

PRODUCT DATASHEET

PermAlert is the leak detection and location systems technology specialist since 1988. We work with customers to address their most complex leak detection challenges and to deliver innovative business solutions that bring higher value to every facility.

PermAlert offers continuous monitoring, multi-level alerts, system logging, BMS integration, and cost savings to the data centers, oil & gas, commercial buildings, and healthcare industries.

No matter where the leak location is, we are confident that our stability as a company, team of technical expertise, and international network are at your disposal to help minimize leaks and to maximize asset protection.

OVERVIEW

The **PHLR** series probe is a resettable hydrocarbon probe that detects hydrocarbon liquids in interstitial spaces of tanks and pipes, sumps and other containment areas where hydrocarbon liquid can accumulate to a depth of 1/4" or more.

The probes will detect liquid fuels (gasoline, diesel fuel, jet fuel, crude oil, etc.) and many hydrocarbon solvents, but ignore vapors, thus eliminating false alarms due to vapors.

The unique design of the probe employs reusable sensor elements, which swell upon exposure to hydrocarbon liquids and activate a sealed switch. The sensor elements can be easily removed, cleaned and reused numerous times after exposure. This enables the system to be quickly reset after testing.

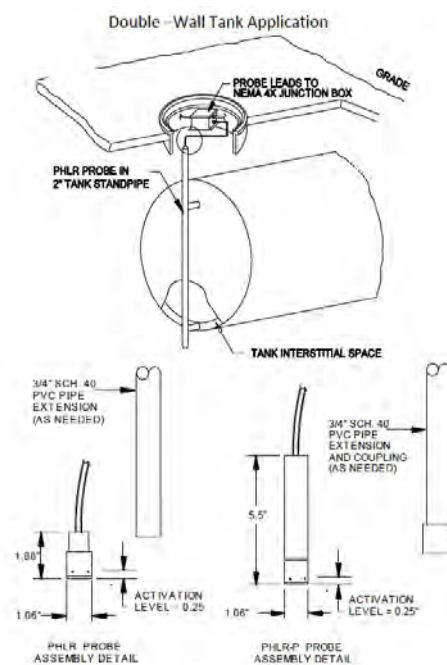
The standard **PHLR** probe is designed for non-pressurized applications. The **PHLR-P** probe is available for pressurized locations. This probe is ideal for typical sealed, containment piping systems that are maintained under pressure with a nitrogen or air blanket.

Easy installation - The **PHLR** probe slips into the end of a 3/4" Schedule 40 PVC pipe. The pipe can then be mounted in any orientation, horizontal or vertical. The **PHLR-P** probe slips into a 3/4" PVC coupling and must be mounted vertically.

A **PHLR** series probe is available for the PAL-AT® or LiquidWatch® systems.

The **PHLR** series can easily be connected to a PAL-AT cable "sensing string" providing increased utilization of the PAL-AT capabilities. Each probe assembly for PAL-AT includes a probe integrator with 60 ft (18 m) of jumper cable to connect to the sensing string, and 20 ft (6 m) of lead cable to attach the probe to the integrator.

The **PHLR** series for LiquidWatch includes a 1/2" NPT cord grip and a probe adapter incorporated in the 20 ft (6 m) long probe lead wire. Additional lead wire is used if necessary.



Typical PHLR Response Times

Liquid*	Response Time (@70°F)
1, 1, 1, Trichloroethane	< 1 minute
Acetone	
MEK	
Xylene	
Naptha	
Gasoline	
Diesel Fuel	< 5 minutes**
Kerosene	
Jet Fuel	
Crude Oil	
Alcohols	Not Detected

* Long exposure to some aggressive solvents like acetone or xylene may soften the epoxy sealing the probe, requiring probe replacement.

** Response time at room temperature. Response times will be longer or lower temperatures.

PAL-AT NOTE:

- A "S" probe must be connected in the first 5,000 ft (1,500 m) of the sensing string.
- A "L" probe must be connected more than 5,000 ft (1,500 m) from the PAL-AT panel.
- Each probe includes junction box, two connectors and three 1/2" NPT cord grips.

As part of PermAlert continued product development, such information on this datasheet is subject to change without prior notice. PermAlert is not responsible for any inadvertent errors. PermAlert offers a sole and exclusive warranty as is stated in the Standard Terms and Conditions of Sale for these products. Copyright © 2019 PermAlert, a brand of Perma-Pipe, Inc. All rights reserved. DSLW 03/26/19

PHLR LIQUID HYDROCARBON PROBE



Minimize Leaks.
Maximize Asset Protection.

PERMALERT Business Benefits

24 X 7 MONITORING

Continuous monitoring of critical infrastructure and equipment.

MULTI-LEVEL ALERTS

Capable of detecting multiple and growing leaks while maintain continuous operations.

SYSTEM LOGGING

Every leak detection event is recorded in system log to allow full audit trail and ease of troubleshoot.

BMS INTEGRATION

Support BMS integration via RS485, Modbus, BACnet and dry contacts.

COST SAVINGS

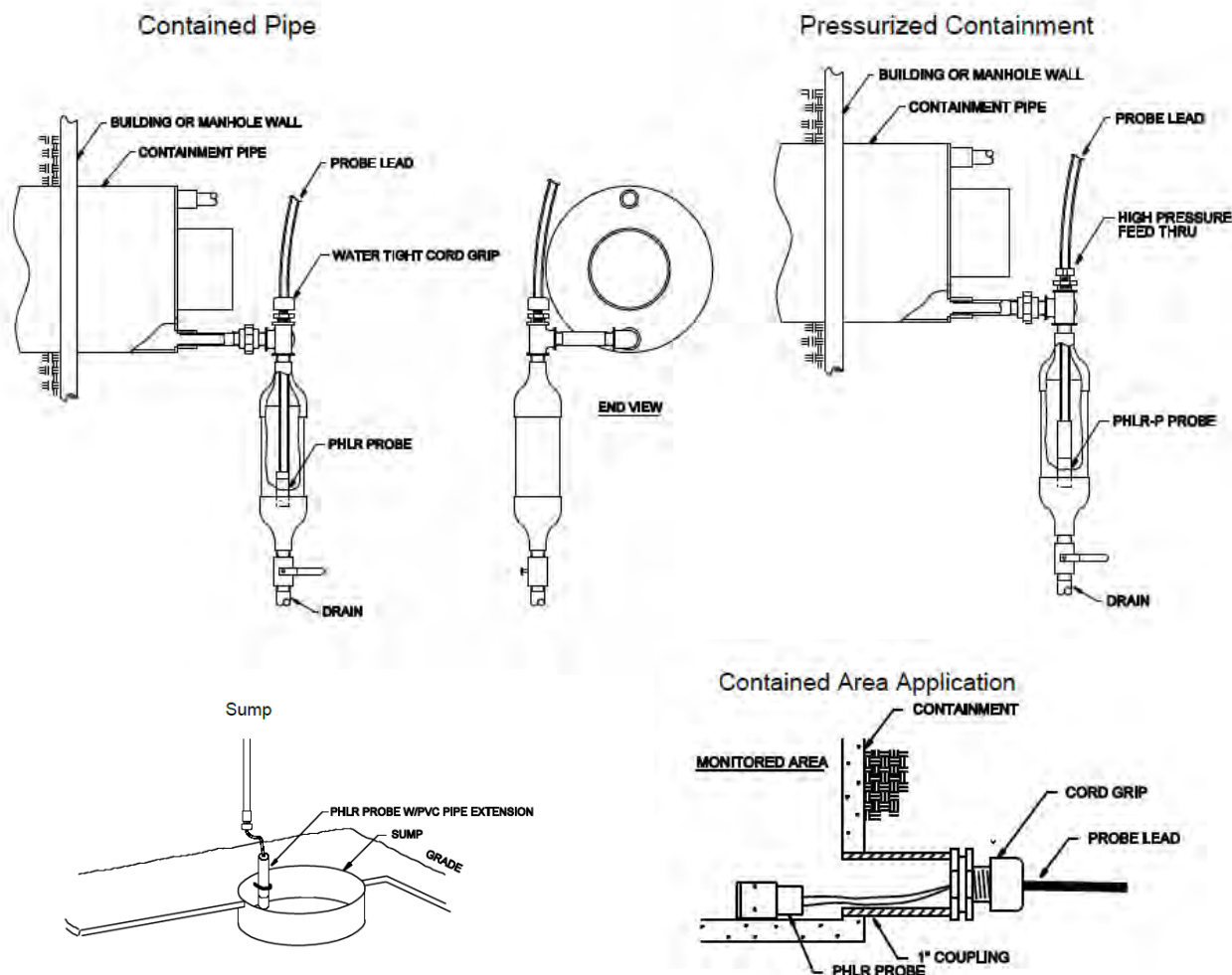
Minimize downtime and damages to critical infrastructures. And reduction of insurance premium.

REGULATORY COMPLIANCE



permalert.com | PermAlert Global Offices

APPLICATIONS



Part Numbers:

PAL-AT		LiquidWatch	
PHLR-S	8027888	PHLR-LW	8027890
PHLR-L	8027889	PHLR-P-LW	8027913
PHLR-P-S	8027911		
PHLR-P-L	8027912		

Replacement Sensor Package: 8027895

- includes all removable parts, including replacement sensor elements, 8027896

Replacement Sensor Elements: 8027896

- includes sensor disks and sensor screens

Probe Technical Data

- Operating Temperature: -20°F to 122°F (-29°C to 50°C)
- Length: 1.88" (48 mm) PHLR / 5.5" (140mm) PHLR-P
- Diameter: 1.06" (27mm)
- Lead Length: 20 ft. (6m)
- Activation Level (min): Vertical - 0.25" (6.4mm)
Horizontal - 0.50" (12.8mm)

Junction Box (PAL-AT ONLY)

- NEMA 4X (IP66) 10" x 8" x 4" (250mm x 200mm x 100mm)
- Maximum Temperature 140°F (60°C)

Applications

- Double Wall Tank
- Sealed Trenches
- Sumps
- Double Wall Pipes
- Valve Pits
- Manholes

CONTACT US

The PermAlert technical staff is comprised of multidisciplinary product professionals to support you across a range of leak detection product requirements. Rely on our technical staff to help you minimize your leaks and maximize your asset protection.

For more information about our products, please visit us at permalert.com.