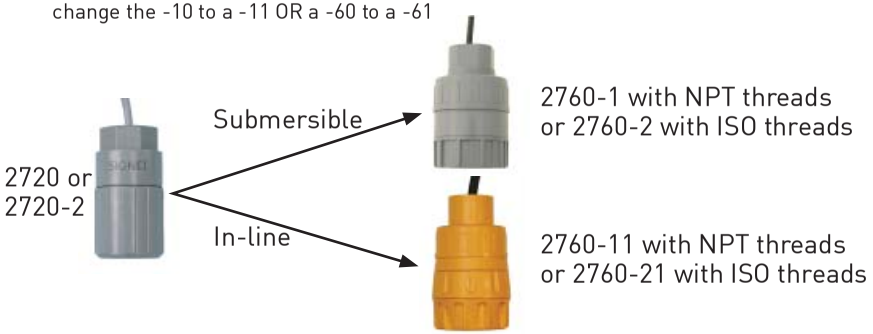
Replacement Matrix

2714-2717 Twist-Lock Electrodes

Old Part No.	Code	New Part No.	Code	Description
3-2714	198 844 300	3-2724-10	159 001 547	Flat pH, 3K, NPT
3-2714-HF	198 844 305	3-2726-HF-10	159 001 551	Bulb pH, HF Resist, 3K, NPT
3-2716	198 844 302	3-2726-10	159 001 555	Bulb pH, 3K, NPT
2-2716-DI	198 844 306	3-2726-LC-10	159 001 559	Bulb pH, Low Cond 3K, NPT
3-2715	198 844 301	3-2725-60	159 001 561	Flat ORP, NPT
3-2717	198 844 303	3-2725-60	159 001 561	Flat ORP, NPT

Notes:
1. The 2714 electrode series will be available until the year 2015; enhance sensor longevity by using a 2724-2726 electrode.
2. Replacing a 2714-2717 with a 2724-2726 electrode will require the purchase of a 2760 preamplifier; see graphics below for replacement parts
3. Sensors listed in replacement matrix have an NPT thread; to order an ISO thread, change the -10 to a -11 OR a -60 to a -61



2754-2757 DryLoc® Electrodes

Old Part No.	Code	New Part No.	Code	Description
3-2754	159 000 747	3-2724-00	159 001 545	Flat pH, PT1000, NPT
3-2754-1	159 001 380	3-2724-10	159 001 547	Flat pH, 3K, NPT
3-2754-HF	159 000 748	3-2726-HF-00	159 001 549	Bulb pH, HF Resist, PT1000, NPT
2-2754-HF-1	159 001 381	3-2726-HF-10	159 001 551	Bulb pH, HF Resist, 3K, NPT
3-2756	159 000 750	3-2726-00	159 001 553	Bulb pH, PT1000, NPT
3-2756-1	159 001 397	3-2726-01	159 001 555	Bulb pH, 3K, NPT
3-2756-DI	159 000 751	3-2726-LC-00	159 001 557	Bulb pH, Low Cond PT1000, NPT
3-2756-DI-1	159 001 382	3-2726-LC-10	159 001 559	Bulb pH, Low Cond 3K, NPT
3-2755	159 000 749	3-2725-60	159 001 561	Flat ORP, NPT
3-2757	159 000 752	3-2725-60	159 001 561	Flat ORP, NPT

Notes:
1. The 2754 electrode series are being retired; enhance sensor longevity by using a 2724-2726 electrode.
2. Sensors listed in replacement matrix have an NPT thread; to order an ISO thread, change the -10 to a -11 OR a -60 to a -61
3. Verify the temperature compensation is compatible with the selected instrument.

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Signet 2724-2726 pH/ORP Electrodes

Product Overview Sales Brochure

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New Generation pH & ORP

Signet 2724-2726 pH/ORP Electrodes

- Longer life in poisoning ion applications, including many chemical processing applications because of patented reference chamber design.
- Robust patented DryLoc connector system for quick disconnect.
- Mounts at any angle, even upside down and horizontal!
- Better performance and longer life in low conductivity water applications.
- Low conductivity sensor for liquids below 100 µS/cm
- Quick temperature response; positioning of temperature element embedded in glass stem.
- Chemically resistant Ryton body for use in a wide variety of applications.
- Use Signet fittings or in 3/4 in NPT or ISO reducing tees (up to 4 inches)
- HF resistant glass available for trace HF of ‹2%
- Easy to connect, separate preamplifier for simple sensor installation, maintenance and replacement

Calibration Accessories

Part No.	3-2700.395 pH Calibration Kit
Includes polypropylene cups, cup stand, pH 4, and pH 7 liquid buffer. Other buffers in liquid or powder form are available.	

Part No.	3822-7115 Quinhydrone
When Quinhydrone is mixed with pH buffers the following mV values are generated to calibrate the sensor. 7 pH Buffer = +87 mV, 4 pH Buffer = +264 mV	

Offset = In 7 pH Buffer 0 mV +/- 50 mV +/-(0.84 pH)
Span = In 4 pH Buffer +177 mV away from value measured in 7 pH Buffer +/- 50 mV +/-(0.84 pH)

Buffer Solutions for pH Calibration

- New electrodes should always be calibrated using known buffer solutions.
- Calibrate used electrodes often.
- Used pH electrodes may read as far off as ±0.84 pH before it needs to be replaced.
- When the pH readings in all buffers have shifted greater than 0.84 pH units (for example, electrode is reading 4.85 in a 4 buffer and 7.85 in a 7 buffer) the electrode should be replaced.

Quinhydrone for ORP Calibration

ORP Calibration requires the use of pH buffer 4 and 7 that has been saturated with Quinhydrone. The mixture creates a +264 mV and +87 mV solutions respectively.

The Signet EasyCal feature only recognizes ORP Quinhydrone solutions to enhance simplified calibration. When the millivolt offset for an ORP sensor is extreme (more than ±50 mV), replacing the electrode is recommended.

3822-7115
Quinhydrone

pH/ORP System Tester

The pH/ORP simulator is a battery-powered millivolt generator that replicates pH values of 4, 7 and 10, plus ORP values of ±700 mV.

3-2759.391 Adapter cable (left)
3-2759 System Tester (right)

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Applications

Water Treatment

Drinking Water Quality

Rinse Water

Boiler Make-up Water (above 20 µS)

Brackish Water Influent

Coagulation and Flocculation

Desalination Plants

Ozone Injection Effluent

Influent Monitoring

Reverse Osmosis

Chemical Processing

Scrubbers

Cooling Towers

Neutralization Tanks

Chlorine Monitoring

Sulfur Recovery

Process Control (verify chemical compatibility)

Neutralization Systems

Plating Baths

Aquatic Animal Life Support Systems

Commercial Aquariums Fish Farming

Zoo Exhibit Water Treatment

Commercial Swimming Pools

Water Parks

Food and Beverage Manufacturing

Fruit & Vegetable Rinsing

Wastewater Treatment

Effluent Monitoring

Irrigation

Wholesale Nurseries

Greenhouses

Selecting the 2724 and 2726 Electrode

2724 Flat pH electrodes – Use when liquid is dirty; flat glass is considered "self cleaning" in moving, flowing liquids

2726 Bulb style pH electrodes – More robust geometry than the flat electrode, maximized surface area increases sensitivity to pH

Special Electrode Options

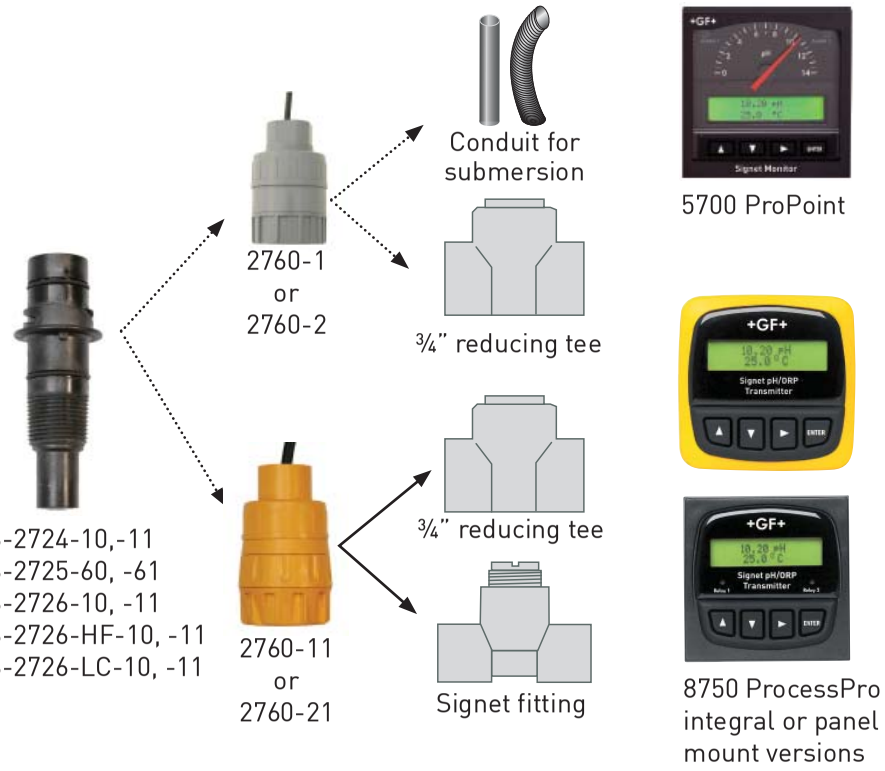
Liquids with hydrofluoric acid; add –HF to the end of the sensors part number. Process liquid should be ‹ 2% HF.

Liquids with a low conductivity between 1 -100 µS; add –LC to the end of the sensors part number. When unsure low/high the conductivity levels, it is okay to use the –LC electrode

2724-2726 Selling Features		Benefits	2724 Series	2754 Series	2714 Series
Triple Patented design; 2 reference and 1 DryLoc connector	1	Confidence that Signet pH/ORP products are unique and technically advanced analytical products	YES	no	no
Enhanced **patented reference design** for added lifetime in rugged chemical applications	2	The design inhibits poisoning ions from entering reference chamber due to patented entry point	YES	no	no
	3	Patented extended length reference chamber prolongs sensor life	YES	no	no
Robust connector system	4	Patented DryLoc Connector with corrosion resistant gold plated pins	YES	yes	no
	5	Pre-wire between the transmitter and sensor only once saving valuable maintenance time	YES	yes	yes
	6	Quick and easy sensor replacement	YES	yes	yes
Ryton sensor body	7	Excellent chemical compatibility for many applications	YES	no	no
	8	Used for general water and/or chemical applications; no need to stock a variety of different sensors	YES	no	no
	9	Robust for high temperature applications up to 85 °C	YES	yes	yes
Mounts into existing In-line Signet fittings	10	Easy to retrofit	YES	yes	yes
Threaded NPT and/ or ISO threads	11	Retrofit other manufacturer electrodes that require 3/4 NPT or ISO threads.	YES	no	no
Designed to mount at any angle	12	Especially useful in tight spots where space is limited	YES	no	no
Short front end for easy mounting into small tees	13	Use flat version in reducing tees; will not bottom out.	YES	no	no
Temperature device located in glass stem	14	Quick temperature response is 40% faster than older 2714 and 2754 style electrodes	YES	no	no
Enhanced temperature range	15	Temperature range -10 to 85 °C (14-185 °F)	YES	no	no
Wide pressure range	16	Pressure range up to 6.9 bar (100 psi)	YES	yes	yes
10% to 30% longer life	17	Saves on replacement costs	YES	no	no
Low cost, high quality	18	Saves on purchase costs	YES	no	no

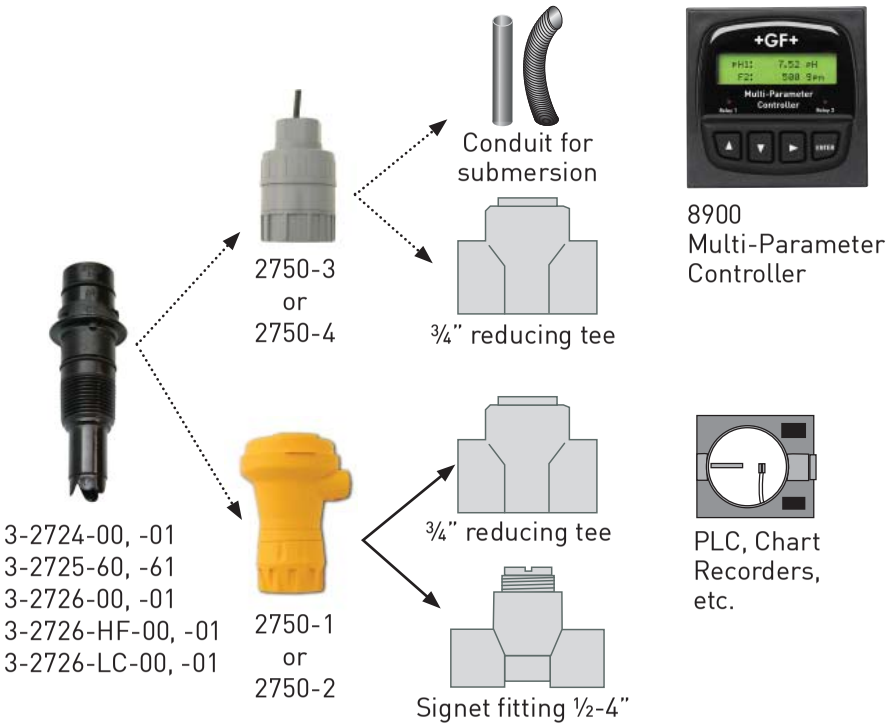
System Selection

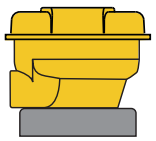
Use these electrodes and preamplifiers to connect to any 8750 ProcessPro or 5700 ProPoint



Wide Choice of Connectivity

Use these electrodes and sensor electronics to connect the 8900 Multi-Parameter Controller or systems accepting 4 to 20 mA input (PLC's, chart recorders, SCADA systems etc.).





Optional junction-boxes
3-8050-1: Extend cable over long distance.
3-8050-2: Simplifies calibration with EasyCal at the sensor and can also provide a blind 4 to 20 mA signal when used with the 2750-3 and 2750-4.