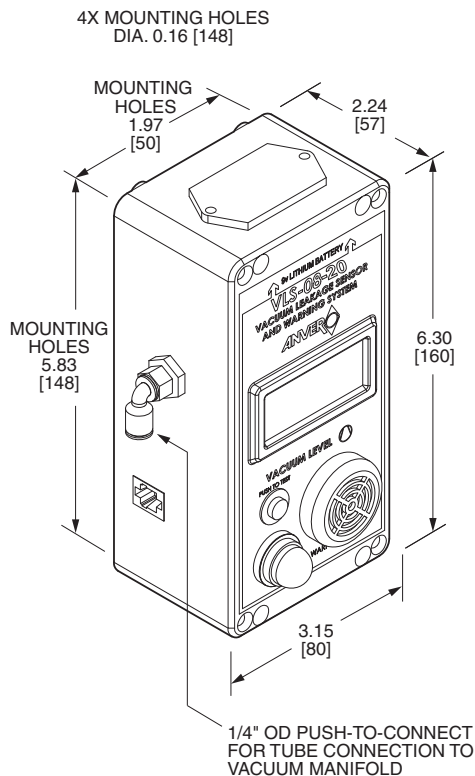


# Vacuum Leakage Sensing Systems

## VLS-08-20 Vacuum Leakage Sensor



13200342 • Control Number 070109D



### The Latest in Solid State Vacuum Leakage Detection

The VLS-08-20 monitors the vacuum level automatically. If vacuum is lost during a lift a loud horn sounds, and a red light flashes to warn the operator. The VLS-08-20 monitors vacuum level even if the operator is not looking at the lifter, a useful and popular option.

The VLS-08-20 is a battery powered unit consisting of a pressure sensor, an audible warning horn, red warning light, and test switch, all controlled by a solid state microchip. All ANVER Vacuum Lifters, Vacuum Tilters and Specialty Vacuum Lifting Machinery can be equipped with a VLS-08-20 Solid State Vacuum Leakage Sensor and Warning System. The system is packaged in a rugged polycarbonate enclosure with a 1/4" push-to-connect fitting for tubing connections.

During each lifting cycle the programmed 'intelligent' processor senses the peak vacuum level. From this point, a 20% loss



of vacuum with a leakage rate of less than 1½ in. Hg per second from that peak level will trigger the horn and light, informing the operator of a leak. The alarm will not sound on the detach cycle as with other primitive systems using preset switches. Even the smallest leak anywhere in the system will be detected. The VLS-08-20 system automatically monitors the vacuum level for the operator.

### Features

- Advanced Solid State Circuitry with Micro-Controller
- Precise, Reliable, Board Mounted Vacuum Transducer
- LCD Digital Display of Vacuum Level in Inches of Hg
- Audible Warning Horn
- Bright Flashing Red LED Warning Light
- Push-to-Connect Vacuum Source Port to Connect to Vacuum Manifold

- Auxiliary Output Jack to Connect to Optional VLS-07- AUX-S Auxiliary Siren/Alarm
- Easy Access to Battery Compartment
- Low Battery "Chirp" Indicator
- Light / Horn / LCD Test Button
- Powered by One Standard 9V Lithium Battery (included)

**Contact Factory for application information**

### Principle Of Operation

The VLS-08-20 Vacuum Leakage Sensor is a vacuum level differential detector which is pre-programmed to activate the alarm at a 20% reduction in vacuum with a leakage rate of less than 1.5 inches Hg per second. The alarm will continue until a sufficient increase in vacuum is achieved, indicating no additional leakage is present, or the indicated vacuum level drops below 5 inches Hg. The horn, LED (red light) and LCD (digital display) can be tested by pressing and holding the "Test Button" for approximately 3 seconds. The unit is also equipped with a low battery indicator which will cause the horn to "chirp" and the LED to flash when battery power is low. The battery should be replaced immediately with a standard 9V lithium battery. The auxiliary output jack on the VLS-08-20 is an open collector output which can be connected directly to the VLS-07-AUX-S (auxiliary siren/strobe), or to another I/O device, such as an emergency stop function on a CNC control, through a solid state relay. The unit is provided with Mounting Holes for 4 #10 Self-Tapping Screws.

### Warning

The VLS-08-20 is designed to be a warning device for vacuum leakage detection. When properly installed on an ANVER vacuum lifter, the operator will be warned of a slow vacuum leakage and should have adequate time to safely lower the attached load. If the alarm signal is ignored and the lifting operation is continued, the vacuum loss may adversely affect the vacuum "hold", possibly resulting in serious injury to the operator. The VLS-08-20 is not designed for nor effective in detecting fast leaks or sudden failures of the vacuum system.

**THIS VACUUM LEAKAGE WARNING DEVICE WILL NOT PROVIDE TIMELY WARNING TO THE OPERATOR THAT A REDUCTION IN VACUUM HAS OCCURRED DUE TO INCORRECT USE OF A VACUUM LIFTER, SUCH AS OVERLOADING, LIFTING OVERSIZED LOADS, UNBALANCED LIFTING OR IMPROPER OPERATION OF ANY KIND.**



**Ordering Information:** Order by the Part No.  
For more information on the VLS-07-AUX-S reference Document No. 13200343