

# +GF+ SIGNET

## ANALYTICAL MEASUREMENT AND INSTRUMENTATION

George Fischer Signet delivers sophisticated, advanced flow and analytical technology, which offer accuracy, dependability, ease of use, and minimal maintenance. Every sensor, transmitter, controller and monitor manufactured meets the highest of standards. Engineered for performance, Signet products are ideally suited for Chemical Process, Food and Beverage, Life Sciences, Shipbuilding, Semiconductor, Water and Waste Water Treatment, including the Pool Industry, and Agriculture.


**This product list is designed to be read in conjunction with the +GF+ Signet Catalogue, available on request. For details on the +GF+ Signet range of Flow Instrumentation, please refer to the separate product list.**

### ANALYTICAL - PH / ORP

The Signet 2724-2726 pH and ORP electrodes feature a patented reference electrode design and use the unique foul-proof patented DryLoc® connector, with gold plated contacts. The robust Ryton® threaded sensor body and choice of flat pH, bulb pH, or flat ORP sensing elements provides broad range of chemical compatibility for a wide variety of applications.


The Signet 2764-2767 Differential pH & ORP electrodes are built to handle even the most extreme and harshest of chemical applications. The pH and reference electrodes are measured against a ground electrode, insuring a steady, stable signal. To ensure a long service life, the reference cell features a refillable electrolyte chamber and a replaceable equitransferant salt bridge, both easily serviced in the field. (The 2714 Twist-Loc series of electrodes and associated preamplifiers has been discontinued, and replaced with the below)

#### 2724-2726 PH AND ORP ELECTRODES

		Code	
	<b>For Use with 2750 Sensor Electronics and 9900 Transmitter</b>	Flat pH	SG3-2724-00
		Bulb pH	SG3-2726-00
		Bulb pH, HF	SG3-2726-HF-00
		Bulb pH, Low Cond.	SG3-2726-LC-00
	<b>For Use with 2760 Preamplifier and 8750 Transmitter</b>	Flat pH	SG3-2724-10
		Bulb pH	SG3-2726-10
		Bulb pH, HF	SG3-2726-HF-10
		Bulb pH, Low Cond.	SG3-2726-LC-10
	<b>For Use with either 2750 or 2760</b>	Flat, ORP	SG3-2725-60


Mount using Signet Install Tee or 3/4" thread

#### 2764-2767 DIFFERENTIAL PH AND ORP ELECTRODES

		Code	
	<b>For Use with 2750 Sensor Electronics and 9900 Transmitter</b>	Flat pH	SG3-2764-2
		Bulb pH	SG3-2766-2
	<b>For Use with 2760 Preamplifier and 8750 Transmitter</b>	Flat pH	SG3-2764-1
		Bulb pH	SG3-2766-1
	<b>For Use with either 2750 or 2760</b>	Flat, ORP	SG3-2765-1

Mount using Signet Install Tee or 1" NPT thread. Other Differential Electrodes are available for use with the Signet Multiparameter unit, and also as 3000 units for connection to other brands of instruments.

#### 2751 SENSOR ELECTRONICS FOR DIRECT 4-20mA OUTPUT

		Code	
	<b>Inline Sensor, Yellow Body</b>	Electrics Only for use with 9900	SG3-2751-1
		4-20mA output with EasyCal	SG3-2751-2
	<b>Submersible Sensor, NPT</b>	Electronics Only for use with 9900	SG3-2751-3

Produces a direct 4-20mA output for use when a blind meter is required. EasyCal feature recognises common pH and ORP buffer values.

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#### ANALYTICAL - pH / ORP

Signet pH and ORP electrodes can be used with a sensor electronics unit as a stand alone “blind” instrument with 4-20mA output, or combine with the +GF+ Signet 9900 Transmitter for local display and various output and control functions.

#### 9900 MULTI-INSTRUMENT TRANSMITTER



		Code
<b>Field Mount</b>		SG3-9900-1
<b>Panel Mount</b>		SG3-9900-1P
<b>Optional Extras</b>	<b>Relay Module</b>	SG3-9900.393
	<b>Conductivity Module</b>	SG3-9900.394
<b>8050 Universal Mount Kit</b>		SG3-8050

“At a glance visibility” due to extra large characters and a digital bar graph from an auto-sensing backlit LCD display. Single sensor input compatible with signals from all GF Signet Flow, pH/ORP, Conductivity, Salinity,

Pressure or Temperature sensors as well as any non-GF Signet sensors that outputs a 4-20mA signal (requires GF Signet 8058 signal convertor). One permanent and one resettable totaliser, LED relay or warning indicators.

Analogue (4 – 20MA) and open collector with user selectable pulse units output.

Relay module is an optional extra and can be retrofitted (Panel version only). Panel or field mount versions available. Requires 12 to 32VDC power supply.

Universal Mount Kit is used to mount a field mount transmitter onto a pipe, wall, or other flat surface.

#### pH / ORP CALIBRATION AND MAINTENANCE SOLUTIONS

	Code		Code
<b>Buffer Solutions</b>	SG3-0700.390	<b>Replacements for Differential Electrodes</b>	<b>Replacement Salt Bridge</b> 3864-0001
			<b>Replacement Electrolyte Solution, 500mls</b> 3864-0002

The mV output from the pH electrode is created by the interaction between the electrode and the fluid. The electrode contains a gel that depletes over time, so the instrument must be readjusted periodically to maintain system accuracy.

The Signet pH buffers are ideal for routine calibration requirements.




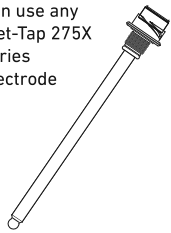
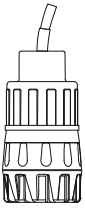
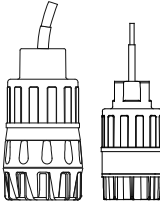
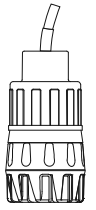
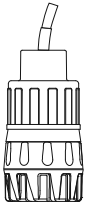
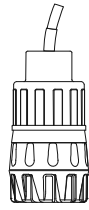
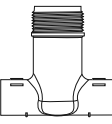
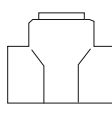
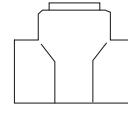
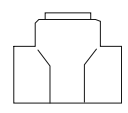
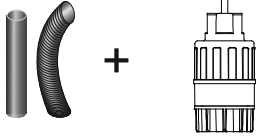
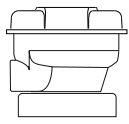
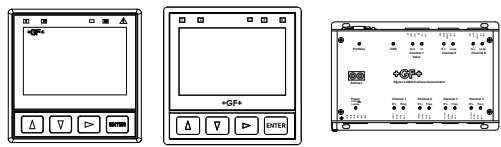
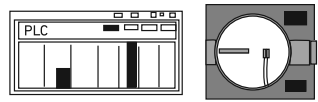
For ease of transportation, pH buffer kits are available in powder form. 1 kit provides enough to make 50mls of 4,7, and 10pH buffer solution.

Signet Differential pH and ORP electrodes can be used in more aggressive applications, and can be maintained to improve their service life before replacement becomes necessary.

If readings become inaccurate by more than 50mV it is recommended to replace the electrolyte solution.

If readings start to slowly drift, or respond slowly, then the salt bridge should be replaced.

## 2751 Product Selection Guide

<p><b>1. Choose the Electrode</b></p>	<p>2724-2726, 2734-2736</p> <p>Can use Any 3-272X or 273X series Electrode</p> 	<p>2764-2767 Differential</p> <p>3-2764-1 3-2764-2 3-2766-1 3-2766-2</p> 	<p>2774-2777</p> <p>ORP electrodes must have 10K ID resistor use: 3-2775, 3-2777</p> <p>pH Electrodes can be either the 1K or 3K use: 3-2774, 3-2774-1, 3-2776, 3-2776-1</p> 	<p>2756 and 2757 Wet-Tap</p> <p>Can use any Wet-Tap 275X series electrode</p> 	
<p><b>2. Determine the mounting style:</b></p>	<p>In-line</p>  <p>2751-1 or -2</p>	<p>In-line</p>  <p>2751-1 or -2    2751-3 or -4</p>	<p>In-line</p>  <p>2751-1 or -2    2751-3 or -4</p>	<p>In-line</p>  <p>2751-1 or -2    2751-3 or -4</p>	<p>In-line</p>  <p>2751-1 or -2</p> <p>Or</p> <p>-In-line fitting</p>  <p>Signet fitting</p>  <p>3/4" reducing tee</p>  <p>1" threaded tee</p>  <p>3/4" reducing tee</p> <p>Submersible</p> <p>2751-3 or -4 and cable conduit (customer supplied) connected to 3/4" sensor electronics</p>  <p>3719 Wet-Tap Assembly</p> <p>(Submersible not applicable with Wet-Tap assembly)</p>
<p><b>3. Junction Boxes</b></p>	<p>3-8050-1: Use when extending the submersible cable over long distance. 3-8050-2: Use with the submersible 2751-3 or -4 and the in-line 2751-1 for best calibration results with the EasyCal function when using the blind 4 to 20 mA output.</p>				
<p><b>4. Choose the output instrument</b></p> <p>Digital (S<sup>3</sup>L)</p> <p>Or</p> <p>4 to 20 mA</p>	 <p>9900 or 9950 Instruments, Profibus Concentrator</p> <p>OR</p>  <p>PLCs or Chart Recorders</p>				

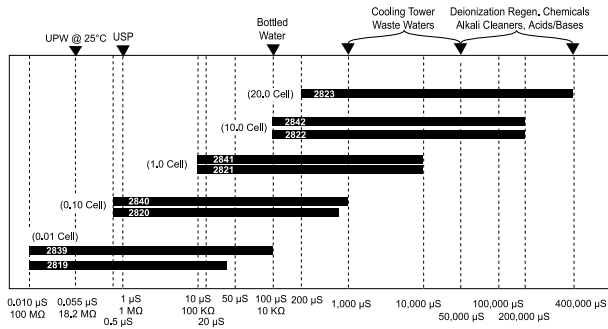
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#### CONDUCTIVITY

Signet Conductivity/Resistivity Sensors are designed to provide versatile installation and accurate sensing across a very broad dynamic range. Coupled with Signet-patented measuring circuitry a three decade range with  $\pm 2\%$  of reading accuracy is achieved.




#### 2850 SENSOR ELECTRONICS

		Code
	<b>Integral / Standpipe Mount</b>	SG3-2850-52
	<b>Universal Mount</b>	SG3-2850-62


Direct 4-20mA Output, with EasyCal. Suitable for Integral Mounting with a 2839-2842 Electrode.

#### 2819-2823 CONDUCTIVITY ELECTRODES

		Code
	<b>0.01cm cell</b>	SG3-2819-1
	<b>0.1cm cell</b>	SG3-2820-1
	<b>1cm cell</b>	SG3-2821-1
	<b>10cm cell</b>	SG3-2822-1
	<b>20cm cell</b>	SG3-2823-1

2819-2823 Electrodes are available with 3/4in NPT process connections as standard. 1-1/2in or 2in tri-clamp are available.

#### 2839-2842 CONDUCTIVITY ELECTRODES

		Code
	<b>0.01cm cell</b>	SG3-2839-1
	<b>0.1cm cell</b>	SG3-2840-1
	<b>1cm cell</b>	SG3-2841-1
	<b>10cm cell</b>	SG3-2842-1

2839-2842 Electrodes offer a compact solution, and are dual 3/4in threaded for ease of installation in submerged applications.

Any of the above electrodes can be used with one of the GF Signet Conductivity Instruments to give various configurations of digital and analogue display, and outputs. Alternatively the 2839-2842 range can be coupled with the 2850 Sensor Electronics to give an Integrally Mounted blind 4-20mA output.

#### TEMPERATURE

##### 2350 TEMPERATURE SENSOR

		Code
		SG3-2350-1
		SG3-2350-2
		SG3-2350-3

One Piece PVDF Body, Digital or 4-20mA Output. Compatible with 9900, or Stand-alone.

#### PRESSURE

##### 2450 PRESSURE SENSOR

		Code
		SG3-2450-1L
		SG3-2450-3U
		SG3-2450-3H
		SG3-2450-7H

One Piece PVDF Body, Digital or 4-20mA Output, 0-10 psi, 0-50psi, or 0-250psi. Compatible with 9900, or Stand-alone.