

Model 760

FLOAT TYPE LEVEL SWITCH – EXTERNAL CAGE ONE ALARM POINT

The Model 760 has been built for over 25 years. It is in service all over the world, including Russia, Antarctica, North Sea, Guam and Japan. Thousands of units are providing continuous, highly reliable monitoring of liquid levels and interfaces.

The Model 760 external cage mounted float actuated switches are used to provide alarm functions. These actions are produced in response to a float position as it rides up and down the surface of the process liquid level (or interface dividing line).

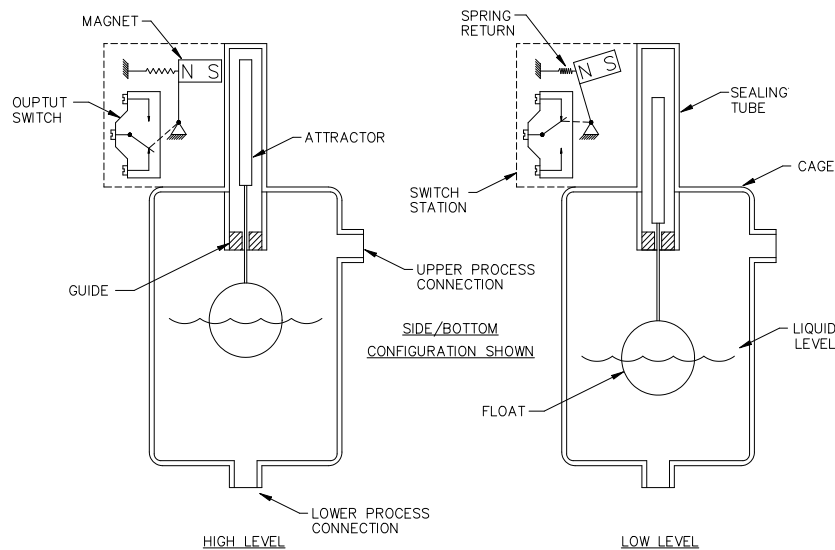
All units are equipped with a guide bushing at the lower end of the large stroke rod. This feature keeps the float and attractor mechanism centered in the cage and prevents the float from dragging on the cage wall. Failures due to dragging, sideways binding and bent rods have historically been problems with older vertically rising float designs.

Seal welded cages are standard on most models. All units are available with a flange sealed cage, which allows access to the float and internal parts for inspection and maintenance. The flange is an ANSI design and usually carries the same pressure rating as the element assembly. Higher-pressure ratings are available.

All the units are available with standard or special connection configurations; these include side/bottom, side/side, and side/side/bottom drain. All connections are available either threaded, socket welded, or flanged.

The float inside the cage floats on the surface of the liquid and rides up and down with it. An attractor is attached to the float and also moves with the liquid level. When the level rises, the attractor moves up into the field of the switch station magnet. The magnet is free to move and is pulled in against the side of the nonmagnetic sealing tube. The output switch is actuated by the movement of the magnet.

Similarly, when the liquid level falls, the attractor is pulled out of the magnet. The return spring pulls the magnet back to its original position and the output switch is deactivated.



DELTA CONTROLS
CORPORATION



MODEL
EXAMPLE: 760 - CZ - W - B - SB/1"NPT - L1W - AA

BASIC TYPE

M/N	DESCRIPTION
760	1 ALARM

316 S.S. TRIM,
416 S.S. ATTRACTOR

PROCESS CONNECTION SPACING

M/N	P.C. SPACING
B	BASIC INCHES
C*	CUSTOM INCHES

PROCESS CONNECTION

M/N	ANSI SIZE
	3" NPT *
	3" 150R *
	3" 300R *
	4" 150R *
	4" 300R *
	4" 600R *
	4" 900R *

REPLACE "*" WITH "S" FOR STEEL,
"B" FOR 304 S.S.,
"Y" FOR 316 S.S.
(INCLUDES BODY & FLANGE)

CONSULT FACTORY FOR OTHER SIZES &
RATINGS 600, 900, & 1500 CLASS FLANGES
AVAILABLE; C/F

SENSING ELEMENT

M/N	ES ELEMENT ASSEMBLY			ASSEMBLY WORKING		
	MATERIAL *		MIN	PSIG @ °F		
	FLOAT	CAGE		SPG	100°F	450°F
FS	316 S.S.	STEEL	0.80	1320	865	735
FB	316 S.S.	304 S.S.	0.80	875	605	500
CZ	316 S.S.	STEEL	0.80	600	500	400
CS	316 S.S.	STEEL	0.75	1050	680	595
CB	316 S.S.	304 S.S.	0.75	970	680	535
GS	316 S.S.	STEEL	0.70	850	565	485
GB	316 S.S.	304 S.S.	0.70	850	565	500
HS	316 S.S.	STEEL	0.60	1170	755	665
HB	316 S.S.	304 S.S.	0.60	730	505	420
LS	316 S.S.	STEEL	0.50	470	305	260
LB	316 S.S.	304 S.S.	0.50	470	305	260
MS	316 S.S.	STEEL	0.45	485	325	275
MB	316 S.S.	304 S.S.	0.45	485	325	275
NS	316 S.S.	STEEL	0.40	470	305	260
NB	316 S.S.	304 S.S.	0.40	470	305	260
PS	316 S.S.	STEEL	0.33	375	245	215
PB	316 S.S.	304 S.S.	0.33	375	245	215
INTERFACE SURFACE						
IS	316 S.S.	STEEL	▲	730	475	400
IY	316 S.S.	304 S.S.	▲	730	475	400
IZ	316 S.S.	ANY	▲	1150	745	655

* STEEL CAGE IS A-106B CARBON STEEL MATERIAL; LIMIT -20 °F FOR 316 S.S. CAGE INSTEAD OF 304 S.S.; CHANGE "B" TO "Y" OTHER PRESSURE & TEMPERATURE RATINGS AVAILABLE; C/F
▲ MINIMUM DIFFERENCE BETWEEN THE SPECIFIC GRAVITIES OF THE TWO LIQUIDS; 0.10 SPG UNITS
OTHER MATERIALS AVAILABLE: CONSULT FACTORY

OPTIONS

OPTIONS M/N *	HOUSING EXTENSION LENGTH (INCHES)	MAX PROCESS TEMP (°F) – SWITCHES					
		CONDENSING SERVICE (STEAM, DOWTHERM)			NONCONDENSING (GAS, HYDROCARBONS)		
		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	316 S.S. SHEATHED ATTRACTOR						
HH	120VAC ELECTRICAL HOUSING HEATER TO PREVENT CONDENSATION & ICING; INSULATE HOUSING FOR LOW AMBIENT CONDITION						
DM	DUAL MAGNET FOR HIGH VIBRATION						

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;	-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 (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	

BODY/CAGE CONNECTION

M/N	DESCRIPTION
W	WELDED
F	FLANGED FOR CLEANOUT; ANSI DESIGN; OTHER STANDARDS AND RATINGS AVAILABLE, C/F NOTE: CLEANOUT FLANGE RATINGS ARE THE SAME AS FOR THE PROCESS CONNECTIONS, C/F FOR OTHERS

CSA Ratings:

Housing types 'C'
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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