

# Model 750

## FLOAT TYPE LEVEL SWITCH – EXTERNAL CAGE ONE ALARM POINT

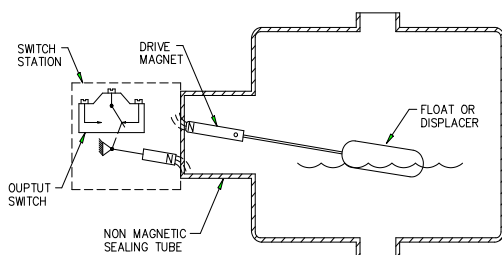
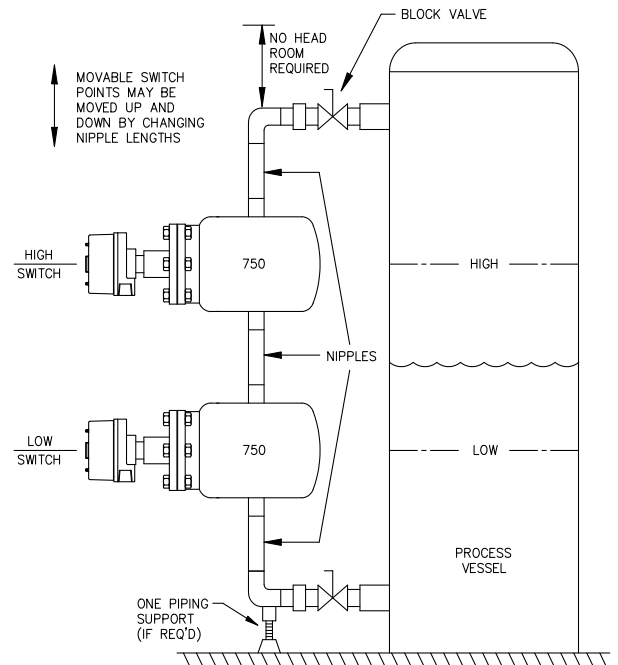
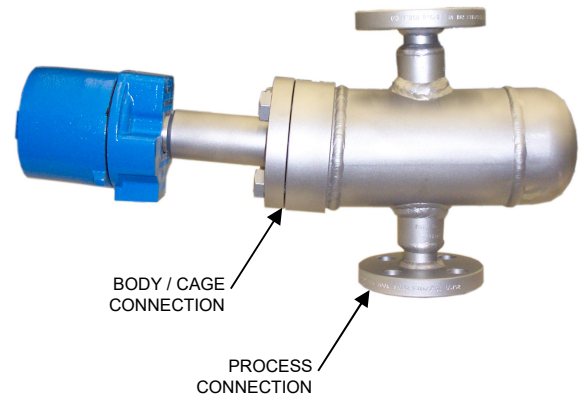
The Model 750 utilizes a balanced horizontal element design. This modern design has significant advantages over vertically rising float design, some are:

1. Straight through piping is efficient and lowers installation costs.
2. The switch point can be set to a new elevation without cutting on the process vessel. The vertical dimension requirement is small ( $> 7"$  in some cases).
3. Its dual magnet positive switching action is reliable as well as insensitive to vibration and shock. There is no "in between" condition of the switching mechanism.
4. Is suitable for high temperature and pressure.
5. The sensing elements can be made solid for high pressures, better reliability, and corrosion resistance.

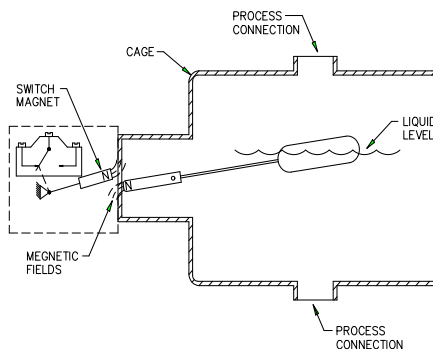
A float is held in a horizontal position by a counterweight pivot mechanism. As the liquid level rises, the sensing element is moved vertically up. This movement results in short stroke rotary motion which carries the drive magnet into the field of the switch station magnet. The switch magnet is pushed against the side of the sealing tube and the output switch is actuated.

When the liquid level falls, the sensing element moves down with it. The drive magnet is rotated back through the magnet fields; the switch magnet is repulsed, the switch returns to its original position, and the output switch deactuates.

The dual opposed magnet design provides snap action of the switch mechanism; immunity from vibration, and greatly improved reliability.



LOW LEVEL



HIGH LEVEL



**Delta Controls**  
CORPORATION

<b>BASIC TYPE</b>	-	<b>SENSING ELEMENT</b>	-	<b>BODY CAGE CONNECTION</b>	-	<b>SIZE &amp; TYPE PROCESS CONN</b>	-	<b>SWITCHES &amp; HOUSING</b>	-	<b>OPTIONS</b>
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MODEL EXAMPLE    750    -    VS    -    W    -    1"/150RS    -    L1W    -    AA

BASIC TYPE	
M/N	DESCRIPTION
750	1 ALARM

BASIC: 316 SS TRIM & ATTRACTOR

SENSING ELEMENT								
* ELEMENT ASSEMBLY				ASSEMBLY WORKING				
M/N	MATERIAL		MIN SPG	PSIG @ °F				
	FLOAT	CAGE		100	450	750	1000	
VS	316 SS	STEEL	0.80	375	235	200	85	
VY	316 SS	316 SS	0.80	375	235	200	185	
36S	316 SS	STEEL	0.65	3700	3600	3500	C/F	
XS	316 SS	STEEL	0.50	965	630	935	80	
XY	316 SS	316 SS	0.50	720	580	510	475	
37S	316 SS	STEEL	0.45	8000	5250	4750	C/F	
YS	316 SS	STEEL	0.40	1750	1100	1060	275	
YY	316 SS	316 SS	0.40	1585	1100	1060	875	
SS	316 SS	STEEL	0.30	615	400	345	305	
SY	316SS	316SS	0.30	615	400	345	305	
21S	316 SS	STEEL	0.28	2260	1460	1240	1130	
* INTERFACE SERVICE								
KIS	316 SS	STEEL	*0.15	400	260	245	200	
KIY	316 SS	316 SS	*0.15	400	260	245	200	
HIS	316SS	STEEL	*0.10	950	590	570	150	
HIY	316 SS	316 SS	*0.10	950	590	570	445	

STEEL CAGE IS A-106B MATERIAL; LIMITED TO 800°F MAX CONTINUOUS SERVICE

\* "KI" MINIMUM DIFFERENCE BETWEEN THE SPECIFIC GRAVITIES OF THE TWO LIQUIDS IS 0.15 SPG UNITS ; MINIMUM SPG OF THE HEAVIER LIQUID: 0.40 SPG UNITS.

\* "HI" MINIMUM DIFFERENCE BETWEEN THE SPECIFIC GRAVITIES OF THE TWO LIQUIDS IS 0.10 SPG UNITS MINIMUM SPG OF THE LOWER LIQUID IS 0.50

\*\* HIGHER PRESSURES AND TEMPERATURE SERVICES ARE AVAILABLE - C/F

BODY CAGE CONNECTION						
M/N	BODY CAGE	BY ELEMENT TYPE				
		CONN MAT	V	X	S	K,Y
*	STEEL OR SS					
W	STEEL					
F	STEEL					
F	# 316 SS					

\* "W" = WELDED SOLID, "F" = FLANGED CLEANOUT; ANSI DESIGN; OTHER STANDARDS AND RATINGS AVAILABLE, C/F

NOTE: CLEANOUT FLANGE RATINGS ARE THE SAME AS FOR THE ELEMENT ASSEMBLY, C/F FOR OTHERS

SIZE & TYPE PROCESS CONN					
# TOP/BOTTOM ("TB") STRAIGHT THROUGH					
M/N & ANSI SIZE *	CONN. WKG PSIG @ °F				
	100	400	750	STEEL	316 S.S.
1"SW*	5720	4940	3710		
1"BW*	5720	4940	3710		
1"FPT*	3000	2600	N.R.		
1"/150R*	275	180	100.		
1"/300R*	720	665	425		
1"/600R*	1440	1330	850		
1"/900R*	2160	2000	1275		
1"/1500R*	3600	3330	2125		
OTHER SIZES AND TYPES	C/F	C/F	C/F		

\* PROCESS CONNECTIONS ARE THE SAME MATERIAL AS THE CAGE REPLACE \* WITH "S" FOR STEEL "Y" FOR 316SS  
NOTE: SPECIAL CONNECTIONS AND CONNECTION SPACING AVAILABLE; CONSULT FACTORY WITH REQUIREMENTS. \*

SWITCHES & HOUSING			
▲ SWITCH STATION DESCRIPTIONS			INTENDED SERVICE **
W/P-N4		E/P-BCD	
*S2W		*S2C	GENERAL USEAGE
S4W		S4C	
T1W		T1C	HIGH TEMPERATURE
T2W		T2C	
H1W		H1C	ENVIRONMENTALLY SEALED
H2W		H2C	
L1W		L1C	A.C. MOTOR LOADS
L2W		L2C	
D1W		D1C	HIGH D.C. LOADS
D2W		D2C	

NOTE: SECOND DIGIT; "1", "2", OR "4" EQUALS ITEM QUANTITY OF MICROSWITCHES.

BASIC HOUSING IS ALUMINUM

▲ FOR 4X (EPOXY COAT): ADD \$ CHANGE "W" TO "X"

\* FOR 4X ALL PVC (160°F MAX) ADD \$ ; CHANGE "W" TO "B"

\* FOR NEMA 7B 300 SS HOUSING: ADD \$ AND CHANGE "C" TO "T"

\*\*SEE DATA SHEET FOR SWITCH LOAD AND SERVICE RATINGS

OPTIONS	
M/N	DESCRIPTION
AA	NONE
HH	120VAC ELECTRICAL HOUSING HEATER TO PREVENT CONDENSATION & ICING



**Engineered Reliability**

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