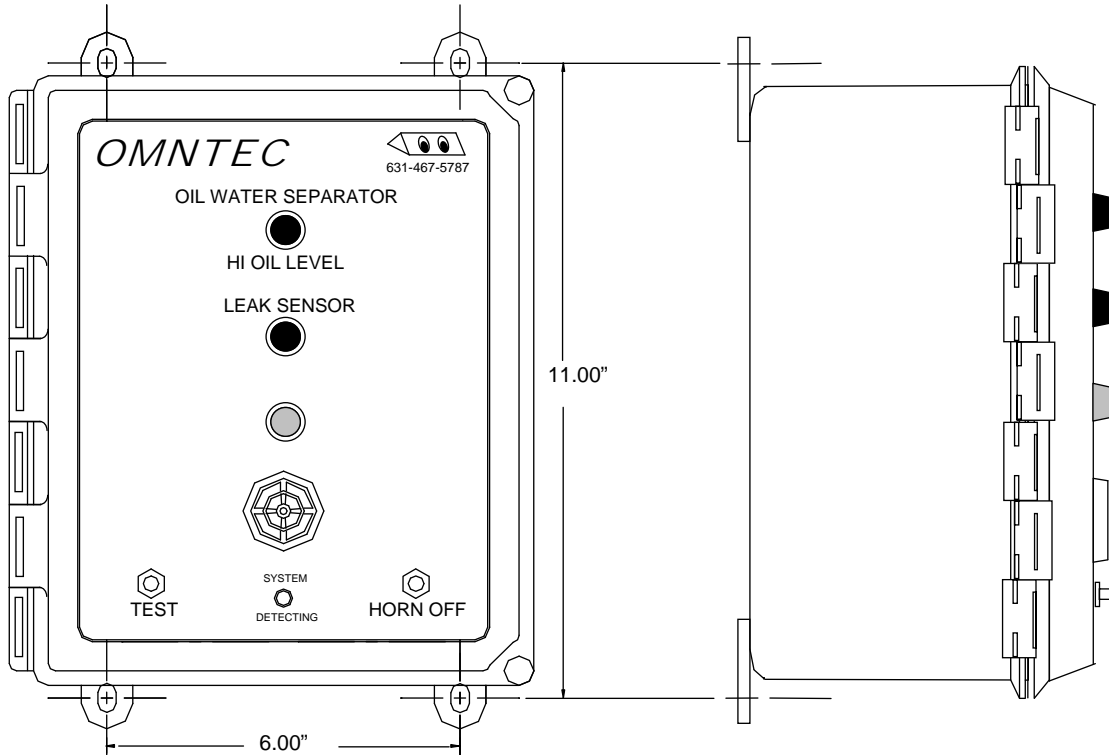


# OMNTEC

# LU2-OWIR

## OIL WATER SEPARATOR ALARM CONSOLE



### SPECIFICATIONS

#### **POWER INPUT**

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

#### **POWER TO SENSORS**

13.80 VDC @ 13 ma maximum

#### **RELAY OUTPUT**

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

#### **WEIGHT**

6 LBS.

#### **ENCLOSURE**

NEMA 4X

#### **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 LU2OWIR

#### **AUDIO/VISUAL CONSOLE**

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

**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 actually test entire  
system electronics from control panel to sensors

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

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

#### **SENSORS**

OWI-1 Single 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)

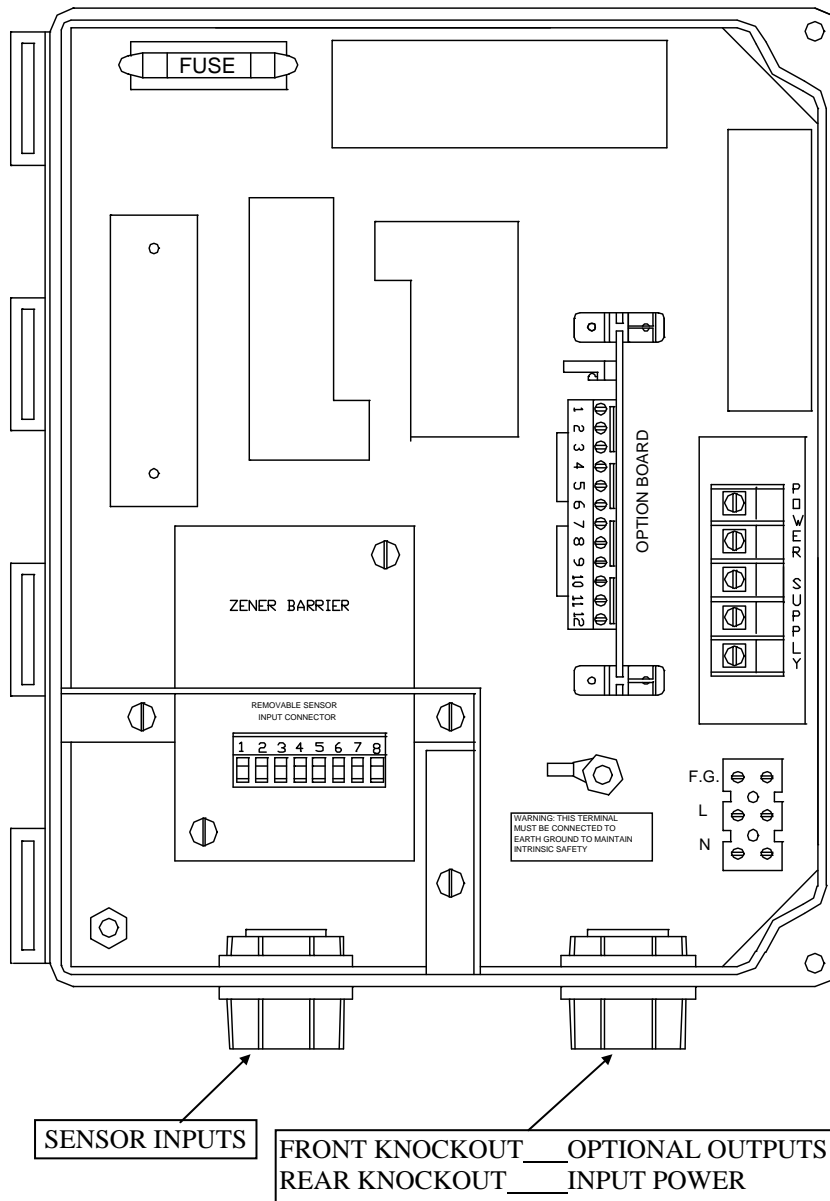
RA-1-NYS Remote annunciator with strobe (consult factory)

#### **LABELS**

Provided with controller

# LU2-OWIR

## CONTROLLER CONNECTION DIAGRAM



### COLOR CODE

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

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

#### WIRES TO OPTION BOARD

##### WIRES FROM RA-SERIES REMOTE

1	GREEN	-HORN
2	RED	+HORN
3	BLACK	GROUND
4	WHITE	HIGH OIL LEVEL
5	ORANGE	LEAK SENSOR
6	UNUSED	

##### WIRES FROM RELAY OUTPUTS

7	UNUSED	
8	UNUSED	
9	COMMON	LEAK SENSOR
10	NORMALLY OPEN	
11	COMMON	HIGH OIL LEVEL
12	NORMALLY OPEN	

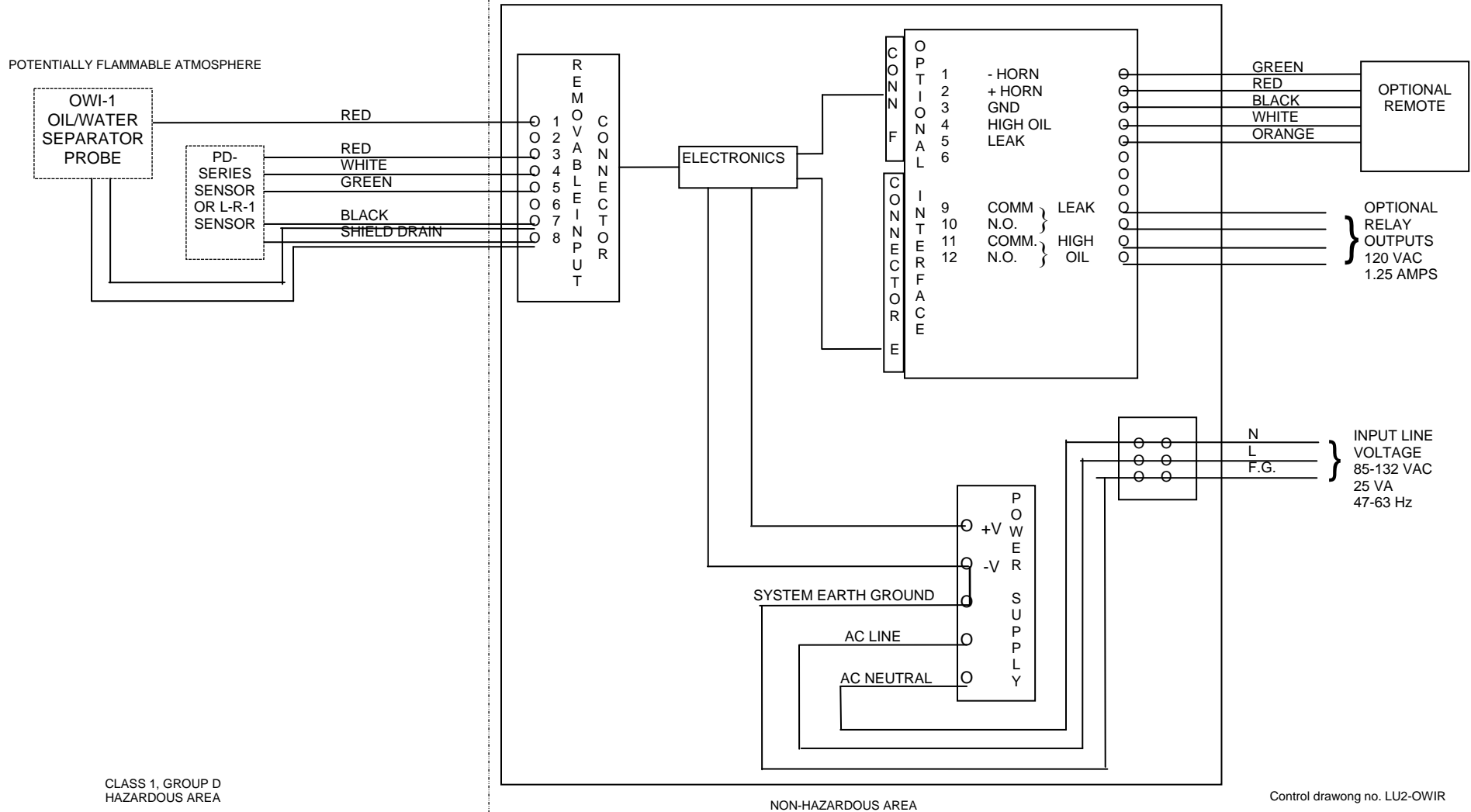
### 120VAC

#### WIRES TO POWER SUPPLY

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.

# LU2-OWIR SYSTEM CONTROL DRAWING



CLASS 1, GROUP D  
HAZARDOUS AREA

## NOTES ON PROBES

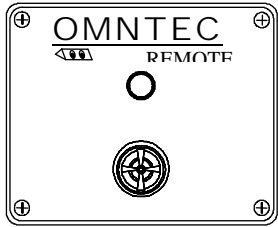
1. THE INTRINSICALLY SAFE FIELD WIRING SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 504 IN THE NATIONAL ELECTRICAL CODE ANSI/NFPA 70
2. ALL PROBES ARE ELECTRICALLY IDENTICAL AND MAY BE INTERCHANGED ALLOWING SYSTEM FLEXIBILITY
3. PROBE TO CONTROL UNIT CABLE WILL BE TWO PAIR OF #22 AWG WITH SHIELD AND DRAIN PVC JACKETED UL-118830 CM. CABLE LENGTH WILL BE LIMITED TO 2000 FEET MAXIMUM

## NOTES ON CONTROL EQUIPMENT

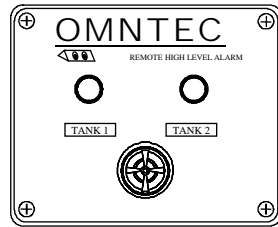
1. ALL WIRING MUST MEET LOCAL AND NATIONAL ELECTRICAL CODES
2. SYSTEM EARTH GROUND MUST BE CONNECTED TO TERMINAL F.G. TO INSURE INTRINSIC SAFETY AND MUST BE LESS THEN  $1\Omega$  WITH RESPECT TO EARTH GROUND
3. OPTIONAL REMOTE REQUIRES #22 AWG LOW VOLTAGE COMMUNICATION CABLE MINIMUM

# RA-Series Remote High Level Alarm

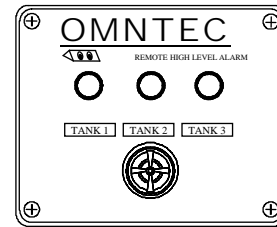
RA-1



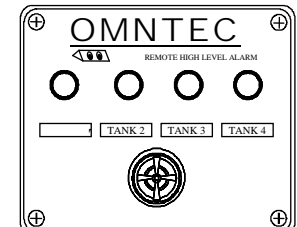
RA-2



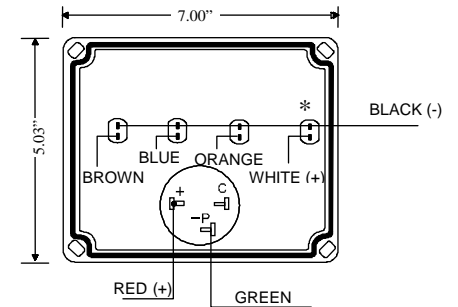
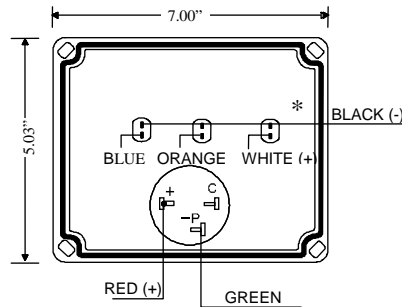
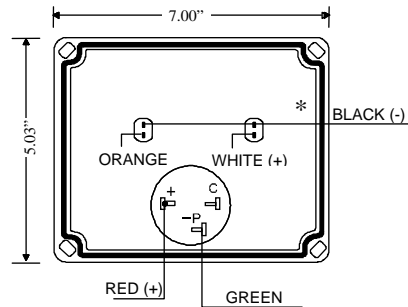
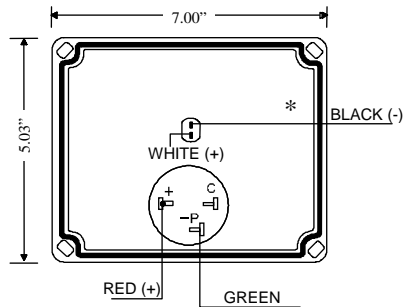
RA-3



RA-4



## Internal Wiring Color Code

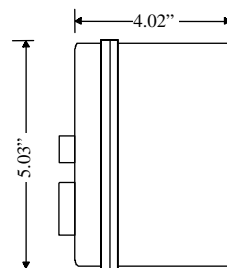


\* **WARNING LABEL PLACED HERE:** Warning: Low voltage inputs only

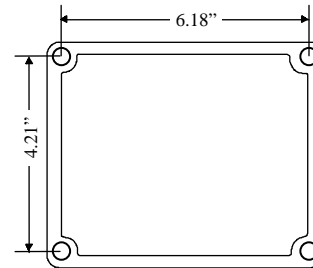
### SPECIFICATIONS

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

SIDE VIEW



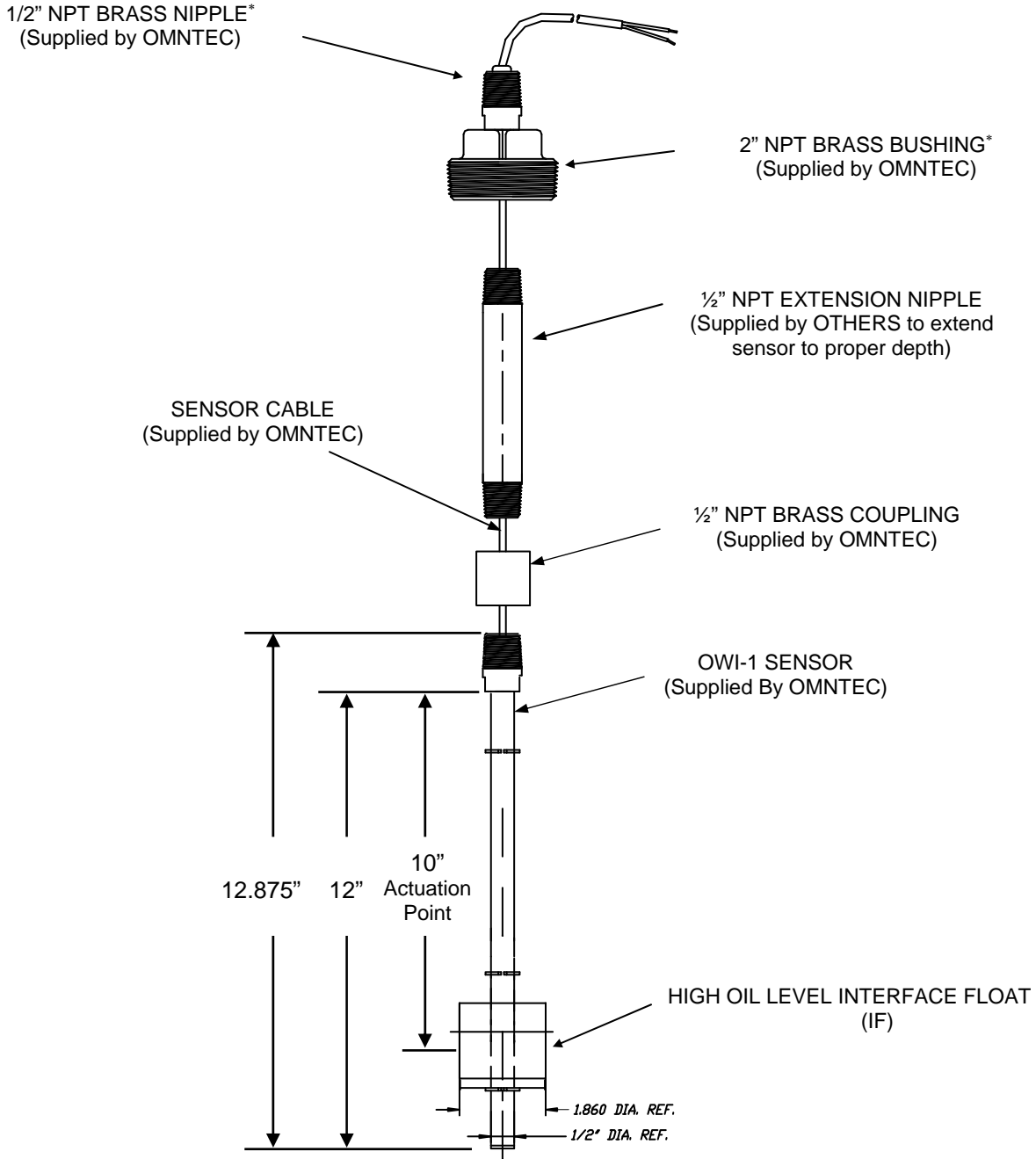
MOUNTING DIMENSIONS



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

# OWI-1 OIL WATER SEPARATOR

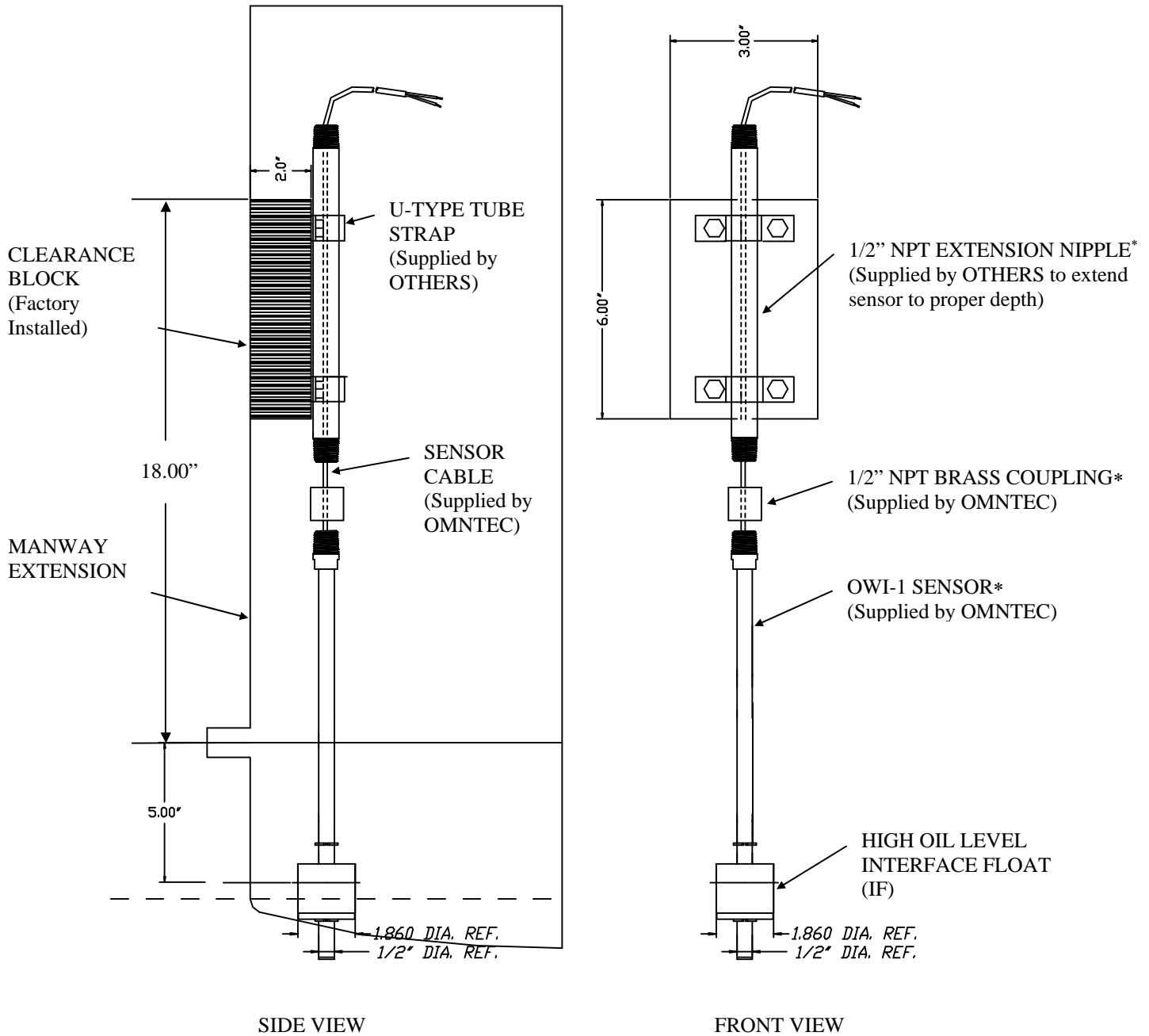
## TYPICAL 2" FITTING ASSEMBLY



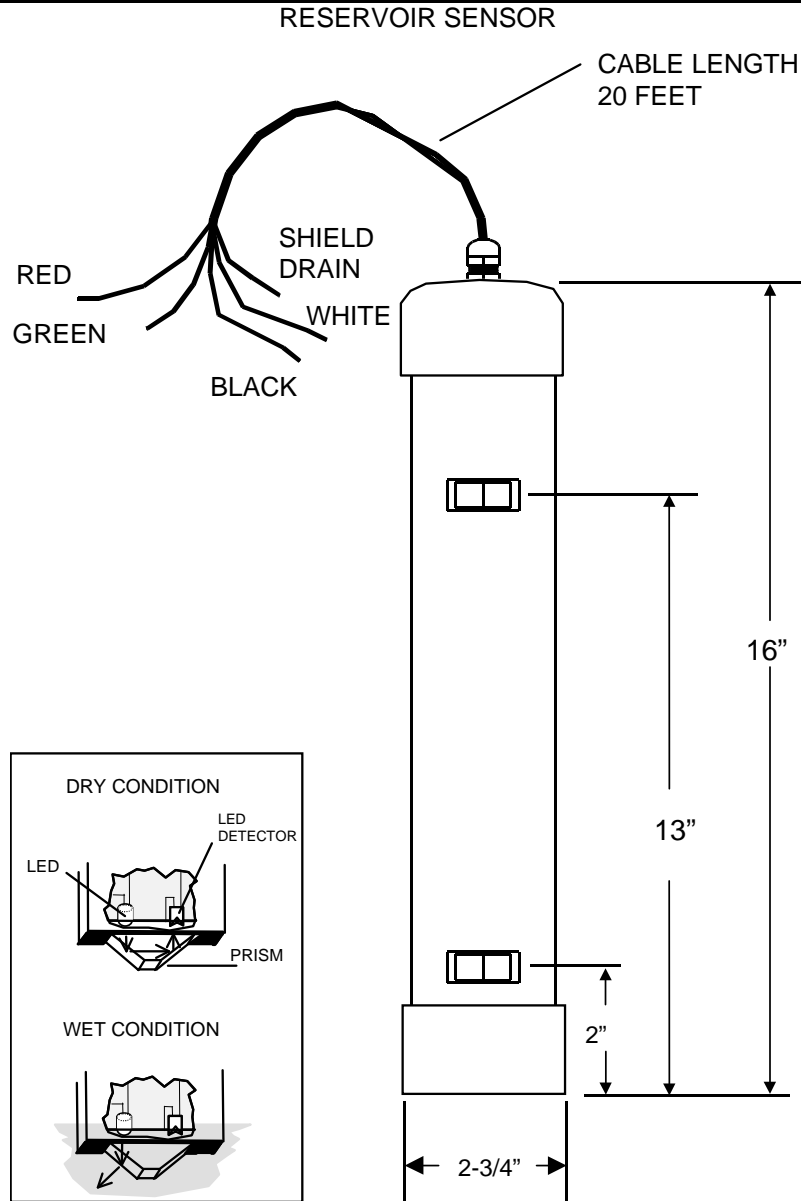
**\*WARNING-** It is the installer's responsibility to select a thread sealant that is compatible with the product being stored and that all NPT fittings are fastened properly to assure liquid tight seal for proper sensor operation.

# OWI-1 OIL WATER SEPARATOR

## 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.

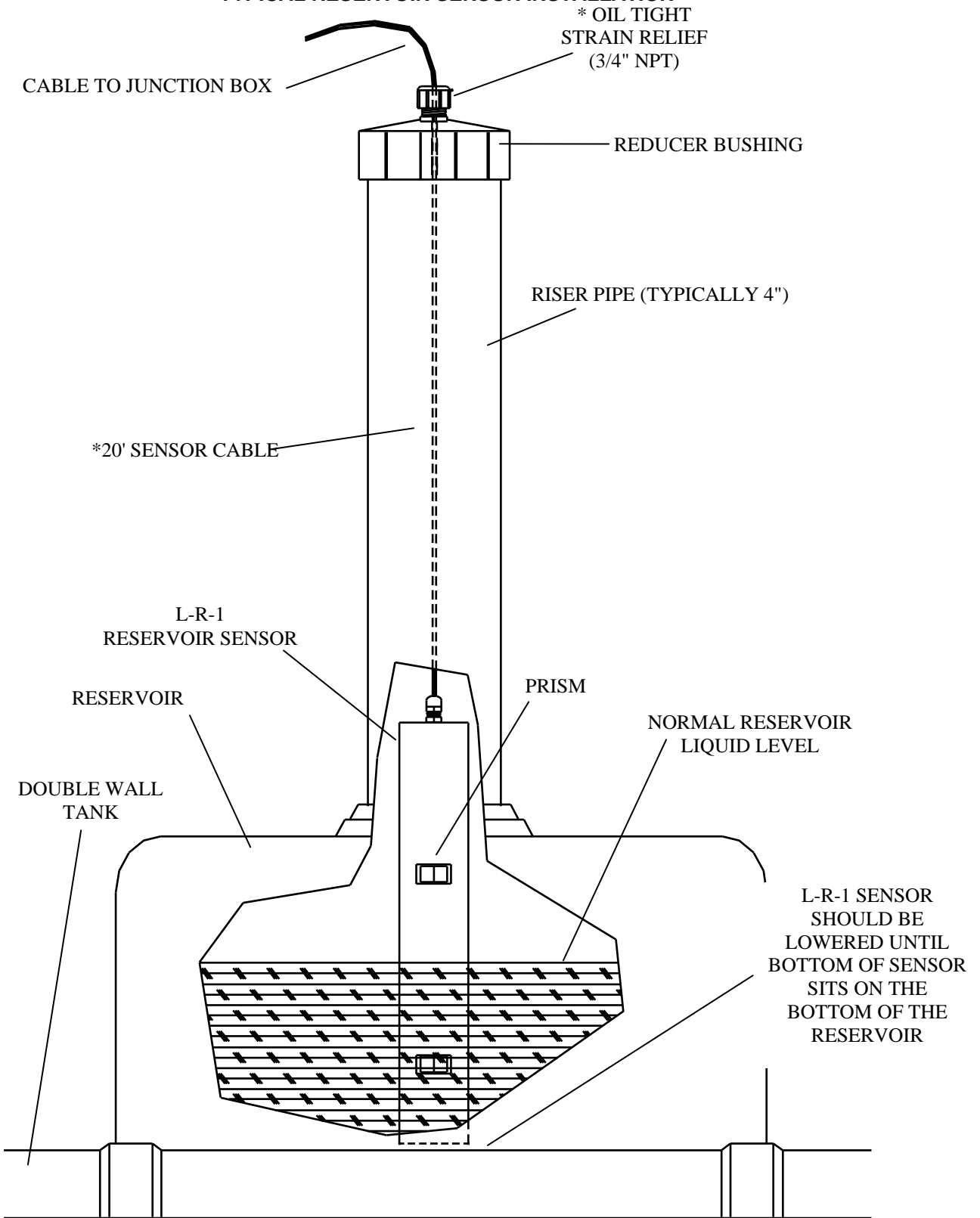


**SPECIFICATIONS**  
SOLID STATE (NO MOVING PARTS)

<p><b>RESPONSE TIME</b> IMMEDIATE</p>	<p><b>PROBE CABLE</b> EC-4 OR BELDEN 9940 MAXIMUM LENGTH 2000 FEET</p>	<p><b>PRINCIPLES OF OPERATION</b> NON POLAR LIQUIDS (FUEL OIL) - PHOTO OPTIC</p>
<p><b>POWER</b> 2 VDC @ 13 mA</p>	<p><b>OPERATING TEMPERATURE</b> -40° to 140° F</p> <p><b>WEIGHT</b> 2 POUNDS</p>	<p>DRY CONDITION – HIGH LEVEL NORMALLY CLOSED LIGHT BEAM ALARM CONDITION – CLOSED BEAM OF LIGHT OPENS (REFRACTS) NORMAL CONDITION-LOW LEVEL NORMALLY OPEN LIGHT BEAM ALARM CONDITION – OPEN BEAM OF LIGHT CLOSES</p>

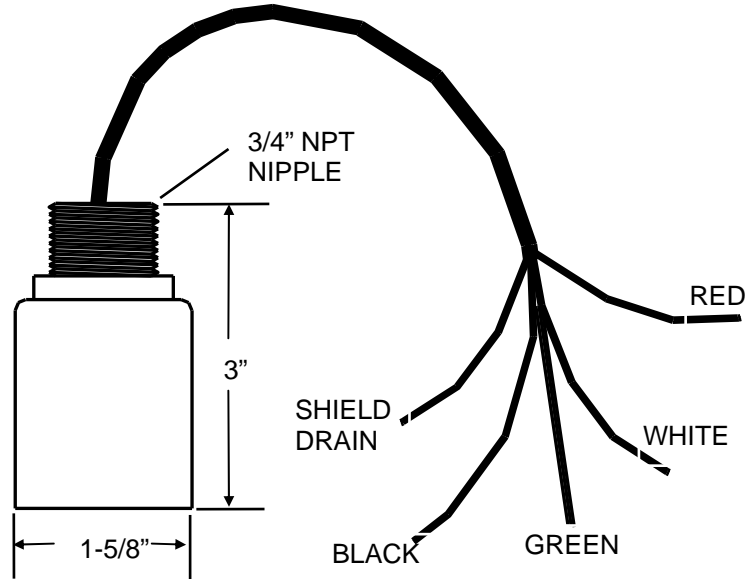
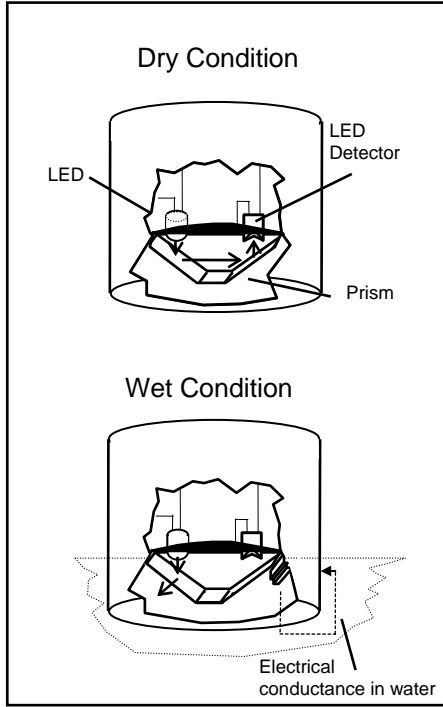
# L-R-1

## TYPICAL RESERVOIR SENSOR INSTALLATION



\*SUPPLIED BY OMNTEC/ELECTRO LEVELS MFG., INC.





**SPECIFICATIONS**

Solid State (No moving parts)

**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**

WATER DETECTION - conductance  
 NON-POLAR LIQUIDS (ex: fuel) – Photo Optic  
 DRY CONDITION – Normally closed light beam  
 ALARM CONDITION – Opens (refracts) normally closed light beam

**SENSOR CABLE**

Shielded 22 AWG UL-E118830 CM  
 Maximum length 2000 feet

**RESPONSE TIME**

Immediate

# LOG SHEET

DATE	NAME	SYSTEM STATUS	SIGNATURE

## WARRANTY

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The seller OMNTEC Mfg., Inc. warrants to buyer defects when properly installed, and maintained by user. The sellers 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 sellers 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 replacement parts, "add-ons", or spare parts are free of defects when properly installed and maintained by user. The sellers 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, pressure transducers, and control systems.