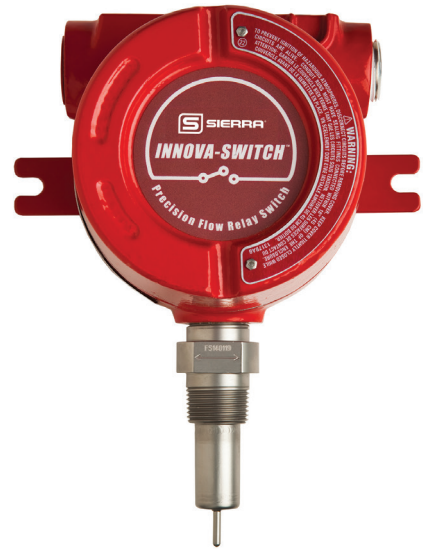


Single Channel Mass Flow or Point Level Switch

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.



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
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:

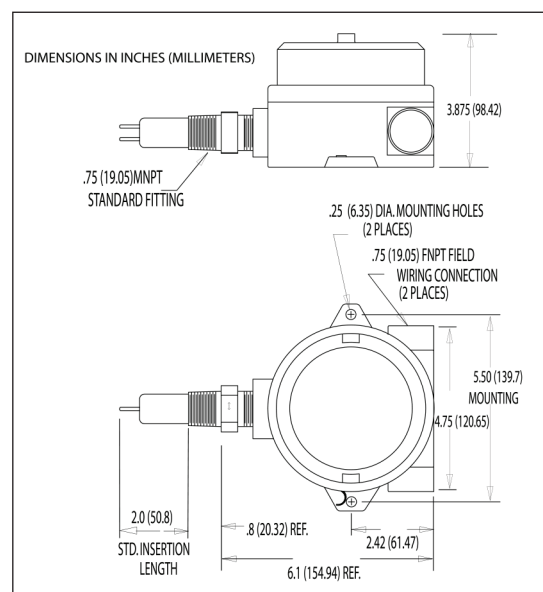
2.0" standard. 0.5" or greater optional

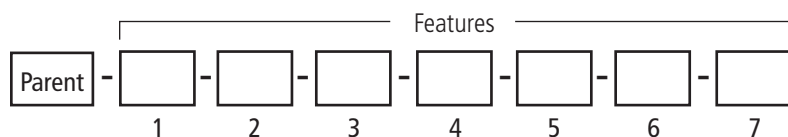
Approvals

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 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 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 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) | | |

