



# THC seal, s.r.o.

specialista na těsnění a anti-vibrační techniku

**LeaCo - systém monitorování  
netěsností**

## Increasing request to monitor leakage

### OEM Challenge

Lifetime of seals needs to be monitored in context of Industry 4.0 and Internet of Things

#### Smart Seal

- Capability to inform prior leakage
- Optimization of preventive maintenance cycles

### MRO Challenge

Market increasingly demands to upgrade existing systems/ applications

MRO solutions need to be easy to be applied

FST offers **LeaCo** for introduction in existing productions systems



## Solution – Early Leakage Detection

### Customers' challenge

Enable check of existing (and future) production systems for leaks on most inconvenient spots

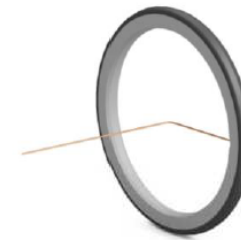
#### Smart Seal

- Informs before leakage occurs
- Hard to apply in already built systems
- Not all OEMs are willing/capable to invest in a customer specified solution

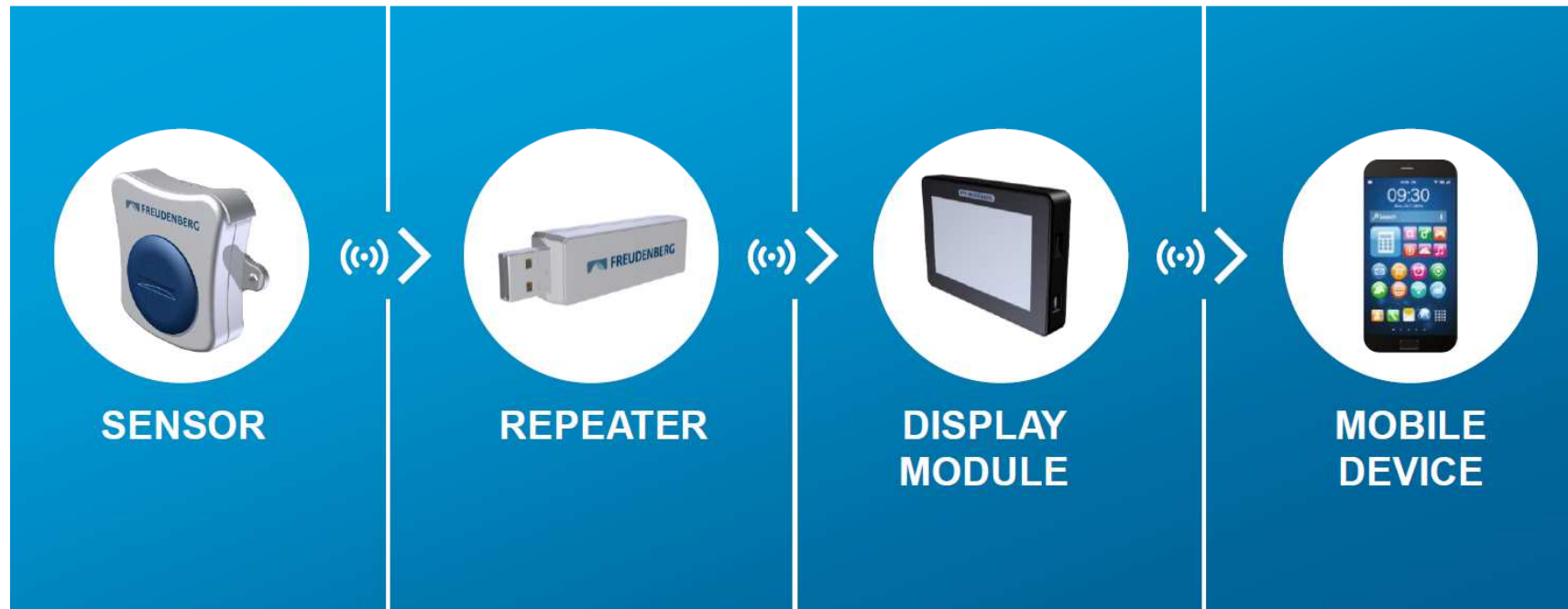


#### LeaCo

- Easy implementation in already existing production systems
- Informs early when leakage has already occurred



## Alarm Line (simplified visualization)



# Sensor



## Technical facts and features

Dimensions: Approx. 42 x 48 x 14 mm

Protection Type: IP66

Battery powered, **wireless** sensor

Battery status is sent to display module

Nonwoven can be replaced after alarm

Fixture:

- By screws
- By magnet  
(small metal foil included to stick on nonmetal surfaces)



# Sensor

## Function

Operating distance: >100m (depending on facility)

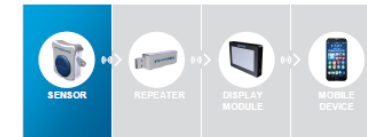
One-time activation prior usage for connection with display module

Leakage detection by retroreflective sensor via nonwoven

In case of leakage, the moistened nonwoven (backside of sensor) triggers alarm signal to display module via radio interface

Signal to display module repeated every 30 minutes (adjustable), because time matters

In case of failure: Electrical blackout or total destruction (by aggressive fluid) triggers “incorrect function” signal to display module



## Repeater (optional)

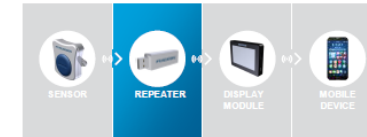
### Technical facts and function

Dimensions: 70 x 19 x 13 mm

USB interface

Plug & Play

In case of long operating distances  
(or barriers) in the transmission area



# Display Module

## Technical facts and features

Dimensions: 140 x 97 x 20 mm

Protection Type: IP20

Power plug

Menu languages: English and German

Monitoring up to 40 sensors  
(per display module)

Fixture:

- Screws
- Vertical positioning





# Display Module

## Function

Touch display

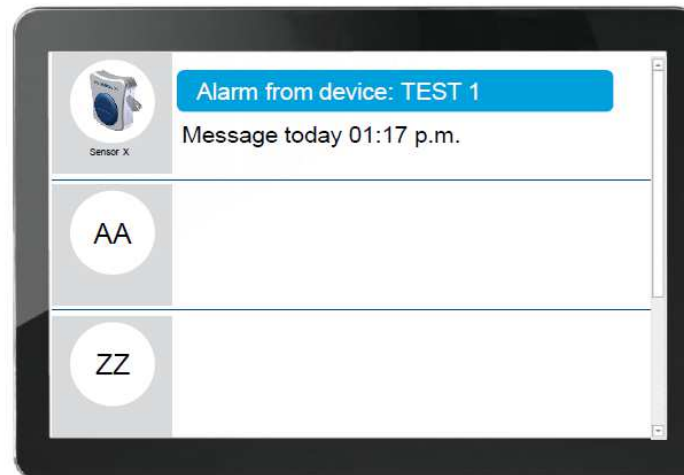
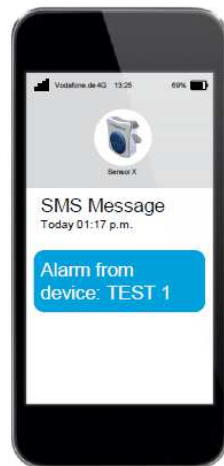
Nano-SIM card slot (SIM card not included)

Powered by USB Micro-B-plug and main plug  
(small battery as backup for electrical blackouts)

An alarm is shown on display, incl. affected sensor, and forwards alarm to mobile device by SMS




## Mobile Device












## Available Items as of Q3/2020 – Kit



Name	Pcs	Content
LeaCo Leakage Sensor Kit	5	LeaCo Sensors
	5	Batteries 3V
	5	LeaCo Mounting Plates
	5	LeaCo Spare Part Nonwoven
	1	LeaCo Display Modul
	1	USB Cable
	1	USB Adapter
	1	LeaCo Instruction Manual



## Available Items as of Q3/2020 – Single Components (1/2)

Name	Pcs	Content	
LeaCo Leakage Sensor	1	LeaCo Sensor	    
	1	Battery 3V	
	1	LeaCo Mounting Plate	
	1	LeaCo Spare Part Nonwoven	
	1	LeaCo Instruction Manual	
LeaCo Display	1	LeaCo Display Modul	   
	1	USB Cable	
	1	USB Adapter	
	1	LeaCo Instruction Manual	

## Available Items as of Q3/2020 – Single Components (2/2)

Name	Pcs	Content	
LeaCo Repeater	1	LeaCo Repeater	 
	1	LeaCo Instruction Manual	
Spare Part Nonwoven	8	LeaCo Spare Part Nonwoven	