Model 711A 711D

FLOAT SWITCH / ALARM -TOP INSERTED
711A – TWO ALARM POINTS – WIDE SPACING
711D – ONE STATION, ADJUSTABLE DIFFERENTIAL – WIDE SPACING

The Model 711A provides two-point alarms with from 6” to 65” of elevation spacing between the two switching points. A float rides on the surface of the liquid. Its horizontal position is maintained by the stroke rod as the liquid level varies. The Model 711A produces two widely spaced switch actions. The normal application would be for high/low alarm. Note that the liquid must not leave significant coatings or deposits on the rod.

The attractor and inner works is supported at the midpoint of its travel by a spring. The float is supported by the liquid and is free to slide up and down on the rod. Rising level carries the float up until it contacts the upper stop. The rod is then lifted which carries the attractor into the field of the station magnet. The magnet pulls in against the outside of the sealing tube and the switch activates. Falling level drops the float away from the upper stop. The attractor moves down and the switch deactivates.

Similarly, falling level carries the float down until it contacts the lower stop. The weight of the float pushes the rod down, lowers the attractor so that it is in front of the magnet, and the lower switch actuates. It deactuates when the float rises above the stop and the spring pulls the attractor out of the field of the lower switch station magnet.

The Model 711A will do many jobs that would otherwise require the use of two separate conventional float switches. This results in cost savings for both the equipment and the decreased amount of installation required. The switching points may be easily changed in the field by repositioning the stops.

The Model 711D body, mechanism, and float are the same as the one used for the Model 711A. The difference is that it only has a single switching station. The station activates when the sensing float rises to the upper stop and lifts the guide rod attractor into the field of the station magnet. The station stays activated until the float moves down against the lower stop. The guide rod-attractor is then pulled down out of the magnetic field and the switch station deactivates. It remains in that condition until the float again rises up against the upper stop and activates the switch.

The Model 711D is normally used to control a pumping action in a process vessel or storage tank.

MODEL 711A

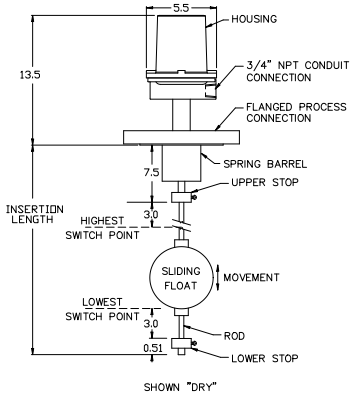
Delta Controls
CORPORATION

BASIC TYPE	-	SENSING FLOAT	-	INSERTION DISTANCE	-	PROCESS CONNECTION	-	SWITCH & HOUSING	-	OPTIONS

MODEL EXAMPLE 711A - 11Y - 24.0" - 4"/150RS - L1W - AA

BASIC TYPE	
M/N	DESCRIPTION
711A	TWO ALARMS
711D	ADJ DIFFERENTIAL

316 S.S. SPRING: 300°F MAXIMUM;
OPTIONAL INCONEL SPRING TO 500°F
STD WETTED PARTS: 316 S.S. TRIM,
416 S.S. ATTRACTOR



SENSING FLOAT								
ELEMENT (INCHES)					WKG PSIG @ °F			MINIMUM FLANGED
M/N	MAT	SPG	O.D.	LENGTH	100	250	450	PROCESS CONNECTION NOZZLE
11Y	316 S.S.	0.60	3.6	7.6	185	145	120	4" SCH 80
12Y	316 S.S.	0.65	5.1	BALL	450	350	290	6" SCH 160
13Y	316 S.S.	0.35	7.2	BALL	375	295	295	8" SCH 80

NOTE: LIMITED TO 250°F WITH 316 S.S. RANGE SPRING; UP TO 450°F WITH INCONEL RANGE SPRING

INSERTION DISTANCE		
M/N	DESCRIPTION	/ INCH
18"	MINIMUM INSERTION DISTANCE	N/C
#	UP TO 72" MAXIMUM INSERTION	OVER 18"

REPLACE "#" WITH REQUIRED INCHES INSERTION
NOTE: (A) INSERTION IS MEASURED "DRY" WITH FLOAT BEING SUPPORTED BY THE LOWER STOP
(B) SWITCH POINTS MAY BE SET FROM 8" BELOW THE FLANGE TO THE SPECIFIED INSERTION DISTANCE (LESS 4").

PROCESS CONNECTION			
M/N			
ANSI SIZE	STEEL	304 S.S.	316 S.S.*
4"/150R# 4"/300R#			
6"/150R# 6"/300R#			
8"/150R# 8"/300R#			
REPLACE "#" WITH "S" FOR STEEL, "B" FOR 304 S.S., OR "Y" FOR 316 S.S. *			

* OPTION "SA" REQUIRED WITH 316SS

SWITCH & HOUSING						
▲SWITCH STATION DESCRIPTIONS –						INTENDED SERVICE **
W/P-N4	711A	711D	E/P-7CD,9	711A	711D	
S1W S2W S4W		NA NA	* S1C * S2C S4C		NA NA	GENERAL USEAGE
T1W T2W			T1C T2C			HIGH TEMPERATURE
H1W H2W			H1C H2C			ENVIRONMENTALLY SEALED
L1W L2W			L1C L2C			A.C. MOTOR LOADS
D1W D2W			D1C D2C			HIGH D.C. LOADS

FOR NEMA 4X (EPOXY): ADD $ & CHANGE "W" TO "X"
FOR NEMA 7, GROUP B: ADD $ & CHANGE "C" TO "B"
* FOR ALL 300 S.S. NEMA 7B HOUSING: ADD $ AND CHANGE "C" TO "T"
**SEE DATA SHEET FOR SWITCH LOAD AND SERVICE RATINGS

CSA Ratings:
Housing types 'C' and 'T'
Cl I Div 1, Gr B,C,D; Cl II, Div 1 Gr E,F,G; CL III Div 1
Class I Zone 1, Ex/AEx d IIB+H_2
Maximum contact ratings 480Vac, 15A, T5 with max ambient 80°C. T6 without heater with max ambient 60°C

OPTIONS		
M/N	DESCRIPTION	ADD $
AA	NONE	
IN	INCONEL SPRING INSTEAD OF 316 S.S. FOR UP TO 500°F	
SA	316 S.S. SHEATHED ATTRACTOR	

Engineered Reliability

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