



SIP In-Line Models / Specifications

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Models		
Pipe Size x Flow Body Length ¹ or Flange (Face-to-Face)	In-Line Models	Max Full Scale (SCFM) ^{2, 3}
1/4" x 6"	SIP-025	8
3/8" x 6"	SIP-030	15
1/2" x 7"	SIP-050	30
3/4" x 7"	SIP-075	140
1" x 8"	SIP-100	200
1-1/4" x 10"	SIP-125	300
1-1/2" x 12"	SIP-150	470
2" x 12"	SIP-200	820
2-1/2" x 12"	SIP-250	1000
3" x 12"	SIP-300	1750
4" x 12"	SIP-400	3150

1 - Flow Conditioning built in to Flow Meter pipe sizes 3/4" and up

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. Calibrations above 500 SCFM may be extrapolated

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 In-Line 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 (ground based) output of Flow Rate and Pulsed Outputs of Totalized Flow (24 VDC Solid State Transistor Drive)
Pulsed Outputs	Pulsed Outputs of Totalized Flow (24 VDC Solid State Transistor Drive)
Power	24 VDC (15 VDC optional) with current dissipation of less than 100 ma, or 115VAC/230 VAC

Temperature	Optional 4-20 ma (non-isolated) and 1-5 VDC outputs proportional to Temperature instead of Flow Rate
Communication	Modbus ^R compliant RS485 RTU Communication
Sensor Drive Circuit	Proprietary Sensor Drive Circuit provides enhanced flow signal stability and insensitivity to process temperature changes
Display	Very High Contrast photo-emissive OLED display, visible even in bright sunlight
Flow Range / Sizes	
Units of Measurement	Flow-SCFM, SCFH, SCCM, NCMH, NCMH, KG/S, KG/M, KG/H, LBS/S, LBS/M, LBS/H, SLPM, SLPH, BTU/H; Temperature-°C and °F
In-Line Meters	Full Scale up to 3150 SCFM (4" Flow Meter). Resolve as low as .003 SCFM (1/4" Flow Meter). Male NPT fittings standard. 150# and 300# flanged ends optional
Performance	
Standard Flow Accuracy	+/-1% of Reading +0.5% of Full Scale over 100: 1 turndown. (Contact Sage for special accuracy)
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
Enclosure	Dual Sided Explosion Proof Enclosure with large, easy to access terminals in rear compartment
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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