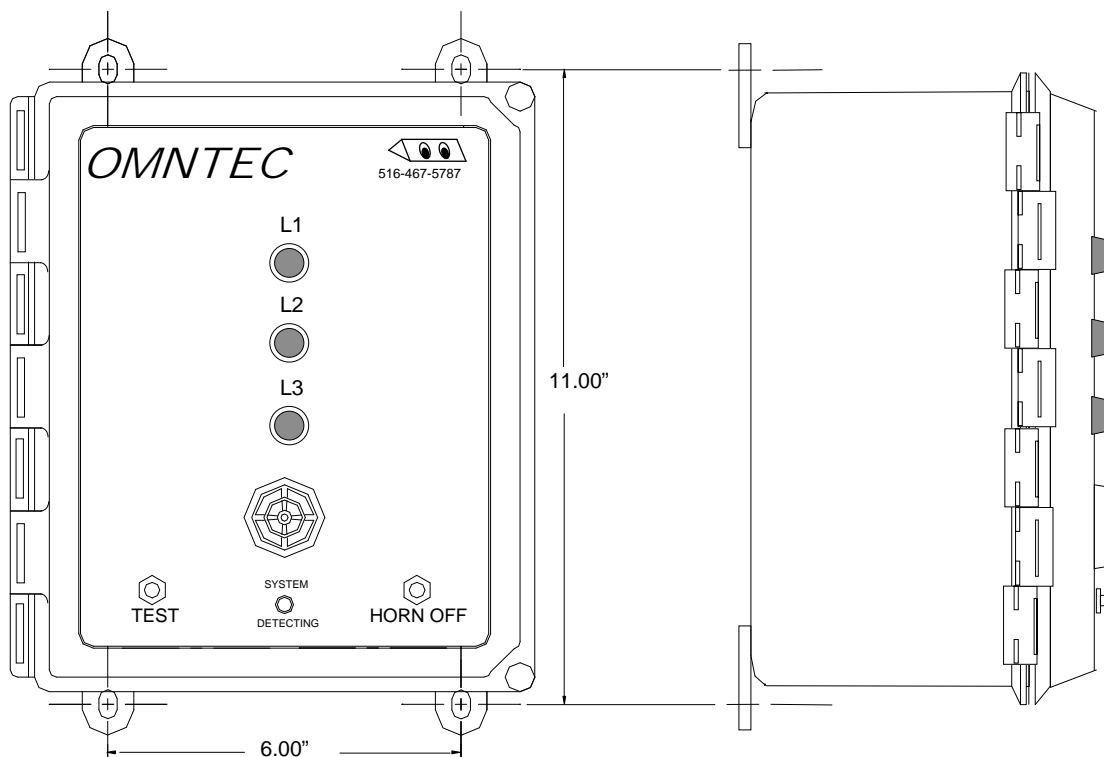


THREE CHANNEL



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 1.25 AMPS, 120
AC/DC switches when an alarm condition occurs

WEIGHT **DIMENSIONS**
6 LBS. (W) 9" x (H) 10.5"

SENSOR CABLE

Shielded 22 AWG UL-E118830 CM
Maximum length 2000 feet

ENCLOSURE **OPERATING TEMPERATURE**
NEMA 4X -40° to 140° F

AUDIO/VISUAL CONSOLE

Audible alarm - 95 dB pulsing horn with 30 second
timeout

RED light -Indicates liquid alarm for LF-series float sensor
TEST BUTTON- When pressed will test system
electronics

GREEN LIGHT- indicates the power is on

Horn off button - Silences the audible alarm when pressed

SENSORS

(3) LF-1 Single float liquid level sensor, normally closed

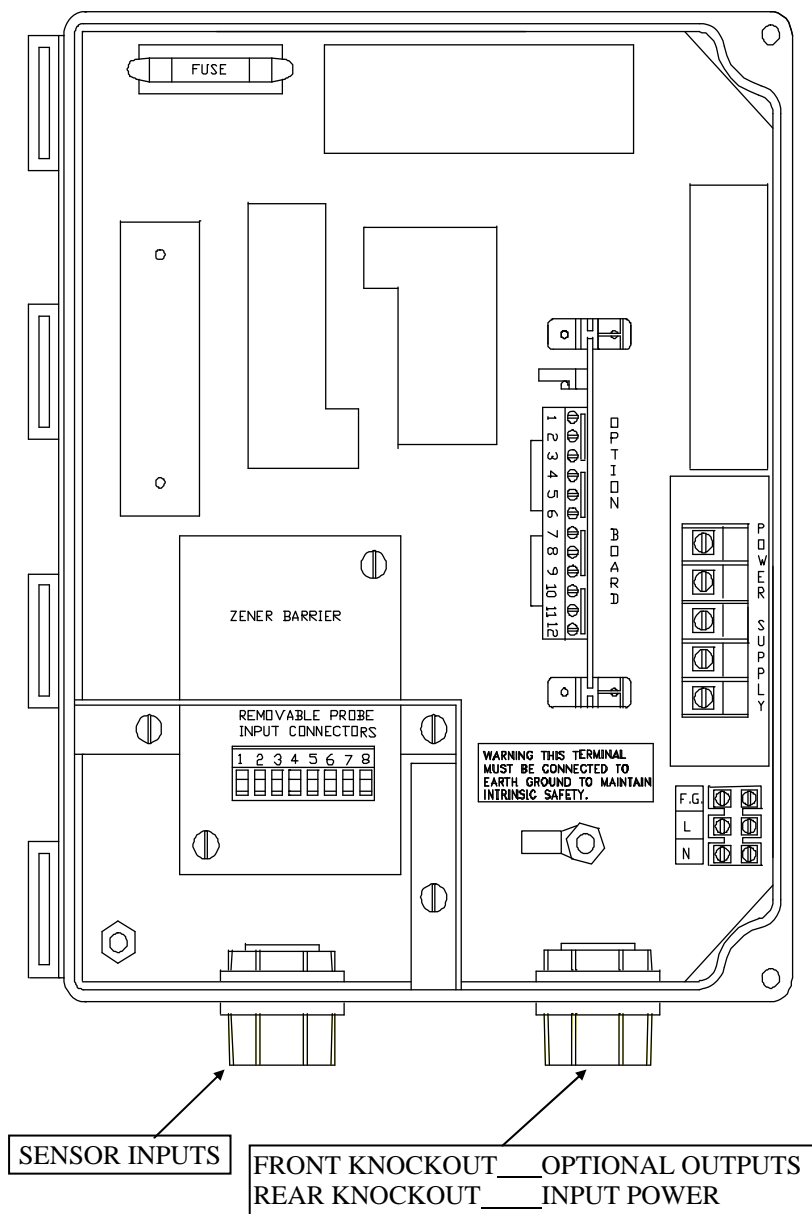
ACCESSORIES

RA-1 audio/visual remote annunciator

LABELS

Provided with controller

LU3-LF CONTROLLER CONNECTION DIAGRAM



COLOR CODE

CABLES FROM SENSORS TO REMOVABLE SENSOR INPUT CONNECTORS

| | | |
|---|--------------|---------------------|
| 1 | UNUSED | SENSOR #1 |
| 2 | RED | LF-1 |
| 3 | UNUSED | SENSOR #2 |
| 4 | RED | LF-1 |
| 5 | UNUSED | SENSOR #3 |
| 6 | RED | LF-1 |
| 7 | BLACK | FROM SENSOR #1 - #3 |
| 8 | SHIELD DRAIN | FROM SENSOR #1 - #3 |

WIRES TO OPTION BOARD

WIRES FROM RA-SERIES REMOTE

| | | |
|---|--------|-----------|
| 1 | GREEN | -HORN |
| 2 | RED | +HORN |
| 3 | BLACK | GROUND |
| 4 | WHITE | SENSOR #1 |
| 5 | ORANGE | SENSOR #2 |
| 6 | BLUE | SENSOR #3 |

WIRES FROM RELAY OUTPUTS

| | | |
|----|---------------|-----------|
| 7 | COMMON | SENSOR #3 |
| 8 | NORMALLY OPEN | |
| 9 | COMMON | SENSOR #2 |
| 10 | NORAMLLY OPEN | |
| 11 | COMMON | SENSOR #1 |
| 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.

Liquid Level Float Sensors

- Stainless Steel or Brass Mountings
- 1 to 6 Actuation Levels
- Lengths to over 11 feet
- U.L. Recognized, CSA Listed

LF series float sensors have multiple options including material of construction, mountings and float sizes. This allows for the LF sensor to be extremely versatile in a wide range of applications such as water, oils, chemicals and corrosive liquid.

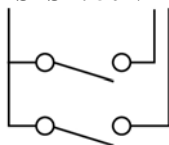
LF-* switches are U.L. Approved for Class I, Division 2, Groups A, B, C, D hazardous locations. FM Approved explosion proof junction box must be installed for Class I, Division I, Group D hazardous locations.

| Specifications | | |
|--------------------------|---|---------------------|
| | BUNA N | Stainless Steel |
| Operating Temperature | Water: to 180 F Oil: -40 F to +230 F | 40 F to +300 F |
| Stem & Mounting Material | Brass | 316 Stainless Steel |
| Max Length (Lo) | 120" (305 cm) | |
| Float Stops* | Beryllium Copper | 316 Stainless Steel |
| Compatible Controllers | Consult factory | |
| Approvals | U.L. Recognized, CSA Listed | |

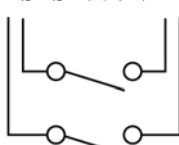
Specifications subject to change without notice, verify with manufacturer.



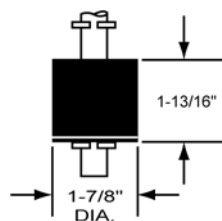
Group 1
Switch (N.O. or N.C.):
SPST: 50 VA



Group 2
Switch (N.O. or N.C.):
SPST: 50 VA

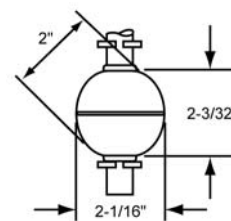


- For clarity, only two actuation levels are shown in each group diagram.
- Standard setup is Group 2 unless otherwise specified.



BUNA N Float

Consult factory for materials other than stainless steel and BUNA N.



Stainless Steel Float

Switch actuation levels are determined following the guidelines below:

All units 72" or less overall unit length with Stainless Steel or Buna N floats.

A = 1-1/2" (38.1mm) minimum distance to highest level (2" (50.8mm), Type 5 only)

B = 2" (50.8mm) minimum distance from end of unit to lowest level

C = 3" (76.2mm) minimum distance between levels

D = 1/4" (6.3mm) minimum distance between actuation levels (Note: One float for two levels can be used only when low level is N.C. dry and high level is N.O. dry)

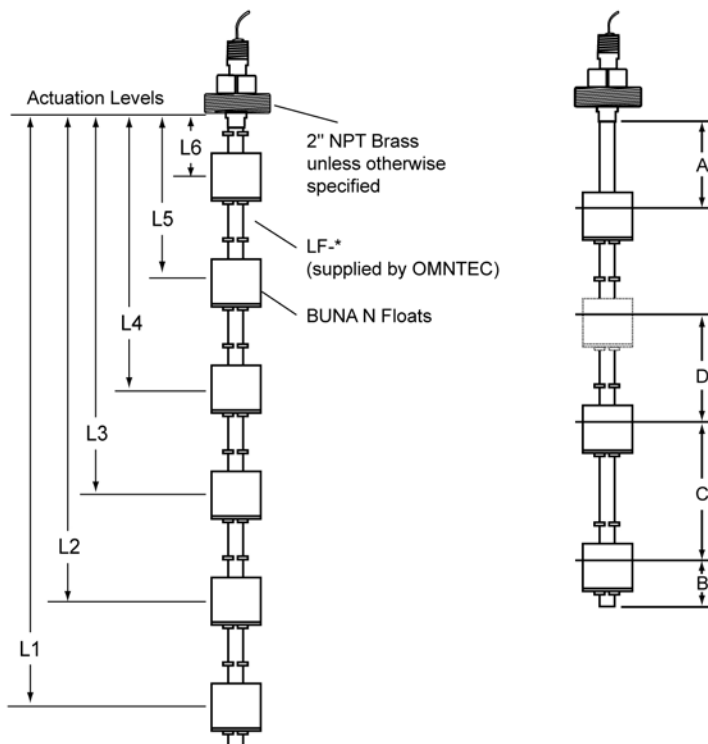
* Actuation level distances and L_0 (overall unit length) are measured from inner surfaces of mounting plug or flange

** Length Overall $L_0 = L_1 + \text{Dimension B}$.

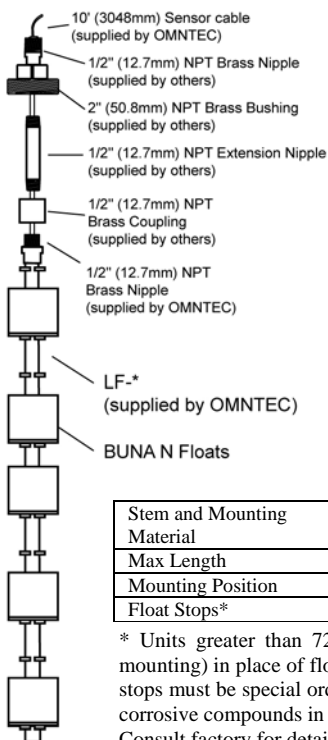
See mounting Types for Maximum Length values

Notes:

1. A, B and C dimensions based on a liquid specific gravity of 1.0
2. One float for two levels can be used only when 20VA switch is used
3. Actuation levels are calibrated on descending fluid level, with water as the calibrating fluid, unless otherwise specified
4. Tolerance on actuation levels is $\pm 1/8"$ (3.2mm)



Optional Alternative Mounting for 1/2" NPT



Wiring Color Code

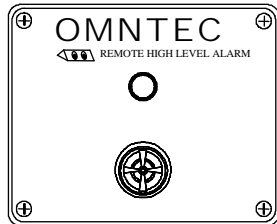
| Wiring | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
|--------|-----------|-------------|--------------|--------------|-------------|
| LF-1 | black/red | ----- | ----- | ----- | ----- |
| LF-2 | black/red | green/white | ----- | ----- | ----- |
| LF-3 | white/red | blue/green | black/orange | ----- | ----- |
| LF-4 | black/red | green/white | blue/orange | yellow/brown | ----- |
| LF-5 | black/red | green/white | blue/orange | yellow/brown | purple/grey |

| Type 1 1/2" (12.7mm) NPT | Type 2 1-1/4" (31.8mm) NPT | Type 3 2" (50.8mm) NPT | Type 4 3" (76.2mm), 150# Dia. Flange |
|-----------------------------|--|---------------------------|---|
| | | | |
| Stem and Mounting Material | Brass or 316 Stainless Steel | | |
| Max Length | 36" (91.4 cm) | 60" (152.4 cm) | 140" (355.6 cm) |
| Mounting Position | Vertical 30 Inclinaton | | |
| Float Stops* | Brass Units: Beryllium Copper Grip Rings, Stainless Steel Units: S.S. ARMCO PH-15-7MO Grip Rings | | |

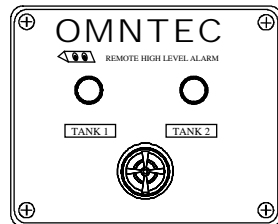
* Units greater than 72" (1828mm) overall length are supplied with collars with setscrews (made of same material as stem and mounting) in place of float-stop rings. Collars are optional on units less than 72" (1828mm) overall length. Units requiring 316 SS float stops must be special ordered with 316 SS collars instead of grip rings. In some instances the use of concentration of chlorine and other corrosive compounds in the media require the use of collar type float stops. Consult factory for details.

RA-Series Remote High Level Alarm

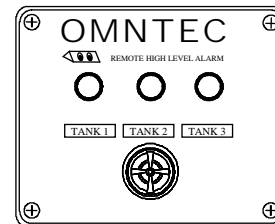
RA-1



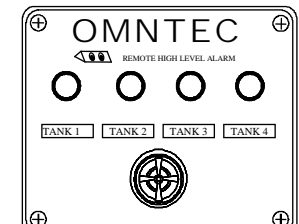
RA-2



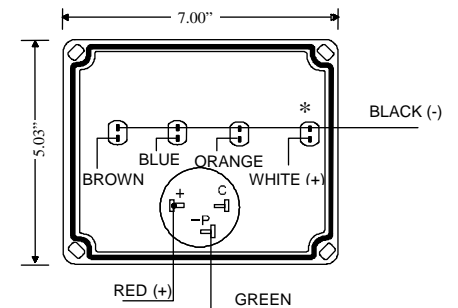
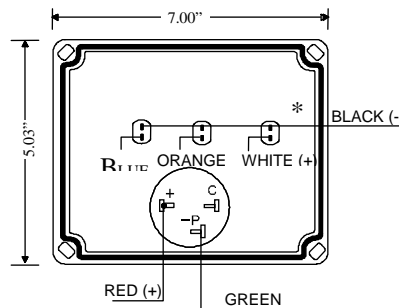
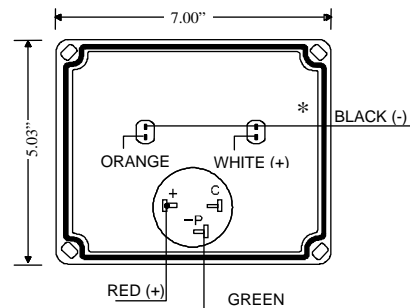
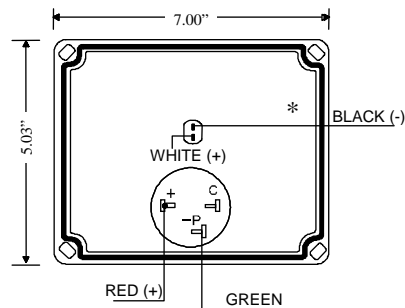
RA-3



RA-4



Internal Wiring Color Code

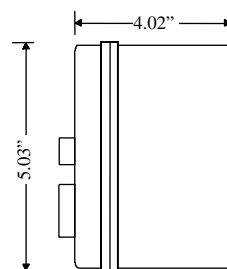


* **WARNING LABEL PLACED HERE:** Warning: Low voltage inputs only

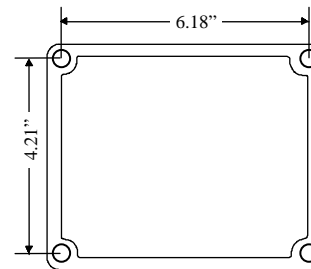
SPECIFICATIONS

| | |
|---------------|---|
| 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

[illegible]

WARRANTY

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.