

# Float Switches The Next Generation Models 35A, 35FA, 37A, 37FA, 40A, 40FA

# Features

- Patent pending snap switch design
- Snap switch tested to over 1,000,000 cycles @ 12V
- Highly abrasion resistant marine grade blocked wire
- Exclusive moisture tight seals
- Environmentally friendly mercury free design.

### **Models**

| Model | Description                                  | Max. Current<br>@ I2V DC |
|-------|--|--------------------------|
| 35A   | Rule-a-Matic                                 | I4A                      |
| 35FA  | Rule-a-Matic with fuse holder                | I4A                      |
| 37A   | Super Switch                                 | 20A                      |
| 37FA  | Super Switch with fuse holder                | · 20A                    |
| 40A   | Rule-a-Matic covered switch                  | 20A                      |
| 40FA  | Rule-a-Matic covered switch with fuse holder | 20A                      |

## Installation Instructions

The Rule-a-Matic, Super Switch, and Rule-a-Matic Plus float switches are suitable for any submersible bilge pump with an operating current rating as listed below.

|         | Maximum Current Rating |                                     |  |  |
|---------|------------------------|-------------------------------------|--|--|
| Voltage | Rule-a-Matic           | Super Switch /<br>Rule-a-Matic Plus |  |  |
| 12V     | I4A                    | 20A                                 |  |  |
| 24V     | 7A                     | 10A                                 |  |  |
| 32V     | n/a                    | 6.5A                                |  |  |

All switches will turn the pump on when the water level reaches 2" (51mm) and will turn the pump off when water level falls to 3/4" (19mm). They can also be used to operate high water alarm systems.

This product must be fused with the correct recommended fuse size for the pump to which it is connected. Do NOT use these switches in applications where the pump is operating above the maximum current in the table above.



# **Dimensional Drawings**



### **Specifications**

| Model | Voltage      | Wire Size         | Wire Length  | Max. Amps | Guard | Warranty |
|-------|--------------|-------------------|--------------|-----------|-------|----------|
| 35A   | 12/24/32 VDC | 16 Gauge (1.29mm) | 28" (712 mm) | 14        | No    | 2 Years  |
| 37A   | 12/24/32 VDC | 14 Gauge (1.63mm) | 28" (712 mm) | 20        | No    | 5 Years  |
| 40A   | 12/24/32 VDC | 14 Gauge (1.63mm) | 28" (712 mm) | 20        | Yes   | 2 Years  |

## **Mounting Instructions**

For best operation, the Rule switch should be located on a flat surface in the bilge compartment. Do not exceed the installation angles as described in the diagrams below as this will affect switch performance.



It is important that the switch is mounted 1/4" (6mm) above the bottom of the pump strainer. This will assure a positive shut off of the pump.

- 1. Position the switch parallel to the vessel's water line with the wire exiting the switch toward the stern.
- 2. For models 35A, 35FA, 37A, 37FA, unclip the switch base and attach base to the surface using suitable stainless steel screws. Re-clip switch into
- 3. For models 40A and 40FA partially fit one screw in place and slide the switch into place before fitting second screw.

base (see Figure 3).



4. Ensure there is free movement of the float.

The Rule Switch may be mounted directly on to non automatic Rule pumps that accept an adapter (pumps with capacity of 1500 GPH (5678 lph) or greater). Rule adapters (model 64 and 65) are also available separately.



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#### **Electrical Installation**

Wire the Rule switch as shown in the diagrams below. The positive (+) side of the battery should connect directly to the fuse (note models 35FA, 37FA, and 40FA include a fuse holder). Adding a fuse will prevent damage to both the pump and switch should an electrical problem occur. When adding additional wire up to 20 ft (6m), the wire added should be the same size (gauge) or larger than the size of the wire leads coming directly from the pump. For installations requiring over 20 ft (6m) of additional wire, the size of the added wire should be increased (e.g. if pump is fitted with 14 gauge, added wire should be increased to 12 gauge (2.05mm)).



## Operation

Rule float switches are designed to automatically turn the bilge pump on and off as required. If it is desired to pump the water level even lower, the pump can be operated by a 3-way Rule panel switch (models 41,42, and 43) in the "manual" mode (see below diagram for illustration). To test the operation of the 40A /40FA switch and pump, press down on the lever located in the back of the switch. This will lift the float mechanism, which will turn on the bilge pump. Periodically clean any accumulated debris from around the switch or integral switch guard. This will allow free flow of water to the float.

### Wiring Diagrams



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