

Figure 1. Shows the LS05 Series in multiple configurations with various float types.

## Features

- Ability to operate up to 200°C
- Ability to operate in pressurized atmospheres up to 12 bars (170psi)
- Ideal when vertically mounted
- Stems are V2A stainless steel with stainless steel floats also available
- Floats available to deal with the buoyancy and harsh effects of oil, gasoline, petrol, brake fluid, etc
- Floats also available for water, and some acids
- Lengths can vary from 80 mm to 2000 mm
- Stem diameter ranges from 7 mm to 16 mm
- Multiple floats setups available
- Various mounting threads available
- Reed contacts never directly subjected to the outside environment
- Reed switches are hermetically sealed
- The magnet is not affected by the environment
- Millions of operations reliably
- Contacts dynamically tested

## Applications

- Liquid level monitoring of tanks and reservoirs
- High and low liquid level monitoring
- Continuous liquid level monitoring
- Ability to monitor drinking water, brake fluid, oil, gasoline, power steering fluid, etc.
- Automotive
- Agricultural equipment
- Refrigerated trucks
- Food and beverage equipment

## Introduction

High temperature liquid environments have been around for a long time without any accurate, easy method of measuring their liquid levels. MEDER has solved this problem with their hermetically sealed reed based sensing systems, which allows their float systems to exist in operating temperatures up to 200°C. Their new liquid level systems can also exist in very harsh liquids as well. The series uses a stainless steel housing, offering lengths up to two meters, having many switching points, and capable of multiple floats which are ideal when dealing with multiple liquids having differing specific gravities.

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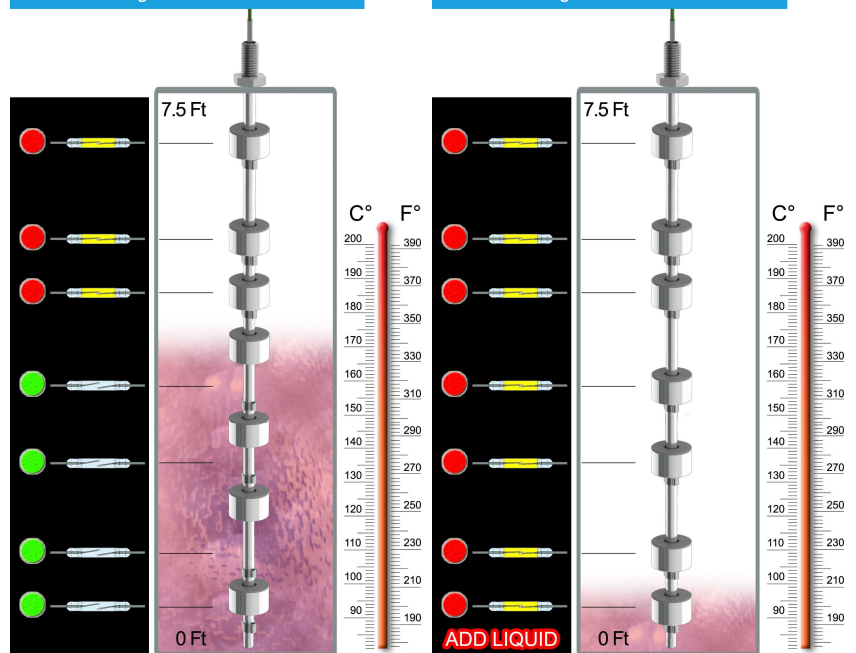


Figure 2. Float magnets move up and down the reed switches located in the stem causing the LED status to change at each liquid level.

Reliably measuring liquid levels when liquids have an ambient temperature up to 200°C has been a very difficult, costly and inaccurate undertaking. MEDER has solved this problem in a rather elegant manner by using their hermetically sealed reed based sensing systems, where they operate very accurately in a relatively simple design format and cost effectively. Using a stainless steel stem up to 2 meters long, several different floats are available capable of being immersed in a variety of liquid systems that may be caustic, acidic, and at high ambient temperatures. The hermetically sealed reed switches are further sealed in the stainless steel stem where they are mounted on printed circuit boards, with the ability to add further components being an easy undertaking. In this manner several liquid level point can be monitored offering different signals for each different level. Also, several floats may be used depending on the liquids being monitored, particularly if the application has different liquids in a given reservoir, where each has different specific gravities.




PA (polyamide) floats are available and are ideal for oil and gasoline environments; PP (polypropylene) floats are ideal for water and dilute acids; and V2A stainless steel floats are used for the high temperature environments. These stems and floats all can be subject to high pressures up to 12 bar (180 psi).




## Specifications delineating the LS05 Series

Operate specs	Min	Max	Units
Must close distance	5	2000	mm
Must open distance	5	2000	mm
Hysteresis	Typical 50%		

Load Characteristics	Min	Max	Units
Switching voltage		1000	Volts
Switching current		1.0	Amps
Carry current		1.5	Amps
Contact rating		100	Watts
Static Contact resistance		150	mΩ
Dynamic contact resistance		200	mΩ
Breakdown voltage	Up to 4000		Volts
Operate time		0.5	msec
Release time		0.1	msec
Operate Temp	-20	200	°C
Storage Temp	-35	200	°C

Whether you are switching signal levels or up to 1000 volts, our reed switches can accomplish both in the same application directly with no further components or switching devices. Because the reeds are hermetically sealed, the contacts never oxidize as electromechanical switches do when exposed to harsh environments. This is a very big advantage the hermetically sealed reeds have over its electromechanical competitor where the later ends up sticking or failing open in these tough conditions.

Adaptable Liquid Level Series				Illustration
Series	Dimensions		mm	
				inches
KSS-BV15078	W	25	0.984	
	H	25	0.984	
	L	165	6.496	
LS04	W	25	0.984	
	H	25	0.984	
	L	165	6.496	
LS05	W	7-16	0.276-0.630	
	H	7-16	0.276-0.630	
	L	80-2000	3.150-78.740	

Liquid Level Series				Illustration
Series	Dimensions		mm	
				inches
LS01	W	19	0.748	
	H	24	0.945	
	L	42	1.654	
LS02	W	19	0.748	
	H	24	0.945	
	L	75	2.953	
LS03	W	25	0.984	
	H	25	0.984	
	L	80	3.150	

Consult our engineers for your exact requirement.