

## Fast Response, High-Performance, Immersible Thermal Gas Mass Flow Meter

### Features

- Fast response flow meter ideal for gas mass flow measurement applications
- 200 millisecond response to changes in flow rate
- Smart electronics permit field adjustment of critical flow meter settings
- Field validation of flow meter calibration
- Outstanding rangeability
- Optional 2 x 12 backlit LCD display
- Minimal flow blockage and low pressure drop
- CE approved

**SIERRA**<sup>®</sup>  
**INSTRUMENTS**  
THE MASS FLOW COMPANY



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[www.sierrainstruments.com](http://www.sierrainstruments.com)

# Fast-Flo™ Model 620S



### Description

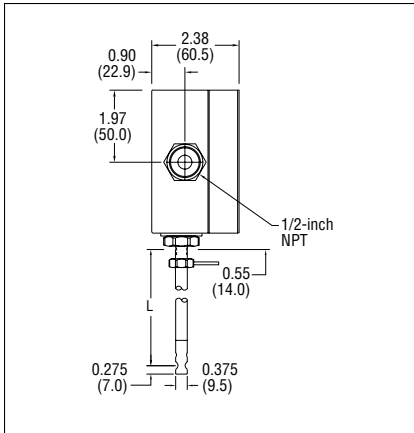
Sierra Instruments' Fast-Flo™ Model 620S Immersible Thermal Mass Flow Meter provides an economical solution for gas flow measurement applications. The meter's sensor offers long-term reliability and 200 millisecond response to changes in flow rate.

The versatile microprocessor-based transmitter integrates the functions of flow-range adjustment, meter validation and diagnostics in a probe-mounted NEMA 4X (IP65) housing. Mass flow rate and totalized flow, as well as other configuration variables, can be displayed on the meter's optional 2 x 12 backlit LCD panel.

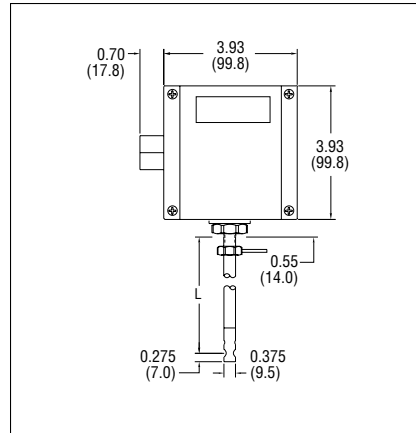
The meter also provides an optical/galvanic isolated 4-20 mA output and two alarm outputs. The programmable transmitter is easily configured via RS-232 and Sierra's Smart Interface™ Windows™ based software or three push buttons in the device. The Model 620S is suitable for pipes or ducts from 2-inches to 48-inches (DN50 to DN1200).

## Dimensional Specifications

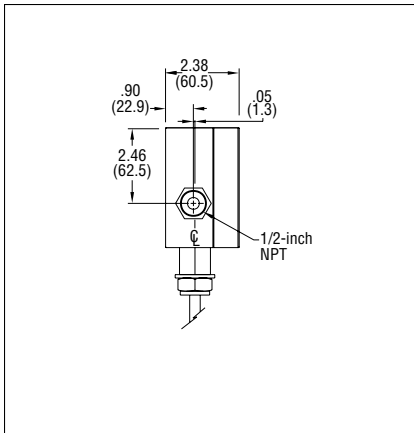
### NEMA 4X – Side View (EN2)



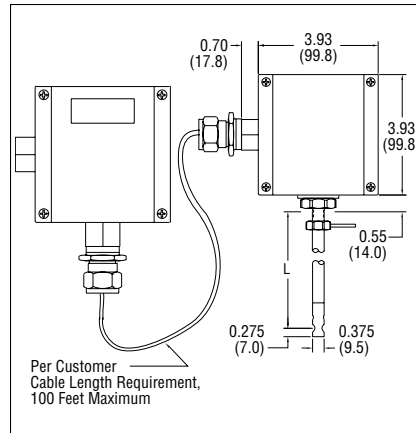
### NEMA 4X – Front View (EN2)



### NEMA 4X with Junction Box – Side View (EN4)



### NEMA 4X with Junction Box – Front View (EN4)



## Tables

Length Chart	
Code	L
L04	4.0 (101.6)
L06	6.0 (152.4)
L09	9.0 (228.6)
L13	13.0 (330.2)
L18	18.0 (457.2)
L24	24.0 (609.6)

## Performance Specifications

### Accuracy of Point Velocity

+/- 1% of full scale

### Repeatability

+/- 0.2% of full scale

### Temperature Coefficient

+/- 0.02% of reading per °F within +/- 50°F of customer specified conditions

+/- 0.03% of reading per °F within +/- 50°F to 100°F of customer specified conditions

+/- 0.04% of reading per °C within +/- 25°C of customer specified conditions

+/- 0.06% of reading per °C within +/- 25°C to 50°C of customer specified conditions

### Pressure Coefficient

.02% per psi for air, consult factory for other gases

### Response Time

200 milliseconds to 63% of final velocity value

## Operating Specifications

### Gases

Most non-corrosive gases

### Gas Pressure

120 psig (8 barg) maximum design pressure

### Pressure Drop

Negligible

### Gas & Ambient Temperature

Gas ..... -40° to 176°F (-40° to 80°C)

Ambient ..... -40° to 120°F (-40° to 50°C)

### Power Requirements

18 to 30 VDC (regulated), 625 mA maximum

### Output Signal

Linear 0–5 VDC or 0–10 VDC, 1000 ohms minimum load resistance or

Linear 4–20 mA proportional to mass flow rate,

700 ohms maximum resistance power supply dependent

User-selectable. Active non-galvanically separated or

passive galvanically separated (loop power required)

## Operating Specifications (cont.)

### Alarms

Hard contact user-adjustable high and low

Dead band adjustable with Smart Interface™ software

Relay ratings . . . . . Maximum 42 VAC or 42 VDC, 140 mA

### Displays

Alphanumeric 2 x 12 digit backlit LCD

Adjustable variables via on-board switches (password protected)

or with Smart Interface™ software

Adjustable variables. . Full scale (50 to 100 %)

Time Response (1 to 7 seconds)

Correction factor setting (0.5 to 5)

Zero and span

### Totalizer

Eight digits (9,999,999) in engineering units

Resettable by software, on-board switches or external magnet

### Software

Smart Interface™ Windows™-based software

Minimum 8 MB of RAM, preferred 16 MB of RAM

RS-232 communication

Additional features. . . Alarm dead band adjustment

Low flow cut-off adjustment

Linearization adjustment

Save / Load configurations

Flow meter validation

## Physical Specifications

### Wetted Material

Probe. . . . . 316SS

Sensor. . . . . 304SS, glass coating epoxy

### Enclosure

NEMA 4X (IP65) powder-coated cast aluminum

### Electrical Connections

One 1/2-inch female NPT

### Mounting (optional)

3/8-inch tube compression fitting with 1/2-inch male NPT

Weldolet

Flat Duct Bracket

Curved Duct Bracket

### Certifications

CE approved

## Ordering the Model 620S

