Tuffy Liquid Level Controls with Pneumatic Switch

DESCRIPTION

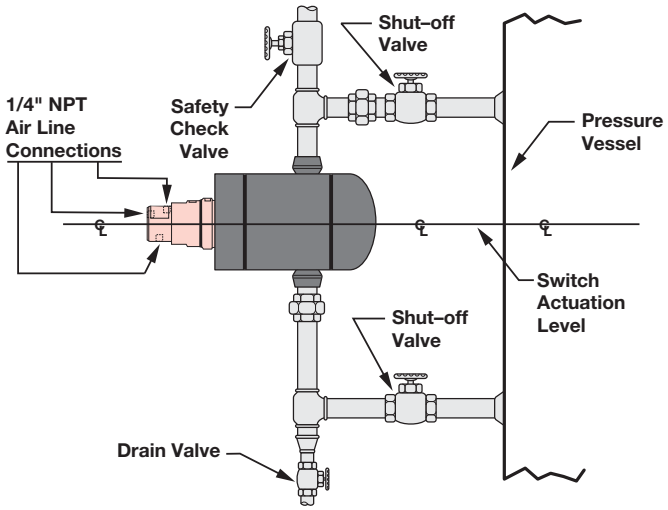
The Pneumatic Tuffy Liquid Level Switch is designed for horizontal mounting in a tank or vessel through threaded or flanged pipe connections. The single pneumatic switch mechanism is used for high or low level alarm or control applications.



FEATURES

- All 316 SS wetted components
- Cage pressures to 2200 psig (151 bar)
- NACE and/or ASME B31.3 construction
- Specific gravity as low as 0.40
- 2" NPT mounting
- Process temperatures
  from -40° to +300° F (-40° to +149° C)

TYPICAL INSTALLATION



OPTIONS

- Commercially constructed external cage with two 1" NPT top and bottom connections
- ANSI flanges
- NACE or ASME B31.3 external cage with two 1" NPT top and bottom connections available.
  Consult factory

APPLICATIONS

- Sour service (NACE)
- High/low alarm
- Day storage tanks
- Clean liquids
- Process vessels

PRINCIPLE OF OPERATION

Figures 1 and 2 illustrate the simple Magnetrol operating principle. Switching action is obtained through the use of a magnet which is attached to a float and a switching mechanism. These two basic component assemblies are separated by a non-magnetic, pressure tight barrier

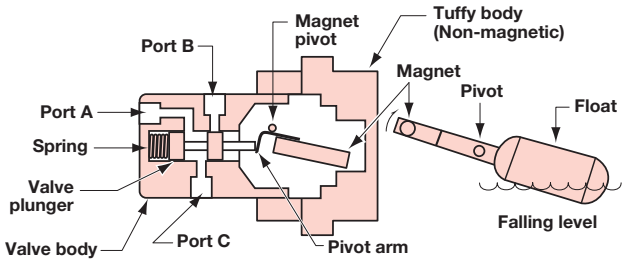


Figure 1
Low Level

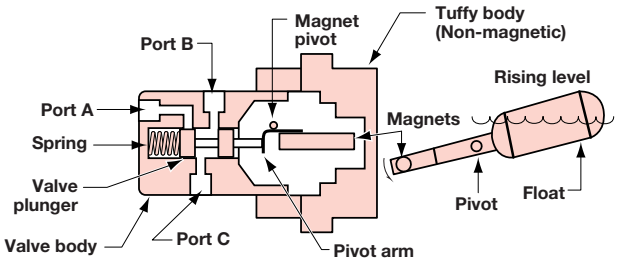


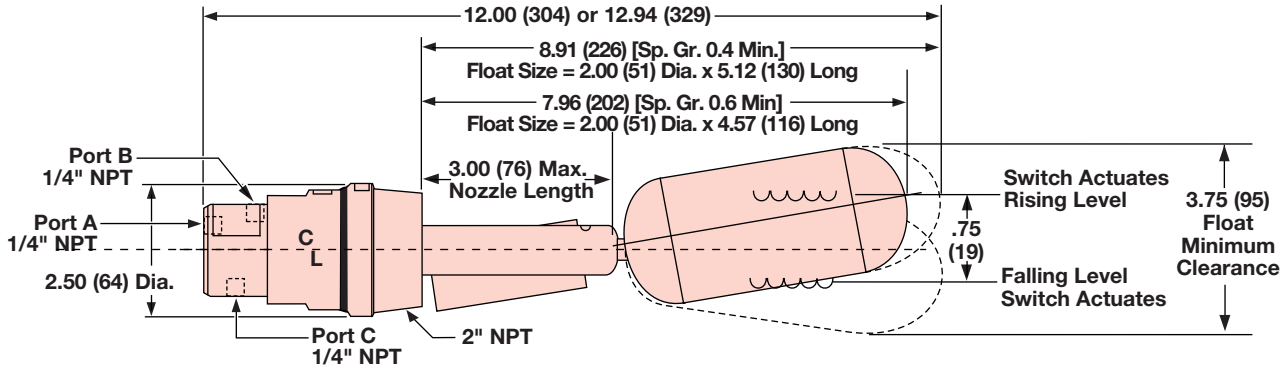
Figure 2
High Level

Port	3-way		Diverter	Selector	2-way	
	N.O.	N.C.			N.O.	N.C.
A	Inlet	Exhaust	Outlet	Inlet	Inlet	Plug
B	Exhaust	Inlet	Outlet	Inlet	Plug	Inlet
C	Outlet	Outlet	Inlet	Outlet	Outlet	Outlet

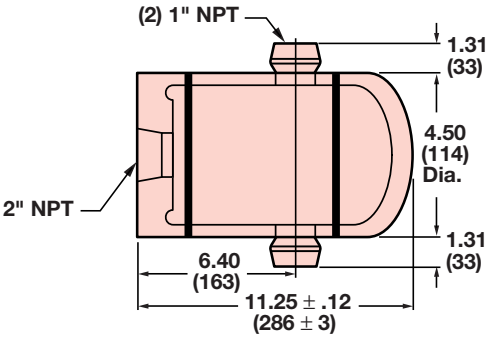
Note: Orientation of ports may vary from unit to unit.

DIMENSIONAL SPECIFICATIONS

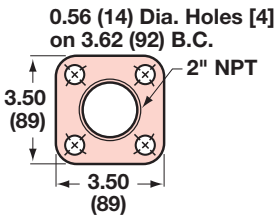
PNEUMATIC SWITCH MODELS



Optional accessories

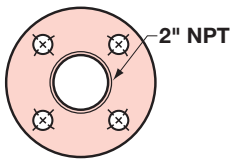


Cage



Square Flange

Flange Part No. 04-6804-001
Flange Rating: 250 psig @ +400° F
(17 bar @ +204° C)



ASME Flange

(Consult factory when ordering)

MODEL NUMBER

BASIC MODEL NUMBER

039	Tuffy Float Switch

SWITCH ACTION

6	Pneumatic

HOUSING

0	316 Stainless steel with ¼" NPT airline connections

SPECIFIC GRAVITY AND PRESSURE RATINGS

0	0.60 minimum S.G., 1500 psi maximum pressure
4	0.40 minimum S.G., 500 psi maximum pressure

0	3	9	—	6	0	0	0	—	1	0	

CHAMBER

PART NUMBER

PRESSURE RATING

0	2200 psig @ +300° F, 1400 psig @ 750° F
1	1200 psig @ +300° F, 780 psig @ 750° F

MATERIALS OF CONSTRUCTION

1	Carbon Steel
2	316 Stainless Steel

0	3	3	—	4	7	4		—	0	0	

MECHANICAL SPECIFICATIONS

Pressure:	0.6 SG 1500 psig at +300° F (103 bar at +149° C)
	0.4 SG 500 psig at +300° F (34 bar at +149° C)
Process Temperature:	-40° to +300° F (-40° to 149° C)
Ambient Temperature:	Max. 100° F (38° C) with maximum process temperature
Pneumatic Switch Supply Pressure:	Vacuum to 200 psig (13.8 bar) maximum
Maximum Leakage Rate:	0.5 SCFH (0.015 SCMH @ 100 psig (6.9 bar))
Maximum Air Flow:	12.0 SCFH (0.34 SCMH @ 100 psig (6.9 bar))
Specific Gravity:	0.6 minimum or 0.4 minimum
Materials of Construction:	316/316L SS wetted components including NACE and ASME B31.3
Housing:	316 stainless steel
Cage (optional)	Carbon steel or stainless steel *
Cage Rating	
Schedule 80	2200 psig at +300° F (151 bar at +149° C)
Schedule 40	1200 psig at +300° F (83 bar at +149° C)

* NACE or ASME B31.3 external cage available. Consult factory.

DESCRIPTION

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Quality and Service

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The Magnetrol quality assurance system is registered to ISO 9001 affirming its commitment to known international quality standards providing the strongest assurance of product/service quality available.

DESCRIPTION



All Magnetrol electronic level and flow controls are warranted free of defects in materials or workmanship for five full years from the date of original factory shipment.

If returned within the warranty period; and, upon factory inspection of the control, the cause of the claim is determined to be covered under the warranty; then, Magnetrol will repair or replace the control at no cost to the purchaser (or owner) other than transportation.

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