

740 Top Mount Displacer Control

Application

The Model 740 Series are displacer-operated units designed for internal mounting through the top of the process vessel and provide high pressure capabilities with low specific gravity ratings within the petroleum, power and natural gas industries. The use of displacers allows for a narrow or wide-switching differential, field adjustable switch points, high pressure applications and multiple switching points by means of dual switching mechanisms.

Features

- **Construction Versatility:** Standard Level Control includes Stainless Steel Displacer and Carbon Steel NPT or flanged tank connections. Consult factory for other materials.
- **Explosion Proof:** CSA APPROVED
 - Class I, Division I, Groups C & D
 - Class II, Groups E, F & G
 - Class III, Enclosure Type 4
- **Various Models:** A wide selection of connection, trim materials and switch mechanisms are available.

Operation

The stainless steel float/displacer, which is heavier than the liquid, is suspended by a spring. When liquid rises around the displacer, a buoyancy force is produced, which causes the effective weight of the displacer to change. This causes the spring to retract slightly to a new equilibrium position. When the spring retracts, the attraction sleeve also moves upward into the field of the external magnet. The magnet moves forward toward the attraction sleeve that actuates the micro switch.

Displacer Advantages

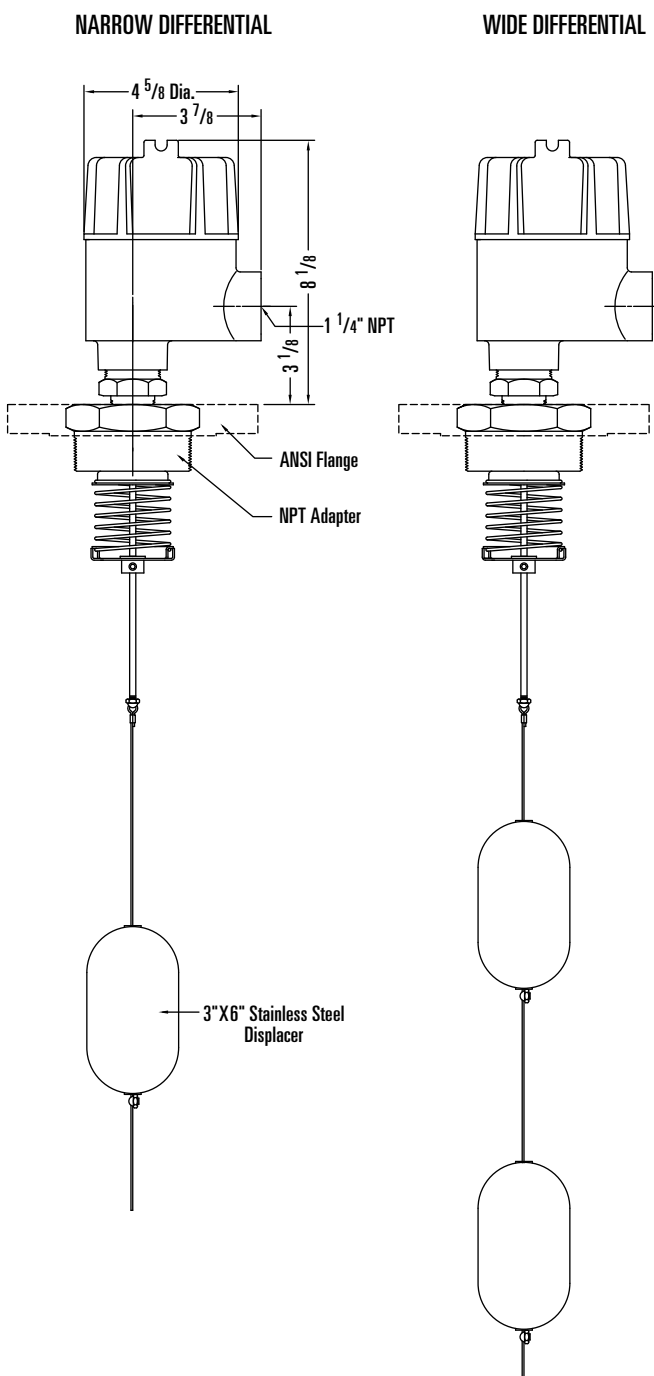
As the liquid level rises, the buoyancy force produced by the displacer causes the range spring to seek a new balance.

1. Ability to withstand higher pressure than a float, since displacers can be solid or constructed with a much heavier wall.
2. Allows wide switching differentials.
3. Allows switch point to be adjusted by moving the displacer up or down.

Specifications

Switch Housing	Explosion Proof Cast Aluminum
Operating Pressure	1000 psi Max.
Operating Temperature	450°F Max.
Minimum Specific Gravity	0.60
Electrical Connections	1 1/4" Female Pipe Thread

Dimensional Data



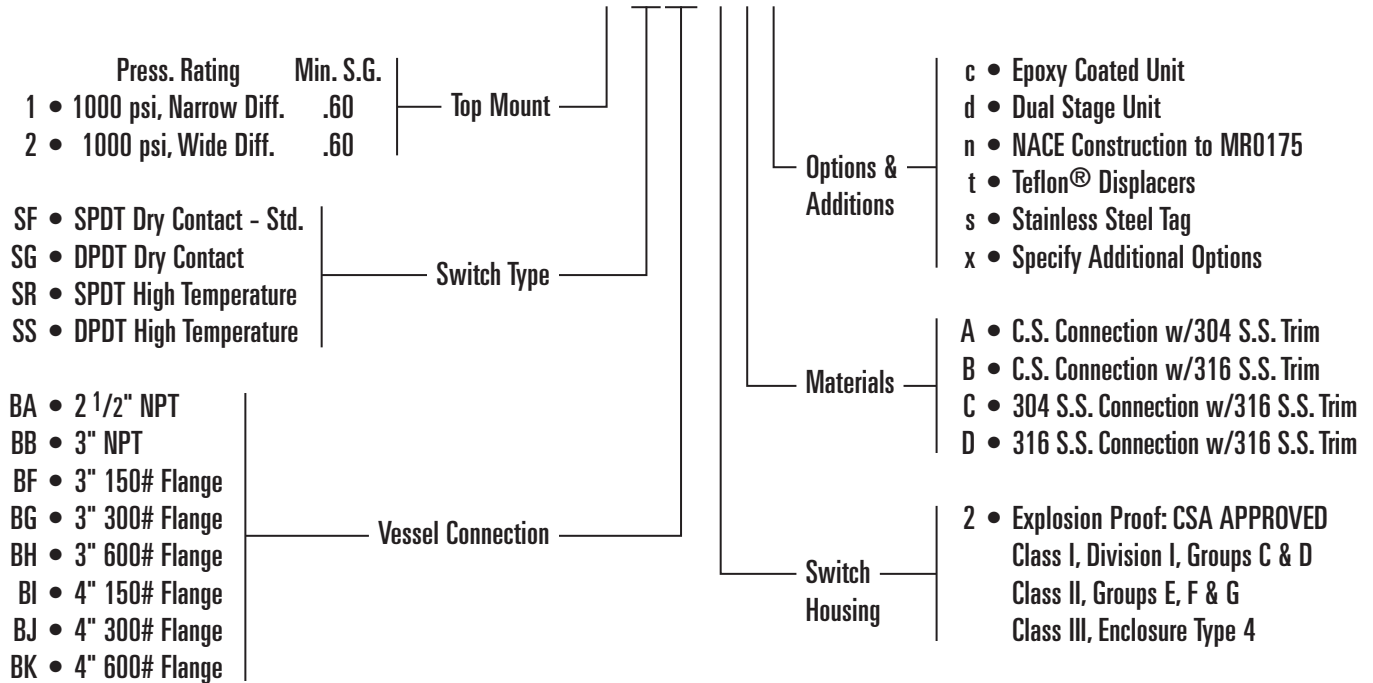
Electrical Contacts	SPDT Micro Switch standard	
FUNCTION	AMBIENT TEMP	SWITCH RATING
Standard	-20 to 160°F	5 A @ 250 VAC
High Temp	-20 to 450°F	5 A @ 250 VAC

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Determining the Model Number

Example given: Standard Model 740 1-SFBA-2A Top Mount Displacer Control with, SPDT Micro Switch, 2 1/2" NPT Carbon Steel Process Connection with 304 S.S. Trim, Pressure rated to 1000 psi and with Explosion Proof Switch Housing.

MODEL 740 1-SFBA-2 A



Parts List

Item	Description	Qty.	Part No.
1	HOUSING, ALUMINUM	1	007201-M
2	COVER, ALUMINUM	1	000203-M
3	ADAPTER W/ENCLOSING TUBE, 316 S.S.	1	007524-A
4	SWITCH KIT ASSEMBLY, SPDT	1	009341-A
	SWITCH KIT ASSEMBLY, DTD	1	009342-A
5	ATTRACTION SLEEVE, 17-4PH	1	009532-M
6	LOCK NUT, STAINLESS STEEL	5	05000-1510
7	STOP TUBE, STAINLESS STEEL	1	007119-M
8	GUIDE PLUG, STAINLESS STEEL	1	002304-M
9	FLOAT ARM, STAINLESS STEEL	1	007234-M
10	FLOAT, 3"X6" 304SS STD.	1	009487-A
11	SPRING W/CUP, STD.	1	007334-A
	SPRING W/CUP, WIRE DIFFERENTIAL	1	007329-A
12	O-RING, BUNA-N	1	05000-5446
13	NPT ADAPTER OR ANSI FLANGE	1	C/F
14	SHAFT COLLAR, STAINLESS STEEL	1	009674-M
15	SET SCREW, STAINLESS STEEL	2	001525-P
16	ACORN NUT, STAINLESS STEEL	3	001121-M
17	SET SCREW, STAINLESS STEEL	2	001519-P
18	CABLE, STAINLESS STEEL	10'	009657-P
19	CRIMP ON CONNECTION, S.S.	1	007226-P
20	SCREW, STAINLESS STEEL	3	001504-P
21*	GROUND SCREW	1	001504-G
22*	GROUND CUP, BRASS	1	001800-P
23*	SCREW, STAINLESS STEEL	2	001501-P

*Not Shown

C/F: Call Factory For Part No. Specify Size And Material.

