

Single Channel Mass Flow or Point Level Switch

FEATURES

- Mass flow switch for the detection of the mass flow rate of liquids and gases
- Point level switch for liquid level detection
- Wide operating temperature range -100°F to +850°F (-73.3°C to 454°C)
- Flow Switch range of 0.01 to 5 fps liquids and 0.1 to 500 fps gases
- Level Switch switches on level change 0.03 inch
- Fast Flow switch response time of 0.5 to 10 seconds (media dependent)
- Level switch response time of 0.1 to 1 second wetting (media dependent)
- CE, CENELEC and CSA approvals
- Buy Online, ships next day!

INNOVA-SWITCH™



DESCRIPTION

Sierra's InnoVaSwitch™ represents the State-of-the-art in gaseous and liquid flow switching or liquid State-of-the-art in gaseous and liquid flow switching or liquid level control and continues the Sierra tradition of providing the highest quality mass flow meters and controllers in the industry.

Flow and level 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 wetted 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.



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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
 Level Switch: Switch on level change of 0.03 inch

Response Time:
 Flow Switch: 0.5 to 10 seconds (media dependent)
 Level Switch: 0.1 to 1 second (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:
 Process: -73.3°C to 200°C (-100°F to 390°F) standard.
 Medium T to 300°C (572°F) optional
 Hi T to 454°C (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

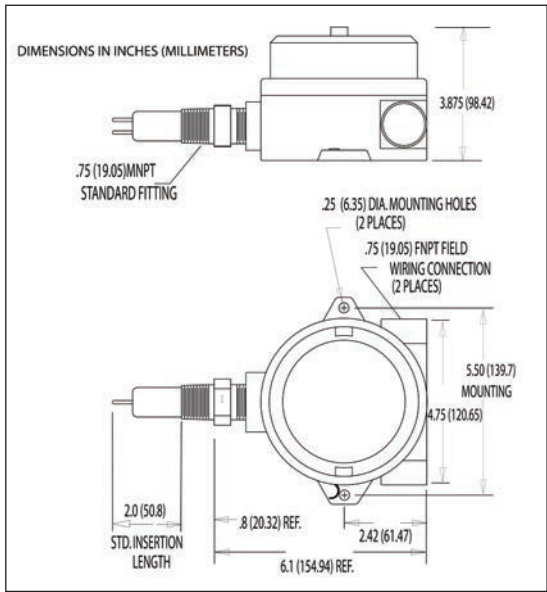
Process Connection:
 0.75" MNPT standard. 0.5" and larger MNPT and various other process connections such as sanitary and flanges optional

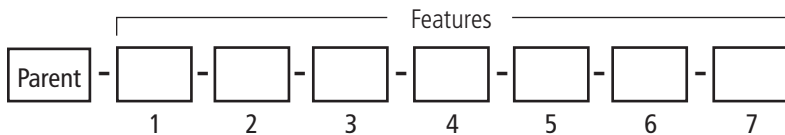
Insertion Length:
 2.0" standard. 0.5" or greater optional

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-LS32	InnovaSwitch LEVEL Switch
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
75	0.75-inch MNPT (STD)
50	0.50-inch MNPT
100	1-inch MNPT
RA1	Stainless steel raised face flange class 150 1 inch
RA2	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
SPL	Special
LFS	Low flow sensor

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

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	2.0 inch (50.8 mm) (STD)
220	0.5 inch to 120 inch (12.7 mm to 3048 mm) in .25 inch (6.35 mm) increments (example 20.25)
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)
PC	Potted cable (not Ex Proof)

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	Extended neck (specify length up to 6 inches (152.4mm))	TO	Thermocouple output
XW	Explosion proof window	CA	Additional cable
VI	Variable insertion (>3-inch pipe ID req), 3/4-inch NPT with Teflon ferrules. 15 psig (1.0 barg) max	TG	Stainless steel tag
LT	Live (hot) tap	CE	CE approval
DS	Double sided	O₂ Cleaning	O ₂ Cleaning
MT	Medium temperature (includes RE with 3-inch EN with no price adder)		

