## **LLA-H & LLA-L SERIES - LIQUID LEVEL ALARMS**

The LLA-H (high level) and LLA-L (low level) series 1-Zone Septic/Holding Tank Alarm is an indoor rated alarm panel, powered by a standard 120VAC wall outlet. The green power LED will illuminate (solid) when powered.

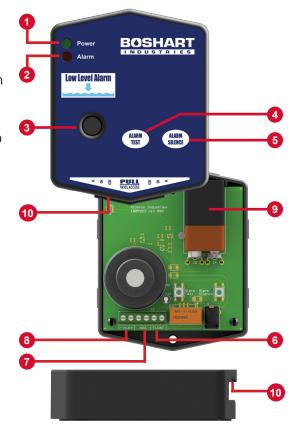
The alarm panel is equipped with audible and visual alarm indication, activated by the float switch connected to the terminal block. A variety of sensors can be used such as a float switch, pressure switch, or any "dry" type sensor that "closes" during an alarm condition (normally open or normally closed). Installing a 9VDC battery (not included) provides battery backup during power outages. Use the auxiliary contacts to connect to building automation systems (BAS) and phone dialers. Multiple sensors (signaling device) can be connected for expanded monitoring.

Use normally open float switches for high level alarm indication and normally closed float switches for low level alarm indication.

An alarm condition occurs when the float switch contacts close (normally open) or open (normally closed), during which the red alarm LED will illuminate (solid), the buzzer will annunciate (solid), and the auxiliary contacts will activate. The alarm condition will stay on until the float switch is deactivated. If the alarm silence pushbutton is pressed during an alarm condition, it will silence the buzzer while the alarm LED remains on. The silence condition will reset when the float switch deactivates and the alarm panel will auto reset for the next alarm cycle.



- (1) Power LED A green LED illuminates (solid) on the front of the alarm panel to indicate the power is on.
- (2) Alarm LED During a level alarm condition, the red alarm LED will illuminate (solid) on the front of the alarm panel.
- (3) Alarm Buzzer The alarm buzzer will annunciate (solid) in addition to the visual indication provided by the red level alarm LED during an alarm condition.
- **(4) Alarm Test Pushbutton** Press the pushbutton to test the alarm to ensure proper operation. The buzzer should annunciate, alarm LED should illuminate, and auxiliary contacts should activate.
- **(5) Alarm Silence Pushbutton** Press the pushbutton to silence the buzzer during an alarm condition. The alarm LED remains illuminated until the alarm condition has been cleared and the alarm panel will auto reset for the next alarm cycle.
- **(6) Sensor Inputs** Connect a field installed sensor to the terminals from the monitoring area.
- **(7) Auxiliary Contacts** Interface with an external device including BAS systems and phone dialers. The contacts (normally open) are rated 24VDC at 500mA maximum.
- **(8) Secondary Alarm Device Inputs** Provides a secondary remote alarm notification.
- **(9) Battery Backup** Install a 9VDC battery (not included) for battery backup during power outages. The power LED will not illuminate during battery backup mode to conserve battery power.
- **(10) Panel Access** Pull the cover off to access the panel. Includes an open wiring compartment to safely route wires while connecting sensors and auxiliary dry contacts.





25 Whaley Avenue, PO Box 310, Milverton, ON CANADA NOK 1M0 Tel: 800-561-3164

boshart.com ♦ blog.boshart.com

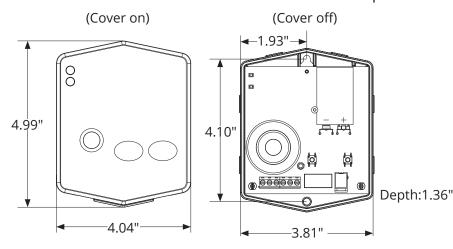
## **LLA-H & LLA-L SERIES - LIQUID LEVEL ALARMS**

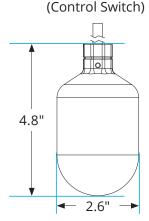
## SPECIFICATIONS (TANK ALARM, STANDARD):

- Primary Power: 120VAC, 50/60 Hz
- Circuit Board Primary Power: 11.1VDC, 500mA maximum
- Circuit Board Secondary Power: 9VDC, standard 9VDC battery (battery backup; not included)
- Watts: 1.4 Watts
- Field Connection Sensor: 9-10VDC, 200mA minimum (signaling device)
- Auxiliary Contacts: 24VDC, 500mA maximum Normally Open; Single Pole, Single Throw
- Auxiliary Alarm Power: 8-10.2VDC, 150mA maximum
- LEDs: Green (power) and Red (alarm)
- Buzzer: 85 dB @ 10-feet
- Wall-Mounted Power Supply: 120VAC, 50/60 Hz (input): 11.1VDC, 500mA maximum (output) (6-foot cord)
- Enclosure: Thermoplastic, 5 x 4 x 1.3 (inches), Type 1, Indoor Removable Cover
- Certifications: CSA (US and Canada)

## **SPECIFICATIONS (CONTROL SWITCH):**

- LLA-H Series uses FSC05NO Series Normally Open (Pump Down) Control Sensor Switch. Contacts are open while hanging down and will close on a rising liquid level. Typically used for high level alarms and empty tank applications.
- LLA-L Series uses FSC05NC Series Normally Closed (Pump Up) Control Sensor Switch. Contacts are closed while hanging down and will open on a rising liquid level. Typically used for low level alarms and fill tank
- Operating Temperature: 0 140° F
- Cable Type: SJOOW (UL/CSA), 18 gauge, 2-conductor, flexible, and water/oil resistant
- Float Housing: Polypropylene
- Switch Arrangement: Single Pole, Single Throw
- Switching Differential: 20° total (narrow angle)
- Certifications: CSA (US and Canada)







Part No.	Cord Length
High level alarm, manual silence, pump down	
LLA-H00	No Cord
LLA-H10	10'
LLA-H20	20'
LLA-H30	30'
LLA-H50	50'
Low level alarm, manual silence, pump up	
LLA-L00	No Cord
LLA-L10	10'
LLA-L20	20'
LLA-L30	30'
LLA-L50	50'

For more information on installation, adjustment, repair & operation, visit Boshart Knowledge Base at

SUPPORT.BOSHART.COM



BOSHART

25 Whaley Avenue, PO Box 310, Milverton, ON CANADA NOK 1M0 Tel: 800-561-3164