## LEAK PREVENTION TECHNOLOGY

For a clean and protected environment



# Pressure leak detectors for pipes

## DLR-P









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#### **DLR-P – PRESSURE LEAK DETECTORS FOR PIPES**

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#### Safety in leak monitoring of double-walled tanks and pipes

Leak detectors made by SGB offer the highest safety and reliability in environmental and water protection. They monitor double-walled tanks and double-walled pipes as well as single-walled containments with a leak protecting lining or a leak protecting jacket safely and permanently for leaks - 365/24/7. Due to the functional principle of the SGB leak detector working with pressure or vacuum, no stored or transported liquid can enter the environment or the aroundwater!

- SGB is certified according to DIN EN ISO 9001 (since 1999)
- · SGB's leak detectors conform the high requirements of class I of the European Standard
- SGB's leak detectors are individually as well as TÜV tested

#### Know-how and experience since 1962

More than 430 000 SGB leak detectors globally in use guarantee safety for man and environment in tank farms, refineries, chemical plants, gas stations, drilling rigs, data centers as well



as domestic heating oil tanks and many more. Over 60 years of experience with leak detection technology make SGB leak detectors a recognized brand product - at home and abroad.

#### Pressure leak detectors DLR ..

**DLR = D**ruck- (= Pressure) -Leak detector for Rohrleitungen (= pipes)

On the following pages we present you our pressure leak detector DLR-P with integrated pump for leak monitoring on pipes - with its equipment options and accessories.

Further information on our innovative products, services and specialist training can be found on www.sgb.de.

#### Contact

Shop-solide In case of any inquiries please do not hesitate to contact us. Phone SEBSTENER us on +49 271 48964-0 or send an e-mail to sgb@sgb.de. We are happy to be of any help!

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### Monitoring principle "overpressure"

With the DLR leak detectors an overpressure is built up in the interstitial space of the pipe. Therefore air or gas is used. The operating pressure and the alarm pressure of the leak detector are higher than the pressure of the transported good or the groundwater against the pipe's walls. In case of a leak in one of the two walls, air/gas escapes from the interstitial space. An escape of the transported material into the environment is thus reliably prevented!



> Relevant leaks lead to a pressure drop. When the alarm pressure is reached, the visual and/or optical alrm is triggered.

## Naming of the leak detectors

- DLR-G.. = Druck-Leckanzeiger Rohrleitung Gas. This is a pressure leak detector for pipes working with gas. A pressure cylinder (nitrogen) is used for pressure built-up.
- DLR-**GS**.. = **D**ruck-Leckanzeiger Rohrleitung **G**as **s**tatisch. This is a pressure leak detector for pipes working with gas, static. For the pressure built-up a pressure generator must be brought to the building site. The leak detector has neither a pump nor an automatic refilling device.
- DLR-P.. = Druck-Leckanzeiger Rohrleitung Pumpe. This is a pressure leak detector for pipes with an integrated pump which is used for building up the pressure.
- DLR-P..CV = Druck-Leckanzeiger Rohrleitung Pumpe und Rückschlagventil (Check Valve). This is a pressure leak detector for pipes equipped with a pump and a check valve.
  - = The ellipsis dots or the numerical value stand for the alarm pressure of the leak detector in bar.



## **Optional equipment**

### M (= Manometer/Pressure gauge)

The leak detector is equipped with a digital pressure display in the cover on the housing. It shows the current pressure of the system.



### P (= Protected)

Protection against external weather influences like sunshine, rain, snow, salt water ... Also appropriate depending on the intended use (transported fluid, requirements of the systems). Material: stainless steel



### Si (= Service indication)

When commissioning the leak detector, the time for the prescribed functional test can be freely selected within the specified maintenance interval. There are time intervals from 1 up to 63 months. The service indicator (yellow LED) visually indicates the upcoming function test for the leak detector.



## **DLR-P**

Pressure leak detector with pump for pipes conveying liquids that can form explosive vapor-air mixtures. Only for pipes with a permeation-proof inner wall (e.g. metallic) and if the occurrence of potentially explosive vapor-air-mixtures in the inner pipe does not represent any additional dangers, e.g. when entering pumps or exiting at the end of the pipe. Available in different pressure ratings. Leak detection medium: dried air.

#### The leak detector:

The DLR-P continuously monitors the pipe's interstitial space (filled with air) for leaks. A typical application of the DLR-P is the monitoring of double-walled metallic pipes at filling stations, but also many other pipes for the transport of non-explosive liquids with maximum feed pressures of 3.5 bar.

In pipes with permeation-proof inner walls to transport explosive liquids, monitoring with air is cheaper than with nitrogen. For example in DRK pipe systems, corrugated pipe systems by Brugg or the MONO.S.DWR by Löw Tanktechnik.

#### Monitorable pipes:

Double-walled pipes and fittings made of metal or plastic.

#### Monitorable liquids:

Water-polluting liquids with a flash point > 60 °C (for Germany > 55 °C acc. to TRGS and TRBS) where no explosive vapor-air mixtures occur. For pipes with an impermeable (metallic) inner wall also for liquids with a flash point  $\leq$  60 °C (for Germany  $\leq$  55 °C acc. to TRGS and TRBS), e.g. petrol in filling and suction pipes at filling stations. The conveyed product may not react with the leak detection medium used!

#### Installation:

Outside Ex areas

## Conformity:

EN 13160 class I



DLR-P 1.1 in plastic box



DLR-P ... in weather-protected stainless-steel box and with pulsation damper





Switching values (in bar):

DLR-P	1.1	2.0*	2.3	2.5	3.0	4.5**
Feed pressure	pressure- less	< 1.0	< 1.3	< 1.5	< 2.0	< 3.5
Alarm pressure	> 1.1	> 2.0	> 2.3	> 2.5	> 3.0	> 4.5
Set pressure	< 1.45	< 2.4	< 2.8	< 2.9	< 3.4	< 5.5
Test pressure interstice	> 2.0	> 3.0	> 3.5	> 3.5	> 4.2	> 7.5

Special switching values on request

\* DLR-P 2.0: The leak detection system test center requires at least 2 bar alarm pressure when monitoring filling lines

\*\* DLR-P 4.5: When monitoring pipes of pressure-supplied diesel satellite columns

LEAK DETECTORS FOR PIPES

#### Article report DLR-P

PA hose

#### Installation accessories

Dry filter	Art-No.	Description	Euro	Qty
where where	340343	Dry filter TF600, hose connection, dry filter agent, wall holder		1 pce
	340345	Dry filter TF1200, hose connection, dry filter agent, wall holder		1 pce

Description

100m roll

PA-hose, PN6, off-white, 8/6x1mm,



Art-No.	Description	Euro	Qty		
200820	Vacuum Pump VP218, 240 V, 1,5KW incl. Liquid Stop, Condensate Trap, HM		1 pce		
With extra high vacuum volume flow very useful for producing vacuum on large inter- spaces as on large tanks, double bottoms of flat bottom tanks or with flexible linings. explosion protected. Weight 17 kg					
Art-No.	Description	Euro	Qty		
200840	pressure-vacuum pump ÜVP218, 240V, 1,5KW liquid Stop, Conden trap, valves, manome		1 pce		

Overpressure and vacuum pump with high performance. Useful accessories as valves, manometers, liquid stop valves realises comfortable operation. Not explosion protected. Max. underpressure 850 mbar, max overpressure 8 bar, weight 18 kg



200860	Ex-Vacuum-Pump N026 St.9E EX, 230 V Category 2 in-outside, 1m <sup>3</sup> /h, G1/4"		1 pce
Explosion-pro may occur.	otected vacuum pump for evacuating interstitial s	spaces in which	n ex-vapors

**Testing devices** 

Art-No. Description

Euro Qty

Qty

Euro



115360	Digital Measuring Device DM 12-2, -1+2 bar, incl. case		1 pce			
Field of use: The sensor is suitable for non-corrosive and non-ionizing gases and liquids (DO NOT use for water-air or hydrofob filters!).						





Installation kit	Art-No.	Description	Euro
	190726	Inst. kit pipe, 1/4""m - CF8/6, for CU-pipe 8/6x1mm	
₩ <b>₩</b>	190792-07	Pipe Connection, 1/4"-QV 8/6, MS Brass, 1/4"" Male, 8/6 mm Quick Union	

Art-No.

260519

Test valve

Art-No.	Description	Euro	Qty
190700	Test Valve 1/4""K, Brass with Cock PN63 and Plug		1 pce

**Testing device** 



Art-No.	Description	Euro	Qty
115395	Testing Device-Press. Resist. up to 4Bar for Overpressure Leak Detector		1 pce

Qty

1 roll

Qty

1 pce

1 pce

Euro

#### Installation accessories

esting devices	Art-No.	Description	Euro	Qty		
	115371	Pressure Measuring Device CPH 6200 incl.suitcase, without Sensor		1 pce		
	mbar. The m	Digital hand-held pressure indicator with measuring ranges from 025 bar to -10000 mbar. The measuring range of the connected pressure sensor will be detected automatically. Incl. adapter for leak detector.				
	Art-No.	Description	Euro	Qty		
	115373	Pressure sensor for CPH 6200 -10 bar, process connection 1/2"		1 pce		
ATT IN	115375	Pressure sensor for CPH 6200 025 bar, process connection 1/2"		1 pce		
	Art-No.	Description	Euro	Qty		
	115376	Manual hand Pump CPP30, incl. connecting cable 0,5m, G1/4" femaile thread		1 pce		
		sure generation up to max. 35 bar. Vaccum gene	aration down	to max _950		

Art-No.	Description	Euro	Qty		
115392	Testing Device, max Pressure 1,0 bar Over- and Underpressure Leak Detectors		1 pce		
For a simple and quick function test of leak detectors, (overpressure and vacuu) with a pressure of max. 1000 mbar. With a port to connect a gauge. With ventilation device for controlled pressure / vacuum drop. Volume 1 liter. Height 380 mm.					

Art-No. Description Euro Qty



			-	
115395	Testing Device-Press. Resist. up to 4Bar for Overpressure Leak Detector		1 pce	
For a simple and quick function test of leak detectors, (overpressure and vacuum) with a pressure of max. 4 bar. With a port to connect a gauge. With ventilation device for controlled pressure / vacuum drop. Volume 0.75 liter. Height 380 mm.				

## **Service**

#### Customized 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 training:

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 pressure leak detectors, vacuum 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 and webinars help here – with in-depth background information and many practical demonstrations.

More information and booking on:

sgb.de/en/seminar

Made for:

- operators
- engineers
- specialized companies
- installers
- experts
- planners

#### Content excerpts:

- 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



Picture above: SGB's training room



Contact and Imprint

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