



# Liquid Level Sensors

For Analog Type

SPORLAN



ENGINEERING YOUR SUCCESS.



## Features

### Liquid Level Sensor (LLS) Assembly

- R-134a, R-1234ze, and R-22 compatible. Contact Sporlan regarding compatibility with other refrigerants
- Fluid Temperature Range: -13°F to 131°F (-25°C to 55°C)
- Ambient Operating Temperature Range: -40°F to 158°F (-40°C to 70°C)
- Withstand/Storage Temperature: -67°F to 203°F (-55°C to 95°C)
- Operating pressure range: 450 PSIG (31 bar)
- UV resistant to allow outdoor use
- 15' cable (attached)
  - Red wire: 5 VDC
  - White wire: Output
  - Black wire: DC ground
- Output voltage: (0.6 to 4.4 V) with linear relationship to the liquid level
- Shell available separately

# Liquid Level Sensors

## For Monitoring Refrigerant Levels in Commercial Air Conditioning and Refrigeration Systems

The Sporlan LLS (Liquid Level Sensor) is used in commercial air conditioning and refrigeration systems to monitor refrigerant levels.

The Sporlan LLS uses a patented capacitive sensor and a calibration algorithm for measuring refrigerant levels. The sensor section is 2.2" (56 mm) in length with an analog output. It is mounted in the bottom of the vessel containing liquid refrigerant.

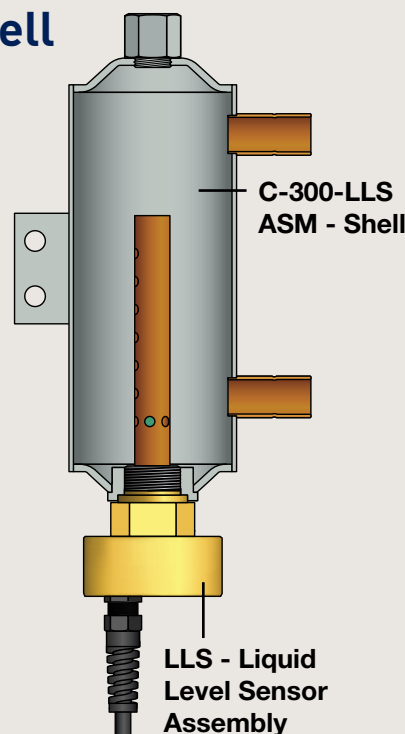
If the system does not offer or allow for a 1"-16 threaded receptacle for the LLS, Sporlan offers a convenient vessel that may be piped into the system. The C-300-LLS ASM Shell can be easily attached to the system via copper fittings.

The output voltage (0.6 to 4.4 V) has a linear relationship to the liquid level.

**Formula:  $V_{out} = (\text{Percent Liquid Level} \times 3.8) + 0.6$**   
**Percent Liquid Level: 0% = Empty, 100% = Full**  
**Vout Accuracy: +/- 5%**

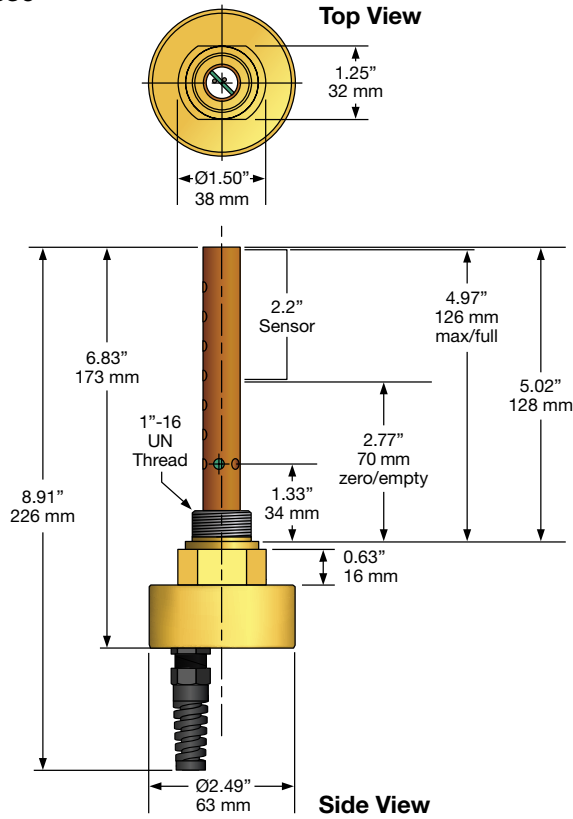
### C-300-LLS ASM Shell (Sold Separately)

Sporlan offers a convenient vessel that may be piped into a system. This allows one to monitor refrigerant levels in decentralized systems where it may be very challenging to precisely calculate the overall refrigerant charge. This can improve system safety and efficiency for systems with multiple evaporators operating at varying conditions.

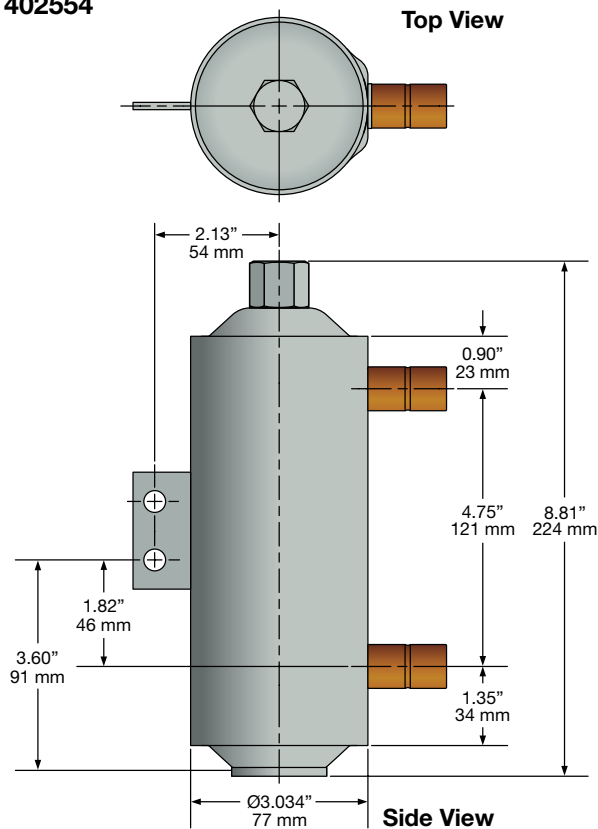


## Dimensions

LLS - Liquid Level Sensor Assembly  
 Item Number 952836



C-300-LLS ASM - Shell  
 Item Number 402554



## LLS and C-300-LLS ASM Assembly



C-300-LLS ASM - Shell



Wolverine Gasket  
 (Supplied with LLS)



LLS - Liquid Level  
 Sensor Assembly

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