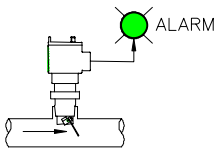
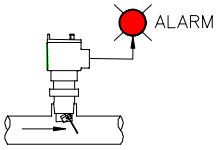
SERIES 600 HIGH RELIABILITY FLOW SWITCHES FOR USE IN CRITICAL INDUSTRIAL AND OFFSHORE APPLICATIONS

- Mechanical target type for simplicity and reliability
- Proven in high expectation industrial service for over 25 years
- No external supply power required
- Simple in principal and easily understood
- No seals, magnetically coupled; fireproof, leak proof, reliable
- Suitable for toxic, hazardous, and corrosive services
- Can analyze the presence of air, water, or oils in a pipeline
- Most existing series 600 are monitoring the flow of gases, chemicals, hydrocarbons, or water in services where a failure to switch properly could be serious or even catastrophic
- Service: -40 to 450°F (-40 to 230°C)
  -15 to 5000 PSIG (-1 to +345 bar)



DETECT LOSS OF FLOW IN LINE

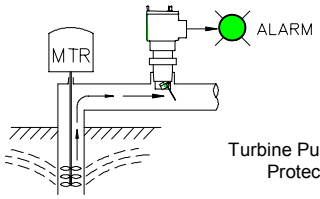
- Cooling Water
- Lubricating Oil
- Recirculation
- Combustion Air
- Product Transfer



DETECT INCREASE OF FLOW IN LINE

- Offshore Deluge Systems
- Fire Water, Seawater
- Flow in Blocked Lines
- Relief Valve Operating
- Safety Shower Usage

Model 622 – Inserted into pipeline for 1½" to 60" pipelines and ducts. Inserts through a welded on branch fitting (Thread-O-Let) or a pipeline tee. Used in general purpose service for detecting loss of adequate flow, or for alarming excessive flow.



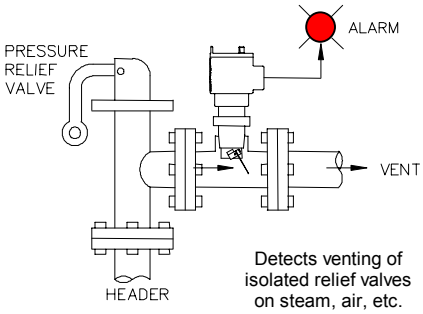
Turbine Pump Flow Protection

Model 621 – Inline body, general purpose for ½" to 8" pipelines; full size body mounts in pipeline; threaded, flanged or butt weld pipeline connections; for general purpose; to ANSI and ASME specs.

Model 624 – Negligible pressure drop at high velocities for 2" through 8" pipelines; similar to Model number 621, except target swings a full 90° and provides an unobstructed line bore.

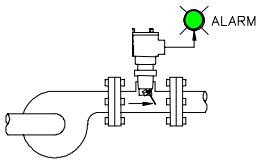
Model 623A – Extended range, detects and alarms the operation of safety showers and eye wash stations without causing high pressure drops

Model 623B – Monitors low flow rates in 1", 1 ½", and 2" pipelines. Can switch at low flow rates (1 gpm), yet the pressure drop remains low at 50 times that rate.



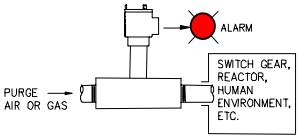
Detects venting of isolated relief valves on steam, air, etc.

Model 626 and 627 – Detects low flows, no added pressure drop for 2" through 8" pipelines; for detecting very low flows in larger pipelines; negligible pressure drop at 30 FPS velocity.



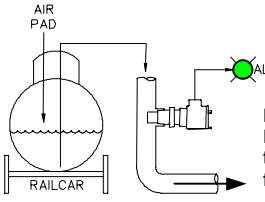
- Deluge Firewater
- Prevent Pump and Blower Damage Dueto Low Flow Conditions

Model 625 – Detects ultra low flows for 1/8" through 1" pipelines; for detection of ultra low flows in small pipelines; low pressure drop at 35 times detected flow rate; field adjustable.



Detect Loss of Purging in Hazardous or Corrosive Areas

Model 633 – Produces a simple analysis of what is in the pipeline; gas, oil, water, or a mixture. It can also detect an interface as it moves down the pipeline. Used to monitor container contents transfer, product seperation by decanting, settlement and water accumulations, etc.



Empty Pipeline or Railcar Fluid Switch. It senses that the pipeline fluid has changed from a liquid to a gas

SERIES 600 MECHANICAL FLOW SWITCHES
HIGHEST LEVEL OF SAFETY AND RELIABILITY
PRECALIBRATED TO YOUR SPECIFICATIONS

INLINE MOUNTING AS PART OF THE PIPELINE

NPT THREADED 621

The Model 621 target actuated flow switch is equipped with a body that fits directly in and becomes part of the pipeline. The inside body dimensions and end connections conform to those of the pipeline. These switches protect pumps, blowers, heat exchangers, etc.

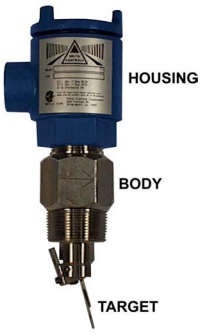
150# FLANGED 624

The Models 624, 626 and 627 have full open bores and produce negligible pressure loss at normal flow rates. All have equipped with a full swing target and have open bores matching that of the pipeline. Pressure loss is essentially the same as the pipe length.

4" MONEL 626

The Model 626 and 627 are equipped with a "fitted" target that nearly fills the inside area of the in-line pipeline body at low to "no" flow rates. The target is the "full swing" type and swings back to rest against the inside of the pipeline, resulting in a fully open pipeline.

DIRECT INSERTED



The Model 622 produces on/off switching action in response to liquid or gas flow rates in horizontal or vertical pipelines and ducts. It can be mounted through a tee, flanged nozzle, or threaded coupling. The flow rate switch point is precalibrated by the factory for the specified installation and service requirements.

SWITCHES FOR VERY LOW AND ULTRA LOW FLOWS
DETECTS LOW FLOWS WITHOUT CAUSING HIGH PRESSURE DROPS

1" NPT THREADED 623

The Model 623 extended range flow switch that actuates at very low flow rates yet does not produce unacceptably high pressure drops at 50 times the actuation rate.

1" 150# R.F. FLANGED 625

1/2" NPT BARSTOCK 625

The Model 625 produces on/off switching action at ultra low flow rates. It is used for flow protection, safety monitoring, purging for explosion proofing, etc. The switch point is field settable. This is done by adjusting a built-in bypass port.

MODEL 633 FLUID DETECTION SWITCH

1 1/2" NPT INSERTED 633

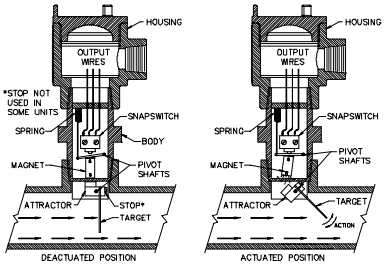
The Model 633 Fluid Switch performs a simple analysis to determine if the fluid in a pipeline is a gas, oil, water, or a mixture. It can have from 1 to 4 SPDT contacts and/or a 4-20mA output signals.

BASIC OPERATING PRINCIPLE

A target operates an output switch at the set point flow rate. Units are factory calibrated to switch at the specified flow rate. An internal adjustment allows small switch point changes to be made in the field. Large changes require changing the size of the target.

Connection of the target to the output switch is done magnetically. A heavy-duty solid sealing tube separates the process fluid from the switch mechanism. Thin diaphragms, o-rings, etc. are not relied on.

A pivoted target extends down into the flowing stream. The flowing fluid creates a force as it strikes the target. At a predetermined velocity, the force becomes great enough to cause the target and the attractor to rotate about the pivot point. The magnet reacts to the new attractor position and the output switch operates. The target rotates back to its original position as the flow decreases; and the output switch then returns to its original position.



SPECIFICATIONS

Actuation Point: Within 5% or 10%
Housing: Class 1, Div 1, Groups BCD, X-Proof, also 4X. IP67 Third Party Listed by CSA NRTL/C (USA & Canada).
Wetted Materials: Bronze, Steel, Stainless Steel, Alloy 20, Monel, Hastelloy "C"®, etc.
Pressure: To 5000 PSIG (350 BAR)
Temperature: -50 to +450°F (-45 to 230°C)
Viscosity: Up to 100 cp maximum

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585 Fortson Street
Shreveport, La. 71107 - USA

APPROVED QUALITY SYSTEM ISO 9001

Voice: 318-424-8471
Fax: 318-425-2421
E-mail: delta@deltacnt.com
Web Site: http://www.deltacnt.com