



# HB PRODUCTS A/S

## PRODUCT OVERVIEW

# *WHO ARE WE?*

- HB Products is a Danish company that develops and produces sensors for industrial and commercial refrigeration and heat pump systems.
- We are known for being at the forefront of using new technologies and supplying products of tomorrow, even today.
- Since our start over 25 years ago, we have attained a solid global position with distributors in more than 60 countries.
- Our customers vary from world-leading OEMs to small contractors.

## MISSION

Through our innovative solutions in refrigeration and heat, we will continue to ensure optimization, energy efficiency, and functionality, supporting the current demand to or above industry standards. We will continue to provide excellent service and support to our customers, partners, network, and within the organization to better understand needs while maintaining relationships.

## VISION

Providing innovative solutions for optimized systems and a better environment.

*ENJOY OUR HB PRODUCTS FACTORY TOUR.*



Find more videos here: <https://www.youtube.com/channel/UC2uP8p4ALRyeMRQJuQUlibw>

The background image is a composite. On the left, a large, silver, textured industrial water tank is shown. A blue sensor device is attached to it with black cables. The sensor has a label that reads 'SENSOR', 'HB Products', and 'ALARM LIQUID POWER' with a green indicator light. On the right, the background shows the interior of a large warehouse with high ceilings and rows of industrial shelving units. The shelving units have orange beams and grey metal frames. The text 'PRODUCT OVERVIEW' is overlaid in the center in a large, white, sans-serif font, with a thin white horizontal line underneath it.

# PRODUCT OVERVIEW

# VAPOR QUALITY SENSORS

- The sensor can directly measure the liquid content in the evaporator output.
- The sensor works in pump circulated and DX systems and can optimize the efficiency and capacity to a new level.
- We have different versions of the sensors suited for different pipe sizes - both straight and elbow versions.
- Split design – the electronic head can be replaced without evacuating the system.



*GET AN INTRODUCTION TO OUR HBX VAPOR QUALITY SENSOR, THE FIRST SENSOR IN THE WORLD CAPABLE OF MEASURING THE RELATIONSHIP BETWEEN VAPOR AND LIQUID IN A REFRIGERATION SYSTEM.*



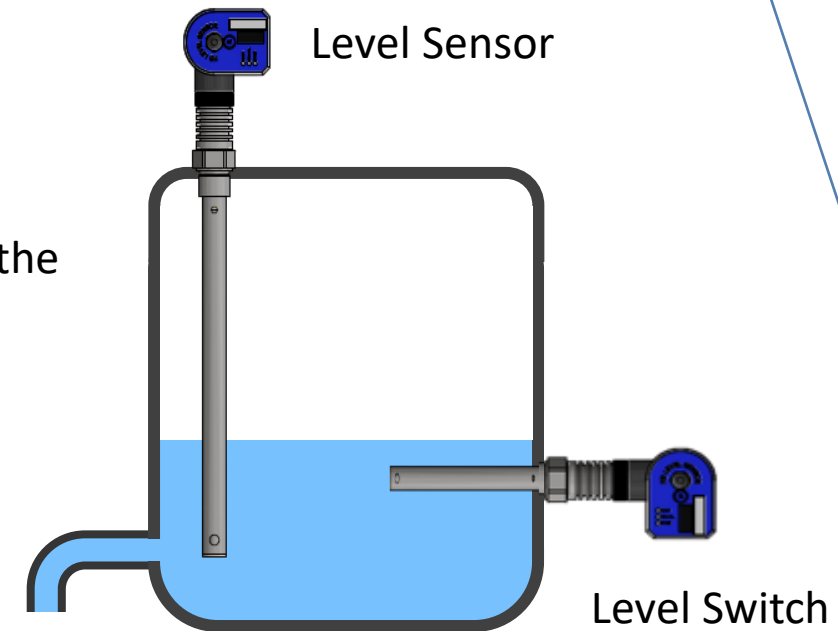
*IN THIS VIDEO, OUR PRODUCT MANAGER, HENRIK KUDSK, WILL EXPLAIN THE DESIGN AND ESSENTIAL FUNCTIONS OF THE VAPOR QUALITY SENSOR TYPES: THE ROD STYLE AND STRAINER HOUSE.*



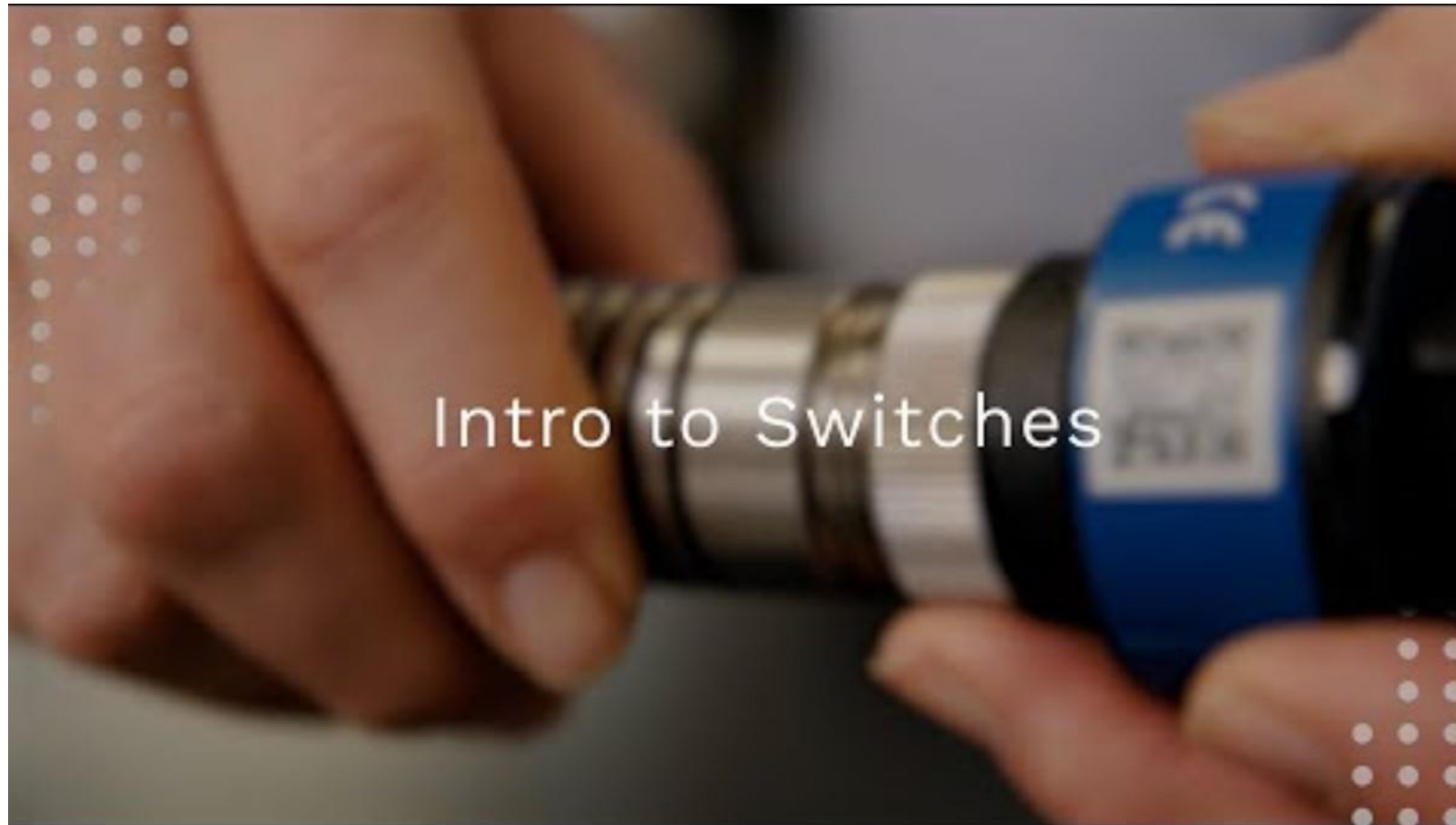
flowing between the two parts.

# LIQUID LEVEL SWITCHES

- We have various capacitive-level switches for refrigeration and industrial use.
- Due to the capacitive principle, the switches are optimized and calibrated for different groups of liquids and working conditions.
- All the Level Switches can detect liquid in gas or detect one liquid in another liquid.
- Split design – the electronic head can be replaced without evacuating the system.



*GET AN INTRODUCTION TO OUR LIQUID LEVEL SWITCHES.*

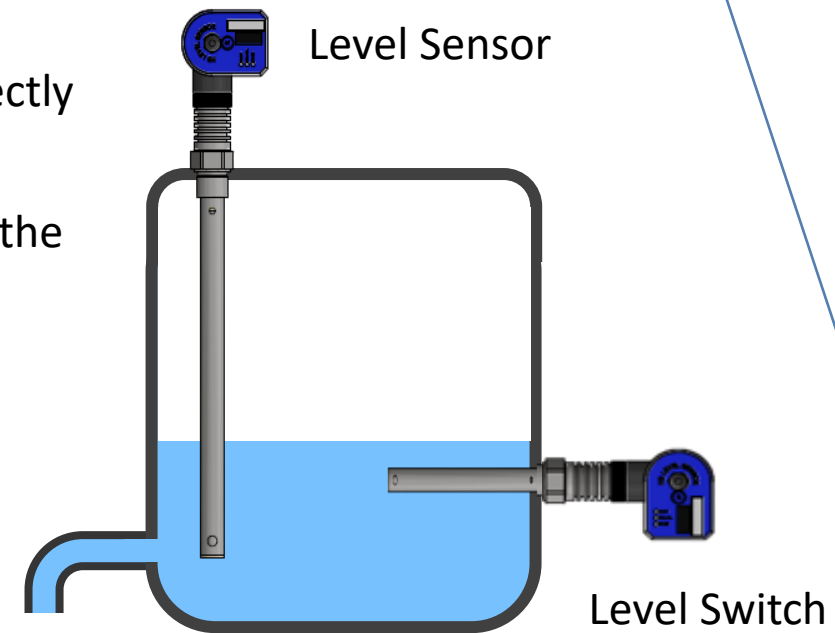


*IN THIS VIDEO, WE WILL TAKE YOU THROUGH THE DIFFERENCES BETWEEN OUR THREE TYPES OF SWITCHES.*

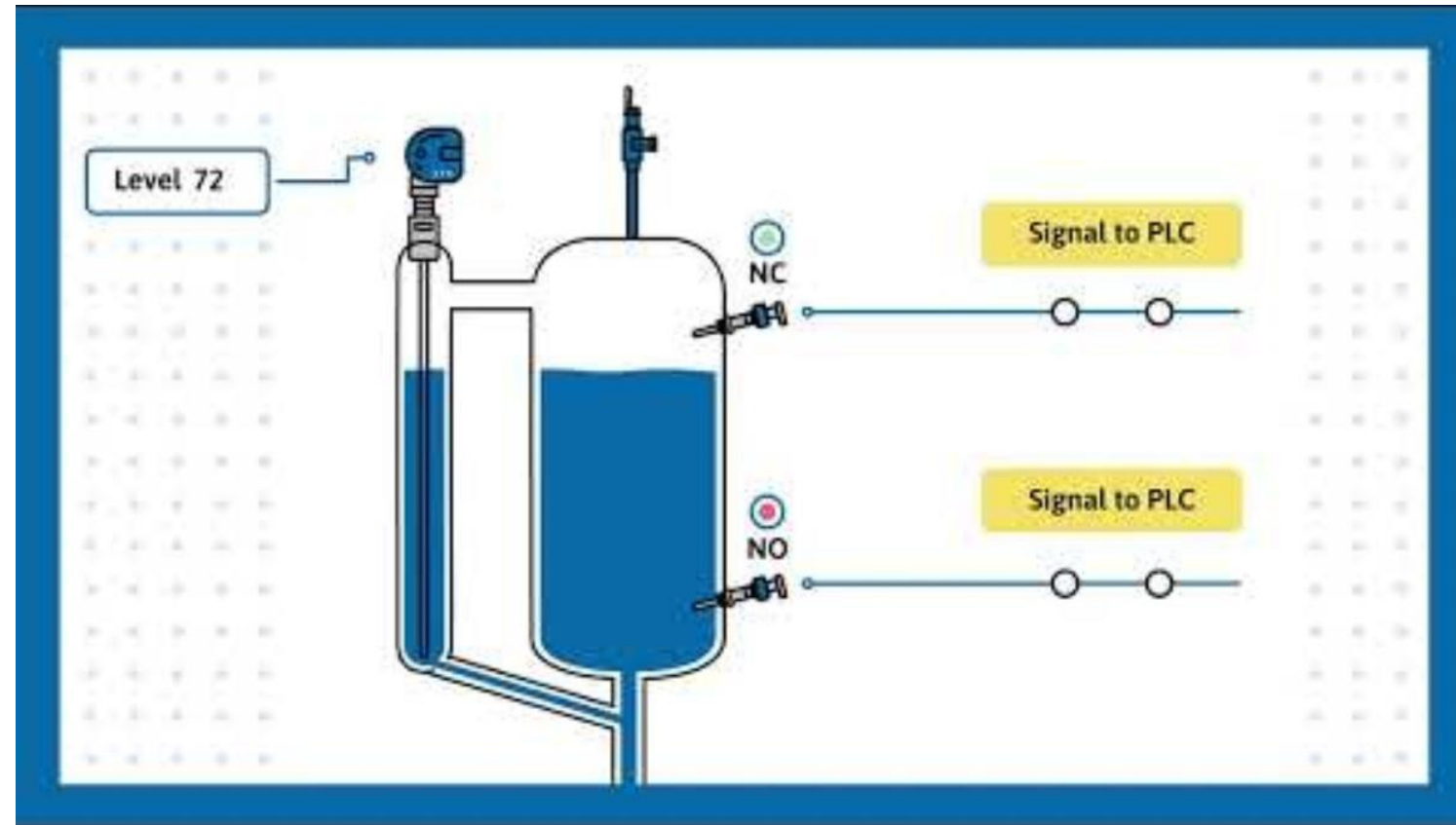


# LIQUID LEVEL SENSORS

- All the level sensors can measure the liquid level in gas or two immiscible fluids.
- The electronic unit has a built-in controller that can control a valve directly without needing a PLC and cabling between the valve and a PLC.
- The electronic head can be dismantled and replaced without affecting the mechanical part sitting in the pressurized system.

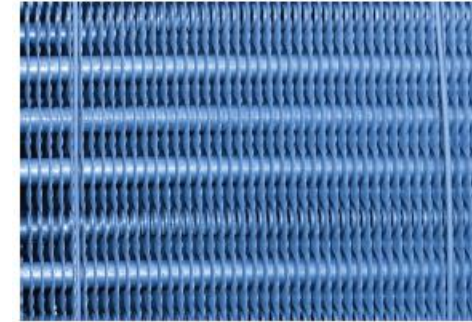


*IN THIS VIDEO, WE'LL SHOWCASE THE FUNCTIONALITY OF OUR LIQUID LEVEL SWITCHES AND LIQUID LEVEL SENSORS.*



# DEFROST SENSORS

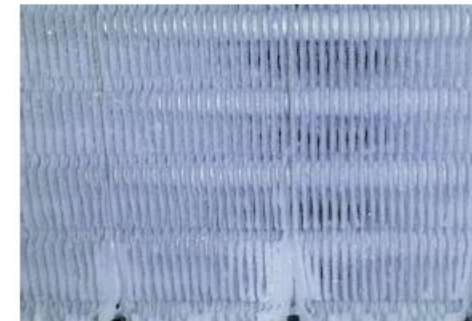
- The Defrost Sensor measures the frost layer on the fins and provides a 4-20 mA signal for the PLC or controller.
- The measurement is used to start and stop defrosting only when needed.
- Traditionally, evaporator defrosts are based on a fixed schedule; by basing the defrosting on an actual measurement, defrost can be done only when needed.
  - This can typically reduce the number of defrosting cycles by 50%.



1. Clean evaporator



2. Recommended ice formation



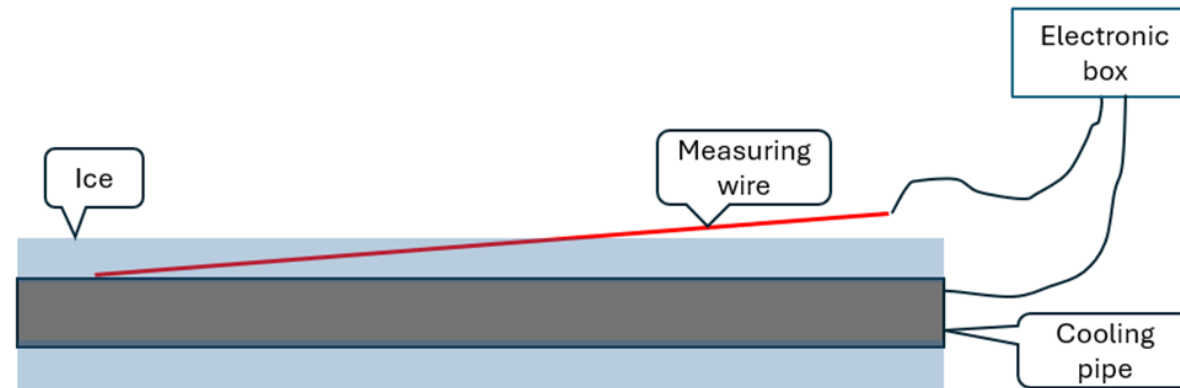
3. Too much ice formation

*IN THIS VIDEO, OUR PRODUCT MANAGER, HENRIK KUDSK, EXPLAINS THE FUNCTIONALITY OF THE DEFROST SENSOR THAT IS USED FOR MEASURING THE FROST LAYERS ON AN EVAPORATOR.*



# ICE BANK SENSOR

- The sensor can measure the thickness of the ice layer on a cooling pipe in a grounded metal water tank.
- The latest version has been in operation in dairies from Q4-2023, controlling the refrigeration system and securing the desired ice thickness on the cooling pipes.



# *SAFETY AND LEAKAGE DETECTION*

- We have a range of sensors able to detect leaking refrigerant in different applications and sensors that protect the compressor against liquid slugging.
- Leaking refrigerant can be a threat to people, to the environment, and to goods.

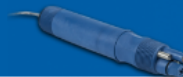
## Gas Alarms

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## pH sensors - Brine Leakage

[Read More](#)



## Leakage Detection - Cascade Systems

[Read More](#)



## Compression Protection

[Read More](#)



## Alarms & Leakage Accessories

[Read More](#)



# *PRESSURE AND TEMPERATURE SENSORS*

## Temperature Sensor - PT100/PT1000

Output: PT100/PT1000  
Product code: HBTS



## Pressure Sensor

Output: 4..20 mA  
Product code: HBPS



## Temperature Sensor - Wall Mount

Output: 4-20 mA  
Product Code: HBTS-TR-W



## Temperature Sensor - Cable

Output: PT100/PT1000  
Product Code: HBTS-Cable



## Temperature Sensor - 1/4" NPT/BSPP

Output: 4..20 mA  
Product Code: HBTS-TR



# *MOTORIZED CONTROL VALVES*

## Modulating Valve - MVS661

Size: DN 25 - 0,10 to 6,3 m<sup>3</sup>/h  
Product Code: MVS661



## Modulating Pilot Valve

For: Pilot Valves  
Product Code: M2FP03GX



# MISCELLANEOUS

## Adaptors & Sockets

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## Cables & Wires

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## Displays & Controllers

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## OEM Products

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## Misc.

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# *ADDITIONAL INFO*

## **Contact information**

E-mail: [info@hbproducts.dk](mailto:info@hbproducts.dk)

Phone number: +45 87 47 62 00

## **Additional information**

