LEAK PREVENTION TECHNOLOGY

For a clean and protected environment

Vacuum leak detectors for tanks

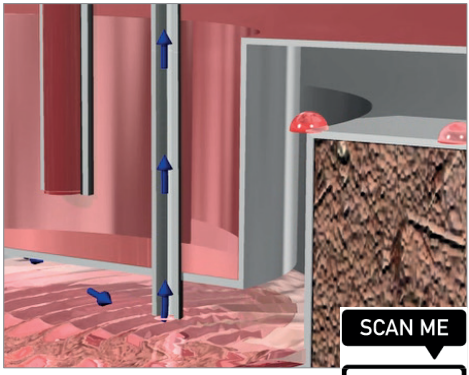
VL 230 | VL 330 | VL 410 | VL 570

Variants • Equipment • Accessories

SCAN ME

New SGB shop:
shop.sgb.de
All products online now

Function principle „underpressure“



SCAN ME

With the VL leak detectors, a negative pressure is generated and permanently hold in the interstitial space. In the event of a leak in one of the two walls, either air (air leak) or stored product/groundwater (liquid leak) is sucked into the interstitial space. Due to the vacumm, a spilling of the stored product into the environment is safely and reliably prevented!

Minor and unavoidable leaks are compensated for by switching on the vacuum pump. Relevant leaks cannot be compensated due to the limited pump delivery rate:

> Air leak: If more air enters the interstitial space than the vacuum pump can evacuate, the vacuum in the system drops. When the alarm pressure is reached, the visual and acoustic alarms are triggered.

> Liquid leak: Stored product or groundwater is sucked in until the medium reaches the liquid sensor/liquid barrier. The remaining negative pressure sucks further medium into the interstitial space. This causes the vacuum to drop further. When the alarm pressure is reached, the optical and acoustic alarm are triggered and - depending on the device version - the pump or the solenoid valves are closed.

! With vacuum leak detectors, stored product and its vapors can get into the interstitial space, the connecting lines or even into the leak detector. Therefore, all components used must be sufficiently chemically resistant to the stored goods and their vapors!

! Ex The vacuum leak detectors presented in this brochure are not designed to be explosion-proof. Any influence of a potentially explosive atmosphere must therefore be excluded for the entire system under all operating conditions!

Equipment - SGB's standard

SGB vacuum leak detectors VL are electronic as standard and have an integrated pump. This vacuum pump maintains the vacuum or the preset operating pressure. This depends on several parameters such as the test pressure of the interstitial space, tank seize/height, type and configuration of the tank, etc.

Depending on the requirements of the plant, the VL vacuum leak detectors are available in various designs (please see also page 6, options and additional functions).

All SGB VL are fully electronic. Our standard includes:

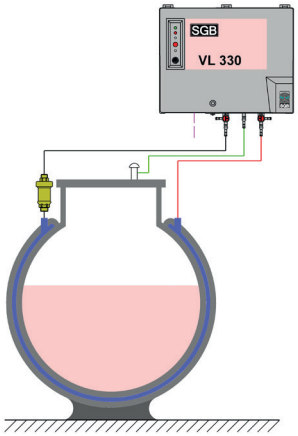
- Electrical connection optionally at the top or at the bottom of the leak detector
- Long-living LED
- Long-living Piezo buzzer
- Three-way valves with detent in suction and measuring line
- Potential-free contacts for alarm forwarding
- Integrated tightness test of the system

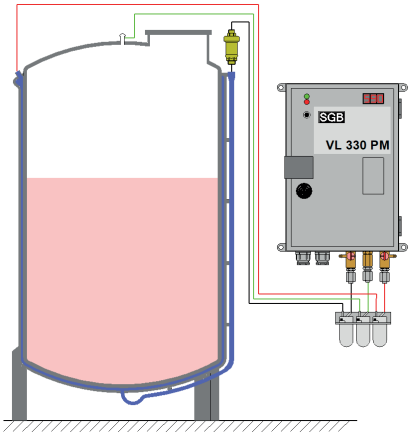
+ Housing variants + protective boxes

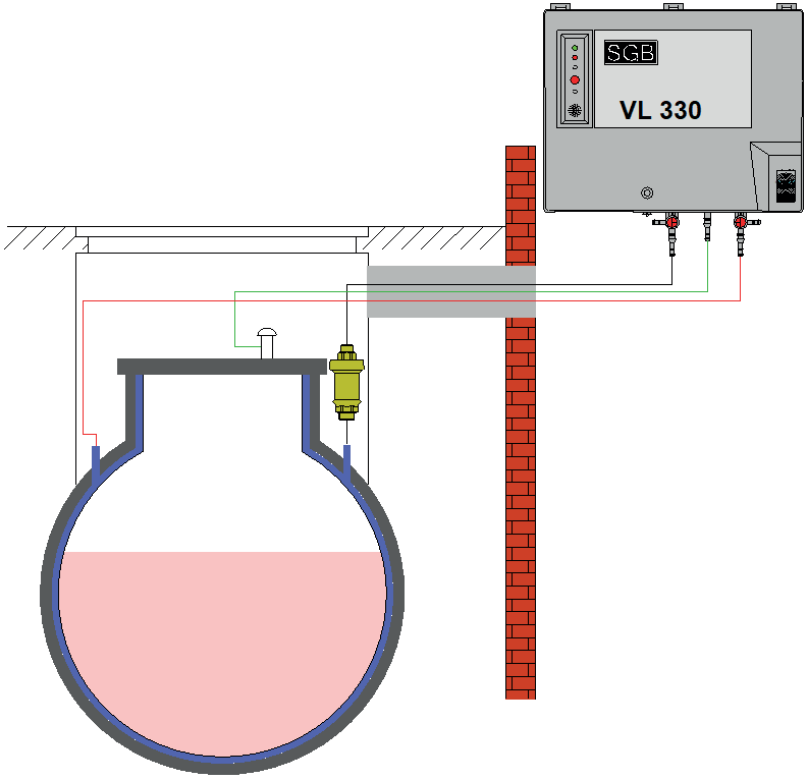
- User-friendly plastic box
- Weatherproof stainless steel box (P) for outdoor installation
- Reasonable protective box (ISO N 19) with horn (90 dB) for installation in damp rooms
- Weatherproof plastic protective box KS 1449 for outdoor installation

Installation schemes VL 230/VL 330/VL 410

The VL 230/330/410 monitor aboveground tanks (top schemes) and underground tanks (bottom schemes).







VL 230 | VL 330 | VL 410

SCAN ME

For plastic or steel tanks/containments.

Types with alarm underpressure (mbar):
VL 230, VL 330, VL 410

Monitorable tanks:
- Double-walled e.g. acc. to EN 12285 or DIN 6608, 6616, 6618, 6619 ...
- Single-walled e.g. acc. to EN 12285 or DIN 6608, 6616, 6619 und 6625 and others with a leak protection lining
- Vertical tanks acc. to DIN 6618/2
- Double-walled troughs and surface seals

VL 330 in plastic housing (top) and in high-quality weather-proof stainless steel housing (bottom)

Stored products:
Water-polluting liquids with a flash point > 60 °C (for Germany > 55 °C acc. TRBS/TRGS) where no explosive vapor-air mixtures occur. E.g. heating oil, diesel, motor oil, acids, lyes...

VL versions:

S -	Service display
Si -	Service indication
FA -	Filling level indication FA7
FAS -	Filling level indication and service display

PP - Polypropylen (for a higher chemical resistance)

Switching values:

Type VL ..	Alarm ON	Pump OFF / operating pressure
230	> 230	< 360
330	> 330	< 450
410	>410	< 540

VL 570

SCAN ME

For double-walled horizontical cylindrical containments, tanks, sumps, etc.

VL 570

Optional equipment:

P: Weather-protected housing
M: Digital Manometer
S: Service display (preset to 12 months)
Si: Service indication (adjustable 1 to 63 months)

Monitorable tanks:

- max. liquid pressure on tank bottom <= 540 mbar
- with a max. internal overlay pressure of 500 mbar
- Underpressure resistance of interstitial space: up to -900 mbar

Stored products:

Water-polluting liquids with a flash point > 60 °C (for Germany > 55 °C acc. TRBS and TRGS) where no explosive vapor-air mixtures occur

Installation:

outside Ex areas

Housing / IP rate / Temperature range:

Plastic box / IP 30 / -0 °C .. +40 °C
Stainless steel / IP 66 / -40 °C .. +60 °C

Switching values in mbar:

Type VL	Alarm pressure	Operating pressure
570	> -570	< -700

Pneumatic connections:

S4+S6: Hose connections for PVC hose 8/4x2 mm or 10/6x2 mm (only for pressure-less tanks)

QV8/6: Quick union for PA hose 8/6x1 mm (for tanks with up to 500 mbar overpressure)

KV8/6: Compression ferrule for copper pipe 8/6x1mm or PA hose 8/6x 1mm (for tanks with up to 500 mbar overpressure)

PP8/6: Polypropylene connection for PA hose 8/6x1mm or PTFE hose 8/6x1mm (for tanks with up to 500 mbar overpressure)

Service

Individualized type plates

We are happy to customize individualized type plates for you or your customers. The customization includes the intake of both the client's logo as well as the client's address.

Professional seminars

The choice, the construction and commissioning of leak detectors is not always easy due to the wide variety of liquids to be stored, containers, different types of leak detectors, and their differentiated use. There are overpressure leak detectors, underpressure leak detectors, several versions for indoor and outdoor use as well as version for the use in Ex-zones ...
Especially for „newbies" it is difficult to keep track of when each leak detector is required and how it must be put into operation.

Our professional seminars (either webinars or face-to-face-events) help here – with in-depth background information and many practical demonstrations.

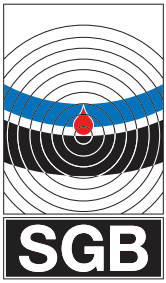
More information on **sgb.de/en/seminar**

The theoretical part deals with:

- legal background
- technology and functioning
- monitoring of tanks and liquids
- application areas and the limitation of use
- assembly, maintenance, and testing
- presentation of essential products

With practical demonstrations:

- examination of leak detectors
- fault detection, troubleshooting
- exchange defective parts
- function control
- leak test



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