



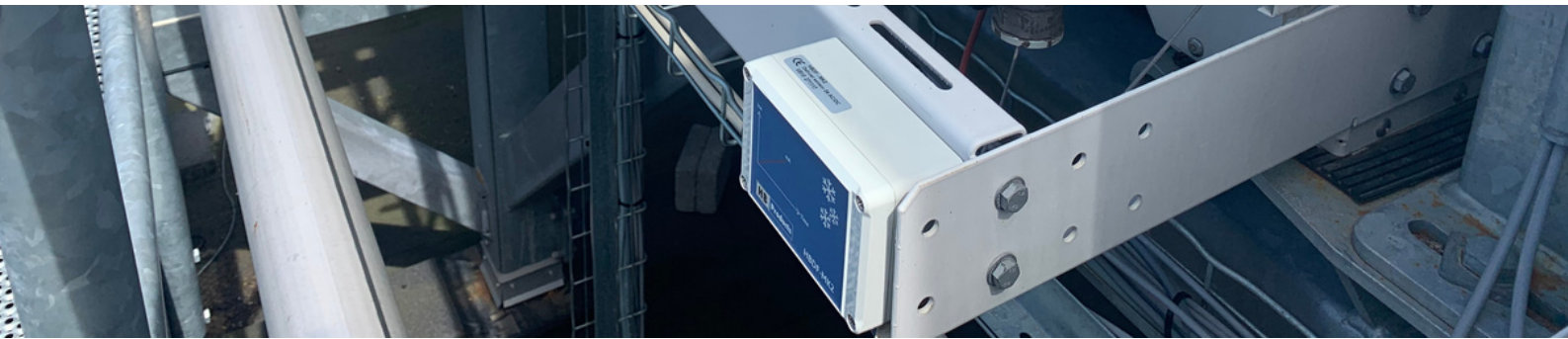
DEFROST ON DEMAND

Only Defrost When Needed



THE PROBLEM

Refrigeration contractors have a dilemma. Short defrosting intervals are energy intensive and costly, leading to unhappy customers. Extending the defrost intervals, however, has proven ineffective. The frost accumulation continues, and you still end up spending a significant amount of time servicing systems without any added income. So, what is a contractor to do?



THE SOLUTION

The solution is the DEFROST HBDF – a sensor that will revolutionize the defrosting process by improving system performance and energy efficiency. It saves money for the customer, while also reducing the risk of workplace accidents, as it reduces condensation and the risk of slippery and hazardous floors.

The DEFROST HBDF uses advanced technology to accurately measure the thickness of the ice buildup in the evaporators, ensuring that defrost cycles are only triggered when necessary. The HBDF sensor's output signal (4 to 20 mA) increases until reaching a preset value, typically corresponding to 1.5 to 2 mm of frost thickness. This triggers the defrost cycle. It also signals when the cycle is complete, so it doesn't carry on longer than needed.



Unlike other sensors, the DEFROST HBDF is mounted over a large area of the fins, ensuring an average measurement of frost accumulation across the entire evaporator. It can be easily installed on existing systems and takes approximately 1 hour to install per evaporator. This solution enables precise control, allowing your customers to freeze or cool larger quantities of products, maximizing their facility utilisation and productivity.

The HBDF sensor is equipped with an intelligent controller that uses an advanced algorithm, which considers parameters like air temperature, humidity, operating time, and product load. By analysing these variables, the controller determines the optimal timing before initiating the defrost cycle.

BENEFITS

Compared to traditional timer-based defrost strategies, the HBDF can reduce the defrost cycles by 50-70%. By eliminating unnecessary defrost cycles, you can help your customers significantly reduce their energy consumption and experience cost savings on their energy bills of up to 40%. They can also achieve better operational stability and increased capacity.

With increasing number of companies adopting climate goals, installation of the HBDF is therefore a strong selling point with those wishing to reduce their carbon footprint.

Use our free calculator to determine your savings based on your own data.

[Access Free Calculator](#)

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We have reduced defrost cycles from 7 times per day to just 1, so this has definitely had a positive impact on electricity consumption.

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Morten Asferg,
Chief Engineer Global Facility, Arla Foods

If you have any questions, our technical team is here to help. You can contact us at info@hbproducts.dk