

Dear Customer, Distributor and Partner,

## ChillVenta 2018: Launch of World News



HB Products is once again exhibiting at the World's most important refrigeration exhibition, ChillVenta in Nuremberg, Germany, October 16-18. Compared with 2016 HB Products will this year increase stand space with 60% to this year's 80 m<sup>2</sup>.

HB Products will launch our **World News** in **Advanced Evaporator Control (AEC)** for CO<sub>2</sub>- and other refrigeration systems optimizing operation and performance at any given load. We have gained several years of experience controlling and optimizing ammonia systems and have now transferred the technology to be used in more compact CO<sub>2</sub>-, Propane-, HFC- and HFO-systems.



A full scale 5kW CO<sub>2</sub>-system will be demonstrated at ChillVenta with HB Products sensors installed and with live surveillance on a big screen. This makes it possible to witness how **Advanced Evaporator Control** from HB Products can provide a more stable operation, reduce charge and save cost on operation. The **AEC** includes our new Mod-Bus gateway protocol. Please find a more detailed description of the **AEC** at the end of this Newsletter.

The full scale system on our stand will as well be equipped with our advanced Defrost Start- and Stop on Demand sensor, **HBDF-MK2**.

Our stand will be equipped with a broad range of our standard products with all from vapor quality sensors, safety devices, level sensors and switches, oil management and fully dedicated and motivated HB Products personnel that really look forward to meet you at stand 5-120 in Hall 5. Make sure to be at our stand when we have external as well as internal speakers giving presentations. The Product News are listed further down in this newsletter and will all be possible to see at the stand.



**Stand party:** Make sure to book your time Tuesday October 16 from 18:00 to be part of our **Mollydooker-Boxer stand-party**. You are invited and please feel free to bring your

customers. There will be served finger food & Mollydooker Boxer vine and cold Beers and/or Sodas.

## Expansion of Head Quarter in Hasselager, Denmark



After years of continuous growth we have realized we need more space in our facility in Hasselager. We need more space for production and better facilities for sales, canteen and meeting rooms. We will therefore be adding a second floor to our front building giving us 680 m<sup>2</sup>/7,300 ft<sup>2</sup> more space. The expansion work will commence at the end of this year and expected ready for use during spring 2019. We will keep you updated on the progress during this period.

## Product **NEWS** and updates



### **HBX-DX-CU-xx - Vapor Quality Sensor for CO<sub>2</sub>**

A full range of copper (K65) type based Vapor Quality Sensors for direct integration in the suction line at the exit of evaporators. Available with 4-20 mA output and as well with direct control of Stepper Motor or Modulating Valve. Also available in stainless steel.

Available in 6 different piping sizes from 3/8" to 1 1/8".



### **HBPH-MK2 – Brine/NH<sub>3</sub> Leakage Sensor**

We have now introduced the new **HBPH-MK2** pH sensor measuring the pH value of brine in case of an ammonia leak in a heat exchanger. The sensor is a 2-wire device which incorporates an encapsulated transmitter with a 4-20 mA analog output signal. It is designed to be connected directly to a PLC. The newest version **HBPH-MK2** has an improved and protected universal flat-faced glass process electrode specially designed for tough applications. The new **HBPH-MK2** is both more solid and also lower priced than the previous version.



## HBTS-TR-Series - Temperature sensors with transmitters

**HBTS-TR, HBTS-TR-W and HBTS-TR/Cable-2M** are a new family of temperature sensors with integrated transmitter. By use of our HB-TOOL (software) it is easy to configure the range in temperature where the 4-20 mA signal shall operate. The HBTS-TR is for installation directly in the piping with a sensor well making it possible to test and change sensor part without emptying the refrigerant from the system. The other two versions are for wall mount with either direct measurement or with cable for hot spot measurement. All sensors with PT1000 high accuracy measurement.



## New generation of level sensors (AKS 41/HBLT-A1/HBLT-A1B)

**HBLT-A2** is the new generation of level sensors for ammonia systems replacing the AKS41/HBLT-A1 version that has been used for decades. The new **HBLT-A2** offers same functionality as the old types but offers in addition a nice 3-digit LED display, PNP NO/NC configurable alarm output and can be supplied with integrated cable for direct control of Stepper Motor (/S)- or Modulating valve (/C) for liquid feed. Configuration of **HBLT-A2** is easily done with HB-TOOL via M12 to USB-cable. Due to electronics for the old versions are getting obsolete in near future we recommend use of HBLT-A2 for all new installations. For spare parts we offer adaptor cables connecting the M12 to DIN for easy use. Thread connections are identical with old versions. Available in same lengths with 3/4" NPT for inch lengths and 1" BSPP for mm lengths.



**HBLT-A2** is optimized for use in heat pump applications.

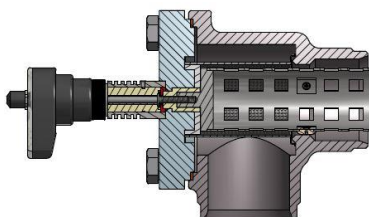


## Full range of F-gas level sensors

**HBLC-Fgas-xxx** is a new range of level sensors for HFC applications making it possible to comply with the strict **F-gas** regulations. The sensor is available in several lengths and available with simple 4-20 mA output signal as well as a more advanced version with 3 digit LED display. Made for easy installation directly in receivers.

By using this sensor you will be able to add to the level of safety in your entire application as it not only senses the actual level but as well gives an alarm output (PNP NO/NC)

Ideal for commercial applications like for instance super markets.



## Installation of HBX rodstyle in strainer/filter houses

For proper functionality of X-sensor it is vital with correct installation. This has proven to be challenging when welded in to bends. We are therefore ready with a new solution with integration in strainer houses mounted at the suction line. The function is as on the inline sensor but the advantage is that the filter lid and sensor element can be removed and cleaned if **necessary**.



**HBDF-MK2** has now proven its superior advantages also in applications with temperatures around and just above 0°C (32°F). The ice thickness on the evaporator inlet surface is directly measured by a wire located between the fins and when a certain thickness of ice is measured the defrost cycle can start. An external PT1000 temperature sensor will stop the defrost cycle when fin surface temperature reaches a preset temperature. This makes it a unique Defrost Start- and Stop On Demand solution that can lead to significant savings compared with timer based defrost control  
Now also available with rain sensor for heat pump applications. Easy to install even on evaporators in existing installations.

## AEC – Advanced Evaporator Control with Mod-Bus communication

**AEC** is a new Mod-Bus gateway which gives remote access controlling opportunities for different HB sensors e.g. HBX, HBDF-MK2, HBLC & HBLT. The AEC gives now the opportunity for calibration, diagnostics and setup of all parameters on each sensor connected to the **AEC** remotely. All outputs for the attached sensors to the **AEC** can be read remotely via the Mod-Bus communication. The **Advanced Evaporator Control** can also provide data for the evaporator load and efficiency; this can be done by connecting a flow sensor in the evaporator outlet and temperature sensors at the Inlet and Outlet on the evaporator/air-cooler, which are all connected to the **AEC**.

- HB Products** By providing the evaporator data, the master control Unit (PLC) will be able to adjust the Vapor Quality and fan speeds according to the actual load of the evaporator ensuring maximum efficiency at any given load. This will also minimize unnecessary power consumption.
- HB Products** The **AEC** makes commissioning for e.g. defrost and HBX sensors very easy regardless the sensors actual location.

## SMART Version of HBX, HBLC & HBLT sensors – ATEX & SIL approval

HBX, HBLC & HBLT sensors are coming in an extended SMART version with two analogue 4-20mA outputs and an additional analogue 4-20 mA input used for remote settings or temperature/flow compensation:

The sensor head acts as an advanced SMART controller where it is possible to optimize both sensor and control functions. There is an opportunity to optimize and make an offset on the set point depending on actual evaporator load, alternatively the input can be used to get a temperature compensation on applications requiring high accuracy as for example CO<sub>2</sub> / HFC / HFO systems with changing operating temperatures.

HBSLC, HBSLT & HBSX SMART sensors can control and regulate all types of modulating expansion valves directly by an integrated valve cable directly from the sensor head (hereby saving installation costs).

The SMART type with integrated valve cable has further a new integrated manual control function to open and close the connected valve.

- HB Products** HBLT-xxxx is now coming in a new two wire version for easy electrical wiring. The electronics can also be used for HBX sensors and special level switches with no requirements for integrated heating element.
- HB Products** The new two-wire electronics will be ATEX & SIL approved for safe use in explosion hazardous areas (Propane, Butane etc.) and for areas with higher safety demand such as high level alarm on ammonia separators/receivers.



## **Advanced Training**

We will soon publish the dates for the next Advanced Training that will be held when our new facilities are available.

## **Look out for the HB Presentation Program on ChillVenta**

HB Products will again this year present a full program of daily presentations with a combination of external and internal presenters. A detailed program will be released just before ChillVenta so please look out for news on our web site as well as a special Newsletter that will be sent out to all our subscribers.

## **See you at ChillVenta 2018, Hall 5 - Stand 5-120**

With best regards  
The HB Products Team