
FLOAT SWITCH

NON-MERCURY, 316 SS



MODEL FS 90

FEATURES

- 316 Stainless Steel float ball and hardware
- 5 $\frac{1}{2}$ " diameter float for exceptional buoyancy
- Mercury free switch
 - Long-life mechanical rating
 - Differential action
 - Form C contact
- Fixed level, cable or pipe suspension mounting

CONTEGRA's FS 90 is a rugged, reliable raw sewage or sludge wet-well point-level sensing device. It is also applicable as a process sump or water reservoir sensor where its simplicity of operation, quality, and ruggedness provide years of reliable service.

Two simple mounting methods are available: cable or pipe.

- Cable suspension provides simplicity of installation and adjustment of the pump on/off and alarm setpoints as shown in the figure at the right.
- Alternatively, as shown above, the floats can be mounted on a pipe within the sump.

The switch has a 8" differential. The switch activates when the process level rises 4" above the fixed mounting position and deactivates when the level decreases to 4" below the fixed mounting position.



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Specifications

Float construction:

Stainless Steel 316, 5 $\frac{1}{2}$ " Dia., 20 gauge with a polished (i.e. non-stick) stainless steel coating.

Cable:

16 gauge, 4 cond., SEOW.
Rated "continuous service" for flexibility and longevity.

Switch: SPDT snap switch

Certifications:

UL recognized, CSA certified

Mechanical life:

10 million operations

Connections (Dn Position):

White = Common

Black = Normally Open (NO)

Red = Normally Closed (NC)

Green = Ground

Operating levels:

"On" setpoint:

4" above the fixed mounting level (nominal).

"Off" setpoint:

4" below the fixed mounting level (nominal).

Buoyancy: ~2# net

Suspension Weights:

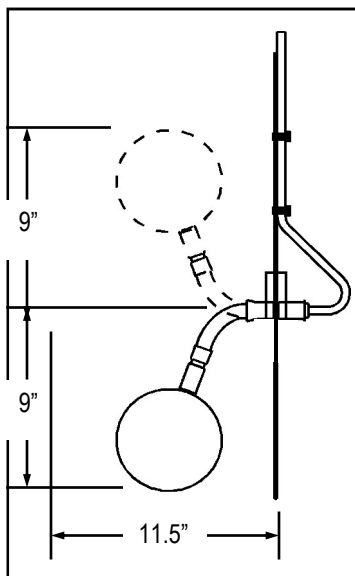
- The **FS-Wgt4a** is frequently used with up to four floats in a non-turbulent application.

- The **FS-Wgt5a** is frequently used with up to five floats in a non-turbulent application.

Contact Rating:

- 120 VAC/VDC Max.,
- 1 Amp / 25 Watts Max.
Resistive/Non-Inductive

Dimension Drawing



Recommended Weight for Cable Mtd Floats:

- 1 or 2 floats - 10# weight
- 3 or 4 floats - FS-Wgt4a
- 5 floats - FS-Wgt5a

Engineering Specifications

The level sensing device shall be a 5 $\frac{1}{2}$ " diameter, stainless steel 316 float switch. The switch shall be mercury free.

The switch shall be SPDT, rated 1 Amp/25 Watts Max, 120 VAC/VDC Max., Resistive, with a mechanical life of 10 million operations.

The float cable shall be rated "continuous service" for high flexibility.

The float switch(es) shall be mounted as shown on the plan drawings. All mounting hardware shall be Type 316 stainless steel. The signal cable shall incorporate strain relief jacketing between the float ball and the point of flexation (i.e. the cord grip tube).

The Model FS 90 float switch shall be furnished in quantities, cable lengths, and with accessories as shown in the plan drawings.

A complete 'Suspension Mounted' assembly consist of the FS 90-XX-**C**, a suspension cable and a weight.

A complete 'Pipe Mounted' assembly consist of the FS 90-XX-**P**, a 1" pipe (provided by others) and a means by which to hold the pipe to the wall (e.g. Contegra's FS-PBkt). [Note: A 1" pipe has an OD of 1.3".]

Ordering Information (see example below**)

Model	Feet of cable	Mounting Hardware	Accessories:
FS 90	XXX	X	FS-SC-XX = Float Switch Suspension Cable ... with "XX" ft of suspension cable
	20 ft. minimum	C = Cable Mtg clip	FS-Wgt4a or FS-Wgt5a = Weights for cable kit
	10 foot increments	P = Pipe Mtg Clip	FS-PBkt = Pipe wall mounting bracket

** A typical model number is FS 90-30-C which specifies a FS 90 with 30 feet of signal cable.

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