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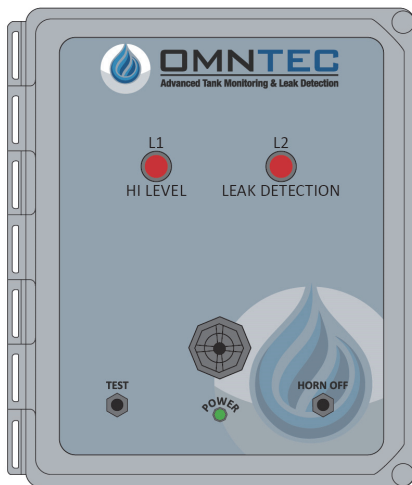
Advanced Tank Monitoring & Leak Detection



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-BF-HL

INSTALLATION GUIDE



TWO CHANNEL ALARM PANEL

Revision 2321

Document No. LU2-BF-HL rev2321

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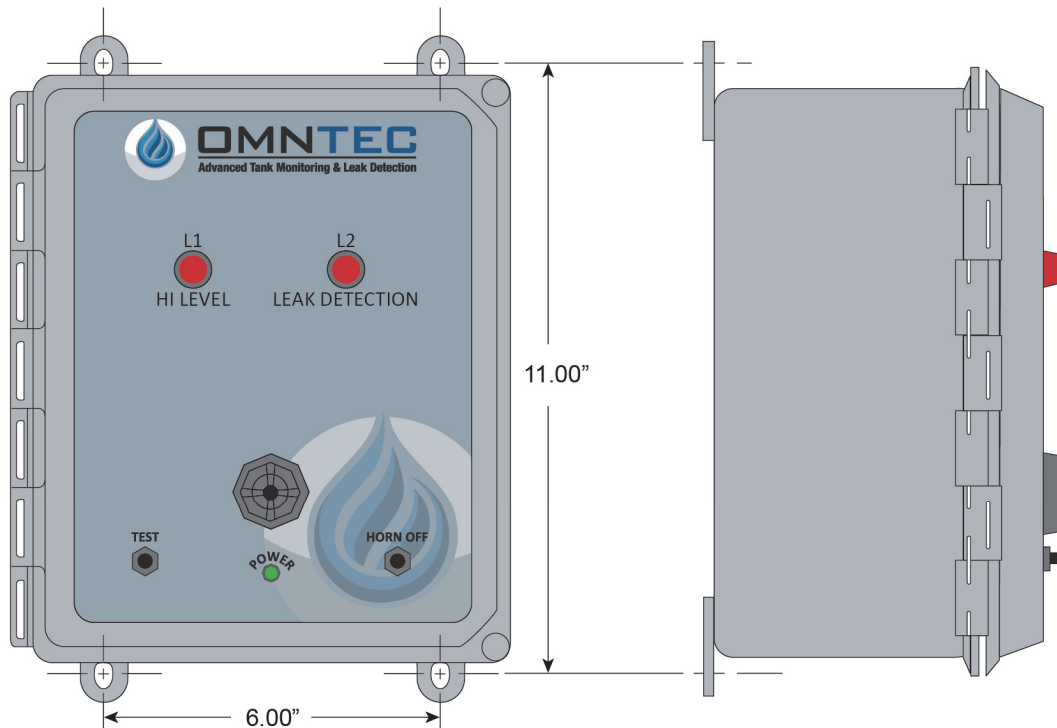


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Advanced Tank Monitoring & Leak Detection

LU2-BF-HL

TWO CHANNEL ALARM PANEL



LU2-BF-HL SPECIFICATIONS

POWER INPUT

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

POWER TO SENSORS

13.80 VDC @ 13 ma

RELAY OUTPUTS

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

AUDIO/VISUAL CONSOLE

AUDIBLE ALARM - 95 dB pulsing horn with 30 second timeout

RED LIGHT - Indicates liquid alarm for OWI-BF-1 and L Series sensors

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-BF-1 Ball float level sensor, normally open

LS-ASC Non-distinguishing liquid optic sensor

LWF Non-distinguishing liquid optic sensor for fiberglass tank interstitial

OPTIONAL ACCESSORIES

RA-Series Audio/visual remote annunciator

RLY-RA Series External relay box

LABELS

Provided with controller

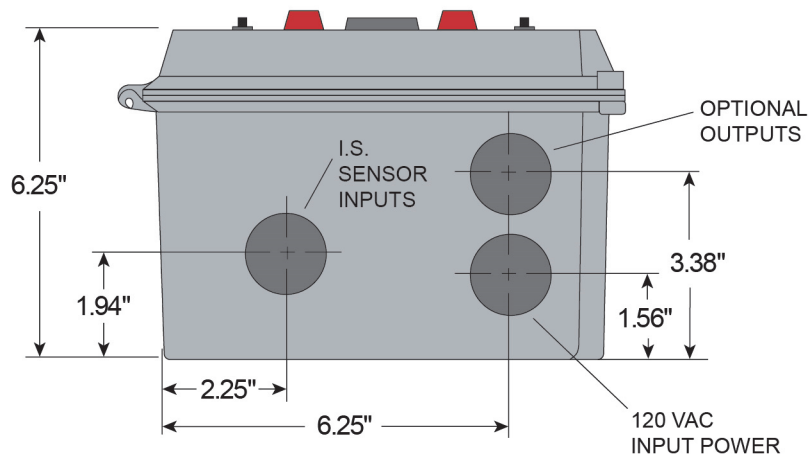
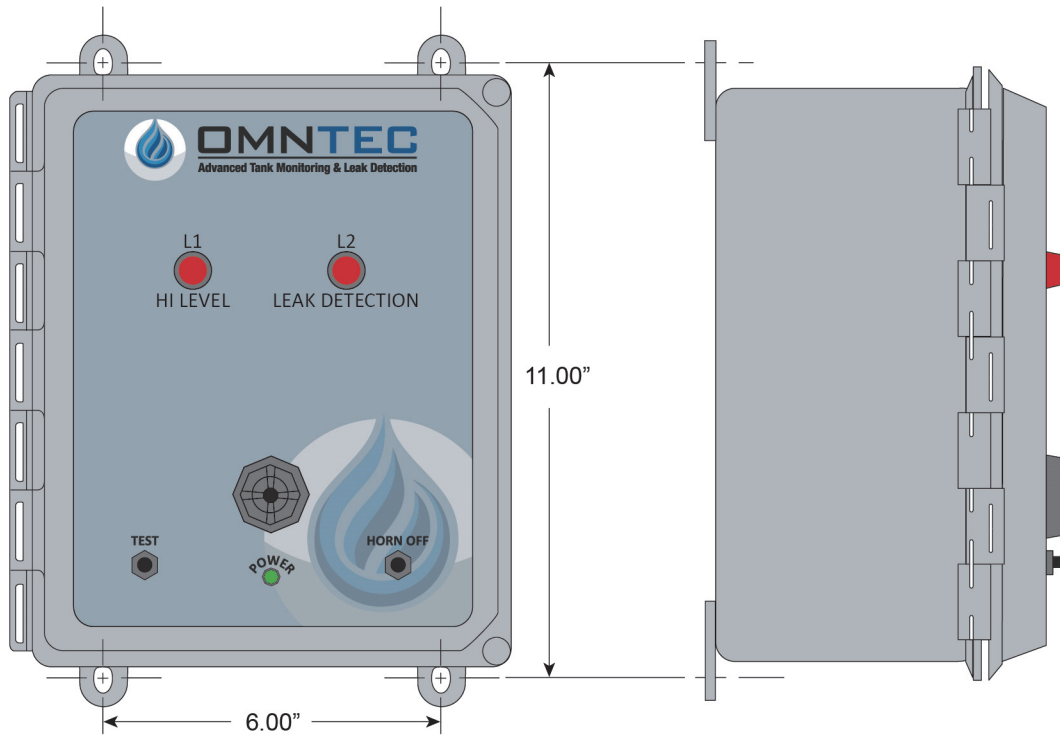


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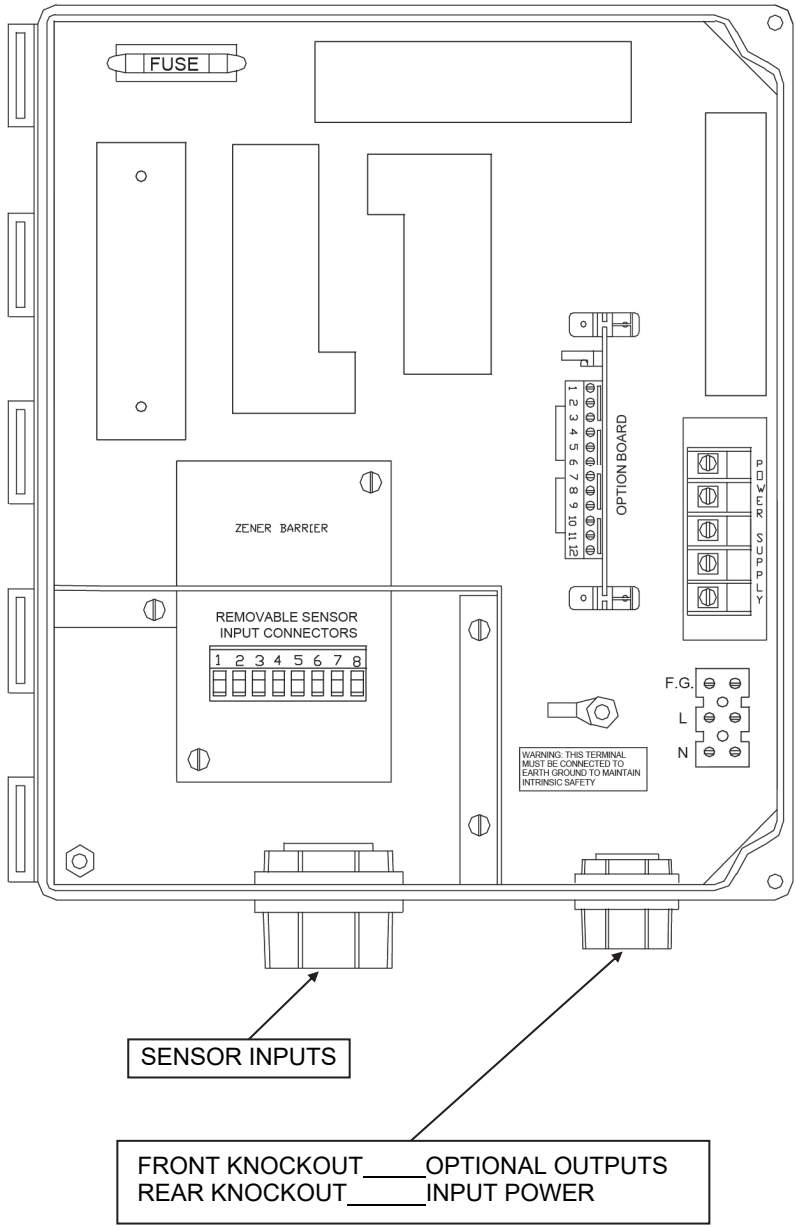
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LU2-BF-HL

DIMENSIONS FOR MOUNTING AND KNOCKOUTS



LU2-BF-HL CONTROLLER CONNECTION DIAGRAM



COLOR CODE

CABLES FROM SENSORS TO REMOVABLE SENSOR INPUT CONNECTORS

1	UNUSED	SENSOR #1 OWI-BF-1 HI LEVEL
2	WHITE	SENSOR #2 LEAK
3	RED	
4	WHITE	
5	UNUSED	
6	UNUSED	
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	SENSOR #1 HI LEVEL
5	ORANGE	SENSOR #2 LEAK
6	UNUSED	

WIRES FROM RELAY OUTPUTS

7	UNUSED	
8	UNUSED	
9	COMMON	SENSOR #2 LEAK
10	NORMALLY OPEN	
11	COMMON	SENSOR #1 OWI-BF-1
12	NORMALLY OPEN	

120 VAC

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.



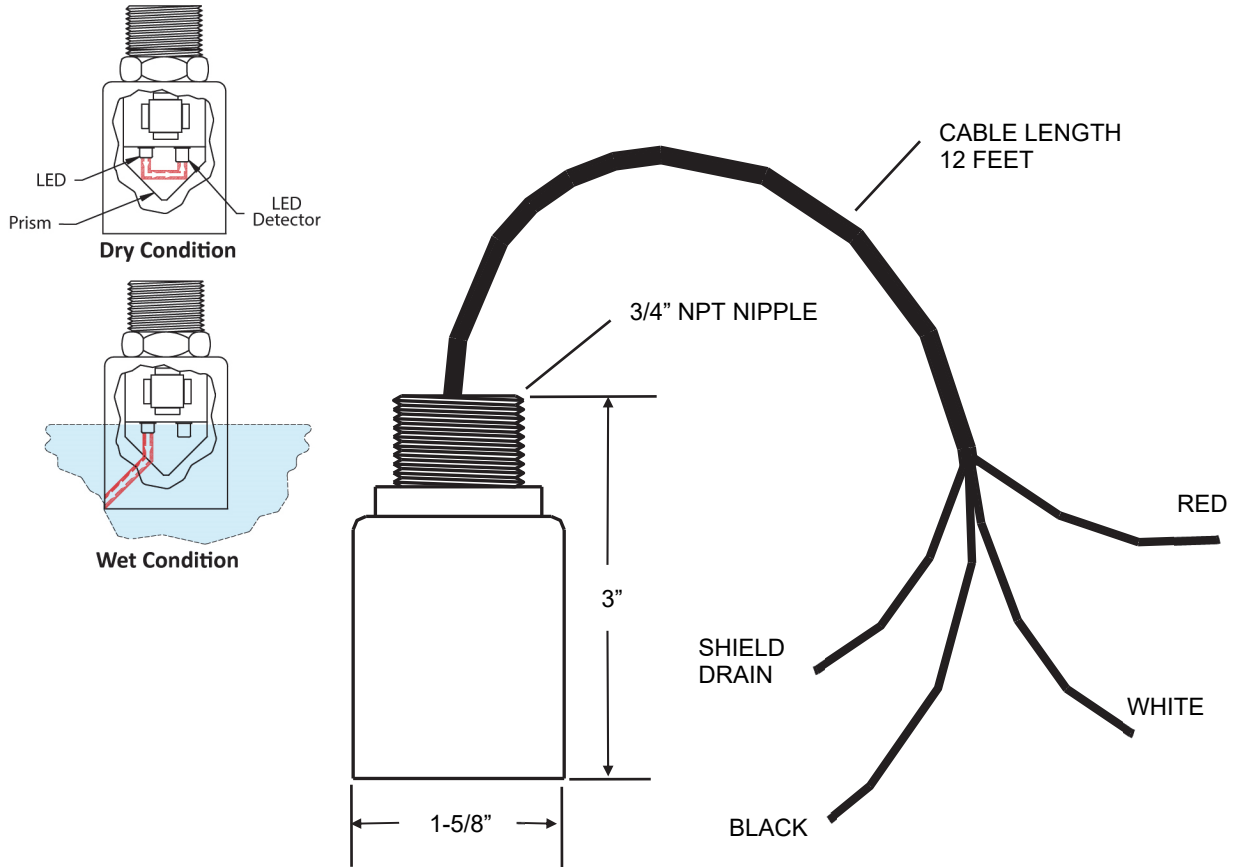
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LS-ASC SENSOR

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

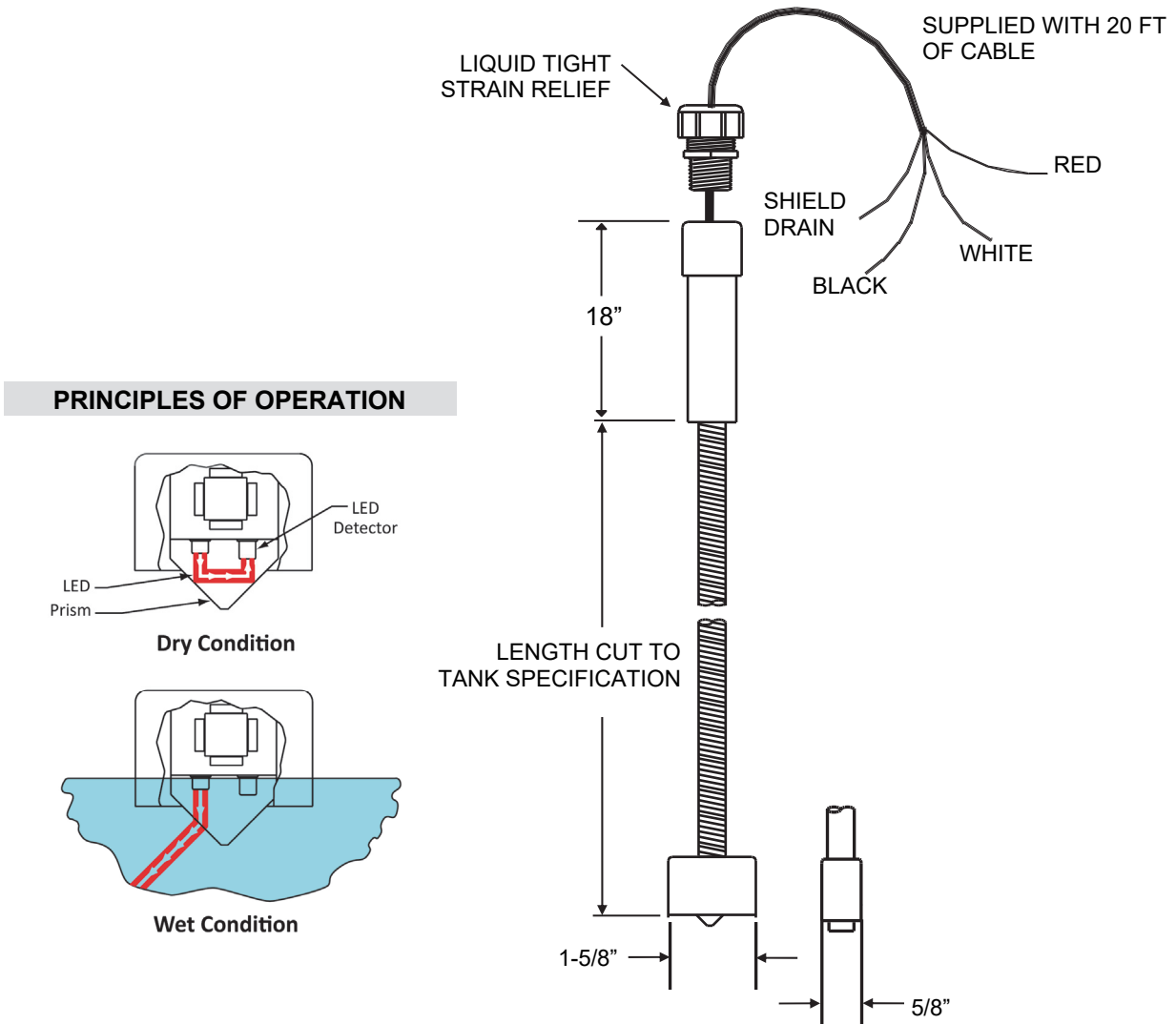


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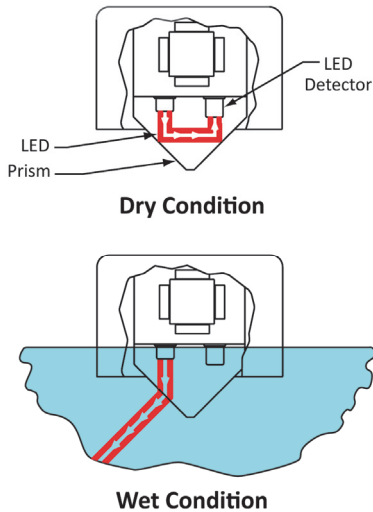
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LWF SENSOR

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

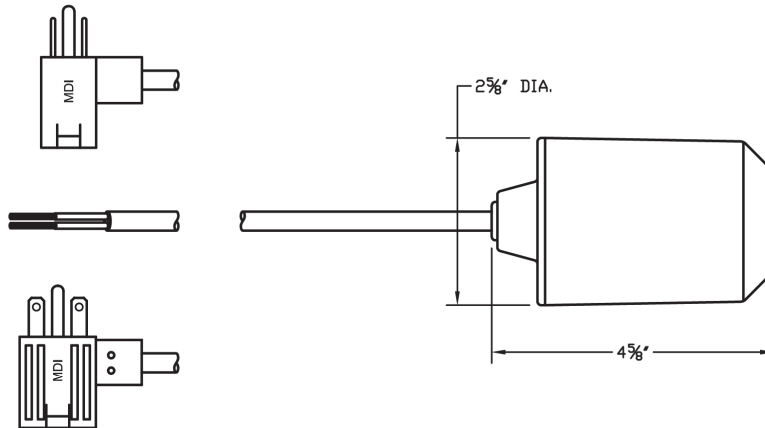
RESPONSE TIME

Immediate

OWI-BF-1 SENSOR

FLOAT SENSOR

designed for sewage and sanitary waste applications



SPECIFICATIONS

Operation Angle: 35 deg. narrow angle

Ratings: 1/4 H.P. / 10 AMP @ 120/240 VAC

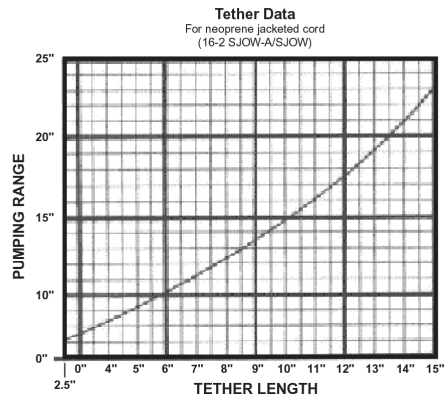
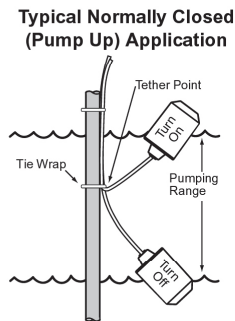
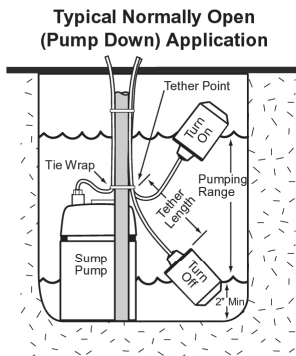
Switch Types: Normally open, normally closed or double throw

Float Materials: High impact polystyrene (H.I.P.S) rated to 140 deg. F, or acrylonitrile butadiene styrene (A.B.S.) rated to 186 deg. F.

Cord: SJOW (CPE) SJTOW (PVC)

Cord Lengths: Up to 50 feet. (Lengths in even foot increments)

Installation Instructions



Tether weights are available. Contact factory.

1. Attach cord, using a tie-wrap, to any convenient rigid surface as illustrated. This is known as the tether point. Do not tighten until both turn-on and turn-off levels are established.
2. To adjust for greater distance between turn-on and turn-off, increase cord length between tether point and float. For less distance between turn-on and turn-off, decrease cord length.
3. Make sure the float is at least 2 inches above pump base, in the lower position, before tightening tie-wrap at the tether point.
4. Plug piggy-back switch cord (current tap) into grounded outlet, then plug pump into piggy-back switch cord, and check for proper operation.

RA-SERIES REMOTE HIGH-LEVEL ALARM

RA-1



RA-2



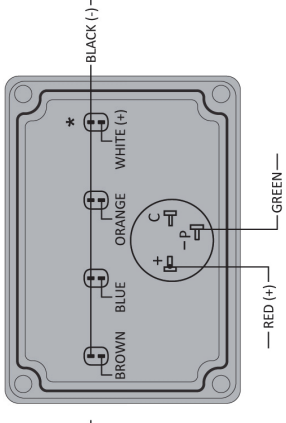
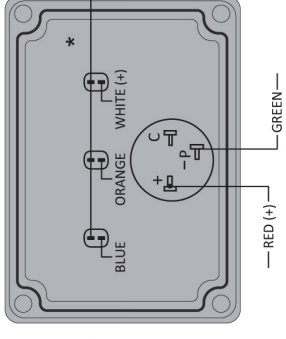
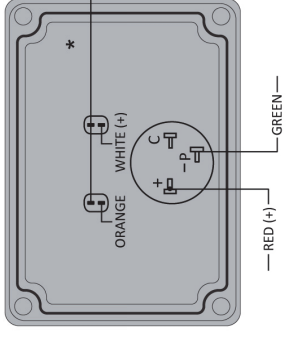
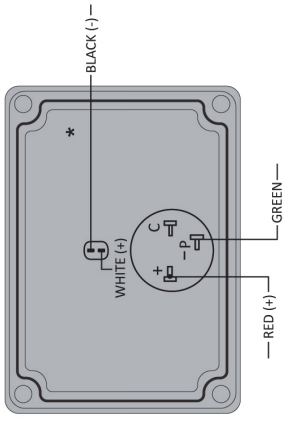
RA-3



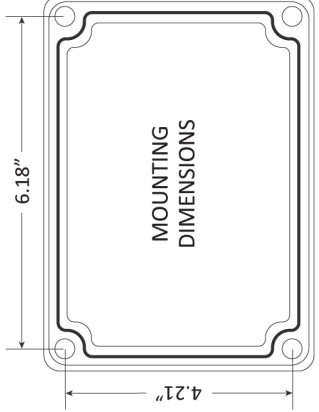
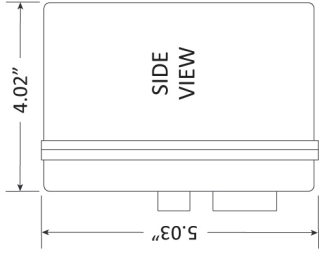
RA-4



INTERNAL WIRING COLOR CODE



*Warning Label Placed Here **WARNING: LOW VOLTAGE INPUTS ONLY**



SPECIFICATIONS	
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.

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.