

+GF+ SIGNET 3000-5 Irrigation Flow Sensor



Features

- Innovative ceramic bearing designed to withstand gritty water
- Advanced digital engineering
- Can be mounted at any angle
- One moving part
- Snap-on replacement rotor: no special tools
- Low cost of Ownership

Application

- Flow rate and total volume of well water at irrigation sites

Description

The +GF+ SIGNET 3000-5 Irrigation Flow Sensor offers a reliable, accurate means for measuring well water usage in irrigation systems. The innovative ceramic bearing design supports a free-spinning rotor for a typical season in gritty conditions . . . even longer in clean water.

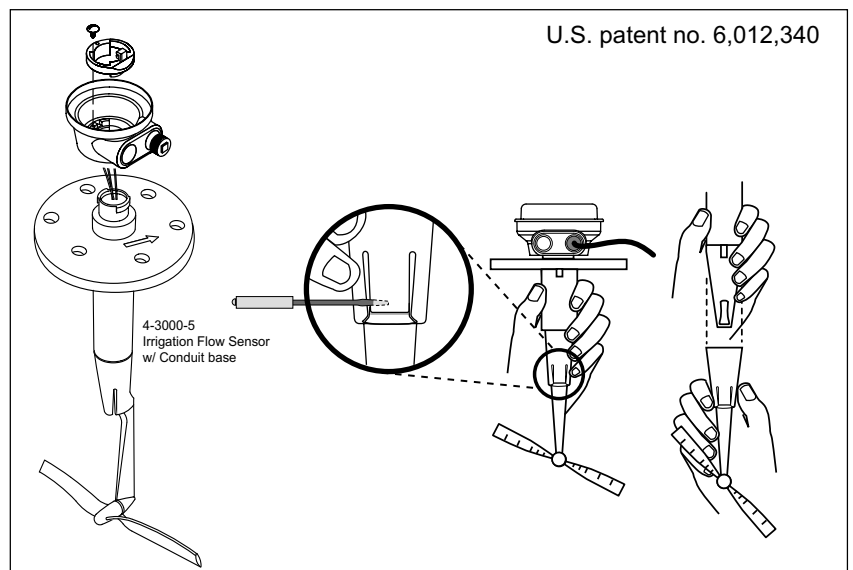
As the rotor blade passes the base of the unit an electromagnetic signal is transmitted from the rotor tip directly to

the sealed pickup within the sensor. Flow rate and total flow volume are calculated and displayed on the +GF+ SIGNET 8150 battery-powered Totalizer. Other instrumentation options are also available.

Take a serious look at the 3000-5 Irrigation Flow Sensor and you will find that it offers significant advantages over traditional irrigation measurement technologies.

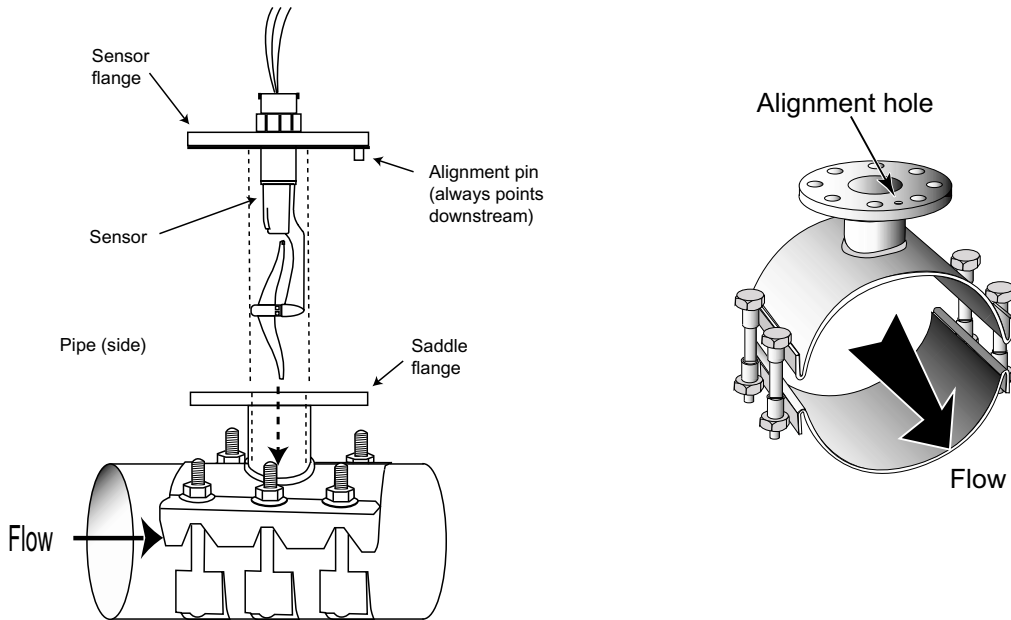
Technical Features

- 2½ in. hole accomodates installation into any pipe size.
- Simple installation with a strap-on saddle
- Pre-fitted for 6 in., 8 in., 10 in. and 12 in. flanged saddle or weldolet
- Sensor can be mounted at any angle
- Rotor design with one interchangeable moving part
- Snap-on rotor replacement (no special tools required)
- No recalibration required after routine maintenance



Installation

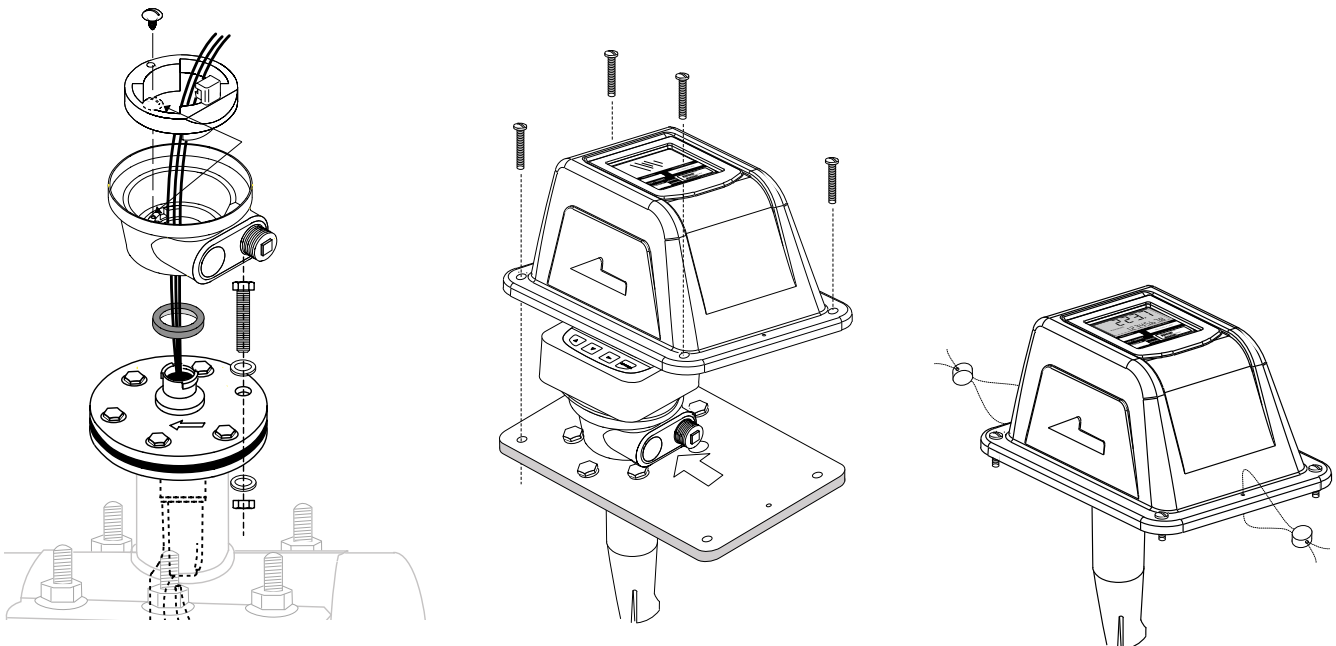
1. Cut a 2-1/2 inch hole in the pipe.
2. Install a pre-fitted saddle or weld-on flange onto the pipe.
Signet installation fittings locate the rotor near the centerline of 6, 8, 10 and 12 inch pipes.
3. Install the Irrigation sensor into pipe and bolt the sensor flange to the saddle or weldolet flange.
4. The downstream alignment pin helps point the rotor into the flow.



The +GF+ SIGNET Irrigation sensor outputs a low-frequency pulse. When connected to the +GF+ SIGNET 8150 totalizer, the system can be calibrated on site according to any local agency reference standard.

Once the calibration is complete, secure the totalizer inside the optional Outer Cover Assembly for protection against the elements. The cover is drilled to allow managers and monitoring agencies to attach tamper-proof seals. The totalizer display is always visible through the cover window.

The Signet totalizer displays flow rate, flow total volume (in resettable and permanent displays) and a unique elapsed-time counter that shows the hours since the end of the irrigation cycle.



Technical Data

General

- Operating Range: 1 ft/s minimum to 20 ft/s maximum
- Typical Flow Rates:
 - 6 in. pipe: 88 to 1,761 gpm
 - 8 in. pipe: 157 to 3,132 gpm
 - 10 in. pipe: 245 to 4,893 gpm
 - 12 in. pipe: 352 to 7,046 gpm
- Repeatability: $\pm 0.5\%$ of maximum range
- Accuracy: $\pm 2\%$ of reading
- Pipe Size Range: 6, 8, 10, and 12 in. (larger sizes with custom K-Factors)
- Cable Length: 100 ft. max. (customer supplied)
- Cable Type: 2-conductor shielded twisted pair
- Rotor Diameter: 5 in.

Wetted Materials:

- Sensor Body: PC/PBT Alloy
- Rotor (propeller) Assembly: PC/PBT Alloy and Acetal
- Sensor Flange: A-36 Cold Roll Steel with Galvanized Coating
- Sensor Gasket: Poron Cellular Urethane
- Rotor Bearing and Shaft: Ceramic
- Rotor Face Seal: 316 SS

Electrical:

- Supply Voltage: 3.5 to 27 VDC
- Supply Current:
 - <20 μ A with sensor powered with 3.5-5 VDC
 - <3mA with sensor powered with 5-27 VDC
- Signal Output: Open collector transistor, sink,max. pullup voltage 27 VDC (transistor normally off)
- Max. Open-Collector Current Out: 20 mA
- Output Pulse Width: 3 msec. nominal

Fluid Conditions:

Irrigation Sensor Maximum Pressure/Temperature Ratings:

- 150 psi max @ 68 F
- 32 psi max @ 140 F

Quality Standards:

- Manufactured under ISO 9001 and 14001
- Conforms with EN55082-1

Application Note:

SIGNET will not be responsible for the performance of the irrigation Sensor in applications where organic or inorganic materials (including but not limited to reeds, grasses, algae, hair or string) are present in the water stream nor in applications where silt, clay or any other adhesive materials may coat the surfaces of the rotor assembly.

We will continue to stand behind our warranty regarding manufacturing defect as we do with all of our products.

Ordering Information

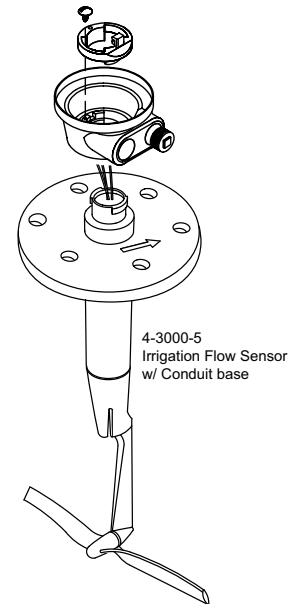
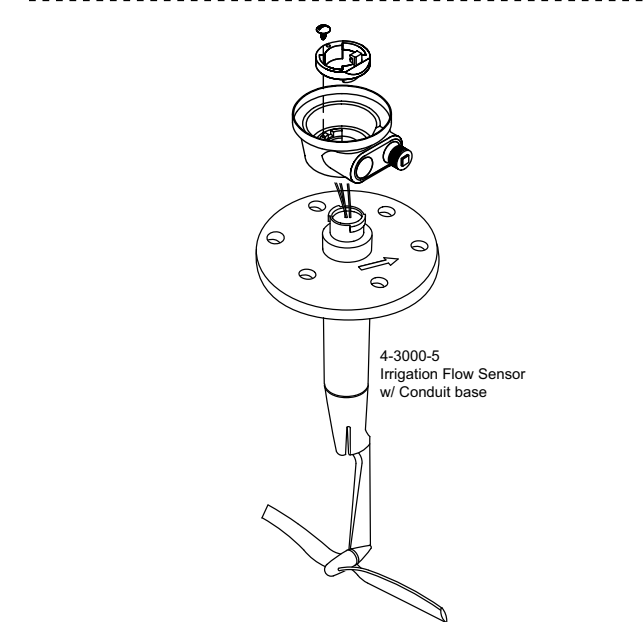
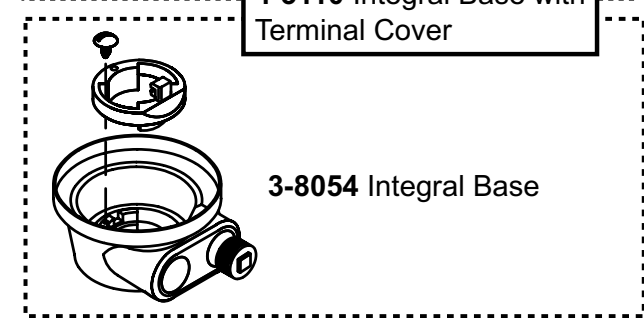
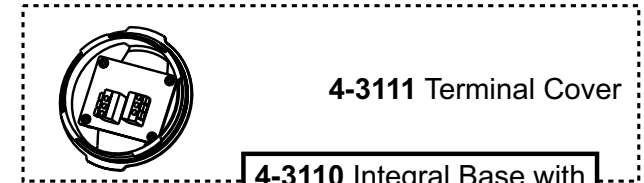
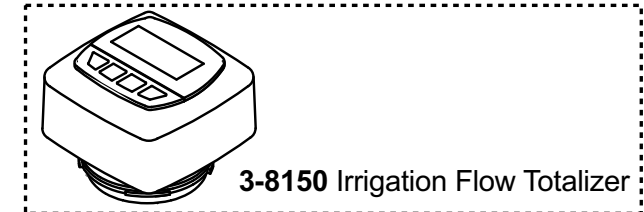
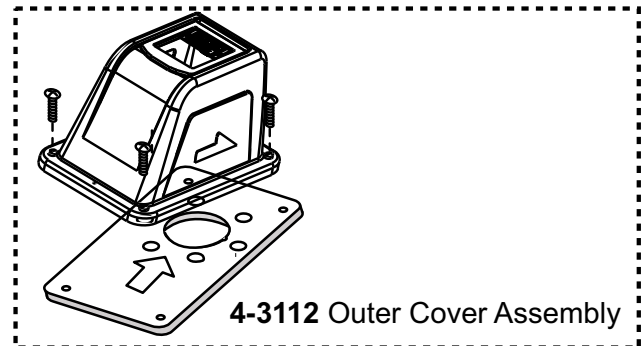
Mfr. Part No.	Description
4-3000-5	Irrigation Flow Sensor w/Integral Base
3-8150	Irrigation Flow Totalizer

Totalizer Parts and Accessories

Mfr. Part No.	Description
3-8050	Universal Mounting Kit
4-3110	Integral Base with Terminal Cover
4-3111	Terminal Cover
4-3112	Outer Cover Assembly
3-8054	Integral Base
3-9000.392-1	Liquid Tight Connector
5523-0222	Cable, Two-conductor Shielded, 22AWG, black, red, shield (per ft.)
7400-0011	Lithium Battery, 3.6V, Size AA

Sensor Parts and Accessories

Mfr. Part No.	Description
4-3000.566	Saddle, Irrigation, 6-inch O.D.
4-3000.568	Saddle, Irrigation, 8-inch O.D.
4-3000.570	Saddle, Irrigation, 10-inch O.D.
4-3000.572	Saddle, Irrigation, 12-inch O.D.
4-3000.566-W	Weldolet, Irrigation, 6 in.
4-3000.568-W	Weldolet, Irrigation, 8 in.
4-3000.570-W	Weldolet, Irrigation, 10 in.
4-3000.572-W	Weldolet, Irrigation, 12 in. and up
4-3000.390	Rotor kit, Irrigation sensor
4-3000.392	Cap-off kit, Irrigation saddle
4-3000.575	Irrigation saddle flange gasket



+GF+ SIGNET

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For Worldwide Sales and Service, visit our website: www.gfsignet.com

