

GF Signet 3350

Full-Feature Transit-Time Ultrasonic Flow Meter System at an Affordable Price

The GF Signet 3350 is a state-of-the-art, economical alternative to magnetic, vortex and differential pressure transmitters. Advanced microprocessing detection methods combine with a versatile design to provide accurate and obstructionless flow measurement of clean water applications. The GF Signet 3350 features high reliability and accuracy (up to 0.5%), and long-term maintenance-free operation. Programming the GF Signet 3350 is simple via the front panel keypad; no PC is required for setup. The instrument features a high-resolution, 2-line, backlit display and signal quality indication. The non-intrusive, clamp-on sensors are quickly installed without interrupting process flows or incurring pressure loss.

Features

- **Flexible output options** – Analog output, totalizer pulse, relay outputs all included as standard options
- **Fast and easy installation** – Simple, menu-driven user interface enables quick setup without need to connect to a laptop PC
- **Compact and lightweight** – Incorporates the latest LSI technology for compact, rugged design. Meter weighs less than 2 lbs
- **Quick response** – Ultra-fast transit-time processing (200 ms) suits high-speed batch processing measurements
- **Multilingual** – Instrument setup and display supported in English, Spanish, German, French and Japanese
- **Superior temperature compensation** – Proprietary temperature and pressure compensation system completely eliminates error created by process temperature and pressure fluctuations

Performance Specifications for the Converter

Fluid Conditions

Measured fluid Homogeneous liquids with minimal aeration (water, sea water, hydrocarbons or fluid with unknown sound velocity) capable of ultrasonic wave propagation

Fluid turbidity 10000 deg. (mg/l) or less

State of flow Well developed turbulent or laminar flow in full pipe

Fluid temperature -4 to 212°F (-20 to 100°C)

Velocity range 0.010 to 33 ft/sec (0 to 10 m/sec) bi-directional flow

Piping Conditions

Pipe material Carbon steel, stainless steel, cast iron, copper, PVC, aluminum, FRP, PEEK, PVDF, PTFE, PFA and other

Pipe size 1.0 to 9.0 in. (25 to 225mm)

Lining material Tar, epoxy, mortar, rubber, other, none

Measurement Accuracy

Accuracy ± 0.04 m/s (<2 m/s, 2 to 9 in. dia);

± 0.06 m/s (<2 m/s, 1 to 1-1/2 in. dia);

$\pm 2\%$ of rate (>2 m/s, 2 to 9 in. dia);

$\pm 3\%$ of rate (>2 m/s, 1 to 1-1/2 in. dia)

Linearity $\pm 0.1\%$ of scale

Repeatability 0.5% or better

Functional Specifications for the Converter

Power supply 100 to 120 VAC $\pm 10\%$, 50/60 Hz; 200 to 240 VAC $\pm 10\%$, 50/60 Hz

Power consumption Approx. 10 VA/5W (DC)

LCD display 2 line, 16 character per line, backlight

LED display 2 color, green/red, signal quality

Keypad 4-key, full menu-driven setup functionality

Response time 200 ms or less

Analog output signal 4 to 20mA DC, multirange, fully programmable

Digital output signal Digital output 2 mechanical relay, 1 point with socket.

Normal open/close selectable, capacity 220 VAC/30 VDC, 1 Amp. Total pulse range: 1 pulse per day to 1 pulse per second. Digital output: 1 open collector transistor, 1 point. Normal on/off selectable, capacity 30 VDC, 0.1 Amp. Total pulse range: 1 pulse per day to 100 pps.

Key Features

- **Flexible output options**
- **Fast and easy installation**
- **Compact and lightweight**
- **Quick response**
- **Multilingual**
- **Superior temperature compensation**



GF Signet 3350 Ultrasonic Flow Meter

Specifications (continued)

Digital output functions Forward/reverse totalizer pulse, flow switch high/low, forward/reverse total alarm and overflow, reverse flow detected

Display language English, French, German, Spanish and Japanese

Measurement display screen System units: English or metric, keypad selectable. LCD display: Configurable from keypad, select from among forward totalizer value, reverse totalizer value, flow velocity, output range percentage and flow rate. Velocity/flow rate display: 7 digits. Velocity units: English (ft/sec), metric (m/sec). Flow rate units: English (gal/sec, gal/min, gal/hr, kgal/hr, Mgal/d, ft³/sec, ft³/min, ft³/hr, Mft³/d, BBL/sec, BBL/min, BBL/hr, MBBL/d), Metric (L/sec, L/min, L/hr, kL/hr, ML/d, m³/sec, m³/min, m³/hr, Mm³/d, BBL/sec, BBL/hr, BBL/min, MBBL/d). Totalizer display: 7 digits. Totalizer units English (gal, kgal, ft³, kft³, Mft³, mBBL, BBL, kBBL, ACRE-in, ACRE-ft), Metric (mL, L, m³, km³, Mm³, mBBL, BBL, kBBL). Zero adjustment: Automatic or manual zero flow reference setting, keypad selectable. Damping function: 0 to 100 sec, keypad selectable. Low flow cutoff: 0 to 16.4 ft/sec

(0 to 5 m/sec). Burnout function: Analog output, hold/overscale/underscale/zero, keypad selectable; Totalizer, hold/count, keypad selectable; Working timer, 0 to 100 sec, keypad selectable

Physical Specifications for the Converter

Ambient temperature -4 to 140°F (-20 to 60°C)

Ambient humidity Less than 90% RH

Enclosure ABS Plastic

Environmental rating NEMA-4 (IP65)

Dimensions (HxWxD) 5.5 x 5.1 x 2.68 in. (140 x 139 x 68mm)

Weight 1.76 lbs. (0.8 kg)

Detector Model 3550

Mounting method Detector mounting on outside of pipe via steel bands, nylon belts, or steel wire

Straight pipe length Upstream side: 10D or more recommended. downstream side: 5D or more recommended (Calibrated system conditions include a minimum

of 10 inner pipe diameters of upstream straight pipe run and a minimum of 5 inner pipe diameters of downstream pipe run. Longer runs may be necessary due to pipe configurations.)

Signal cable RG-58, RG-58A/U, 3D2V

Cable length Standard length 16 ft., maximum length 100 ft. (30m)

Connection Converter: internal screw.

Detector: BNC (female)

Operating characteristics (pipe diameter range/temperature range)

3550.100: 1.0 to 4.0 in (25 to 100mm)/-4 to 212°F (-20 to 100°C). 3550.200: 2.0 to 9.0 in (50 to 225mm)/-4 to 212°F (-20 to 100°C)

Ambient temperature range -4 to 212°F (-20 to 100°C)

Environmental rating IP65

Material 3550.100 and 3550.200: Plastic PBT housing, stainless steel mounting bracket

Dimension (WxHxD)/Weight 3550.100: 9.45 x 1.10 x 2.00 in./0.7 lbs. (240 x 27.9 x 50.8mm/0.3 kg); 3550.200: 14.20 x 1.10 x 2.00 in./0.9 lbs. (360.7 x 27.9 x 50.8mm/0.4 kg)

We attempt to provide you with complete information in this catalog. Because of the specific nature of ultrasonic technology, we strongly recommend you contact us regarding application and availability before placing your order.

Ordering Information

Converters

Included in standard delivery: Converter, manual, pipe clamp kit

3-3350-1	GF Signet 3350 fixed transit-time flow meter converter, 110 VAC input	\$ 1,475
3-3350-2	GF Signet 3350 fixed transit-time flow meter converter, 220 VAC input	1,475

Detectors

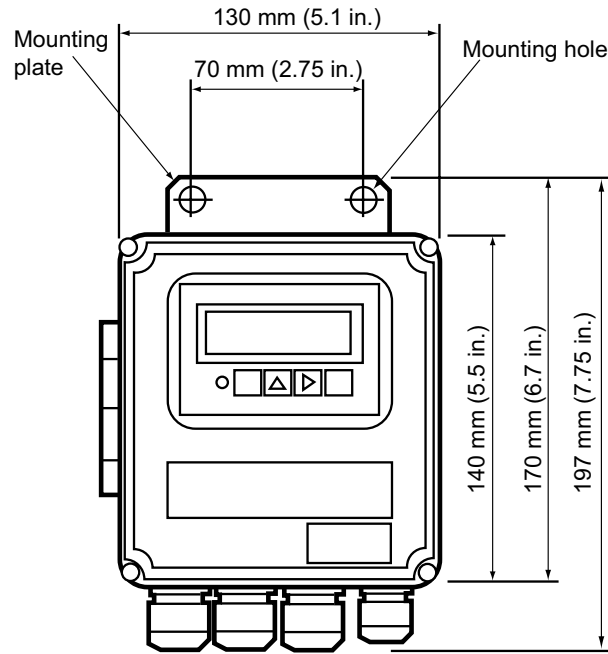
Each detector kit includes: Detector unit, 5m signal cable pair, mounting straps, 3.5 oz tube sonic coupling compound (silicone grease)

3-3550.100	2 MHz detector set, 1.0 to 4.0 in. pipe dia., -4 to 212°F	724
3-3550.200	2 MHz detector set, 2.0 to 9.0 in. pipe dia., -4 to 212°F	749

Accessories

3-3550.075	Pair of 50 ohm signal cables, 5 meters	75
3-3550.076	Pair of 50 ohm signal cables, 10 meters	150
3-3550.077	Pair of 50 ohm signal cables, 15 meters	225
3-3550.078	Pair of 50 ohm signal cables, 20 meters	300
3-3550.079	Pair of 50 ohm signal cables, 30 meters	450
3-3800-1000	Sonic coupling compound	15
3-3800-1001	Sonic coupling compound, silicone-free	35
3-3800-1002	RTV Compound	15

3350 Converter



3550.100 and 3550.200 Detector Sets

