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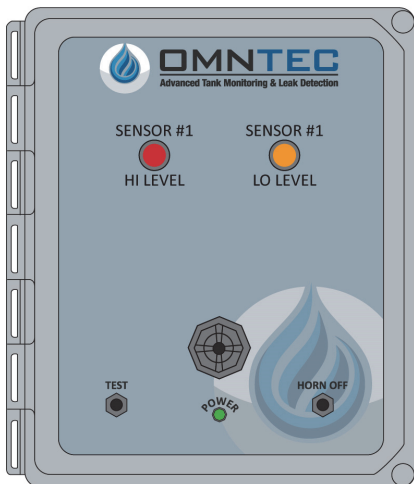
Advanced Tank Monitoring & Leak Detection



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

LU2-SP1

INSTALLATION GUIDE



TWO CHANNEL ALARM PANEL

Revision 2323

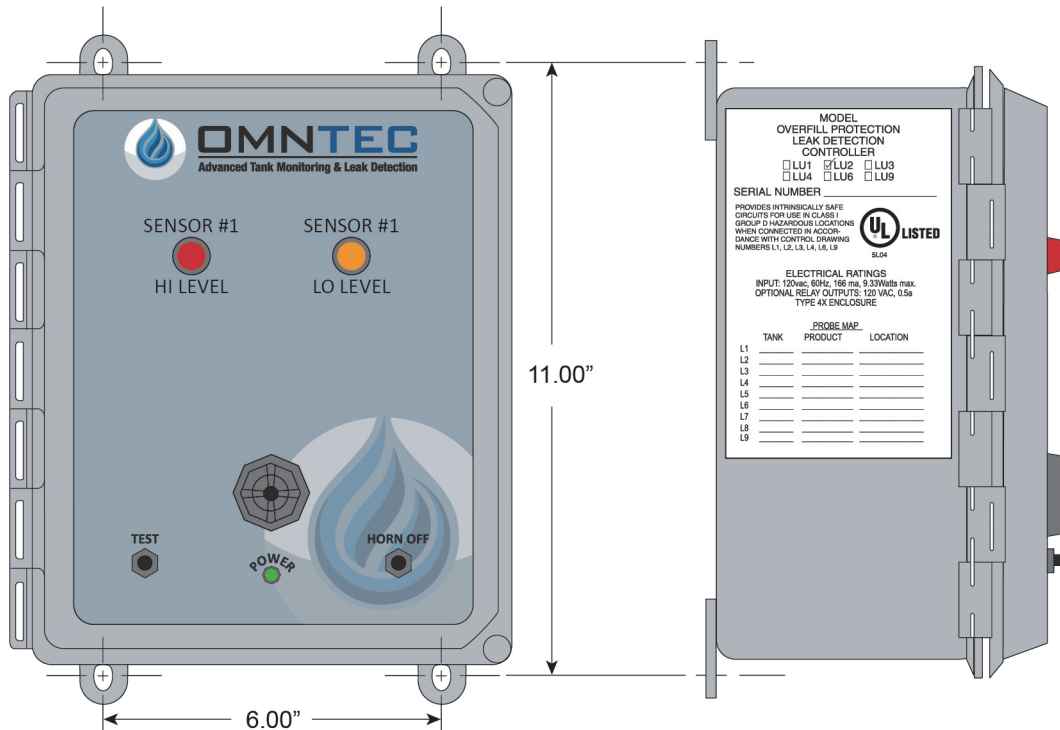
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TABLE OF CONTENTS

LU2-SP1 SPECIFICATIONS	3
DIMENSIONS FOR MOUNTING AND KNOCKOUTS	4
LU2-SP1 CONTROLLER CONNECTION DIAGRAM	5
LS-ASC SENSOR	6
LWF SENSOR	7
L-2 SENSOR	8
L-R-1 SENSOR	9
RA-SERIES REMOTE HIGH-LEVEL ALARM	11
LOG SHEET	12
WARRANTY	13

LU2-SP1

TWO CHANNEL ALARM PANEL



LU2-SP1 SPECIFICATIONS

POWER INPUT

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

POWER TO SENSORS

2 VDC @ 13 ma

RELAY OUTPUT

SPST normally open dry contacts 0.5 AMPS, 120 AC
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 drawings L1

AUDIO/VISUAL CONSOLE

AUDIBLE ALARM - 95 dB pulsing horn with 30 second
timeout

RED LIGHT - Indicates Hi Level alarm

AMBER LIGHT - Indicates Lo Level alarm

TEST BUTTON - When pressed will test system
electronics from control panel to sensors

GREEN LIGHT - Indicates the power is on

HORN OFF BUTTON - Silences the audible alarm when
pressed

SENSORS

L-2 Series Dual point optic sensor for Hi and Lo
Level

L-R-1 Reservoir sensor

OPTIONAL 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

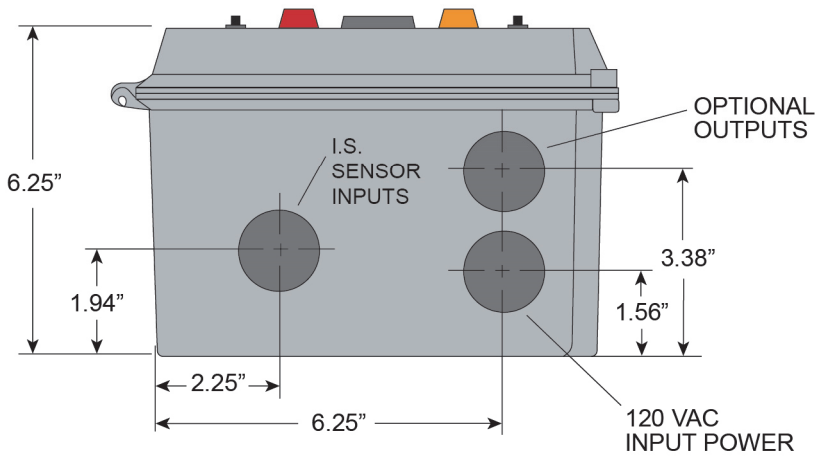
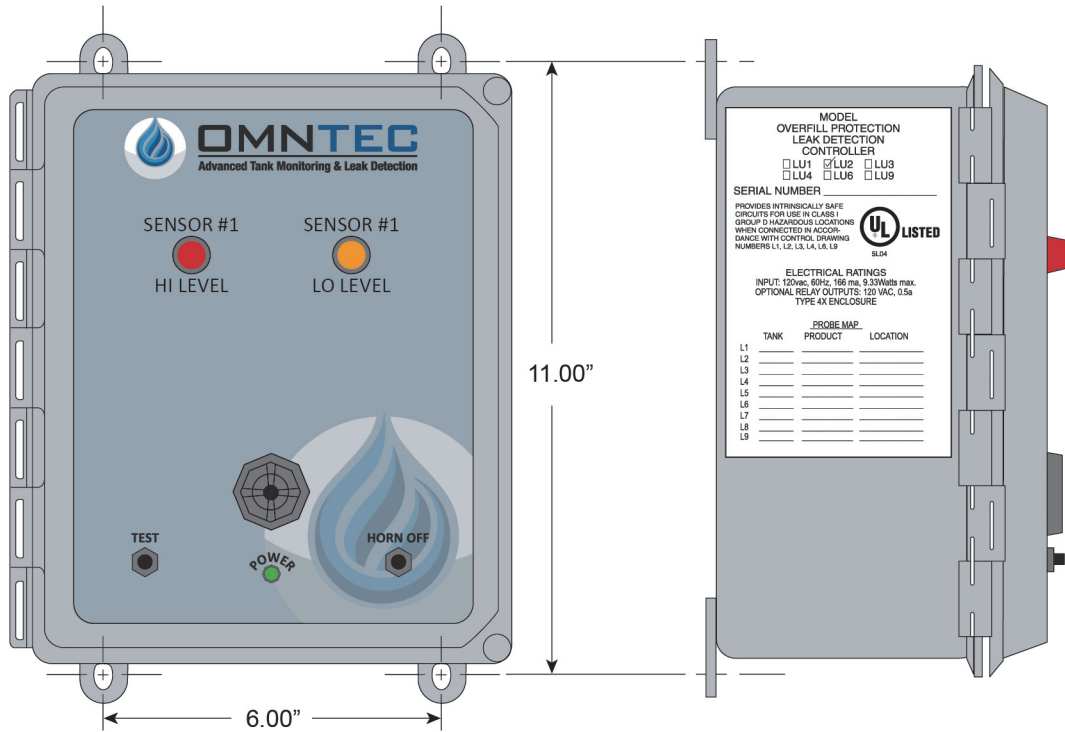


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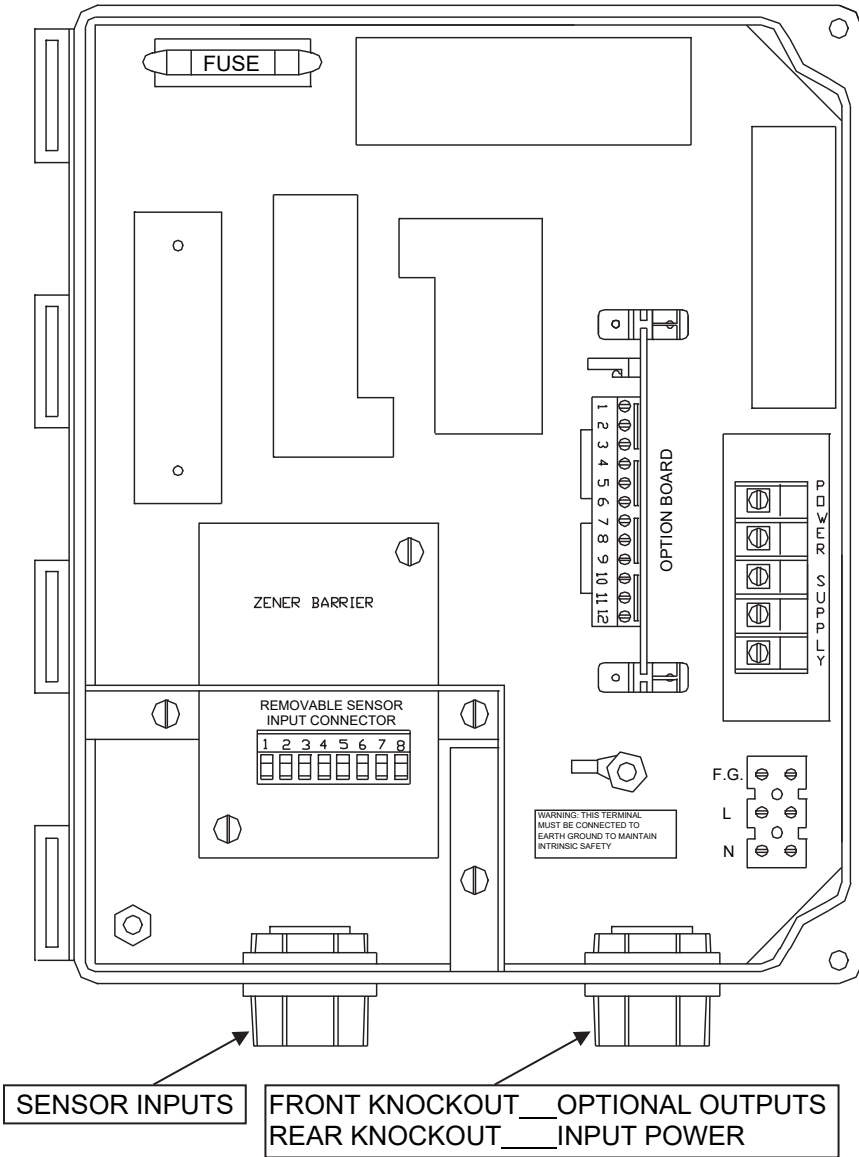
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LU2-SP1

DIMENSIONS FOR MOUNTING AND KNOCKOUTS



LU2-SP1 CONTROLLER CONNECTION DIAGRAM



COLOR CODE		
CABLES FROM SENSORS TO REMOVABLE SENSOR INPUT CONNECTORS		
1	RED	SENSOR #1
2	WHITE	
3	UNUSED	
4	GREEN	
5	UNUSED	
6	UNUSED	
7	BLACK	GROUND FROM SENSOR #1
8	SHIELD DRAIN	
WIRES TO OPTION BOARD		
WIRES FROM RA-SERIES REMOTE		
1	GREEN	-HORN
2	RED	+HORN
3	BLACK	GROUND
4	WHITE	SENSOR #1 HI LEVEL
5	ORANGE	SENSOR #1 LO LEVEL
6	UNUSED	
WIRES FROM RELAY OUTPUTS		
7	UNUSED	
8	UNUSED	
9	COMMON	SENSOR #1
10	NORMALLY OPEN	LO LEVEL
11	COMMON	SENSOR #1
12	NORMALLY OPEN	HI LEVEL
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.



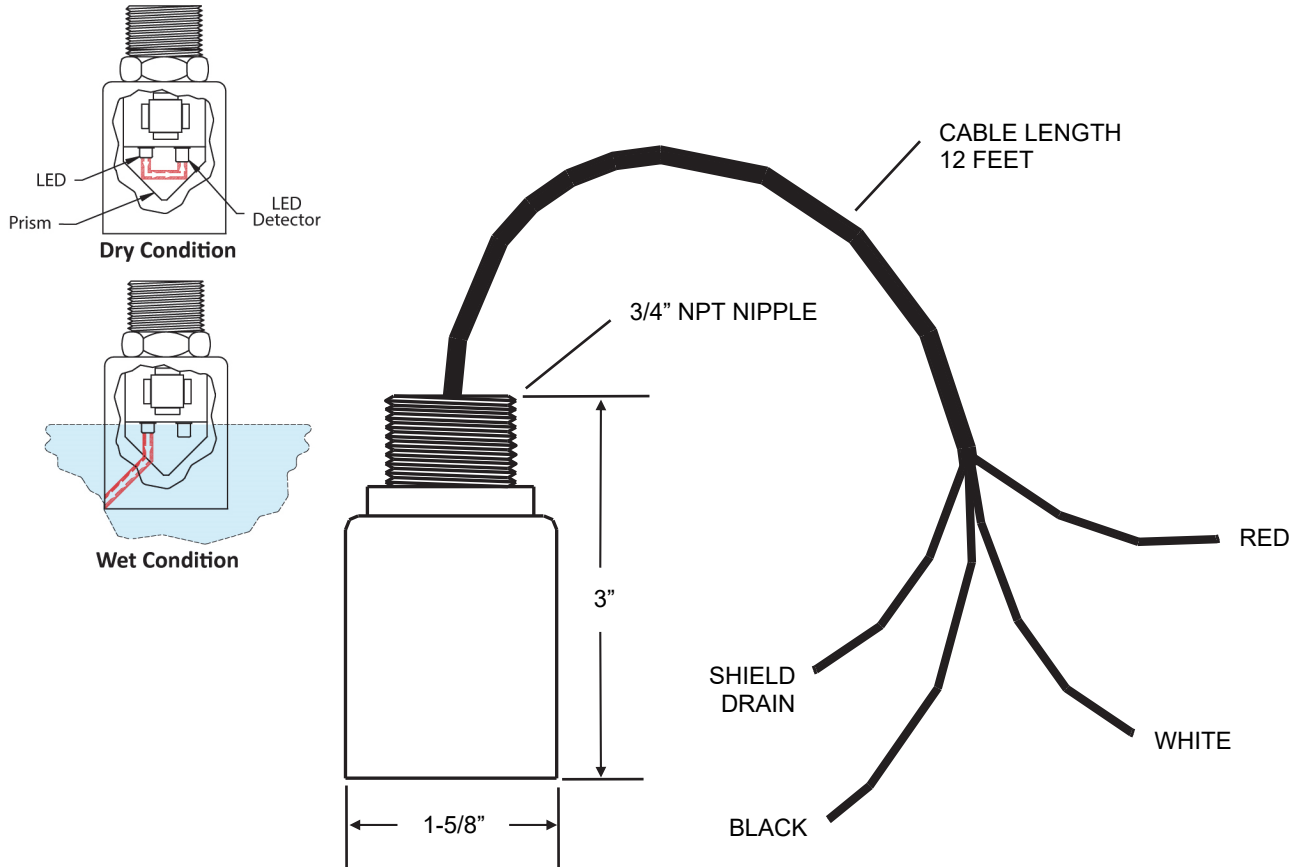
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LS-ASC SENSOR

NON-PRODUCT DISTINGUISHING OPTIC SENSOR

PRINCIPLES OF OPERATION



LS-ASC SPECIFICATIONS

U.L. LISTED 5L04

Intrinsically safe Class I, Group D Hazardous Locations when connected in accordance with control drawing nos. L1, L2, L3, L4, L6, L9

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

SENSOR CABLE

Shielded 22 AWG UL-E118830 CM

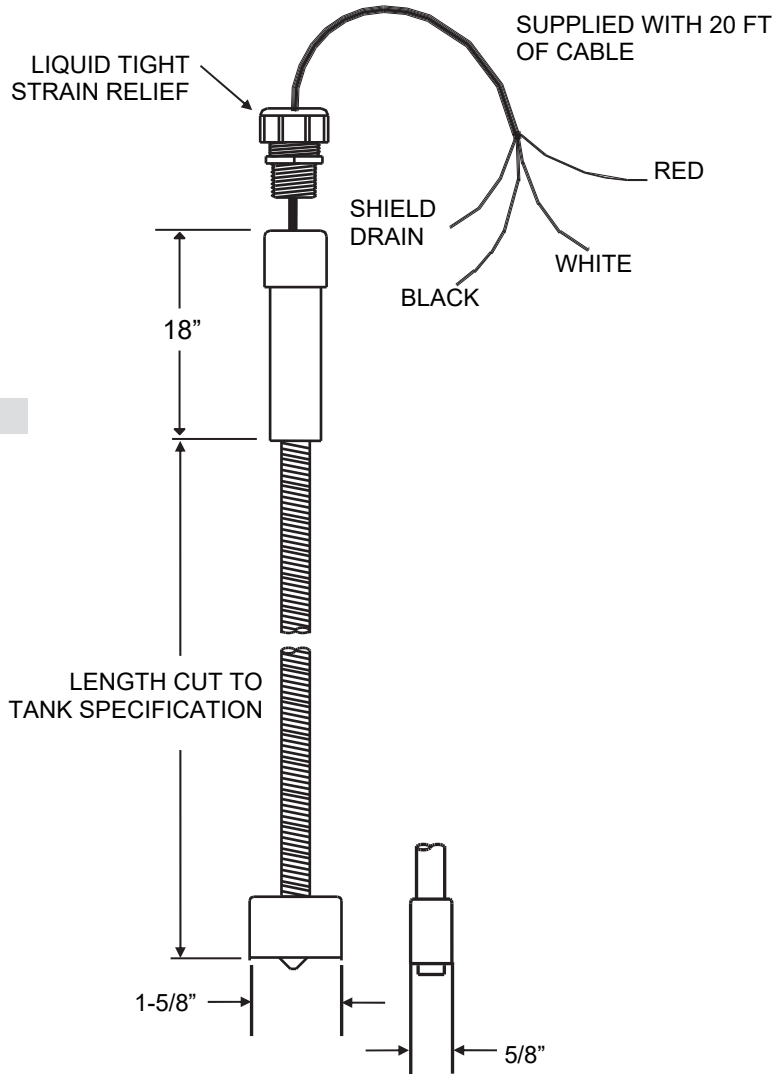
Maximum length 2000 feet

RESPONSE TIME

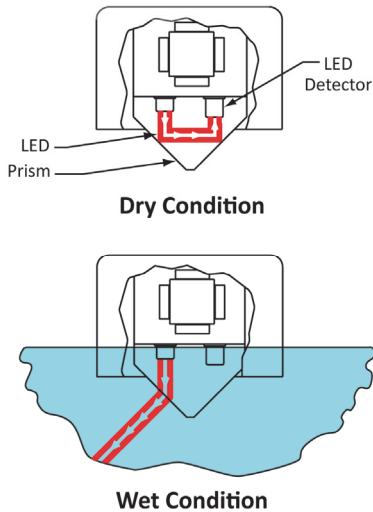
Immediate

LWF SENSOR

NON-PRODUCT DISTINGUISHING FIBERGLASS TANK DRY INTERSTITIAL SENSOR



PRINCIPLES OF OPERATION



LWF SPECIFICATIONS

OPERATING TEMPERATURE

-40 TO +140 F

POWER

2 VDC @ 13 mA

WEIGHT

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

SENSOR CABLE

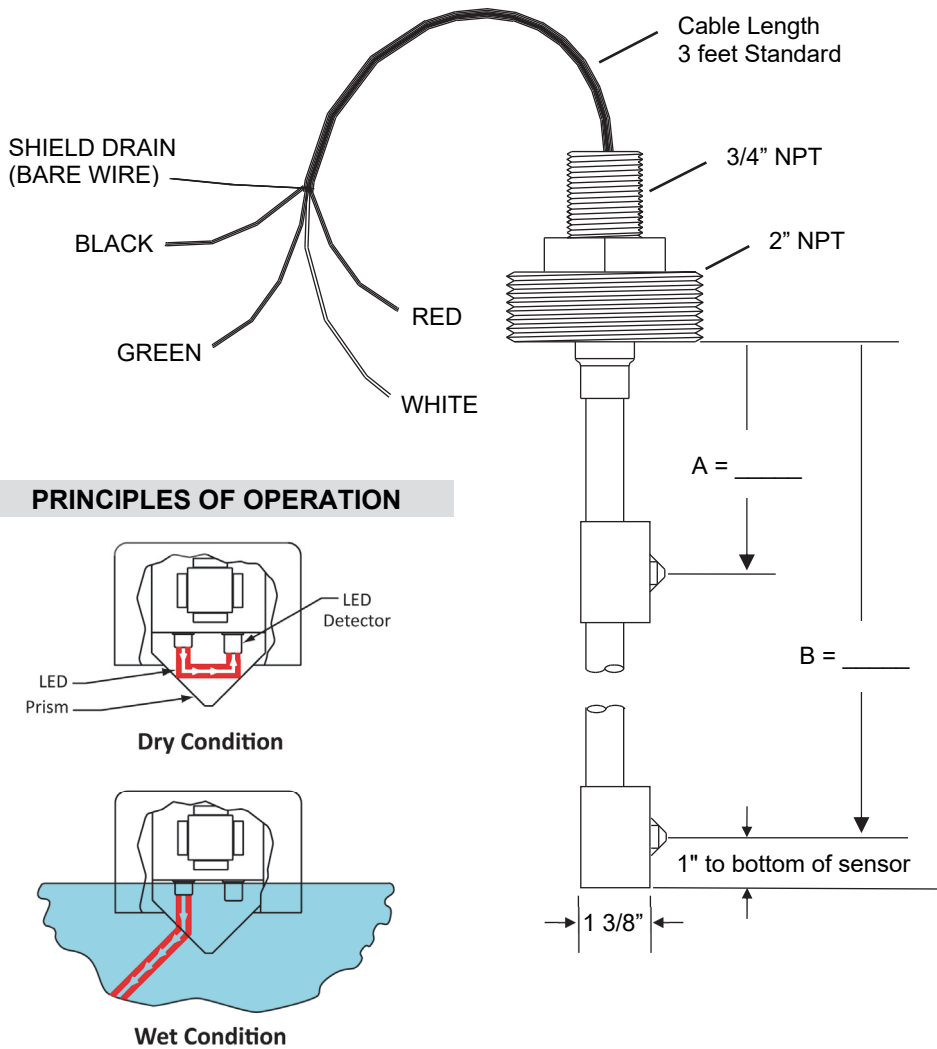
Shielded 22 AWG UL-E118830 CM
 Maximum length 2000 feet

RESPONSE TIME

Immediate

L-2 SENSOR

DUAL LEVEL LIQUID OPTIC SENSOR FOR HIGH AND CAUTION LEVEL



L-2 SPECIFICATIONS

U.L. LISTED 5L04

Intrinsically safe Class I, Group D Hazardous Locations when connected in accordance with Control Drawing nos. L1, L2, L3, L4, L6, L9

OPERATING TEMPERATURE

-40 TO +140 F

POWER

2 VDC @ 13 mA

WEIGHT

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

SENSOR CABLE

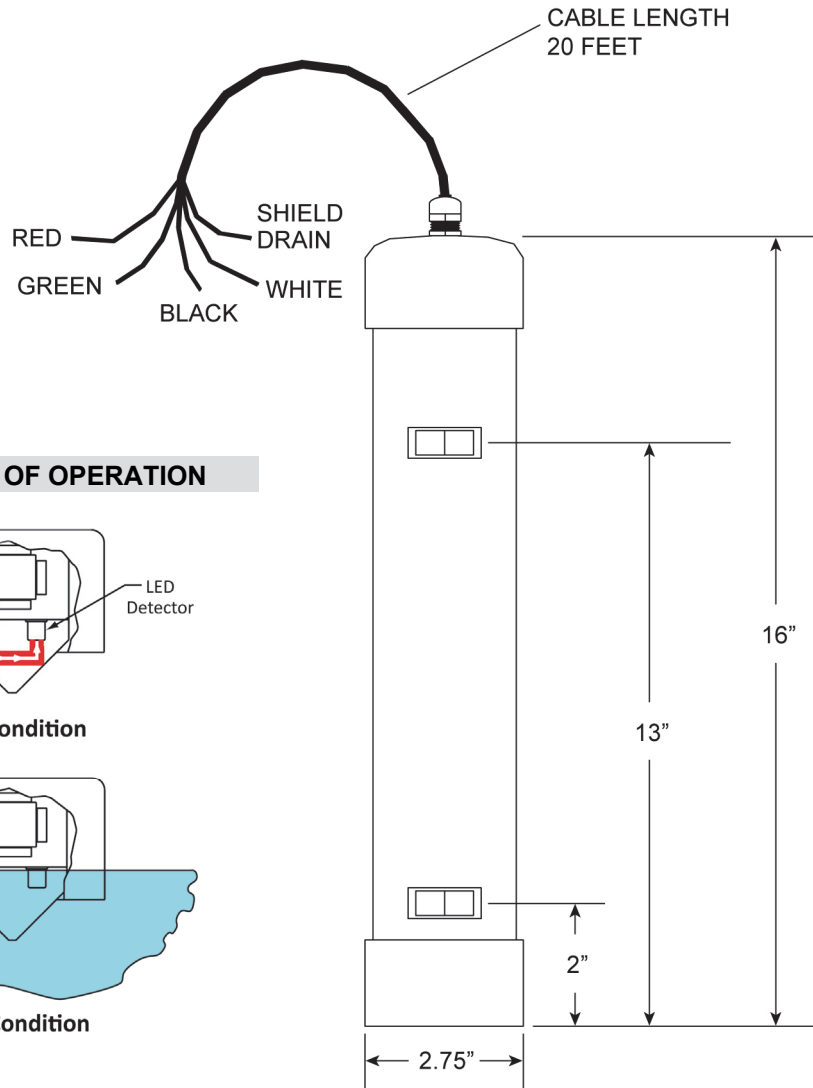
Shielded 22 AWG UL-E118830 CM
 Maximum length 2000 feet

RESPONSE TIME

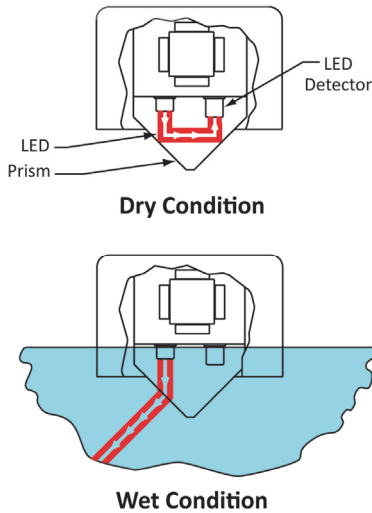
Immediate



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

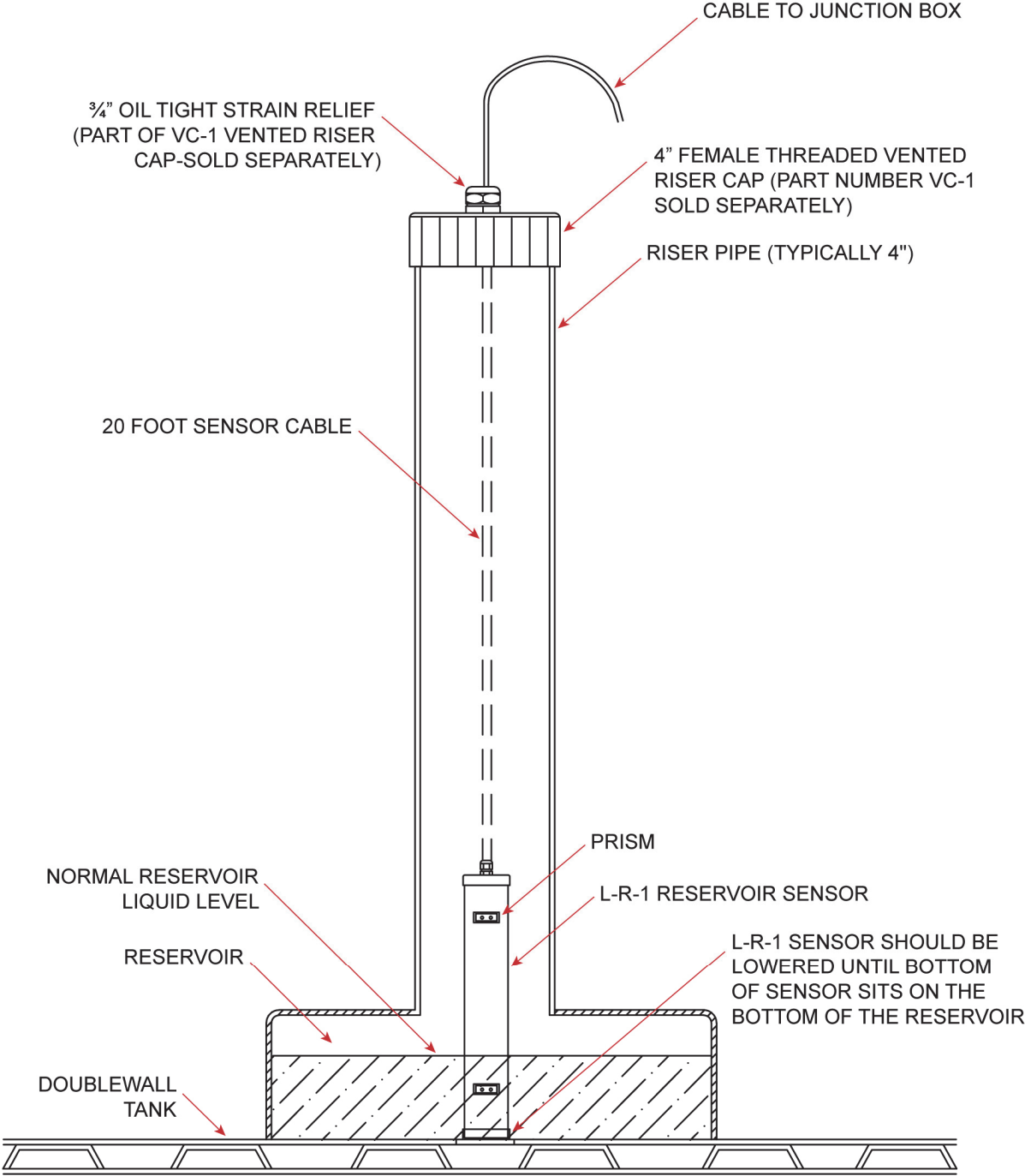
SENSOR CABLE

Shielded 22 AWG UL-E118830 CM

Maximum length 2000 feet

L-R-1 SENSOR

TYPICAL RESERVOIR SENSOR INSTALLATION



RA-SERIES REMOTE HIGH-LEVEL ALARM

RA-1



RA-2



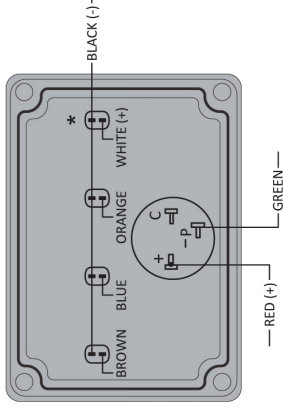
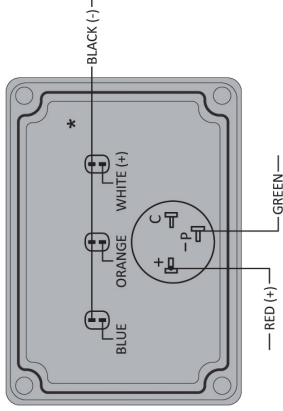
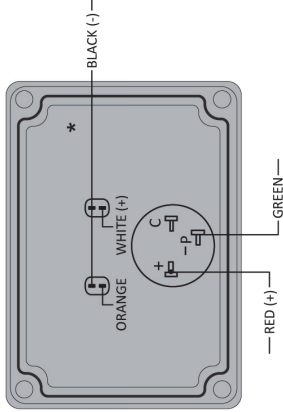
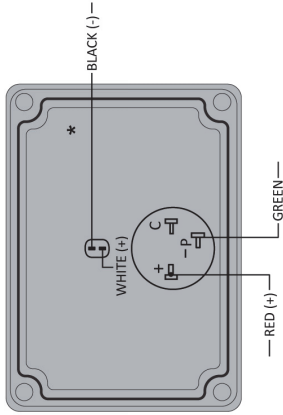
RA-3



RA-4

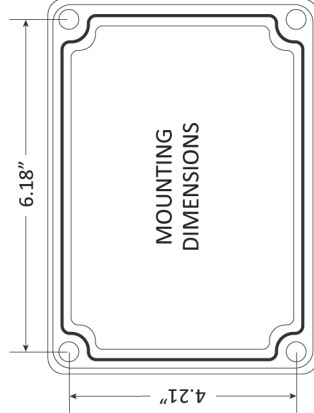
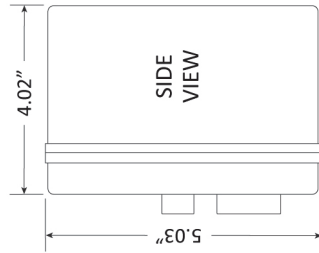


INTERNAL WIRING COLOR CODE



*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.

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



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Advanced Tank Monitoring & Leak Detection

LOG SHEET

DATE	NAME	SYSTEM STATUS	SIGNATURE

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.