



# INSTALLATION AND MAINTENANCE MANUAL

## SHURflo® Bilge Switch

### FEATURES

- Non mercury mechanical switch
- 3 ft. Tinned wire
- Easy Snap into baseplate design (For 380, 500, 700 and 1000 GPH pumps)
- Manual test feature
- Optional cage available
- 12A Max at 12V, 6A Max at 24V



The SHURflo Series float switches provide the ultimate in reliability for your boat. Complete line includes a solid state control, mechanical, standard float switch and protected cage switch.

### SPECIFICATIONS

<b>Voltage:</b>	12/24 VDC
<b>Switch Type:</b>	Mechanical
<b>Material:</b>	ABS
<b>Leads</b>	3 ft. Tinned wire
<b>Operation:</b>	Activate at 1-3/4", Turns-Off at 3/4"
<b>Operating Temp:</b>	33°F to 180°F
<b>Approvals:</b>	Ignition protection 8846, CE

### Installation

#### Location

Locate pump at deepest position in the bilge. Keep away from high heat source; engine, etc. Mount to hull or pad with stainless steel screws.

#### Mounting

For best performance, switch should be mounted horizontal. Maximum mounting angle is 20° from vertical.

#### **DO NOT DRIVE SCREWS THROUGH HULL!!**

#### Operation

Switch will energize the bilge pump when water level reaches 1-3/4" (44mm) and will turn the bilge pump off when water level falls to 3/4" (19mm). SHURflo recommends to install the Bilge switch cage for optimal performance.

#### Electrical:

##### Wire Leads

Use 16 AWG wire. Installation over 20 feet, use 14 AWG wire. Wire is tinned to prevent corrosion. To reduce water wicking corrosion through wires, make all connections with water proof connectors above all splashing bilge water.

##### Wiring tips

- Twist wires together to reduce RFI (radio interference)
- Always use waterproof splices and connectors. Make connections above water line, if possible.
- Use recommended fuse stated on bilge pump label.
- Fuse **MUST** be between battery and panel switch. Some panel switches may have a fuse in them.

#### WARNING



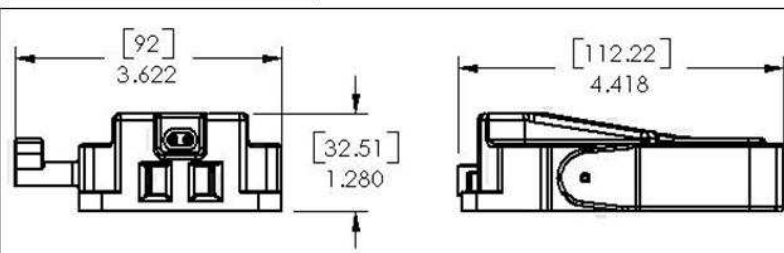
DO NOT PUMP OIL, DIESEL FUEL, GASOLINE OR OTHER FLAMMABLE LIQUIDS OVERBOARD. THIS SWITCH DOES NOT PREVENT THE DISCHARGE OF OIL OR CHEMICALS INTO THE WATER. PLEASE TAKE APPROPRIATE MEASURES TO PREVENT DISCHARGING OIL AND CHEMICALS. ALWAYS TEST PUMP AND SWITCH BEFORE OPERATION.

#### WARNING

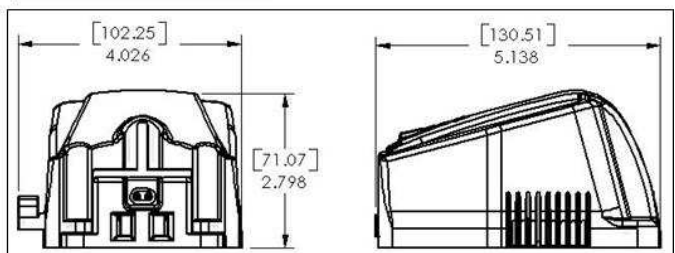


KEEP ALL WIRE CONNECTIONS ABOVE THE HIGHEST WATER LEVEL. WIRES SHOULD BE SEALED WITH A WATER-PROOF MARINE SEALANT TO PREVENT CORROSION!

#### DIMENSIONS WITH OUT CAGE



#### DIMENSIONS WITH CAGE

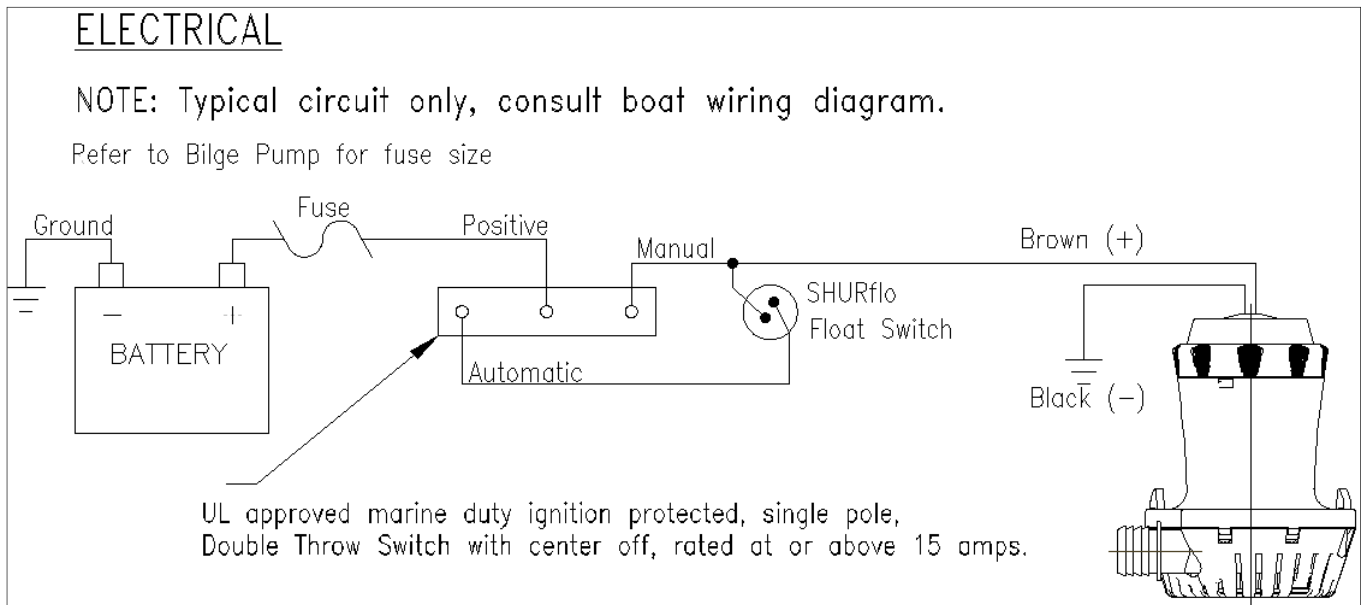


**NOTE:**

If replacing the SHURflo Piranha Bilge switch (359-101-00 or 359-111-00) with SHURflo Bilge switch (359-101-30 or 40) use the following procedure for installation.

- Connect one of the BROWN wires from the Float Switch and the Positive (+) from the Battery to the Middle Pin of the three way switch (Panel Switch).
- Connect the other BROWN wire from the Float Switch and the BROWN (+) wire from the pump to the Automatic side of the three way switch (Panel Switch).
- Connect the black wire (-) from the pump to the Battery ground.

**NOTE:** The manual side of the three way switch (Panel Switch) will be disabled. Contact SHURflo customer service for questions.



- ES** Favor de referirse a [www.shurflo.com](http://www.shurflo.com) para instrucciones de la instalación del producto y su operación, disponible en varios idiomas.
- DE** Mehrsprachige Hinweise zu Installation und Betrieb des Produktes finden Sie unter [www.shurflo.com](http://www.shurflo.com)
- IT** Fare riferimento al sito [www.shurflo.com](http://www.shurflo.com) per manuali multilingue di installazione ed utilizzo prodotti.
- FR** Veuillez vous référer au site [www.shurflo.com](http://www.shurflo.com) pour l'installation produit multilingue ainsi que pour le mode d'emploi.
- UK** Please refer to [www.shurflo.com](http://www.shurflo.com) for multi-lingual product installation and operating instructions'

**LIMITE WARRANTY:**

SHURflo warrants its SHURflo bilge pump switches to be free of defects in material and workmanship under normal use for a period of three years from the date of manufacture, as indicated on the switch label. Returns are to be shipped to SHURflo. This warranty is only a representation of the complete marine products limited warranty. Outline by Service Bulletin # 1050. Call or write for a copy.

*SHURflo reserves the right to update specifications, prices or make substitutions without notice.*

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