



SIG Insertion Series Models / Specifications

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| Models | | |
|----------------|-------------------------------|---------------------------------------|
| Your Pipe Size | Insertion Models ¹ | Max Full Scale (SCFM) ^{2, 3} |
| 1" | SIG-05-12 | 200 |
| 1-1/4" | SIG-05-12 | 300 |
| 1-1/2" | SIG-05-12 | 470 |
| 2" | SIG-05-15 | 820 |
| 2-1/2" | SIG-05-15 | 1000 |
| 3" | SIG-05-15 | 1750 |
| 4" | SIG-05-15 | 3150 |
| 6"-14" | SIG-05-18 | 33,000 |
| 16"-24" | SIG-05-24 | 100,000 |
| 26"-36" | SIG-05-30 | 250,000 |
| >36" | Consult Factory | Consult Factory |

1 - "05" refers to probe diameter of 1/2". Optionally, 3/4" probes are available ("07"). The length of probe is typically 15 inches ("15") or 18 inches ("18")

2 - Max Full Scale available for many gases, such as pressurized Air or Nitrogen. Some gases such as Hydrogen may be limited. Contact Sage for details

3 - SCFM = Standard Cubic Feet Per Minute. 1 SCFM = 1.7 NCMH. Sage standard conditions for calibration are 70°F and 29.92" Hg. Note, Max Full Scale is based on a maximum Velocity of 35,000 Standard Feet Per Minute (SFPM)

Specifications

| General | |
|---------------------------------------|--|
| Function | Microprocessor-based Insertion Mass Flow Meters for gases |
| Flow Element | Constant Temperature Thermal Mass Flow Element consists of two 316 SS clad platinum-wound RTDs |
| Flow Rate Output Signal | 4-20 ma isolated output linearly proportional to mass flow rate or velocity |
| Temperature Output Signal | 4-20mA isolated linear temperature signal from 40°F to 200°F. (i.e. this product has both a flow and temperature output) |
| Power | 24 VDC with current dissipation of less than 350 ma with backlight on (less than 250 ma with backlight off), or 115VAC/230 VAC |
| Communication | RS232 Communication and Menuing Software (Sage VIP) |
| Sensor Drive Circuit | Proprietary Sensor Drive Circuit provides enhanced flow signal stability and insensitivity to process temperature changes |
| Display / Keypad | 2 Line 2 x 16 large format back-lit display with standard 4-Button Keypad. Flow Rate (top line), Total and Temperature (bottom line) |
| Menu Navigation | 4-Button Touch Screen Display Keypad and RS232 with navigational software (Sage VIP) standard. Touch Screen Display technology (the cover does not need to be opened to access Menuing System) |
| Multiple Channel Capability | Up to four totally independent calibrations. Calibrate for four different gases, different sensitivities, and/or different configurations (Channels A–D). Channels can be keypad, laptop or externally selectable (via contact closures) |
| Flow Range / Sizes | |
| Units of Measurement | Flow—SCFM, SCFH, SCFD, SCCM, NCMM, NCMH, KG/S, KG/M, KG/H, KG/D, LBS/S, LBS/M, LBS/H, LBS/D, SLPM, SLPH; Temperature—°C and °F; Velocity-SFPM, SFPS, NMPH (other combinations available) |
| Insertion Meters | Full Scale depends on pipe size. For example up to 1000 SCFM in a 2 1/2" pipe, but up to 100,000 SCFM in a 24" pipe |
| Performance | |
| Standard Flow Accuracy | +/-1% of Reading + 0.5% of Full Scale |
| Repeatability | 0.2% of Full Scale |
| Turndown | Up to 1000: 1 |
| Calibration | Sage Metering's National Institute of Standards Traceable (NIST) calibration facility |
| Gas Temperature | Std.: -40°F to 200°F (-40°C to 93°C); HT01: 200°F to 350°F (93°C to 177°C) |
| Integral Enclosure Temperature | 0° to 150°F (-18°C to 65°C). Contact Sage for lower temperature ranges. |
| Pressure Rating | 500 psig (1000 psig optional) |
| Response Time | 1 second (each time constant) for flow change |
| Relays | Two dry contact Relays suitable for Pulsed Outputs of Totalized Flow or configurable to Trip High or Trip Low |
| Wetted Parts | 316L Stainless Steel for Flow Bodies, Sensor Flow Elements and Flow Conditioners. Hastelloy (recommended for Chlorine Gas) and other materials optional |

**Limited
Warranty**

Sage Metering's Series of Thermal Mass Flow Meters are warranted against faulty materials or workmanship for one year from the date of delivery to the buyer. After issuance of a Return Meter Authorization (RMA) by Sage, and upon receipt of the defective meter, Sage will either repair or replace the defective meter at its sole option and at no cost to the purchaser

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