

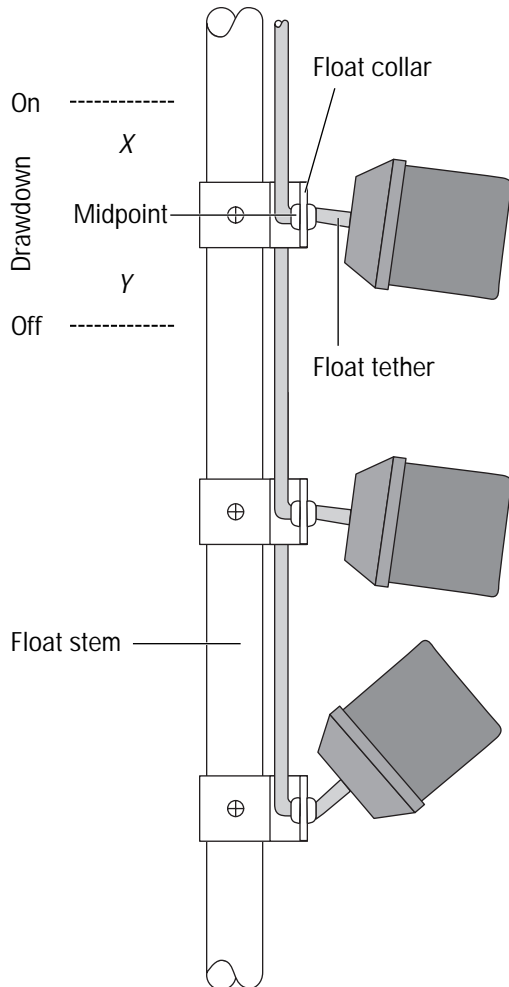
Float Switch Assemblies

Submittal
Data Sheet



Applications

Float switches are used to signal liquid level positions for alarm and pump control applications. Oreco float switch assemblies can be mounted in pump vaults, effluent screens, pump basins, and risers. Float switch assemblies are preassembled with one or more floats mounted on a 1" PVC float stem. ABS float collars are used to provide secure mounting that is easily adjustable.



The "On" and "Off" positions describe normally open floats. For normally closed floats, the functions are reversed.

Materials of Construction

Float housing:	Impact-resistant, noncorrosive PVC plastic for use in liquids up to 140° F (60° C)
Float cord:	Flexible 2-conductor (UL, CSA) SJOW; water-resistant (CPE); neoprene coating
Float collar:	ABS

General

All models listed are horsepower-rated and UL listed and CSA certified for use in water or sewage. Model "A" floats are also CE certified for sale in European Union countries.

Floats are typically ordered in assemblies that include a float stem (ordering explained below) and float collars.

Standard Models

A, B, C, D, G, T

Nomenclature

MF -

Cord length (feet):
Blank = 10' cord (standard)
20 = 20' cord
30 = 30' cord

Float switch model (from top of the tank down)
A, B, C, D, G, T

Number of float switches (for multiples of the same model)
Blank = no float collar (for single floats only)

Mechanical or mercury float switch assembly

Examples: An MFAB indicates one "A" float and one "B" float, with the "B" float being lower on the float stem; an MF3AT indicates three "A" floats and a "T" float (in order from the top of the float stem down).

Specifications

Signal-rated floats for control switch applications

Float	State	Type	IR	Voltage	Amps	Hp	Tether	X	Y	Drawdown
A Model	Open	MERC	Yes	n/a	n/a	n/a	2.00	n/a	n/a	n/a
T Model	Closed	MERC	Yes	n/a	n/a	n/a	2.00	n/a	n/a	n/a

Motor-rated floats for pump switch applications

Float	State	Type	IR	Voltage	Amps	Hp	Tether	X	Y	Drawdown
B Model	Open	Mech	No	120V	13A	1/2 hp	2.00	2.50	1.50	4.00
				230V	13A	1 hp	3.00	3.00	1.50	4.75
							4.00	3.25	1.50	4.75
C Model	Open	Mech	No	120V	13A	1/2 hp	2.00	3.00	2.50	5.50
				230V	13A	1 hp	3.00	3.50	3.00	6.50
							4.00	4.00	3.50	7.50
							5.00	4.50	4.00	8.50
							6.00	5.25	4.25	9.50
D Model	Open	Mech	No	120V	15A	3/4 hp	2.00	3.00	2.50	5.50
				230V	15A	2 hp	3.00	3.50	3.00	6.50
							4.00	4.00	3.50	7.50
							5.00	4.50	4.00	8.50
							6.00	5.25	4.25	9.50
G Model	Open	MERC	Yes	120V	15A	3/4 hp	2.00	1.50	3.00	4.50
				230V	15A	2 hp	3.00	1.75	3.00	4.50
							4.00	2.00	3.50	5.50

Notes

Signal-rated vs. motor-rated float switches. Every float has a maximum amount of current it can handle. Exceeding these limits may cause premature failure. Signal-rated or “control” floats are used to activate pump control panels and alarms. Only low amperage signals pass through these float switches, hence the float switch is “signal-rated.” All Orenco panels that use motor contactors can use signal-rated float switches. In some systems, a float switch is used to directly start and stop a pump. In this application, the current that is running the pump passes through the float switch as well, and the float switch must be “motor-rated.” In most instances, a motor-rated float switch can be used as a signal float switch.

State. The default state of a float — *normally open* or *normally closed* — refers to the contact positions in the float when the float is resting (down).

Type. Floats have *mechanical* or *mercury* contactor types. The important distinction between these is that mercury floats are not rated for potable water.

IR (intrinsically safe relay). Approved for use with intrinsically safe, Class I, Division 1 applications, where reliable float switch operation with very low current is required.

Drawdown. Drawdown (in inches) refers to the difference in liquid level between a float switch’s activation and deactivation points. Drawdown can be altered by adjusting the tether length of the float switch cord. When selecting float switches, keep in mind that any float switch that can directly start and stop a pump (no motor contactor in the control panel) should have a draw-down capability, to avoid rapid cycling of the pump.

Voltage, amperage, and horsepower ratings listed are maximum values; tether, x/y, and drawdown values are expressed in inches.