# THE SMARTER CHOICE.

### +GF+ SIGNET

### FLOW 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 Analytical Instrumentation, please refer to the separate product list.

#### **2551 INSERTION MAGMETER** Code Signet Insertion Magmeters feature no moving parts to wear Blind Meter SG3-2551-P0-11 Frequency or foul and high accuracy sensing without the excessive Output SG3-2551-P1-11 costs associated with full bore magnetic flow units. The units SG3-2551-P2-11 accurately measure flow in fluids containing a high content of particles, solids and fibres, making them an excellent choice for applications with dirty fluids. A minimum conductivity of 20µS is required. SG3-2551-P0-12 4-20mA Output SG3-2551-P1-12 Magmeters have three signal output options: frequency, digital, SG3-2551-P2-12 or 4-20mA, for long distance signal transmission application requirements. Basic diagnostic capabilities allow the user to optimize the meter for each application. The 4 to 20mA output is factory spanned and can be modified in the field using the PC SG3-2551-P0-41 With Display Frequency compatible accessory set-up tool, model 3-0252. Output SG3-2551-P1-41 SG3-2551-P2-41 Suits flow velocities 0.05 to 10 m/s, and pipe sizes up to DN900. SG3-2551-P0-42 4-20mA Output SG3-2551-P1-42 SG3-2551-P2-42

### 2581 FLOWTRAMAG Code The Signet 2581 FlowtraMag is a full-bore plastic PVC in line Full-Bore Magmeter, 25mm SG3-2581-P-T-010 style magnetic flowmeter. The PVC body with titanium or **PVC Union Ends** hastelloy-C electrodes has no moving parts, and is two to FKM Seals three times lighter in weight compared to traditional metal magmeters on the market. It is designed for high accuracy flow measurement in short pipe runs, making it an ideal solution for industrial applications where performance and ease of use are important. SG3-2581-P-T-020 Full-Bore Magmeter, 50mm **PVC Union Ends** The FlowtraMag is available in pipe sizes of 1", 2" and 4", FKM Seals optimized for performance in short pipe runs often associated with final effluent lines, well heads and water treatment skids. 6" and 8" available Q3 2024. Full-Bore Magmeter, 100mm SG3-2581-P-T-040 **PVC ANSI 150 Flanged Ends** FKM Seals



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#### **FLOW SENSORS**

Paddlewheel sensors offer traditional, dependable, and accurate flow measurement. They can be used in conjunction with separately mounted digital displays, or as blind sensors.

515 ROTOR-X PADDLEWHEEL			
		Code	
	Standard	SGP51530-P0	
	Sensor	SGP51530-P1	
		SGP51530-P2	
	Integral	SG3-8510-P0	
Mount		SG3-8510-P1	
7 7	Sensor		
Standard Integral Sensor Sensor (with red cap)			

Suit flow velocities of 0.3 to 6 m/s. They have a sinusoidal output capable of driving a self powered flowmeter, such as the 3-5090.

525 METALEX FLOW SENSOR		
		Code
Standard	FLOW->	SGP525-1
Sensor		SGP525-2

Suitable for extreme pressures and temperatures, for flow velocities 0.5 to 6m/s. Requires socketweld or weldon installation fittings sold separately. Compatible with 9900 Transmitter

2540 STAINLESS STEEL

FLOW SENSOR			
		Code	
	400	Standard	SG3-2540-2
	Sensor		
THILL III		Hot-Tap	SG3-2540-4
AND THE PERSON NAMED IN		Sensor	
Standard Sensor	Hot-Tap Sensor		

Strength and corrosion resistance of 316 Stainless Steel, and the convenience of an insertion sensor design. Suitable for flow velocities 0.1 to 6m/s.

2540-2 is suitable for pipes up to DN600. The 2540-4 suits up to DN900, and includes a bleed valve for hot tap installations. Both models mount using a 1-1/2in Thread. Compatible with 9900 Transmitter

2536 ROTOR-X PADDLEWHEEL			
		Code	
Sensor	Standard	SG3-2536-P0	
	Sensor	SG3-2536-P1 SG3-2536-P2	
	Integral	SG3-8512-P0	
		SG3-8512-P1	
Standard Integra			
(with red cap)			

Low flow model, with process ready open-collector output, and good noise immunity. Suit flow velocities 0.1 to 6m/s, accepts a 3-24V power supply.

2537 BLIND PADDLEWHEEL FLOW SENSOR			
		Code	
- To	Pulse Divider & Flow Switch Output	SG3-2537-2C-P0 SG3-2537-2C-P1	
6C option available	4-20mA Output	SG3-2537-6C-P0 SG3-2537-6C-P1	

The 2537 blind Paddlewheel flow sensor combines a traditional paddlewheel flow sensor with a blind output option. It is a standalone unit, with no external display. Measures flow velocities down to 0.1 m/s, Outputs can be connected directly to Chart Recorders, PLC's, or pump VSD's by using either the pulse divider with configurable range and width, or the programmable 4-20mA Output.

The 2537 can also be used as a flow switch, with programmable low and high set points, and adjustable hysteresis. Stand-alone unit.

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Requires 12 to 32VDC power supply.

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#### 9900 FLOW TRANSMITTER Code "At a glance visibility" due to extra large characters and a digital bar SG3-9900-1 Field Mount 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 Panel Mount SG3-9900-1P indicators. Analogue (4 - 20MA) and open collector with user SG3-9900-1BC selectable pulse units output. Relay module and batch controller modules are optional extras and can be retrofitted (Panel version only). Panel or field mount versions available.

9950 DUAL CHANNEL TRANSMITTER		
		Code
The 9950-1 Transmitter is a two channel controller that supports two sensors of same or different types. The sensor types supported are Signet Flow, pH/ORP, Conductivity/Resistivity, Salinity, Temperature, Pressure, Level and Dissolved Oxygen.  The 9950 includes advanced features such as derived functions, advanced multiple relay modes, and timer-based relay functions.	CH 25.0 FEET  CO 60.0 GPM  21887.3 R  0.0 FEET	SG3-9950-1

9950 SIX CHANNEL CONTROLLER			
		Code	
<ul> <li>The 9950-10 is a multi-channel, multi-sensor controller that supports ALL like sensors or a mix of any GF sensors. Sensor types supported are Signet Flow (Frequency and/or digital S³L), pH/ORP, Conductivity/ Resistivity, Salinity, Temperature, Pressure, Level and dissolved Oxygen, as well as any device that transmits a 4 to 20 mA signal when used with the single channel 3-8058 iGo® Signal Converter.</li> <li>The 9950-10 base unit comes complete with two each 4 to 20 mA output, plus two additional dual 4 to 20 mA output modules can be installed to increase the number of 4 to 20 mA outputs to a total of 6 outputs. Four Conductivity sensor measurements are supported with either a single or dual channel conductivity module.</li> </ul>	CIIS 201.4 UM 379.3 E	SG3-9950-10	

MOUNTING KIT			
	Code		
Universal mount kit	SG3 - 8050		
to mount field transmitter on to a wall or other flat surface			
Integral mount kit	SG3 - 8051		
to mount field transmitter on to the top of an integral sensor			

OPTIONAL EXTRAS		
	Code	
Relay Module	SG3-9900.393	
Batch Module	SG3-9900.397	
Conductivity Module	SG3-9900.394	
4-20mA Module	SG3-9900.398-1	



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#### **INSTALLATION FITTINGS**

All the previously mentioned Flow Sensors measure flow velocity at a set point, and from this calculate the total flow rate through the pipe system. For accurate and repeatable measurements fully developed turbulent flow is required. For full details and installation requirements refer to GF Signet Literature.

For optimum accuracy Signet recommend that the pin on a paddlewheel flow sensor, or the tip of an Insertion Magmeter, is positioned at a point 10% of the Pipe ID from the inside of the pipe wall.

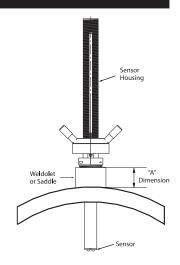
Installation fittings broadly fit into 2 categories, depending on the flow sensor to be used.

### **FITTINGS FOR 2540 AND 2552 METAL FLOW METERS**

The 1-1/4in or 1-1/2in mounting thread allows the use of a conventional branch saddle, or Weld-o-let.

Sensors can easily be fitted to PE pipes (as shown here) using Electrofusion Saddles and threaded adaptors.

Hot-tap installations can also be easily incorporated.



FITTINGS FOR 515, 2536, 2537, PADDLEWHEELS, AND 2551 INSERTION MAGMETERS					
Code Insertion Depth Nominal Pipe Size					

For smaller diameter Schedule 80 PVC pipelines Signet offer off the shelf installation fittings which meet this requirement. For other materials, configurations, and pipe diameters a variety of installation options are available.

Flow meters are available with differing insertion depths to suit the pipe diameter.

PO	51mm	up to DN100
P1	84mm	DN100 to DN200
P2	160mm	DN250 and above

For plastic, and other pipes with thicker walls, it is sometimes necessary to use a longer sensor.

SCHEDULE 80 PVC TEES			
	Code	Size	
Tee	SGPV8T005F	15mm	
	SGPV8T010F	25mm	
	SGPV8T012F	32mm	
	SGPV8T015F	40mm	
	SGPV8T020	50mm	

Suit Schedule 80 PVC Pipework. 80 and 100mm sizes compatible with NZS PVC Pipe

PVC CLAMP-ON SADDLES			
	Code	Size	
Clamp-on	SGPV8S030	80mm	
Saddle	SGPV8S040	100mm	
	SGPV8S060	150mm	

Suit Schedule 80 PVC Pipework. 80 and 100mm sizes compatible with NZS PVC Pipe

PP ADAPTOR INSERTS				
			Code	
For larger pipe diameters it is necessary to use either a conventional saddle, or weld-olet, in conjunction with a threaded	A @	Suit PO Length Sensor, and 32mm Female BSP Saddle	SGI515P0/032	
adaptor. For plastic pipes the Alprene saddles from Asmuss are ideal. Some machining may be required.		Suit P1 Length Sensor, and 50mm Female BSP Saddle	SGI515P1/050	
Note: Inserts only. Saddles are sold separately.		Suit P2 Length Sensor, and 50mm Female BSP Saddle	SGI515P2/050	