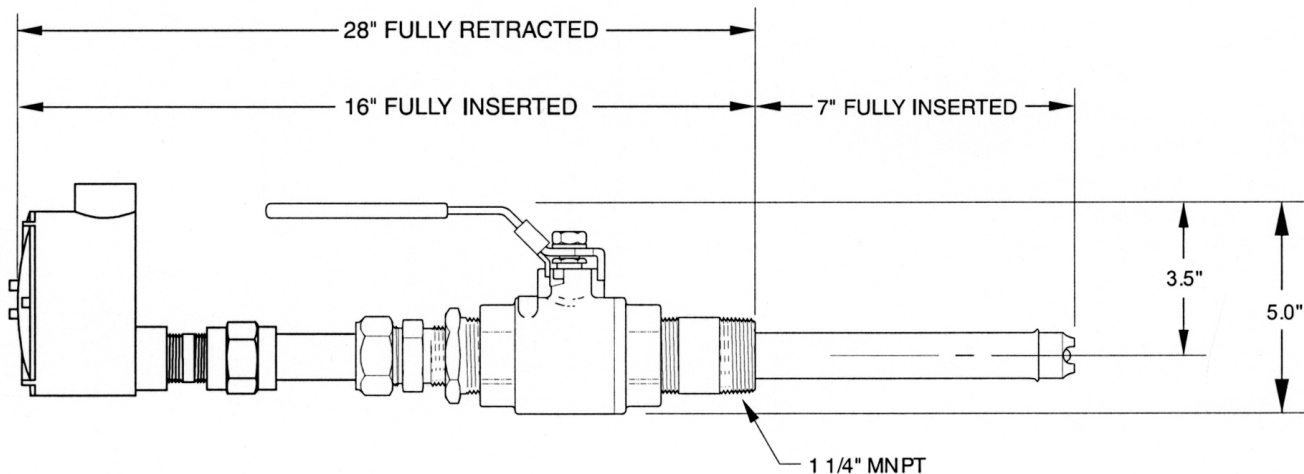
The pH sensor and the assembly are ordered separately. Order from the part number and the descriptions listed below.

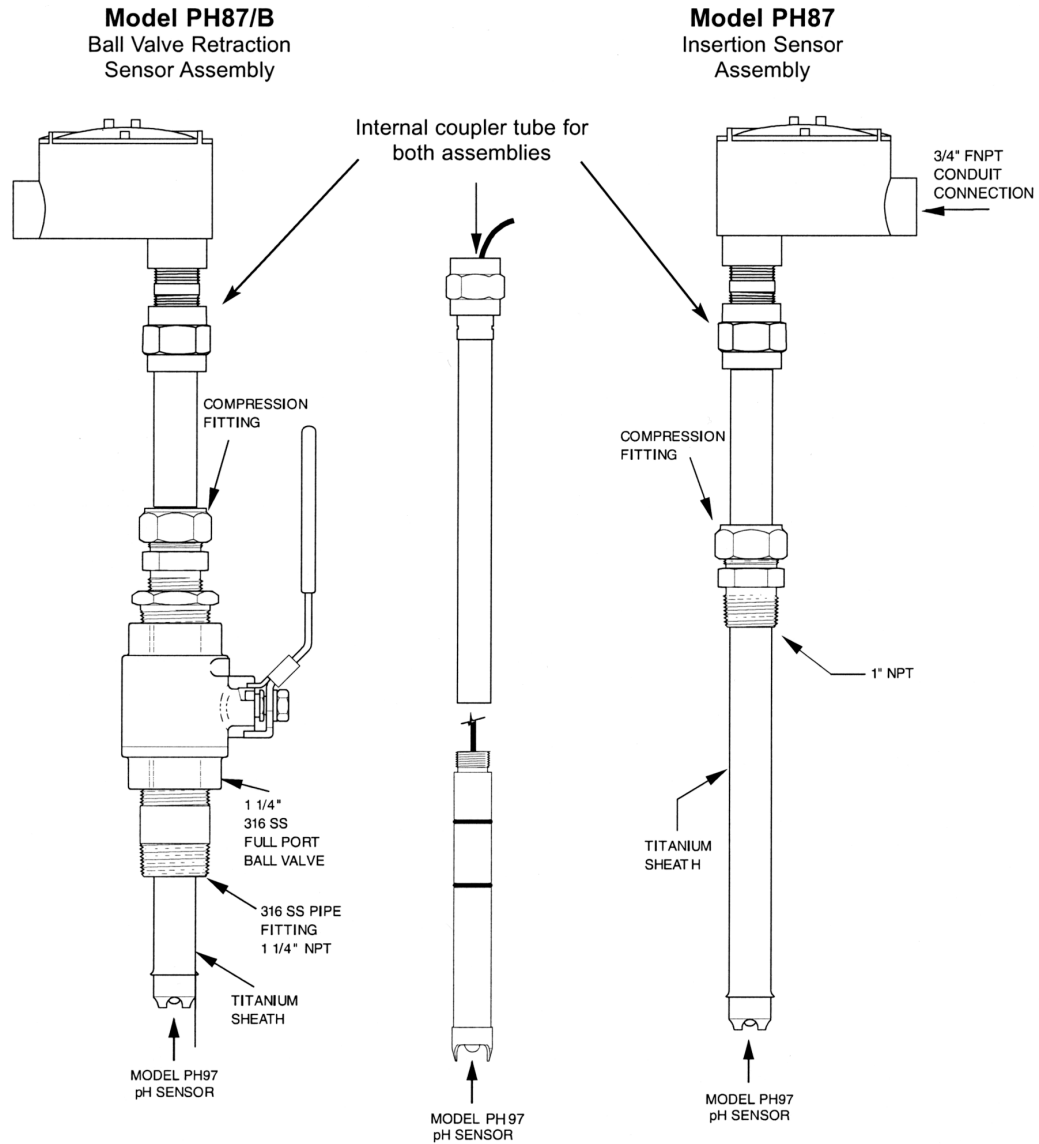
Model Code	Description
PH97	Universal pH electrode, with solution ground, 0-14 pH glass, PTFE reference junction, and Pt. 1000 temperature element
	<b>Cable Length</b>
-07	24 inch cable length (for PH87-07 assembly)
-21	36 inch cable length (for PH87-21 assembly)
	<b>Measurement Options</b>
/ORP	ORP measurement (glass bulb is replaced with platinum ORP sensor)
	*For Solid State Reference for pulp and paper applications, contact the factory.

**MODEL PH97 PH SENSOR WITH SOLUTION GROUND**



**MODEL PH87-07/B**





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