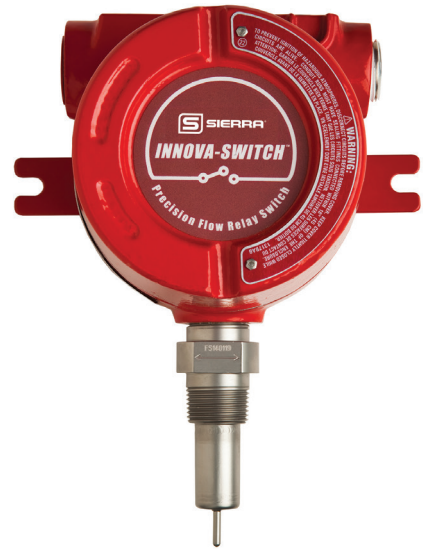


Single Channel Mass Flow Switch

FEATURES

- Mass flow switch for the detection of the mass flow rate of liquids and gases
- Wide operating temperature range -100°F to +850°F (-70°C to 458°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)
- CE, CENELEC and CSA approvals

INNOVA-SWITCH™



DESCRIPTION

Sierra's InnoVaSwitch™ represents the State-of-the-art in gaseous and 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.



www.sierrainstruments.com



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.

OPERATION SPECIFICATIONS

Operating Temperature:

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

Medium Temp (MT): 300°C max (572°F)

High Temp (HT): 458°C max (850°F)

Electronics: -40°C to 60°C (-40°F to 140°F). Optional remote electronics for use in medium and Hi T environments

Operating Pressure: to 3000 psia (207 bar)

Input Power:

115 VAC, 50/60Hz standard. 230 VAC, 50/60Hz optional,

24VDC optional. 3.1 Watt maximum

Output

5A. 250 VAC. DPDT with fail safe capability

PHYSICAL SPECIFICATIONS

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:

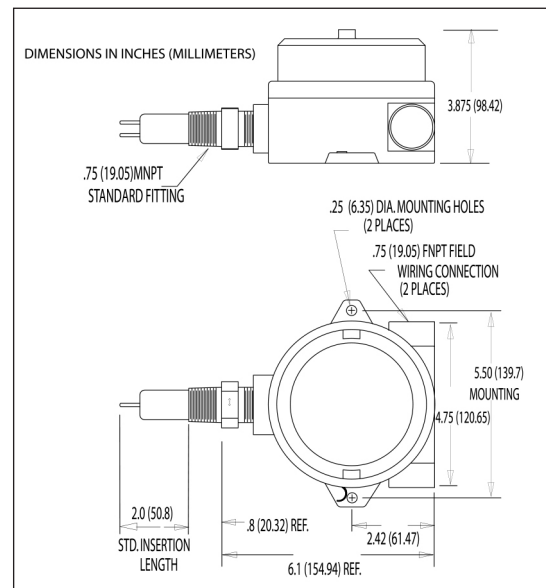
2.0" standard. 0.5" or greater optional

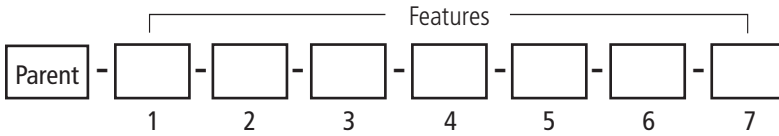
Approvals

CE, CSA, CENELEC Class 1 Div 1 Groups B,C,D

DIMENSIONS

Front and Side Views of InnovaSwitch





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

Parent Number	
615-FS42	InnovaSwitch™ Flow Switch

Feature 1: Approvals	
CS	CSA approved
NX	Non-explosion proof switch (STD)

Feature 2: Mounting	
3A1	1.5-inch Sanitary with 3A stamp
N06	0.75-inch MNPT (STD)
N04	0.50-inch MNPT
N08	1-inch MNPT
RA1-S6	Stainless steel raised face flange class 150 1 inch
RA2-S6	Stainless steel raised face flange class 150 2 inch
RB1	Stainless steel raised face flange class 300 1 inch
RB2	Stainless steel raised face flange class 300 2 inch

Feature 3: Materials	
S6	316L SS
S4	304SS
SL	304L SS
HC	Hastalloy® C
IO	Iconel 600
MN	Monel
A2	Alloy 20

Feature 4: Insertion Length	
2	2.0 inch (50.8 mm) (STD)
xxx.xx	0.5 inch to 120 inch (12.7 mm to 3048 mm) in .25 inch (6.35 mm) increments (example 20.25)

Feature 5: Power Input	
110	110 VAC
220	220 VAC
24D	24 VDC not available with HT Switch (615-FS42)

Feature 6: Configuration	
LE	Local electronics (STD)
RE	Remote Electronics (25 ft of cable). Note that MT and HT option MUST be RE and RE adder is included in the MT and HT price)

Feature 7: Special Options			
0	No special options	HT	High temperature (includes RE with 6-inch EN with no price adder)
CB	Calibration required (air, water only, all others consult factory)	RTD	RTD output
EN (X)	Extended neck (specify length up to 6 inches (152.4mm))	TO	Thermocouple output
XW	Explosion proof window	TG	Stainless steel tag
VI	Variable insertion (>3-inch pipe ID req), 3/4-inch NPT with Teflon ferrule . 15 psig (1.0 barg) max	CE	CE approval
MT	Medium temperature (includes RE with 3-inch EN with no price adder)		

