

# LIQUID LEVEL SWITCH

HM 1812

## CP-782-PP

(PP=Polypropylene)



### Quick Overview

The CP-782-PP OEM level switch opens on rise or closes on rise by reversing the float. It's a simple Float Switch product based on a simple idea. A magnetic float rising or falling in response to liquid level change actuates a hermetically sealed magnetic reed switch. This straight forward method of converting motion into an electrical signal is so uncomplicated that many years of reliable service can be expected. This item is sometimes referred to as a water level switch, float switch, or magnetic level switch.

Polypropylene level switch version is suitable for water, soaps , light acid liquid level sensor applications.



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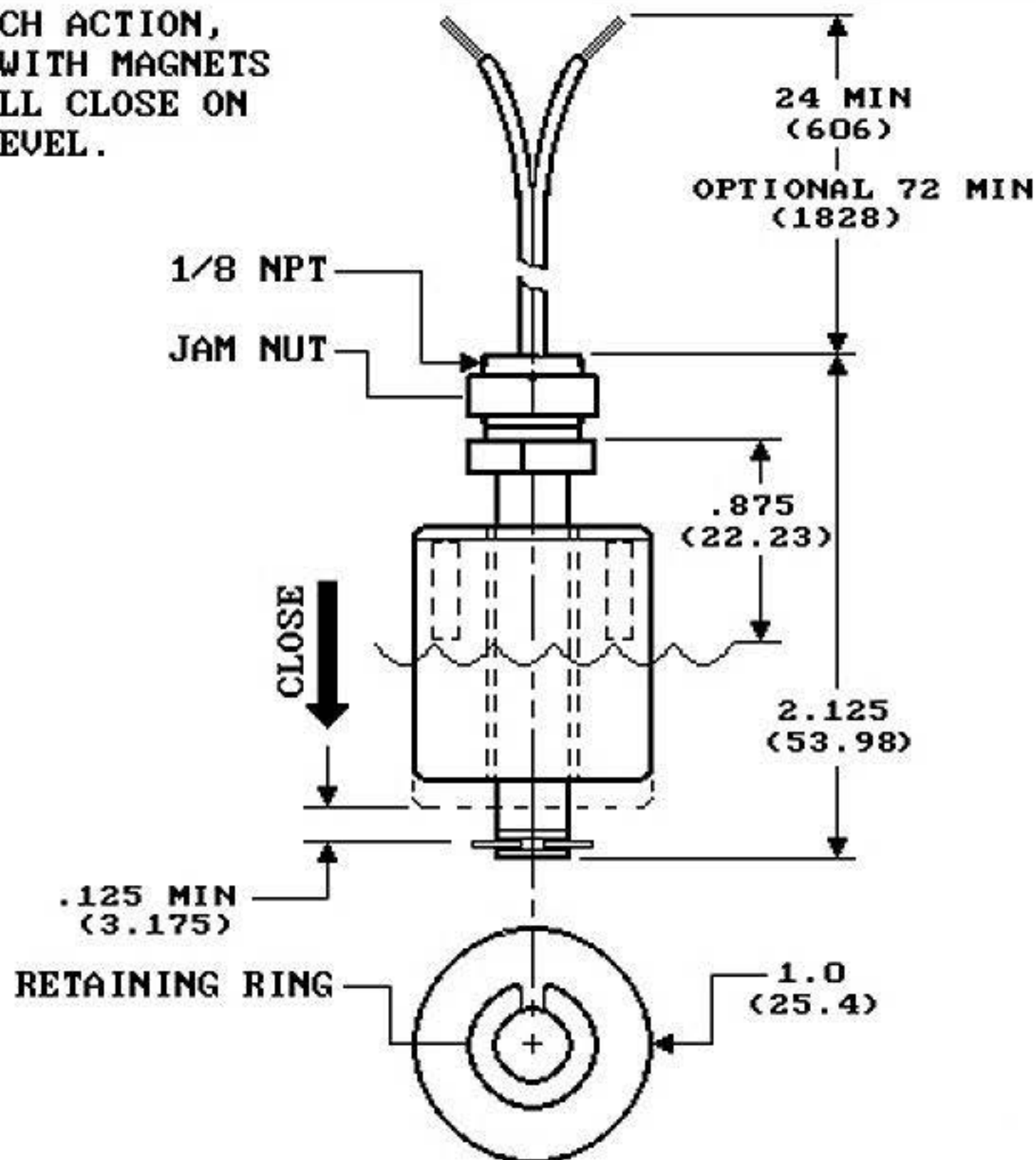
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# LIQUID LEVEL SWITCH

CP-782-☐☐

TO REVERSE SWITCH ACTION,  
ASSEMBLE FLOAT WITH MAGNETS  
DOWN. SWITCH WILL CLOSE ON  
RISING LIQUID LEVEL.



SCHEMATIC



## MODES OF OPERATION

The switch action of the CP-782 can be configured for either normally open or normally closed switch action depending upon the orientation of the float on the stem. The product is shipped with the float in the "magnets up" normally closed condition. To reverse this action, remove the float and retaining ring, turn the float over and reassemble the float and retaining ring.

### FLOAT BUOYANCY IN SPECIFIC GRAVITY 1.0

Float	Inches			MM			Medium
	PP	AC	KR	PP	AC	KR	
Exposed	.4	.35	.2	10.16	8.89	5.08	air
Submerged	.6	.65	.8	15.24	16.51	20.32	Water
Height	1.0	1.0	1.0	25.4	25.4	25.4	---

### ELECTRICAL RATING

**OKI**™



OKI Sensor Device Corporation

Contact life	Complete OKI Reed Switch Databook available at <a href="http://www.osdc.co.jp/">http://www.osdc.co.jp/</a>	
Contact rating		70 VA*, 50W* *Resistive
UL file E70063		OKI Sensor Device Corporation Reed Switch Model ORD229 Tokyo 193-8550, Japan
Max Switching Voltage	300AC, 350DC	
Max Switching Current	AC 0.5AMP*, DC 0.7AMP*	

### APPLICATION ENVIRONMENT

Pressure (Hollow float)	100 PSI MAX @ 20°C	Derate, Zero @ 90°C
Temperature	90°C MAX	---
Specific Gravity	.8 MIN	Clear Liquid
Position Extreme	30° Cant MAX	Off Vertical

\* UL component recognition applies to the OKI switch Model ORD229. Observe applicable electrical codes when using this product.

## TRIP POINT (DRY STATE BEHAVIOR)

**NORMALLY CLOSED**— Legend toward retaining ring. Switch opens as float approaches the hex and closes as float approaches the retaining ring at the opposite end.

Contacts open when the gap between float and retaining ring is increased to not more than .250/.635 and recloses when gap is not less than .125/.318. The characteristic differential between open and closed states is .030/.762

**NORMALLY OPEN**— Legend toward hex. Switch opens as float approaches the retaining ring and closes as the float approaches the hex at the opposite end.

Contact closes when gap between float and hex is not less than .125/.318 and reopens when gap is increased to not more than .250/.635. The characteristic differential between open and closed states is .030/.762.

### MATERIALS OF CONSTRUCTION

CP-782-PP	(Gray & black) Polypropylene
CP-782-AC	(Red) Acetal
CP-782-KR	(Natural) Kynar PVDF

## MODES OF FAILURE

Stuck closed contacts are symptomatic of welded contacts. Contacts will weld and then stick whenever the power switched is greater than the reed's ability to handle the load. Any stick is indicative of a catastrophically damaged, overloaded reed contact. Reed switch contacts are vulnerable to such damage when subjected to reactive loads. When switching solenoid and relay coils, include arc suppression in your circuit. See "Is Arcing Present" in Tech Note section in this catalog.

Stuck open contacts are symptomatic of a stressed or otherwise broken switch. Avoid dropping the switch or bending it during the installation process.