



SIE In-Line Series 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"	SIE-025	8
3/8" x 6"	SIE-030	15
1/2" x 7"	SIE-050	30
3/4" x 7"	SIE-075	140
1" x 8"	SIE-100	200
1-1/4" x 10"	SIE-125	300
1-1/2" x 12"	SIE-150	470
2" x 12"	SIE-200	820
2-1/2" x 12"	SIE-250	1000
3" x 12"	SIE-300	1750
4" x 12"	SIE-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 isolated output linearly proportional to mass flow rate
Temperature Output Signal	Optionally configurable 4-20mA isolated linear temperature signal from 40°F to 200°F. Menu selectable in lieu of flow output
Power	24VDC (250 ma), or 115VAC or 230VAC (switchable)

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 small 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
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
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
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	One dry contact Relay 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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