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ALTS
Thermal Flow & Level Switch

GENERAL

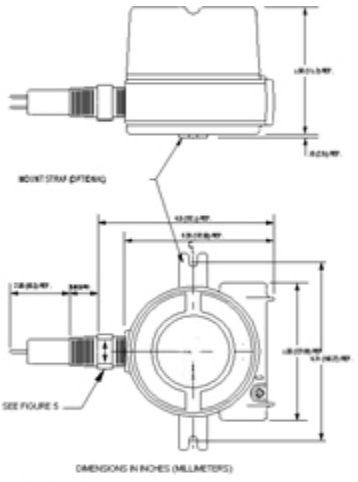
Smartmeasurement™ ALTS thermal switch represents the State-of-the-art in gas or liquid flow switching or liquid level controls. The ALTS provides the highest quality flow and level detection by using a high-resolution thermal differential technique. The sensor consists of a pair of matched Resistance Temperature Detectors (RTD's). One RTD is using a self-heated 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 stainl 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.

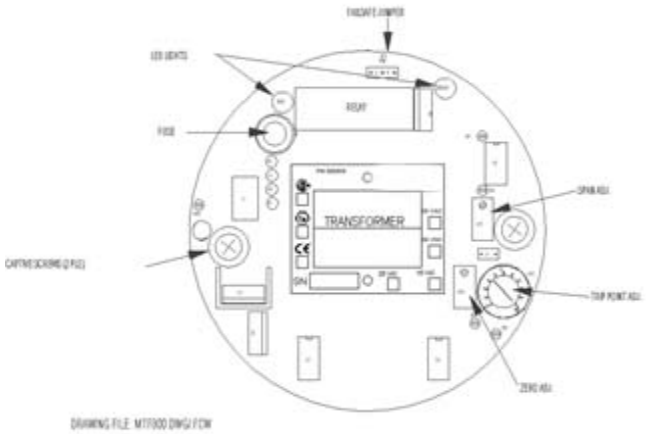
FEATURING

- Mass flow Switch for the detection of the mass flow rate of liquids and gases
- No moving parts and no leak paths, no O-rings or graph oil seals to ware, fail or leak.
- Point level switch for liquid level detection
- Wide operating temperature range -70C to 458C (-100F to +850F)
- Flow Switch range of 0 to 1.5 mps(5 fps) liquids and 0.07 to 150 mps (500 fps) gases
- Level Switch switches on level change0.076 cm (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 of wetting (media dependent)
- CE, CENELEC and CSA approvals
- Insertion length from 1.27cm to 100 cm

SPECIFICATION

- Process Connection : 0.75" MNPT standard.
  0.5 to larger MPNT, Sanitary and flanges optional
- Process temperature : -70C to 200C (-100F to 390F) standard
  Medium T to 300C (572F) and High T to 485C (850F)
- Operating pressure : to 207 bar (3000 psia)
- Velocity Range : Depends on fluids
  Liquids : 0 to 1.5 mps Adjustable flow rate
  Gas: 0.07 to 150 mps Adjustable flow rate
- Repeatability : +/- 1% of set point (Flow) or 1/32" (0.8mm) Level
- Material : 316 SS standard. Hastelloy, Monel, Inconel, etc.
- Housing protection : Explosion Proof; NEMA 3,4X,7,9
- Ex-protection : CSA, FM, UL, CENELEC and EECS approved
- Power requirements : 115 VAC, 50/60Hz or 230 VAC, 50/60Hz
  24VDC optional. 3.1 Watt maximum
  Electronics: -40C to 60C (-40F to 140F)
- Output: 5A. 250 VAC. DPDT with fail safe capability
- Insertion Length: 2.0" standard. 0.5" or greater optional
- Flow Switch: over a range of +/-10C.
  Temperature compensated through entire range.
- Stability: Drift <0.5% from calibrated set point





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ALTS **Procedures to specify ALTS Flow and Level switch**

You also need to provide the following information:

Type of liquid	**We need the name of your liquid, or gas**
Switch point settings	**Flow set point and units..**
Line Size	**we need to know your pipe size as well connection type (flange, threaded, etc..)**
Process Temperature	**We calibration your Flowmeter as close to your application as possible**
Type of Electronics	**Indicate if you want integral or remote mounted**
Power Requirements	**Specify your power requirements such as 24 VDC or 115 VAC or 230 VAC**

ALTS Thermal flow & level switches

ALTS-FS4200 flow switch		XX	XXXX	XXX		XX"	XXX	XXX		Description
ALTS-FS3200 - level switch		XX	XXXX	XXX		XX"	XXX	XXX		Description
CSA approvals	CSA									Agency Approvals
Cenelec Approvals	CNL									
No Approvals	NX									
0.75" MNPT (Standard)		0750								Process connection
0.5" MPNT		050								
1" MNPT		100								
Raised face flange 150# 1"		RA1								
Raised face flange 150# 2"		RA2								
Raised face flange 300# 1"		RB1								
Raised face flange 300# 2"		RB2								
Special		SPL								
Sanitary with 3A stamp		3A1								
316 SS (Std)			S6							Sensor Material
304 SS			S4							
304L SS			SL							
Hastelloy B			HB							
Hastelloy C			HC							
Inconel 600			IO							
Monel			MN							
Alloy 20			A2							
Special Material			SM							
Local Electronics				LE						Mounting
Remote electronics with 3 meter cable				RE						
2 inch standard					002.0					Insertion length
000.00 (0.5" and greater)					??					
24VDC						DC24				Power requirement
AC120						AC110				
AC220						AC220				
200-300C							NT			Temperature
300-458 C							HT			
Calibration required								CB		
Extended Neck (high temp)								EN		
Explosion Proof Window								XW		
Variable insertion								V1		
Hot Tap (live)								LT		
DS (double sided enclosure)								DS		
Thermocouple output								THM		
RTD output								RTD		
CE Approvals								CE		

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