



## Closed Tank Float Switch Class 9037 Type HG, Series A

### INTRODUCTION

This document contains installation, operation, adjustment and parts replacement information for Class 9037 Type HG Series A Closed Tank Float Switches. These float switches are used to automatically control the liquid level in closed tanks.

### CAUTION

#### **EQUIPMENT DAMAGE HAZARD.**

**Remove shipping bracket from mounting plate before installing switch.**

Failure to observe this precaution can result in equipment damage.

#### **EXCESSIVE PRESSURE.**

**Avoid using the float switch where pressure within the closed tank exceeds 50 psi.**

Failure to observe this precaution can result in seal leakage and equipment damage.

### MOUNTING

To mount the float switch (refer to Figure 1):

1. The float switch is shipped with a bracket attached to the mounting plate. This bracket prevents the float and rod from moving in the tank during shipment. Remove and discard this clearly-marked shipping bracket before installing the float switch.
2. Loosen the nut (item C) so that the 2-1/2 inch I.P.S. threaded fitting (item D) rotates freely in the switch bracket.
3. Mount the float switch by screwing the threaded fitting directly to the tank.
4. Tighten the threaded fitting so no fluid from the tank leaks past the threads.
5. Rotate the switch case until it is horizontal and tighten the nut.

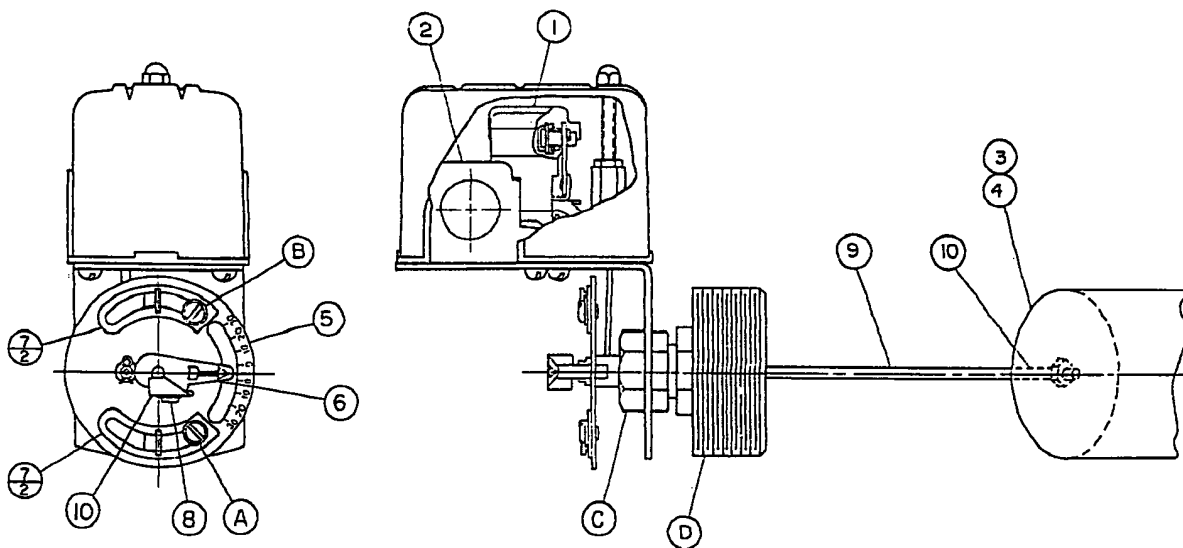


Figure 1 Class 9037 Type HG Series A Float Switch

## ENCLOSURE RATING

NEMA 1 enclosures are intended for indoor use primarily to provide a degree of protection against contact with the enclosed equipment in locations where unusual service conditions do not exist.

## ADJUSTMENT

### **⚠ DANGER**

#### **HAZARDOUS VOLTAGE.**

**Disconnect all power before working on equipment.**

Failure to observe this precaution will result in severe injury or death.

Float switches are shipped from the factory set for a specified float travel. Some adjustment of float travel can be made in the field. Float travel is adjusted by moving one or both of the adjusting strips (item 7 in Figure 1), held in place by screws (items A and B).

To change the upper limit of float travel:

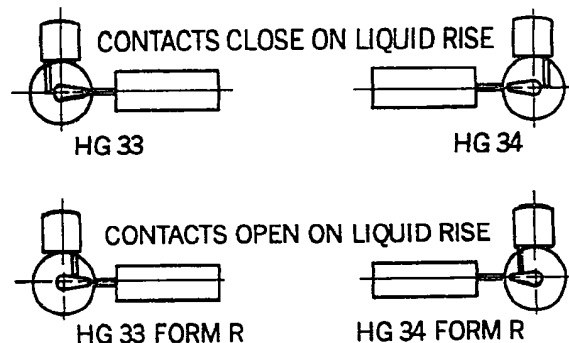
1. Loosen screw (item B).
2. Move the upper adjusting strip (item 7) clockwise to reduce the upper limit or counter-clockwise to increase the upper limit.
3. Tighten the screw (item B).

To change the lower limit of float travel:

1. Loosen screw (item A).
2. Move the lower adjusting strip (item 7) counter-clockwise to reduce the lower limit or clockwise to increase the lower limit.
3. Tighten the screw (item A).

## Reverse Action

Standard float switches are shipped from the factory with the float and link positioned for contacts to close on liquid rise. Form R float switches are shipped with the float and operating link positioned for contacts to open on liquid rise. To reverse the switch action, relocate the operating link to the opposite slot in the base plate and to the corresponding hole in the adjusting plate (refer to Figure 2).



**Figure 2      Float and Link Positions**

## MOTOR PROTECTION

This type of float switch does not provide motor protection but is frequently used as a pilot to operate a motor protective starter. For more information on the complete line of motor protective switches, contact your local Square D Sales Office.

**WIRING AND ELECTRICAL RATINGS**

Figure 3 shows typical single phase and polyphase wiring diagrams for the float switch. The switch contact control circuit has an A600 rating. Horsepower ratings for the switch contacts are listed in Table 1.

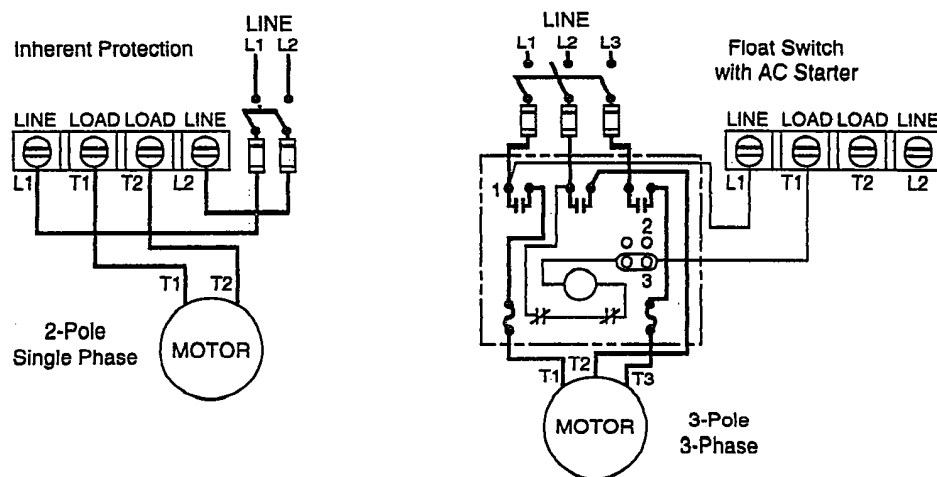


Figure 3 Wiring Diagrams

Table 1 Switch Contact Horsepower Ratings

Voltage	Horsepower Ratings		
	Single Phase AC	Polyphase AC	DC
115	2 hp	3 hp	1/2 hp
230	3 hp	5 hp	1/2 hp
460/575	—	1 hp	—
32	—	—	1/4 hp

**REPLACEMENT PARTS**

Replacement parts for the Class 9037 Type HG Float Switch are listed in Table 1. For parts locations, see Figure 1 on page 1. When ordering parts, always give Class, Type and Form of switch.

Table 1 Replacement Parts

Item No.	Description	Quan.	Part No.	
1	Set of Moveable and Stationary Contacts	2	9998 PC-242	
2	Switch Mechanism <sup>(1)</sup>	1	65079-502-51	
3	Float (304 SS)	1	9049 HF3	
4	Float (316 SS)	1	9049 HF4	
5	Adjusting Plate Assembly	1	2810-D7-G1	
6	Operating Lever	1	2810-C4-X2	
7	Adjusting Strip	2	2810-X8	
8	Screw	1	21911-14161	
9	Connector and Rod Assy.	45°	—	2810-C3-G9
		90° Offset	3"	2810-C3-G15
		90° Offset	4-1/4"	2810-C3-G19
		90° Offset	5"	2810-C3-G18
		90° Offset	7"	2810-C3-G6
10	Clamp	1	2810-D4-X1	
—	Seal and Installation Kit (BUNA-N)	1	9998 PC-337	
—	Seal and Installation Kit (VITON <sup>®</sup> )	1	9998 PC-338	

<sup>(1)</sup> Orders for mechanisms must show Class and Type so nameplate on replacement can be correctly stamped.

**TRADEMARKS:**

VITON is a registered trademark of E.I. Dupont De Nemours & Co.

**PLEASE NOTE:**

Electrical equipment should be serviced only by qualified electrical maintenance personnel, and this document should not be viewed as sufficient instruction for those who are not otherwise qualified to operate, service or maintain the equipment discussed. Although reasonable care has been taken to provide accurate and authoritative information in this document, no responsibility is assumed by Square D for any consequences arising out of the use of this material.