

Leak Detection Systems

Part Numbers:

LU-series LPD-series LS-ASC LWF L-R-1 L-series PDS PDWF PDWS



Description

OMNTEC's LU and LPD leak-detection and overfill-alarm systems provide continuous, accurate monitoring in a variety of applications. Typical applications are reservoirs, sumps, dry interstitial spaces and dispenser pans. These easy-to-install controllers alarm for in tank levels and leak conditions. The LU controllers are capable of accepting up to 9 sensors for high level and leak detection. The LPD controllers are capable of accepting up to 9 sensors for in tank levels and product distinguishing leak detection. The electro-optic sensors used with these controllers allow users to easily cycle all sensors through a simulated leak, with the press of a single button. This feature eliminates the need to remove the sensor from its location.

An alarm condition is visually signaled by a dedicated LED indicator, which remains lit until the alarm condition is corrected. Alarm conditions are audibly annunciated via a 95-decibel piezoelectric pulsing horn. RA-series remote annunciators add high-level remote audio-visual alarms without the need for external AC power.

The LU-SP series controllers accommodate a variety of special applications. In addition, LU-OW systems are available for use with Oil Water Separators.

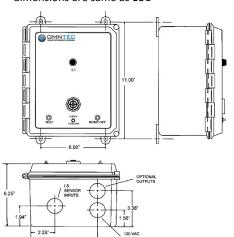
The NEMA 4X rating of the LU and LPD series controllers indicates a weatherproof, corrosion-resistant product. These controllers are ruggedly constructed to provide reliable and cost-effective performance.

Features

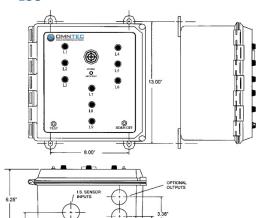
- NEMA 4X weatherproof, corrosion-resistant
- Remote sensor testing
- Acknowledge switch
- Test switch
- System detect light
- Easily installed
- Low-voltage remote annunciator outputs
- Relay outputs (see specifications)
- LED indicators rated MTBF 11 years
- Specific sensor LED
- Inputs accept either high level, caution level or leak sensors
- Low level alarm (LPD controllers only)
- Distinguishes liquid hydrocarbons from water (LPD controllers only)
- Removable sensor input connectors
- U.L. listed
- Third-party certified
- Cost effective
- Modified controllers for special applications

LU1

LU2, LU3, LU4, LU6 and L1PD2 dimensions are same as LU1

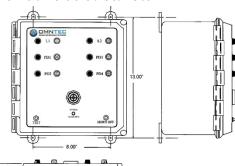


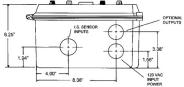
LU9



L2PD4

L3PD6 dimensions are same as L2PD4





Specifications		
Enclosure:	NEMA 4X	
Power Input:	85-125 VAC, 47-440 Hz 16 watts maximum	
Power to Sensor:	2 VDC @ 13 mA Intrinsically safe for Class I, Group D hazardous locations	
Sensor Cable:	Shielded 22 AWG with drain wire (OMNTEC EC-4 or EC-12) Maximum length 2,000 feet	
Audio-visual Controls:	95 dB pulsing horn	

Audible alarm: 95 dB pulsing horn

Red lights: High level alarm (L-Series)
Liquid-leak alarm (LWF and LS-ASC)

Amber Light: Low level alarm (L-Series)
Water-leak alarm (PD-Series)

Green light: Power is on (system detecting)

Horn-off button: Silences horn (auto time-out also included)
Test button: Tests entire system electronics, from sensors to control panel

Response Time: Immediate

Relay Outputs: SPST normally open dry contact

0.5 amp, 120 AC

Switches when an alarm condition occurs

(1 per sensor up to LU3)

Low-voltage Outputs: 12 VDC 0 to 140° F Operating Temperature: Compatible Sensors*: L-1-Series For high liquid level For high liquid level and caution level (see sensor chart) L-2-Series or high liquid level and low liquid level LS-ASC For liquid-leak detection in both underground and aboveground applications for double-wall dry interstice of Xerxes 4-foot fiberglass tanks LWF For double-wall fiberglass dry interstice PDS For product distinguishing liquid-leak detection

PDWS For double-wall steel dry interstice * Additional sensor applications available with SP and OW controllers

RA-NYS

PDWF

Accessories: RA-1*
RA-2*
RA-3*
RA-4*

* Number denotes number of tanks or alarms

Weight: LU1 - 5 lb. L1PD2 - 6 lb. L2PD4 - 9 lb. LU3 - 6 lb. L3PD6 - 9 lb. LU4 - 6 lb. LU6 - 6 lb. LU6 - 6 lb. LU9 - 9 lb. LU9 - 9 lb.

Approvals: U.L. listed 5L04 Third-party certified

Note: Current published specifications are subject to change without notification.

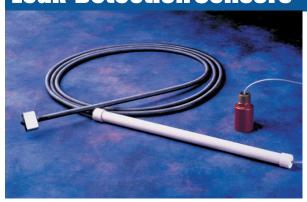
Verify specifications with manufacturer.

For additional information consult factory or pricelist.



For double-wall fiberglass dry interstice

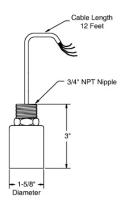
Leak-Detection Sensors



OMNTEC sensors are most known for their ease of installation, reliability, cost-effectiveness and remote testability. Electro-optic technology provides accurate and continuous monitoring. Ruggedly constructed, these solid-state sensors are UL listed and Third-party certified. A distinguishing feature of OMNTEC sensors is that they can be tested remotely with the press of a single button.

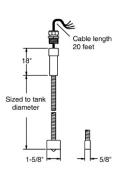
LS-ASC General Purpose Sensor for Double-Wall Steel Tanks

The LS-ASC non-distinguishing sensor was designed to accommodate a variety of applications. With its convenient size and ability to detect liquids at any angle, the LS-ASC sensor is the ideal sensor for sumps, dispenser pans, containment areas and annular spaces of double-wall steel tanks. For product distinguishing use part number PDS for general purpose or PDWS for double-wall steel tanks.



LWF Sensor for Dry Double-Wall Fiberglass Tanks

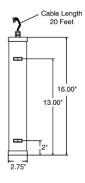
The LWF non-distinguishing sensor was designed to fit into the annular space of dry double-wall fiberglass tanks. With its slim, compact shape and flexible snake-like shaft, the LWF can easily be installed and removed from grade. When ordering, the part number will denote tank diameter. For product distinguishing use part number PDWF.





L-R-1 Sensor for Brine-Filled Double-Wall Tanks

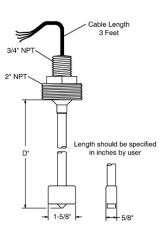
The dual-point L-R-1 sensor is designed for double-wall brine-filled fiberglass tanks. This sensor is made of nonmetallic corrosion-resistant materials. An alarm is activated to signal changes in reservoir-liquid level beyond acceptable limits (high or low).





L-Series Product Level Sensor

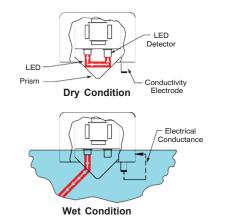
The L-series sensors are designed to provide product-level alarms for high, caution or low product levels. L-series sensors can be remotely tested without removal. This sensor is available with multiple alarm points.



Sensor Specifications

2 VDC @ 13mA **Power Consumption: Sensor Cable:** Shielded 22 AWG with drain wire (2000ft maximum) (OMNTEC EC-4 or EC-12) **Principles of Operation: Normal Condition:** Normally closed beam of light **Alarm Condition:** Normally closed beam of light opens (refracts) **Water Condition:** Conductivity electrode (PDS, PDWS and PDWF only) **Response Time:** Immediate Operating Temperature: -15 to 140°F Approvals: U.L. listed, Third Party Approved

Electro-optic Technology with Conductivity for Product Distinguishing



SENSOR	APPLICATION	CONTROLLER	PRODUCT DISTINGUISHING
LS-ASC	leak sensor *	LU	NO
LWF	double-wall dry fiberglass	LU	NO
L-1-L,S,D	high level	LU or LPD	NO
PDWF	double-wall dry fiberglass	LPD	YES
PDS	leak sensor *	LPD	YES
L-R-1	reservoir	LPD	NO
* Liquid leak-detection s	ensors for areas such as double-wall steel tanks, sumps,	containment areas, and dispenser po	ans.

Remote Annunciators



Features

- Easily installed
- No external power required
- Tests remotely
- NEMA 4X weatherproof, corrosion-resistant
- LED indicators rated MTBF 11 years
- High-decibel audible alarm
- U.L. listed
- Cost effective

nclosure:	NEMA 4X (W) 6.75 x (H) 5.50 x (D) 3.75
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Power Input: 12 VDC @ 200 mA maximum

Audio-visual Controls:

Audible alarm (RA-Series):95 dB pulsing hornAudible alarm (RA-NYS):110 dB pulsing hornRed lights:Liquid-high level alarm

Horn-off button on controller: Silences horn

Response Time: Immediate

Operating Temperature: 0 to 140°F

Compatible Controllers:

LPD-Series

Compatible Controllers:

LPD-Series
LU-Series

Wire:
22 AWG minimum

Weight:
1 lb.

Approvals:
U.L. listed 5L04



