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!



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DESCRIPTION

ierra's InnovaSwitch[™] represents the State-ofthe-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 selfheated 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.

2 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.

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

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

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	
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	
SPL	Special	
LFS	Low flow sensor	

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

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

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 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)	
РС	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)
СВ	Calibration required (air, water only, all others consult factory)	RTD	RTD output
EN	Extended neck (specify length up to 6 inches (152.4mm))	то	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	0 ₂ Cleaning	Oxygen Cleaning
MT	Medium temperature (includes RE with 3-inch EN with no price adder)		

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