

FLOAT SWITCH / ALARM -TOP INSERTED
710A – TWO ALARM POINTS
710D – ONE STATION, ADJUSTABLE
DIFFERENTIAL

Model 710A
710D

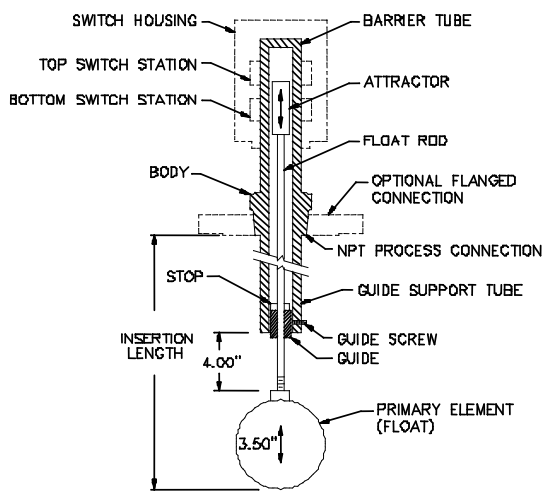
The Model 710A is similar to the Model 709. The principal difference is that it has more float movement and the power needed to reliably operate two switch stations. The upper switch is activated about two inches above the elevation at which the lower switch activates.

The 710A is commonly used for high level shutdown with a preliminary high level warning which announces that "Shutdown" may soon occur and remedial action should be taken at once.

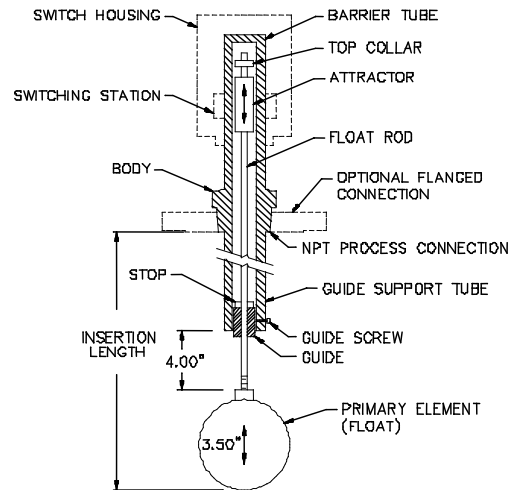
A stainless housing is available for use with the SPDT and DPDT versions of the small "S" model switch stations. This housing is both watertight and for Class 1, Div 1 hazardous areas. It proves good protection in extremely corrosive locations such as sulfuric acid plants and offshore oil production platforms. It is also available in a polished version for use in pharmaceutical and food plants.

The Model 710D body, mechanism and float are the same as the one used for the Model 710A. The difference is that it only has a single switch station and is equipped with a differential device. The station activates at a "High" level and remains activated until the liquid level falls to a lower elevation. The additional amount that it must fall, before the station deactivates, is called the "Differential". This amount is adjustable from about 1.0" to about 2.5", depending upon the Specific Gravity (SPG) of the liquid.

The Model 710D is commonly used where a considerable amount of surface agitation or splashing is expected to occur. This design results in a more stable and reliable alarm action, particularly as the level approaches the switching point. It can also serve as a pump control in large tanks.



MODEL 710A



MODEL 710D



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

MODEL

EXAMPLE: 710A - TY - 24" - 4" 150RS - S1W - AA

BASIC TYPE

M/N	DESCRIPTION
710A	2 ALARM POINT
710D	1 STA. ADJ DIFF.

BASIC: 316 S.S. TRIM WITH
416 S.S. ATTRACTOR

INSERTION DISTANCE

M/N	DESCRIPTION
13"	MINIMUM INSERTION DISTANCE
*	13" TO 150" MAXIMUM INSERTION

REPLACE "*" WITH REQUIRED INCHES OF INSERTION

SENSING FLOAT

ELEMENT (INCHES)				WKG PSIG @ °F			MIN PROCESS CONNECTION		TYPE ACTION	MINIMUM SPG @ INSERTION DISTANCE (INCHES)									
M/N	MATERIAL	O.D.	LENGTH	100	450	750	NPTF	FLANGED NOZZLE		13	18	24	36	48	60	72	96	120	150
TY	316 S.S.	2.6	7.0	275	185	160	2.5"	3" S160	A.D.	0.79	0.80	0.82	0.84	0.88	0.91	NA	NA	NA	NA
									2 STA	0.89	0.91	0.93	NA	NA	NA	NA	NA	NA	NA
14Y	316 S.S.	3.5	7.0	265	175	145	NA	4" S120	A.D.	0.62	0.63	0.65	0.66	0.69	0.71	0.74	0.79	0.82	0.87
									2 STA	0.70	0.71	0.72	0.74	0.76	0.79	0.82	0.87	0.92	NA
15Y	316 S.S.	5.5	BALL	425	300	250	NA	6" S80	A.D.	0.43	0.44	0.45	0.45	0.47	0.48	0.50	0.52	0.55	0.58
									2 STA	0.49	0.50	0.51	0.51	0.53	0.55	0.55	0.58	0.61	0.64
PY	316 S.S.	7.0	BALL	425	275	235	NA	8" S120	A.D.	0.57	0.58	0.58	0.58	0.59	0.60	0.60	0.62	0.63	0.65
									2 STA	0.61	0.61	0.61	0.62	0.62	0.63	0.64	0.65	0.66	0.68
IY	316 S.S.	7.0	BALL	730	475	400	NA	8" S120	0.50 FOR ADJUSTABLE DIFF.; 0.125 UNITS										
									0.52 FOR 2 STATION ALARM; DIFFERENTIAL										

FOR INTERFACE:

- (1) # MINIMUM DIFFERENCE BETWEEN THE SPECIFIC GRAVITIES OF THE TWO LIQUIDS: 0.10
- (2) # MINIMUM SPG OF THE HEAVIER LIQUID: 0.45
- (3) ALLOWED INSERTION: ANY FROM 12" TO 150" (BOTTOM OF FLOAT HANGING FREE)
- (4) CENTERLINE OF SWITCH BAND: 4" ABOVE INSERTION DEPTH

SWITCH AND HOUSING

M/N FIRST CHARACTER	SWITCH TYPE - SERVICE AND LOAD RATINGS	Switch Temp Rating
S	GENERAL USE, COMPACT, 4 AMP @ 28VDC, 5 AMP @ 125VAC, 250VAC	-65 to 250°F (-54 to 121°C)
T	HIGH TEMPERATURE; 5 AMP @ 125VAC, 250VAC; 0.5A @ 125VDC; 0.25A @ 250VDC	-65 to 400°F (-54 to 204°C)
H	SEALED SWITCHES, 15 AMPS @ 125/250VAC, 0.5 AMPS @ 125 VDC, 0.25A @ 250VDC, 1/8HP 125VAC, 1/4HP 250VAC	-67 to 185°F (-55 to 85°C)
L	A.C. MOTOR LOADS; 15 AMP @ 125, 250, 480VAC, 0.25 HP @ 250VAC, 1/8HP @ 125VAC; 1/4HP @ 250VAC; 0.5A @ 125VDC; 0.25A @ 250VDC	-67 to 185°F (-55 to 85°C)
D	HIGH D.C. LOADS; 10 AMP @ 125VAC/DC; 0.25 HP @ 125VAC/DC; 3A(resistive) @ 250VDC; 1/2HP @ 125VDC POLARIZED (i.e., with negative side connected to common.)	-67 to 180°F (-55 to 82°C)
M/N SECOND CHARACTER	NUMBER OF CONTACTS	
1	1 SPDT CONTACT	
2	2 SPDT CONTACTS	
4	4 SPDT CONTACTS (TYPE S ONLY)	
M/N THIRD CHARACTER	HOUSING RATING	
W	Type 4X, IP65	
X	TYPE 4X, IP65 (EPOXY COATED)	
C	ALUMINUM - FOR HAZARDOUS LOCATIONS; SEE CSA RATINGS	
T	300 STAINLESS STEEL - FOR HAZARDOUS LOCATIONS; SEE CSA RATINGS	

PROCESS CONNECTION

M/N	PROCESS CONNECTIONS
1"NPT#	1" NPT
3"NPT#	3" NPT
3"150R#	3" 150# ANSI FLANGE
4"150R#	4" 150# ANSI FLANGE
4"300R#	4" 300# ANSI FLANGE
6"150R#	6" 150# ANSI FLANGE
6"300R#	6" 300# ANSI FLANGE
8"150R#	8" 150# ANSI FLANGE
8"300R#	8" 300# ANSI FLANGE

REPLACE "# " WITH:
"S" FOR STEEL CONSTRUCTION,
"B" FOR 304 SS
"Y" FOR 316 SS

OPTIONS

M/N	HOUSING EXTENSION	MAX PROCESS TEMP (°F) - SWITCHES					
		CONDENSING SERVICE (STEAM, DOWTHERM)			NONCONDENSING (GAS, HYDROCARBONS)		
	LENGTH	D	S,L	H,T	D	S,L	H,T
AA	NONE	400	500	750	500	600	850
T1	6"	500	575	950	600	700	1100
T2	12"	600	650	1250	800	925	1500
SA	316SS SHEATHED ATTRACTOR (REQ'D FOR 316SS BODY)						
HH	120VAC HOUSING HEATER. PREVENTS CONDENSATION & ICING- INSULATE HOUSING FOR LOW AMBIENT CONDITION						
HBKT	SUPPORT BRACKET, HORIZONTAL LEDGE MOUNT						
VBKT	SUPPORT BRACKET, VERTICAL WALL MOUNT						



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+H₂
Maximum contact ratings 480Vac, 15A, T5 with max ambient 80°C. T6 without heater with max ambient 60°C



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