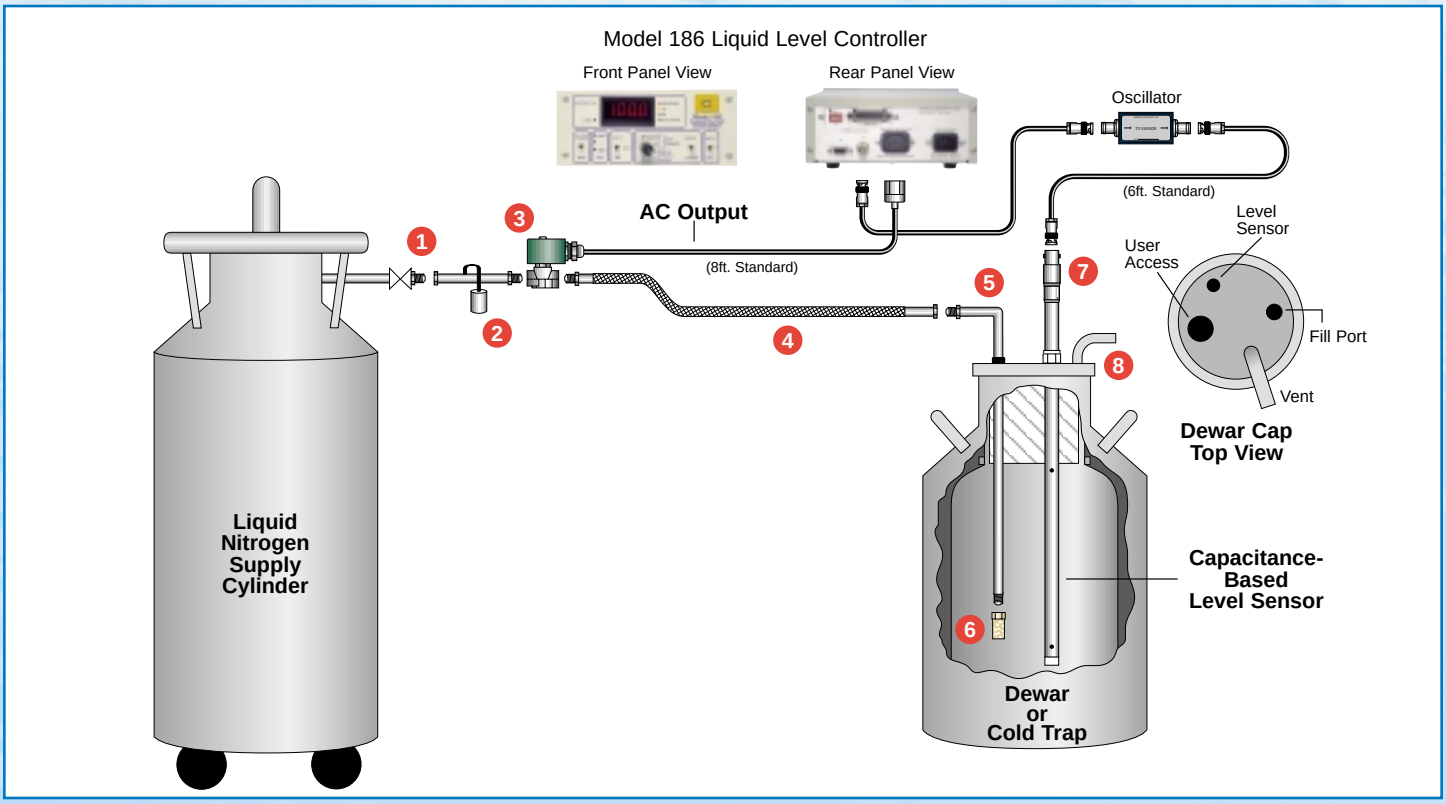
Cryogenic Liquid Auto-Fill Systems

Why automate your liquid nitrogen filling process?

Protect your investment by not running out of liquid nitrogen.
Protect your people from handling hazardous cryogens.
Extend your equipment up time by running weekends and holidays without special assistance.
Convenience of a continuous level reading and alarms that can be remotely monitored from your workstation.
Advanced warning of possible dewar failures.

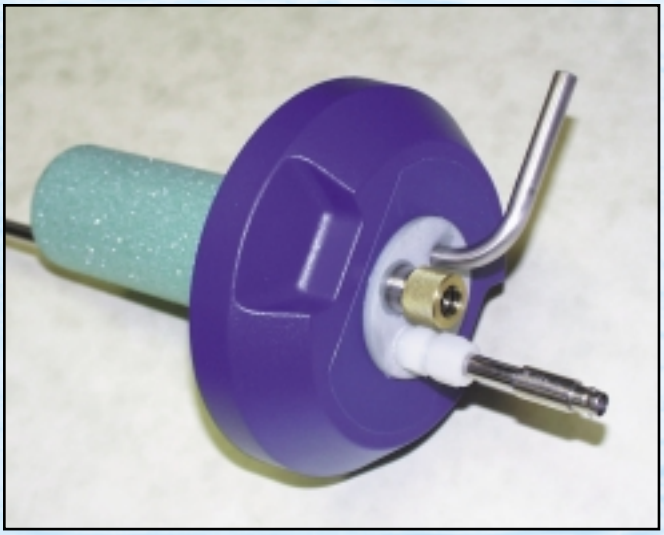


The system shown above can include the following list of items:

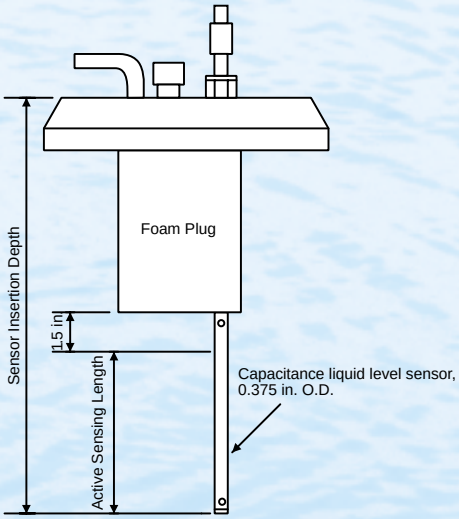
1. **Dewar Adapter** - 1/2" SAE flare nut x 3/8" Male NPT
2. **Safety Pressure Relief Valve** - 100 psi set pressure with gooseneck
3. **Solenoid Valve** - 9/32" orifice with 3/8" Female NPT, 100-120 VAC (Optional 200-240 VAC)
4. **Vacuum Jacketed Transfer Line** - 6-12 ft. Std. x 1/4" ID, 3/4" OD with 1/2" SAE flare nut on one end and integral dewar nozzle on other end. (Optional vacuum valve operator. Different configurations, sizes and lengths available)
5. **Dewar Nozzle** - length to fit application x 1/2" or 3/8" OD, with threaded male tip (Optional extensions)
6. **Phase Separator** - 1.25" length x 1" OD x 3/8" Female NPT (other sizes available)
7. **Liquid Level Sensor** - 3/8" OD Std. (3/16", 1/4" and 1/2" OD available) x length required
8. **Dewar Cap Assembly**

New flow-through sensor is a transfer line/sensor combination that lets users of small detector dewars automate their LN2 filling.

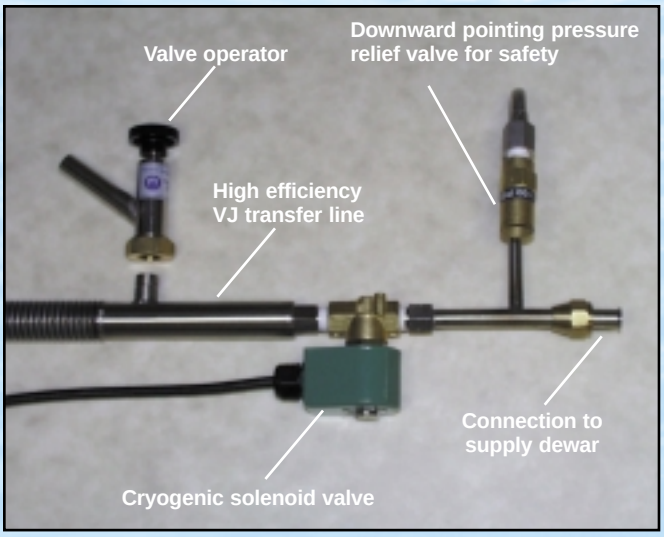
Ideal for small Biological Storage Dewars or X-ray crystallographic systems



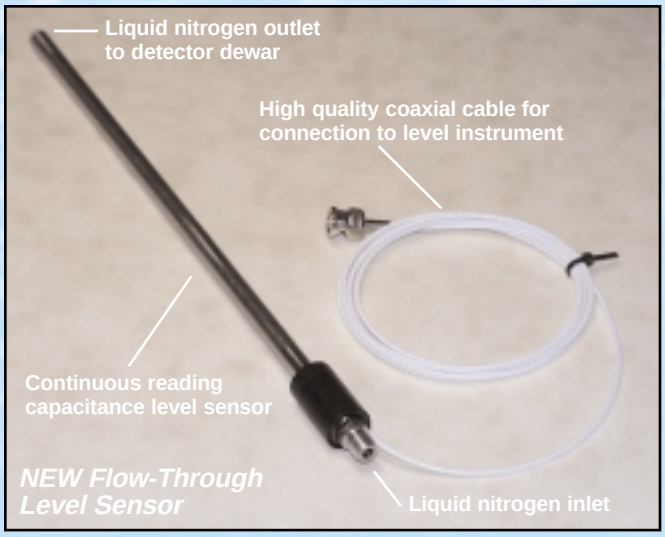
Modified dewar caps for most commercial dewars are available to accept all necessary components for your particular application.



Specify the active sensor length and insertion length when ordering.



Picture showing the Vacuum Jacketed transfer line, evacuation valve operator, solenoid valve, and pressure relief valve assembly.

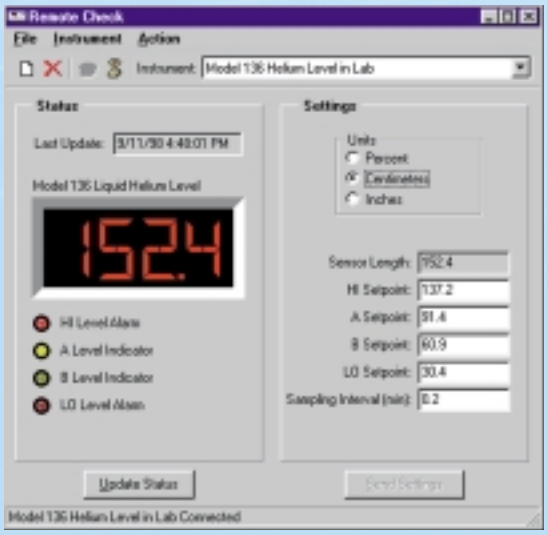


Flow-through sensor design allows even the smallest of dewars, with a single 3/8" opening, to receive the benefits of an auto-fill system.

Advanced System Features:

- High efficiency vacuum jacketed transfer lines
- Fail-Safe Time Feature
- Remote Monitoring via RS232/422 or GPIB and Modem
- Custom Sensor Configurations

Remote Check software is an easy to use interface compatible with Windows 95, 98, or NT 4.0. Users can easily check, monitor and adjust the liquid levels in their system by connecting the instrument to an external modem or PC serial port. Modem connections require a modem on both the host computer and the remote instrument. This feature can be used without modems with RS-232 and RS-422 to distances of up to 50 and 4,000 feet respectively. Instruments in multiple locations can be easily monitored with a single host computer by simply selecting them from the user defined pull down menu.



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