# **Options and accessories VL 255 PMMV**



# Si (= Service indication): Time intervals for maintenance are

adjustable from 1 up to 63 months

#### Hood for housing

Extra protection for the leak detector against weather conditions in case of outdoor installation; material: stainless 1.4301; dimensions: 348 x 365.5 x 250 mm; article number: 412261



# LEAK PREVENTION TECHNOLOGY

# For a clean and protected environment

Completely made of stainless-steel:

heated flat bottom tanks

# • highly aggressive stored products such as acids and lyes



- Proven technology developed further (successor of the successful VL 255/EPM)
- Extended operating temperature range

# **Technical Data**

Weight stainless steel housing	4.5 kg
Operating temperature range	-40 °C up to +60 °C
Sound volume buzzer	70 dB(A) in 1 m
Protection class housing	IP 66
Power supply	100-240 VAC, 50-60 Hz
	Optional: 24 VDC
Power input	50 W (incl. heating)
External signal	max. 24 VDC, max. 300 mA
Potential free relay contacts	DC $\leq$ 25 W or AC $\leq$ 50 VA

#### Switching values VL 255 PMMV

Туре	255
Alarm ON, at the latest:	-255 mbar
Pump OFF, not more than:	-380 mbar
Vacuum operability* of interstitial space given for:	-650 mbar

considered fulfilled for double-walled steel tanks; in principle, lower values are possible, if need be with the use of an underpressure valve

# Installation advices

The leak detector is installed outside of potentially explosive areas.

Due to an adequate weather protection (P) the leak detector VL 255 PMMV can also be installed outside closed and dry rooms.

The digital manometer (M) on the housing lid shows the current underpressure of the system at any time.

The pneumatic connection lines are to be designed as pipes with at least 6 mm inside clearance.

**Installations kits** for the connection of the tank ensure a simple and safe installation.

For a quick functional test of the system, the leak detector VL 255 PMMV is equipped with three-way valves in the suction and the measuring line.

Additional signaler can be connected directly in the leak detector.

Potential free relay contacts for the alarm forwarding are available as standard.

Installation and commissioning must be carried out by qualified companies/specialist companies.



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VL 255 PMMV for the leak monitoring of

# Vacuum leak detector VL 255 PMMV

The successor of the proven VL 255/EPM monitors continuously, safely and reliably double bottoms of flat bottom tanks.

A sensor in the suction line (100 or 150°C) detects occurring liquids and triggers the alarm. Both the pressure-controlled and the alarm triggered by the liquid sensor result in a shutoff of the feed pump as well as in the closing of the solenoid valve (MV) in the suction line and in the measuring line. Therefore, the VL 255 PMMV is especially suitable for the monitoring of flat bottom tanks which store aggressive fluids. The VL 255 PMMV in a compact and weatherproof stainless-steel box (P) is designed to withstand overpressure up to 5 bar. It can withstand the overpressures that occur in the case of a leak. The digital manometer (M) shows the current underpressure (vacuum) in the system. High-quality stainless steel three-way valves in the suction and the measuring line enable an efficient and quick function test.



A Class 1 leak detection system according to EN 13160: Every leak – no matter in which of the bottoms – is indicated by an acoustical and optical alarm <u>before</u> the stored product can escape into the environment. The VL 255 PMMV thus fulfills the highest safety requirements in environmental and water protection according to European standards!

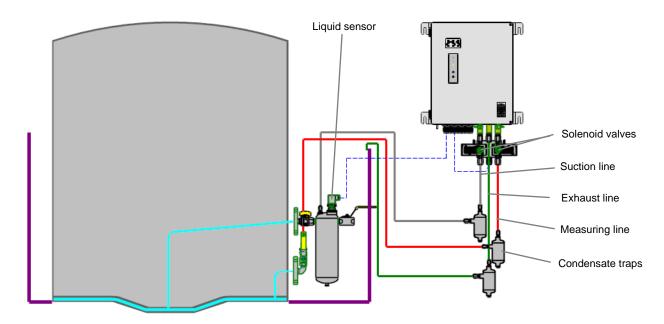
### Monitoring principle

The vacuum leak detector VL 255 PMMV generates and maintains permanently an operational underpressure (vacuum) in the tank's interstitial space. In case of a leak in one of both walls, air, stored product, or groundwater is sucked into the interstitial space. Due to the vacuum, the escape of the stored product into the environment is reliably prevented! Any unavoidable minor leak in the system is automatically compensated for by the integrated pump. Relevant leaks lead to pressure increases (vacuum loss). If more air enters the

#### Monitorable tanks

Leak detectors VL 255 PMMV monitor flat bottom tanks (e.g. acc. DIN 4119 or EN 14015) with double bottoms made of steel or plastic (if sufficiently resistant to the stored product).

#### Installation scheme



> Tank acc. DIN 4119/EN 14015

# Your advantages & benefits of VL 255 PMMV:

- > Operating temperature range leak detector: NOW -40°C...+60°C
- > Stainless-steel box (P) + weatherproof solenoid valves (MV)
- > New SMD technology and new pump generation
- > Digital manometer (M) showing operating pressure permanently
- > Flexible power supply with 100...240 VAC or 24 VDC
- > Stored product temperature up to 100 °C as standard; higher on request
- > Minimized cost & efforts for installation due to new positioning of the MV below the leak detector



interstitial space than the vacuum pump can replenish, the pressure in the system drops. Reaching the alarm underpressure, the optic and acoustic alarm is triggered and the solenoid valves are closed (liquids cannot enter the leak detector and thus any pollution is avoided!). In case of a liquid leak, stored product or groundwater are sucked into the interstitial space until they reach the liquid sensor which triggers the optic and acoustic alarm and close the solenoid valves in the suction and measuring line.

# **Monitorable liquids**

Water-polluting liquids with a flash point above 60 °C (for Germany: 55 °C acc. to TRBS and TRGS) such as heating oil, diesel, acids, lyes

