



# OMNTEC

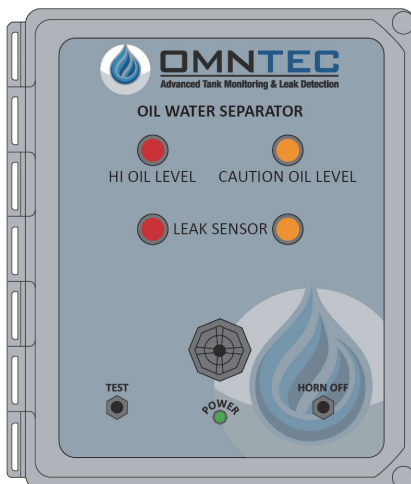
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1. Open the camera app
2. Focus the camera on the QR code by gently tapping the code
3. Follow the instructions on the screen to view PDF file

# LU3-OWIR

# INSTALLATION GUIDE



## OIL/WATER SEPARATOR ALARM PANEL

Revision 2406

Document No. LU3-OWIR

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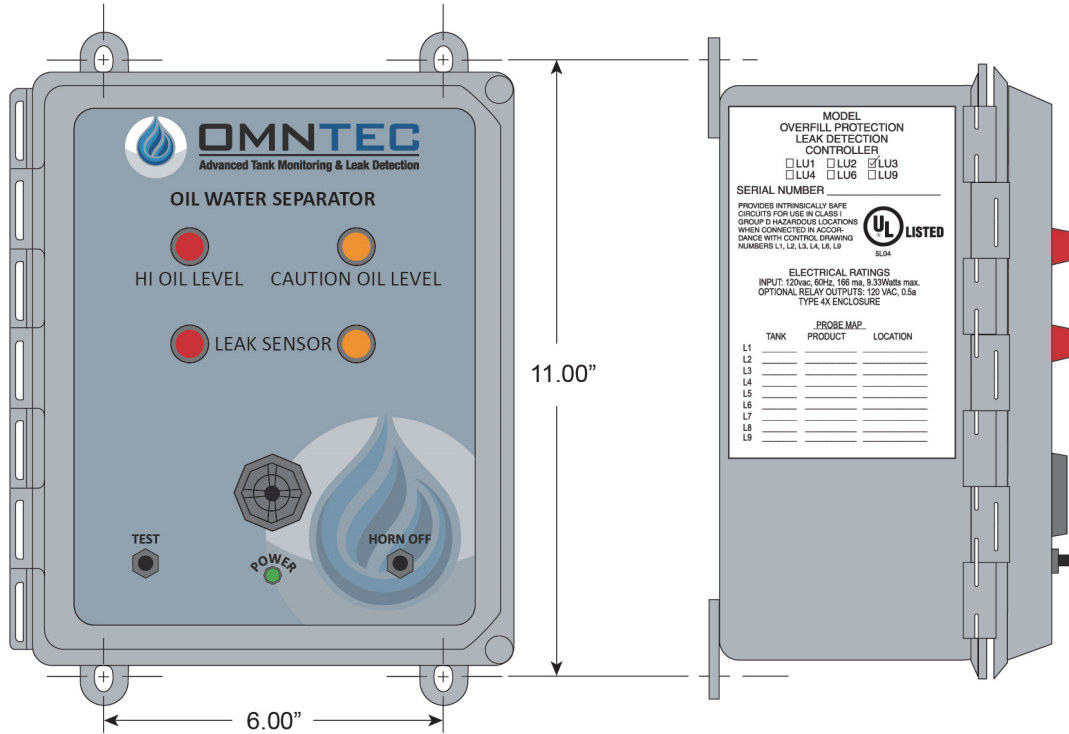
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**LU3-OWIR**

**OIL/WATER SEPARATOR ALARM PANEL**



**LU3-OWIR SPECIFICATIONS**

**POWER INPUT**

85-125 VAC, 47-440 Hz  
16 Watts maximum

**POWER TO SENSORS**

2 VDC @ 13 mA

**RELAY OUTPUT**

(3) SPST normally open dry contacts 0.5 AMPS, 120 AC/DC switches when an alarm condition occurs

**WEIGHT**

6 LBS.

**DIMENSIONS**

(W) 9" x (H) 10.5"

**SENSOR CABLE**

Shielded 22 AWG UL-E118830 CM  
Maximum length 2000 feet

**ENCLOSURE**

NEMA 4X

**OPERATING TEMPERATURE**

-40° to 140° F

**UL LISTED**

Intrinsically safe circuits for use in class I group D hazardous locations when connected in accordance with control drawing LU3-OWIR

**LABELS**

Provided with controller

**AUDIO/VISUAL CONSOLE**

**AUDIBLE ALARM** - 95 dB pulsing horn with no timeout

**CAUTION OIL LIGHT** - Indicates oil has accumulated below the caution oil interface float

**HI OIL LIGHT** - Indicates oil has accumulated below the hi oil interface float or the tank liquid level is below the hi oil interface float

**RED LEAK LIGHT** - Indicates hi alarm for L-R-1 or product alarm for PD-Series sensor

**AMBER LEAK LIGHT** - Indicates low level alarm for L-R-1 or water alarm for PD-Series sensor

**TEST BUTTON** - When pressed will test system lights and horn

**GREEN LIGHT** - Indicates the power is on

**HORN OFF BUTTON** - Silences the audible alarm when pressed

**SENSORS**

OWI-2 Two point oil/water interface float sensor

L-R-1 Reservoir sensor

PD-Series Product distinguishing liquid optic sensor

**ACCESSORIES**

RA-1 Audio/visual remote annunciator

RLY-RA Relay (consult factory)

RA-1-NYS Remote annunciator with strobe (consult factory)

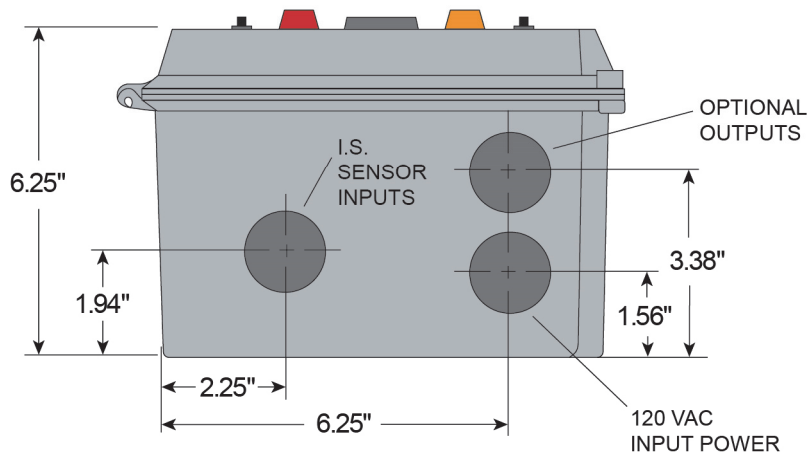
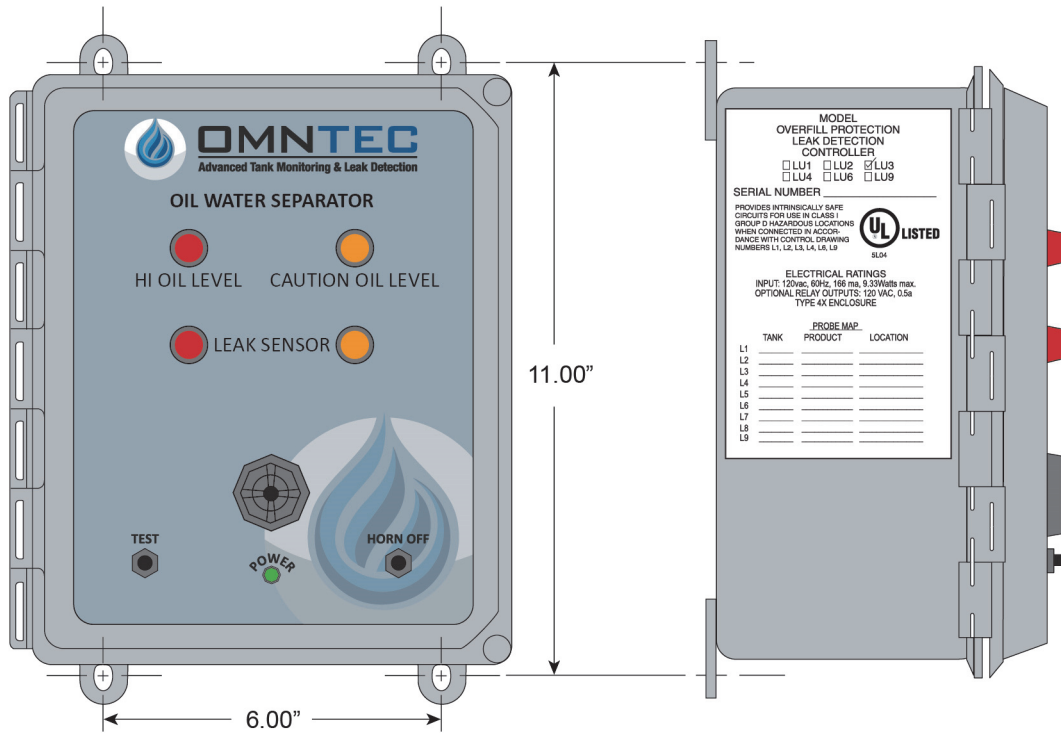


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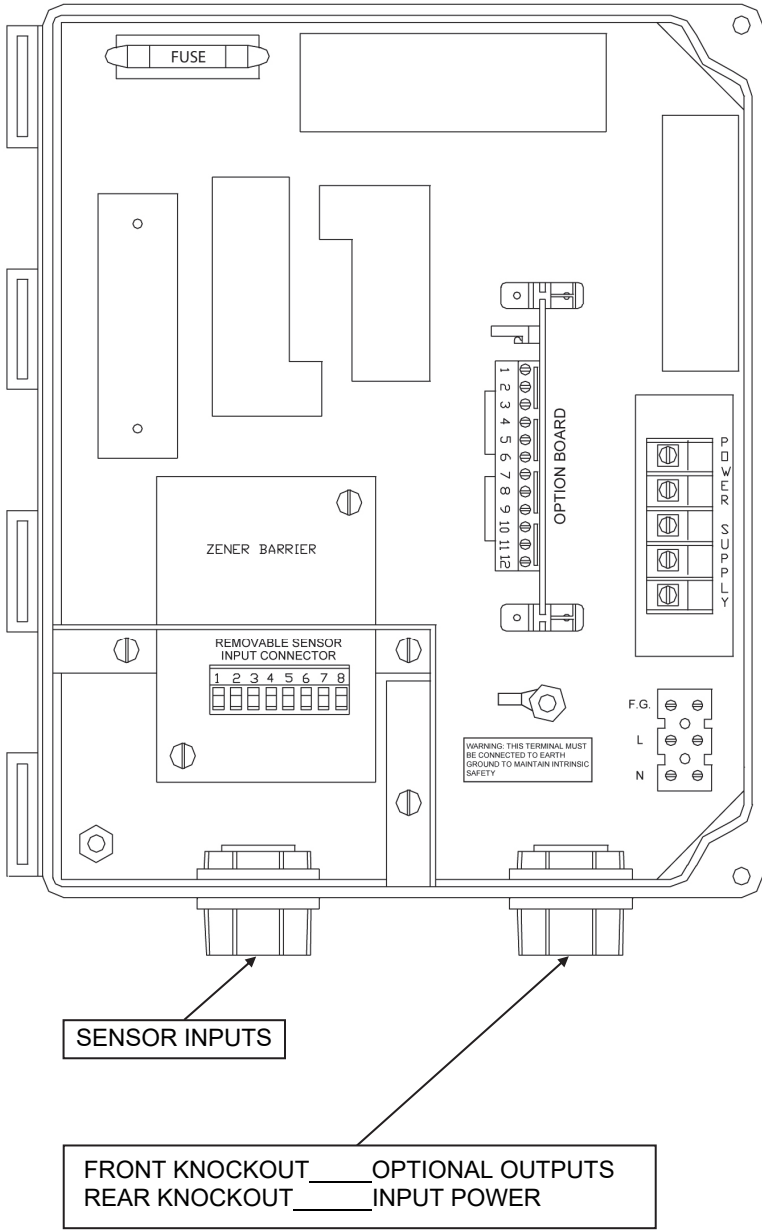
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## LU3-OWIR

### DIMENSIONS FOR MOUNTING AND KNOCKOUTS



# LU3-OWIR CONTROLLER CONNECTION DIAGRAM



### COLOR CODE

**CABLES FROM SENSORS TO REMOVABLE SENSOR INPUT CONNECTORS**

1	RED	HI OIL LEVEL SENSOR #1 OWI-2
2	WHITE	CAUTION OIL LEVEL SENSOR #1 OWI-2
3	UNUSED	
4	RED	LEAK DETECTION SENSOR #2
5	WHITE	
6	GREEN	
7	BLACK	FROM SENSOR #1 & #2
8	SHIELD DRAIN	

### WIRES TO OPTION BOARD

**WIRES FROM RA-SERIES REMOTE**

1	GREEN	- HORN
2	RED	+ HORN
3	BLACK	GROUND
4	WHITE	HI OIL LEVEL
5	ORANGE	CAUTION OIL LEVEL
6	BLUE	LEAK DETECTION

**WIRES FROM RELAY OUTPUTS**

7	COMMON	LEAK DETECTION
8	NORMALLY OPEN	
9	COMMON	CAUTION OIL LEVEL
10	NORMALLY OPEN	
11	COMMON	HI OIL LEVEL
12	NORMALLY OPEN	

### 120VAC

**WIRES TO POWERSUPPLY**

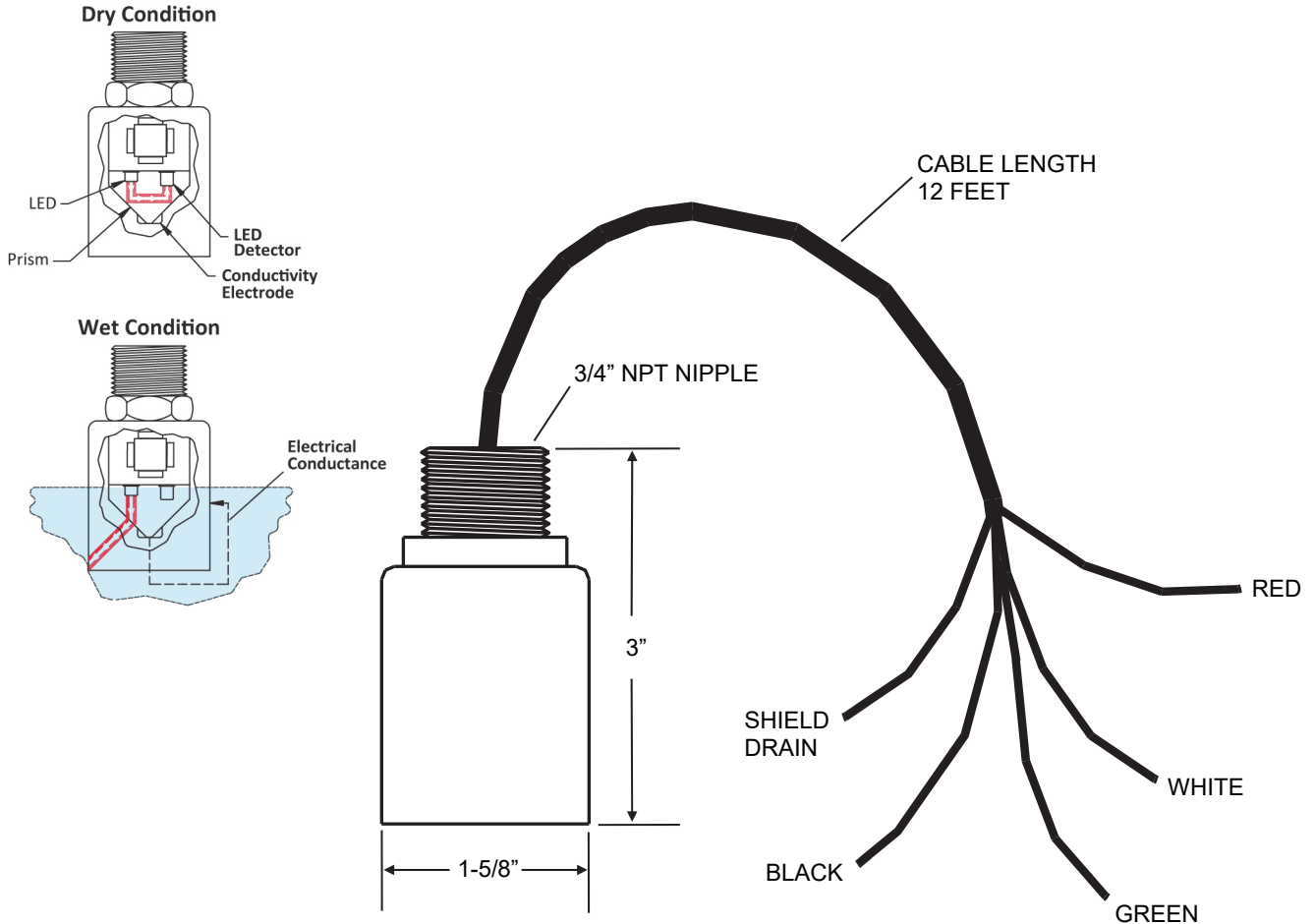
F.G.	FIELD GROUND
L	LINE
N	NEUTRAL

**NOTE:** To maintain proper shielding, BLACK sensor wires and SHIELD DRAINS should **not** be connected together at sensors.

# PDS SENSOR

## PRODUCT DISTINGUISHING OPTIC SENSOR

### PRINCIPLES OF OPERATION



### PDS SPECIFICATIONS

**U.L. LISTED 5L04**

Intrinsically safe Class I, Group D Hazardous Locations when connected in accordance with control drawing nos. L1PD2, L2PD4, L3PD6

**OPERATING TEMPERATURE**

-40 to +140 F

**POWER**

2 VDC @ 13 mA

**WEIGHT**

1/2 pound

**PRINCIPLES OF OPERATION**

Liquids (ex: fuel, water) - Photo optic  
 Dry Condition - Normally closed light beam  
 Alarm Condition - Opens (refracts) normally closed light beam  
 Water Detection - Conductance

**SENSOR CABLE**

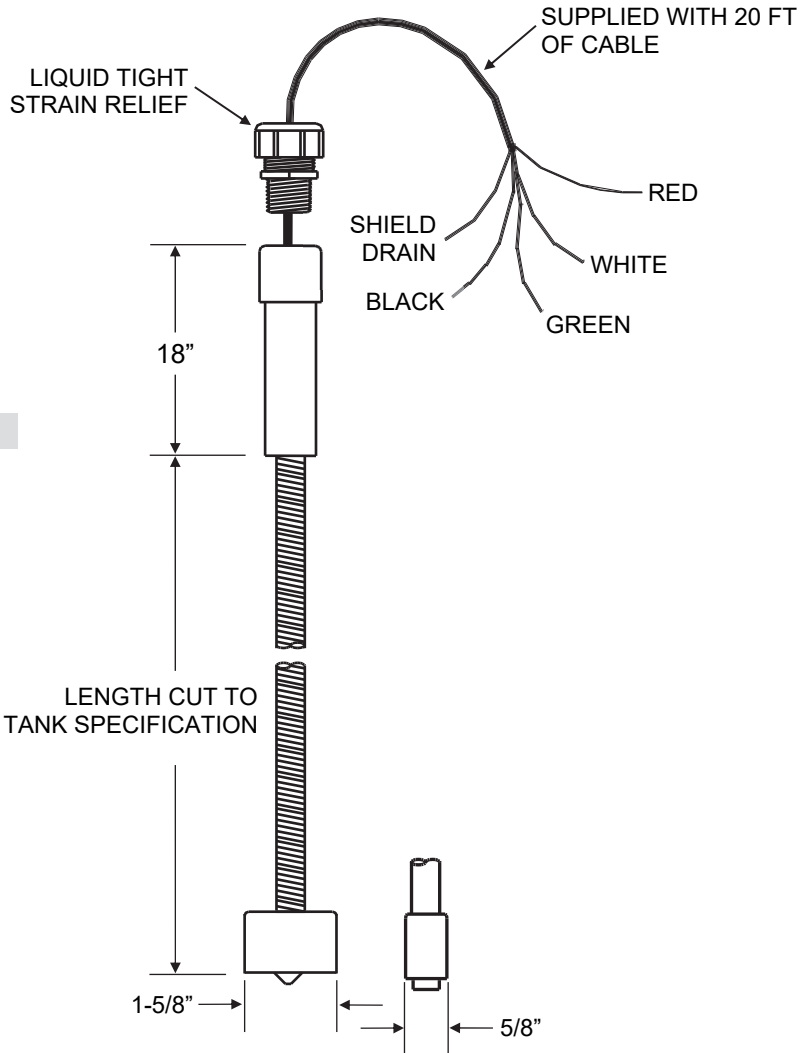
Shielded 22 AWG UL-E118830 CM  
 Maximum length 2000 feet

**RESPONSE TIME**

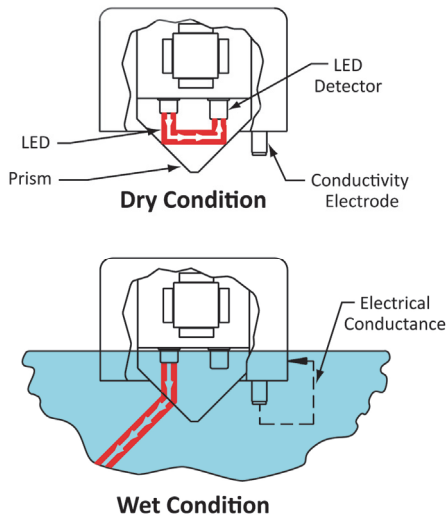
Immediate

**PDWF SENSOR**

**PRODUCT DISTINGUISHING FIBERGLASS TANK DRY INTERSTITIAL SENSOR**



**PRINCIPLES OF OPERATION**



**PDWF SPECIFICATIONS**

**U.L. LISTED 5L04**

Intrinsically safe Class I, Group D Hazardous Locations when connected in accordance with control drawing nos. L1PD2, L2PD4, L3PD6

**OPERATING TEMPERATURE**

-40 to +140 F

**POWER**

2 VDC @ 13 mA

**WEIGHT**

1/2 pounds

**PRINCIPLES OF OPERATION**

Liquids (ex: fuel, water) - Photo optic  
 Dry Condition - Normally closed light beam  
 Alarm Condition - Opens (refracts) normally closed light beam  
 Water Detection - Conductance

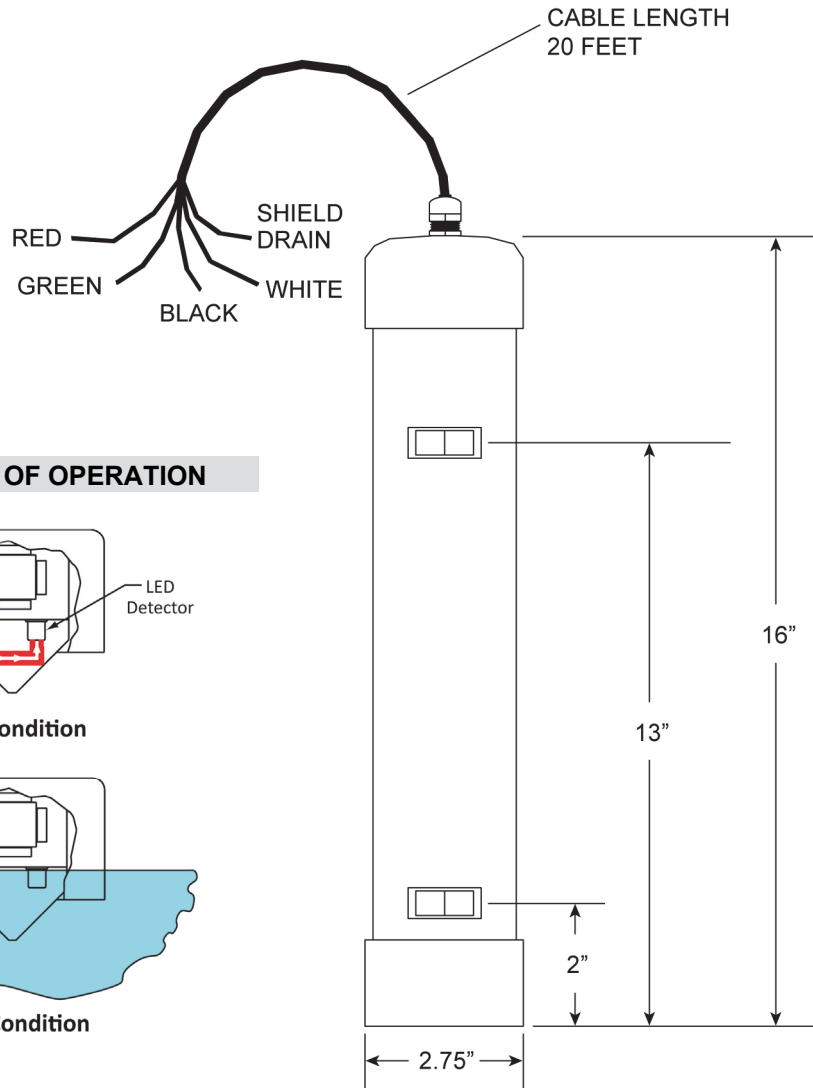
**SENSOR CABLE**

Shielded 22 AWG UL-E118830 CM  
 Maximum length 2000 feet

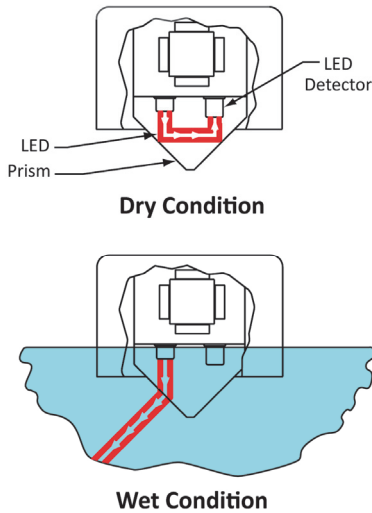
**RESPONSE TIME**

Immediate

## L-R-1 SENSOR RESERVOIR SENSOR



### PRINCIPLES OF OPERATION



### L-R-1 SPECIFICATIONS

SOLID STATE (NO MOVING PARTS)

#### OPERATING TEMPERATURE

-40 TO +140 F

#### POWER

2 VDC @ 13 mA

#### WEIGHT

2 pounds

#### RESPONSE TIME

Immediate

#### PRINCIPLES OF OPERATION

LIQUIDS (ex: fuel, water) – Photo optic

DRY CONDITION –

High level: Normally closed light beam

Low Level: Normally open light beam

ALARM CONDITION –

Hi level: Opens (refracts) normally closed light beam

Low level: Closes normally open light beam

#### SENSOR CABLE

Shielded 22 AWG UL-E118830 CM

Maximum length 2000 feet



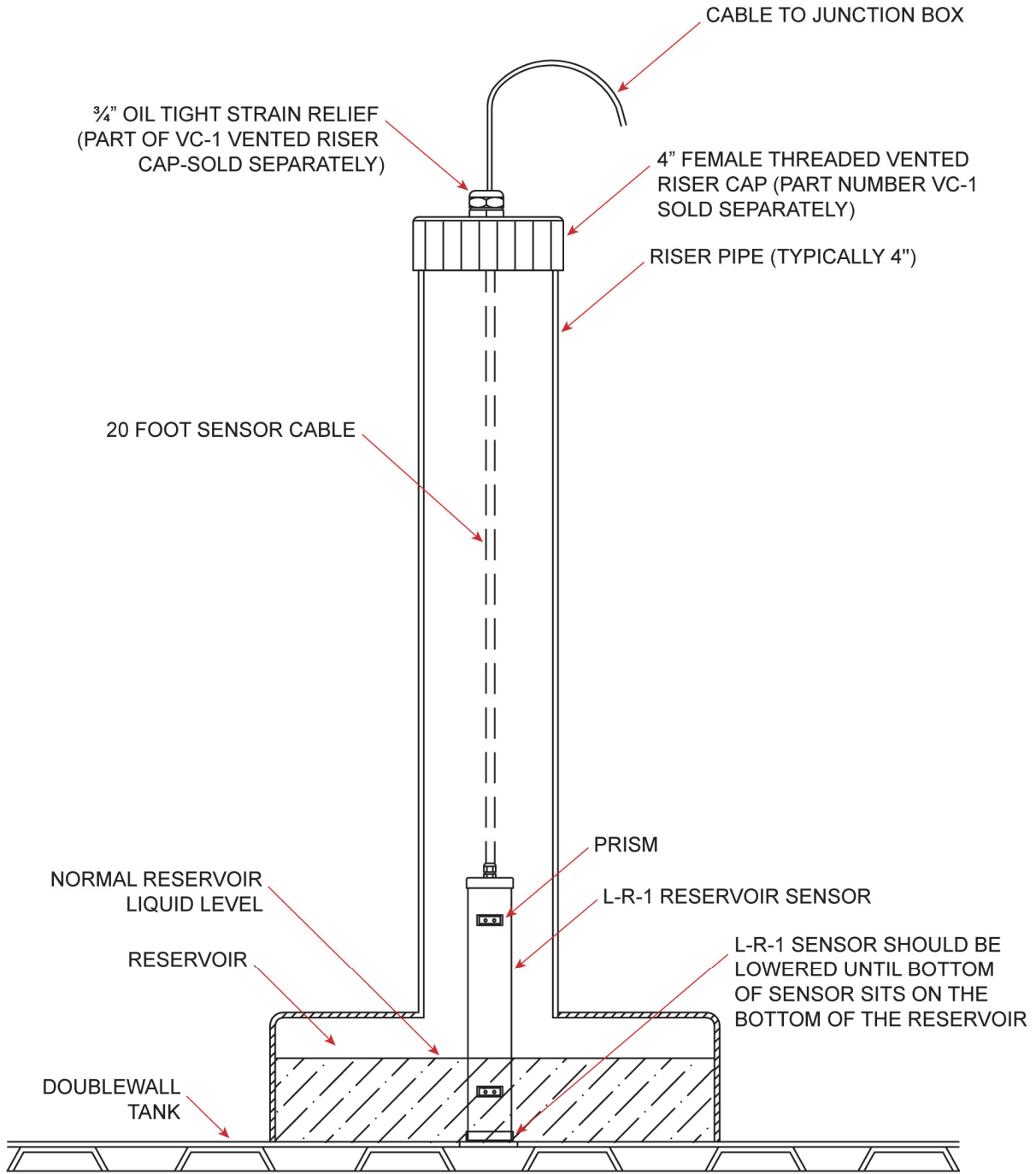


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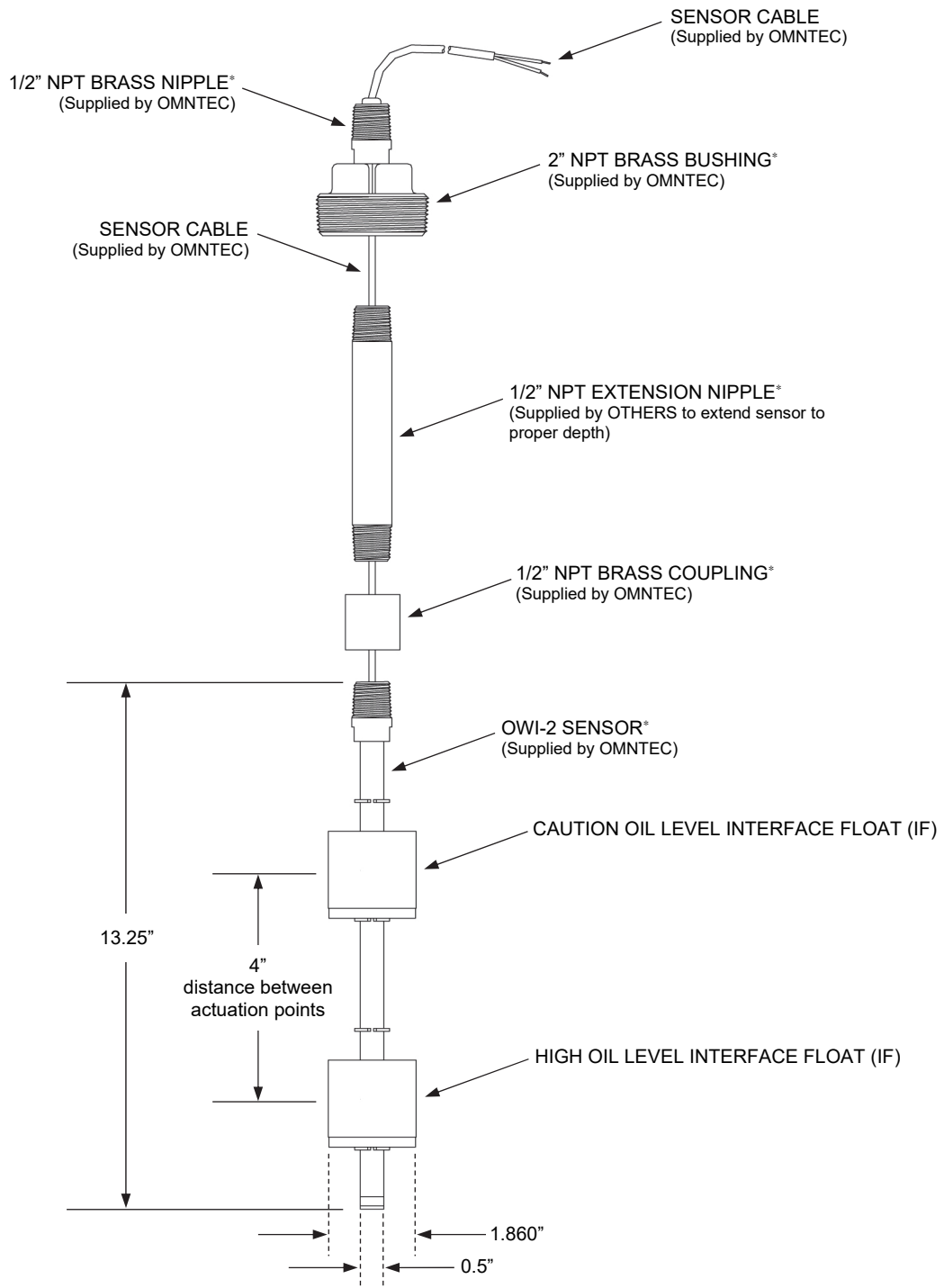
## L-R-1 SENSOR

### TYPICAL RESERVOIR SENSOR INSTALLATION



# OWI-2 OIL WATER SEPARATOR SENSOR

## TYPICAL 2" FITTING ASSEMBLY



\* **WARNING** - It is the installer's responsibility to select a thread sealant that is compatible with the product being stored and that all NPT fittings are fastened properly to assure liquid tight seal for proper sensor operation.

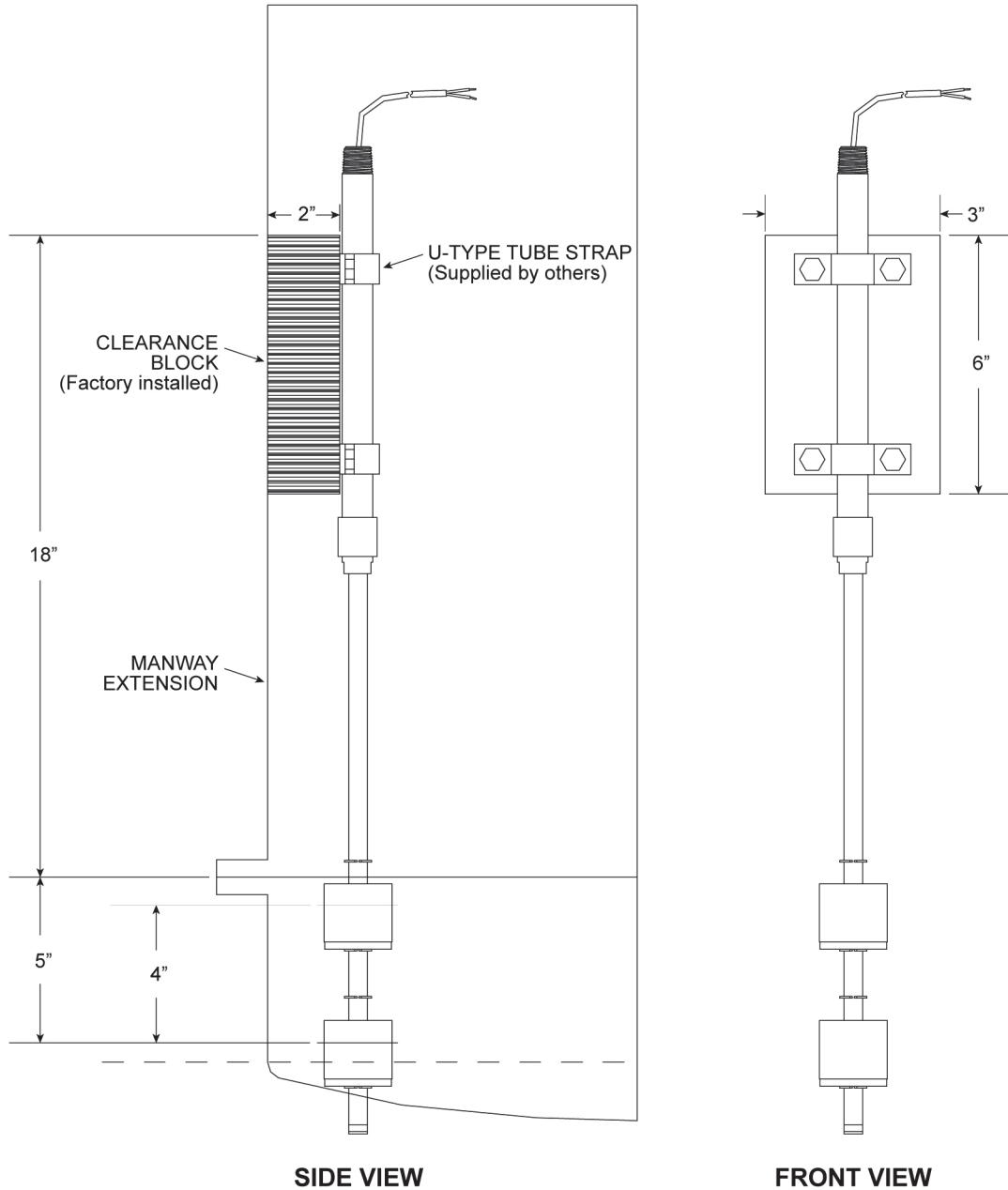


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## OWI-2 OIL WATER SEPARATOR SENSOR

### TYPICAL MANWAY EXTENSION BRACKET INSTALLATION



\* **WARNING** - It is the installer's responsibility to select a thread sealant that is compatible with the product being stored and that all NPT fittings are fastened properly to assure liquid tight seal for proper sensor operation.



# RA-SERIES REMOTE HIGH-LEVEL ALARM

**RA-1**



**RA-2**



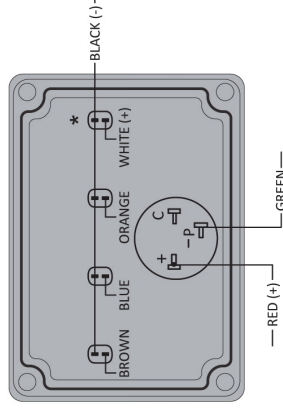
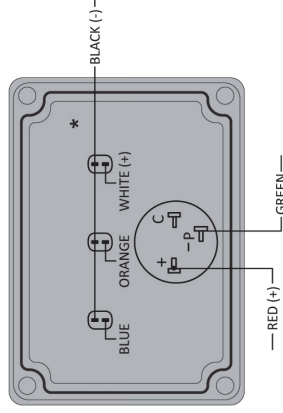
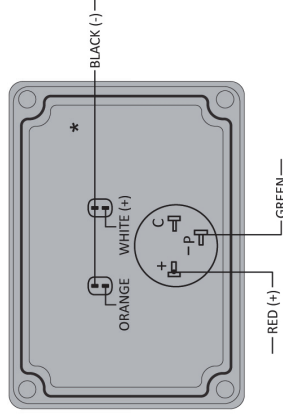
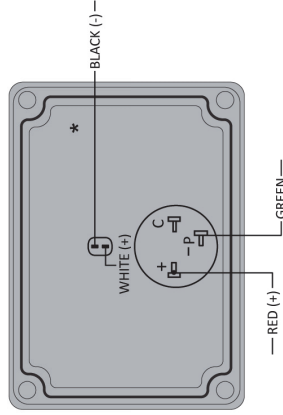
**RA-3**



**RA-4**

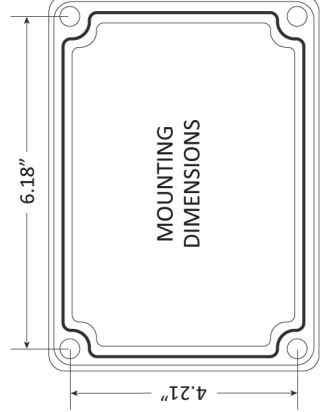
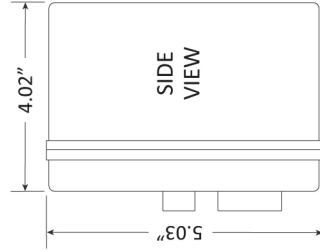


## INTERNAL WIRING COLOR CODE



\*Warning Label Placed Here

**WARNING: LOW VOLTAGE INPUTS ONLY**



### SPECIFICATIONS

<b>Audible Alarm</b>	95 dB pulsing horn
<b>Red Light</b>	Liquid-high-level alarm
<b>Response Time</b>	Immediate
<b>Power Input</b>	12VDC @200mA maximum from controller
<b>Wire</b>	22 AWG minimum
<b>Weight</b>	1 lb.

Note: It is recommended that knockouts be placed in the bottom of enclosure.



## WARRANTY

The seller OMNTEC Mfg., Inc. warrants to buyer defects when properly installed, and maintained by user. The seller's sole obligation is to repair or replace parts found to be defective, or non-conforming for one year and only after evaluation by factory. The liability of the seller shall not exceed the price paid for the components found to be defective. The above warranty is exclusive of all other warranties whether implied or expressed. Seller assumes no obligation for special or, indirect damages incurred by user.

All standard tank gauging systems are free of defects when properly installed and maintained by user. Warranty on tank gauging systems will only be effective after proper documentation has been submitted by the buyer to OMNTEC Mfg., Inc. The seller's sole obligation is to repair or replace parts found to be defective, or non-conforming for one year and only after evaluation by factory. Technical support must be contacted for a Return Material Authorization (RMA #) prior to sending any potentially defective parts. The liability of the seller shall not exceed the price paid for the components found to be defective. The above warranty is exclusive of all other warranties whether implied or expressed. Seller assumes no obligation for special or indirect damages incurred by user.

All standard replacement parts, "add-ons", or spare parts are free of defects when properly installed and maintained by user. The seller's sole obligation is to repair or replace parts found to be defective or non-conforming for 90 days and only after evaluation by factory. The liability of the seller shall not exceed the price paid for the components found to be defective. The above warranty is exclusive of all other warranties whether implied or expressed. Seller assumes no obligation for special or indirect damages incurred by user.

Equipment not covered by this warranty includes but is not limited to: custom equipment and control systems.