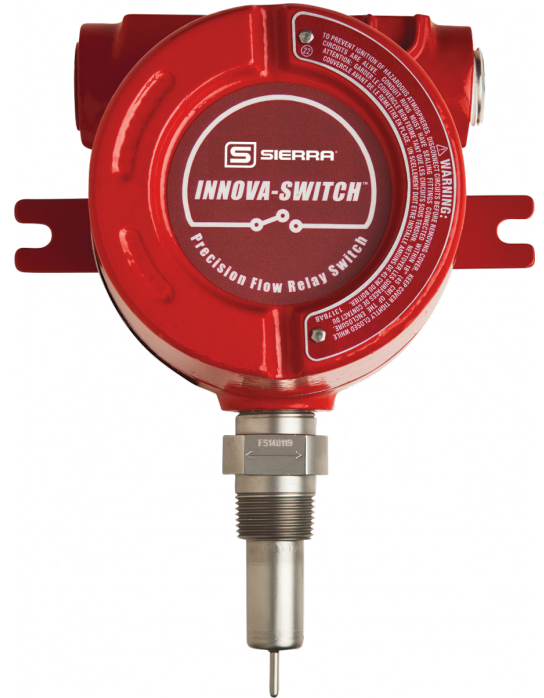


# Single Channel Mass Flow Switch

## FEATURES

- Mass flow switch for the detection of the mass flow rate of liquids and gases
- Wide operating temperature range -100°F to 390°F (-70°C to +200°C)
- Flow Switch range of 0.01 to 5 fps liquids and 0.1 to 500 fps gases
- Fast Flow switch response time of 0.5 to 10 seconds (media dependent)
- Standard CSA approvals

# INNOVA-SWITCH™



## DESCRIPTION

**S**ierra's InnoVaSwitch™ represents the state-of-the-art in gaseous flow switching, continuing the Sierra tradition of providing the highest quality mass flow meters and controllers in the industry.

Flow detection is accomplished by using a high-resolution thermal differential technique. The sensor consists of a pair of matched Resistance Temperature Detectors (RTD's). One RTD is self-heated using a constant DC current. The other RTD is unheated and provides an accurate process temperature reference. The thermal differential created between the reference and the heated RTD pair is a function of the density and/or velocity of the media with which the sensor is in contact. The sensor and welded parts are of durable 316L stainless steel, all welded construction with no moving parts.

The switch is easy to install and adjust, giving reliable, low maintenance performance in the most demanding applications.



## PERFORMANCE SPECIFICATIONS

### Operating Range

Flow Switch: Adjustable flow rate (feet per second-fps), typical: 0.01 to 5.0 fps liquids and 0.1 to 500 fps gases

### Response Time:

Flow Switch: 0.5 to 10 seconds (media dependent)

### Repeatability

+/- 1% of setpoint (Flow) or 1/32" (0.8mm) Level

### Stability

Drift <0.5% from calibrated setpoint over a range of +/-50F. Temperature compensated through entire range.

## OPERATING SPECIFICATIONS

### Operating Temperature

Standard Temp: -100°F to 390°F (-70°C to +200°C)

**NOTE:** For higher process temperatures, contact factory for availability

Electronics: -40°C to 60°C (-40°F to 140°F).

### Operating Pressure

to 3000 psia (207 bar)

### Input Power

110VAC standard

24VDC optional. 3.1 Watt maximum

### Output

5A. 250 VAC. DPDT with fail safe capability

## OPERATING SPECIFICATIONS (CONTINUED)

### Wetted Materials:

316 L SS, Hastelloy, Monel, Inconel or other materials optional

### Enclosure:

Explosion Proof; NEMA 3,4X,7,9. CSA, FM, UL, CENELEC and EECS approved

### Process Connection:

0.75" MNPT standard. 0.5" and larger MNPT and various other process connections such as sanitary and flanges optional

### Insertion Length:

2.0" standard. 6.0 inch, 12.0 inch optional

### Approvals

CSA

Class I, Div 1, Groups B, C and D;

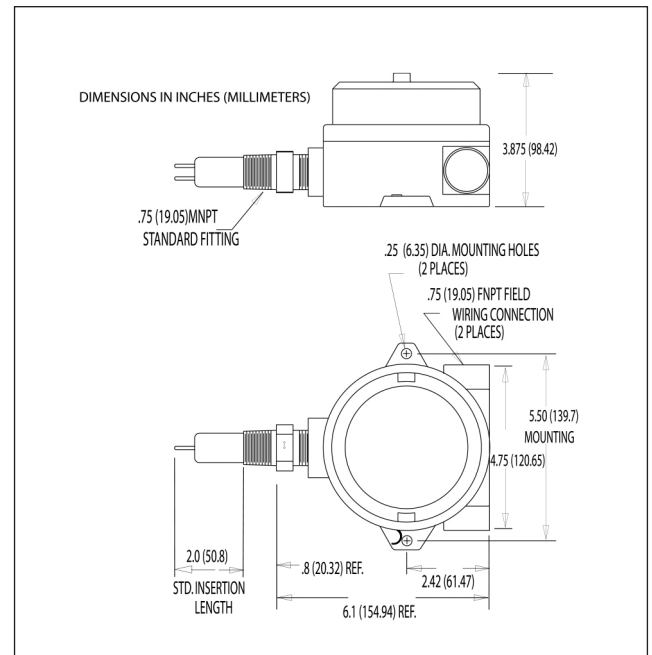
Class II, Div 1, Groups E, F and G;

Class III, Div 1; Type 4

**NOTE:** Contact factory for CE availability

## PHYSICAL SPECIFICATIONS

### Front and Side Views of InnovaSwitch



Instructions: To order an InnovaSwitch 615, please fill in each number block by selecting the codes from the corresponding features below.

Note: The "Parent" model number and one of each "Feature" must be specified. Example: 615-FS42-CS-S6-N06-2-110-LE

PARENT

FEATURES

	1	2	3	4	5	6
615-FS42						

Parent

615-FS42	InnovaSwitch™ Flow Switch
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**Feature 1: Approvals**

<b>CS</b>	CSA approved
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**Feature 2: Materials**

<b>S6</b>	316L SS
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**Feature 3: Mounting**

<b>N06</b>	0.75-inch MNPT (STD)
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**Feature 4: Insertion Length**

<b>2</b>	2.0-inch (50.8 mm) (STD)
<b>6</b>	6.0 inch (152.4 mm)
<b>12</b>	12.0 inch (304.8 mm)

**Feature 5: Power Input**

<b>110</b>	110 VAC
<b>24D</b>	24 VDC at 3 watts

**Feature 6: Electronics Enclosure**

<b>LE</b>	Local electronics (STD)
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**Measurably Different.®**

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