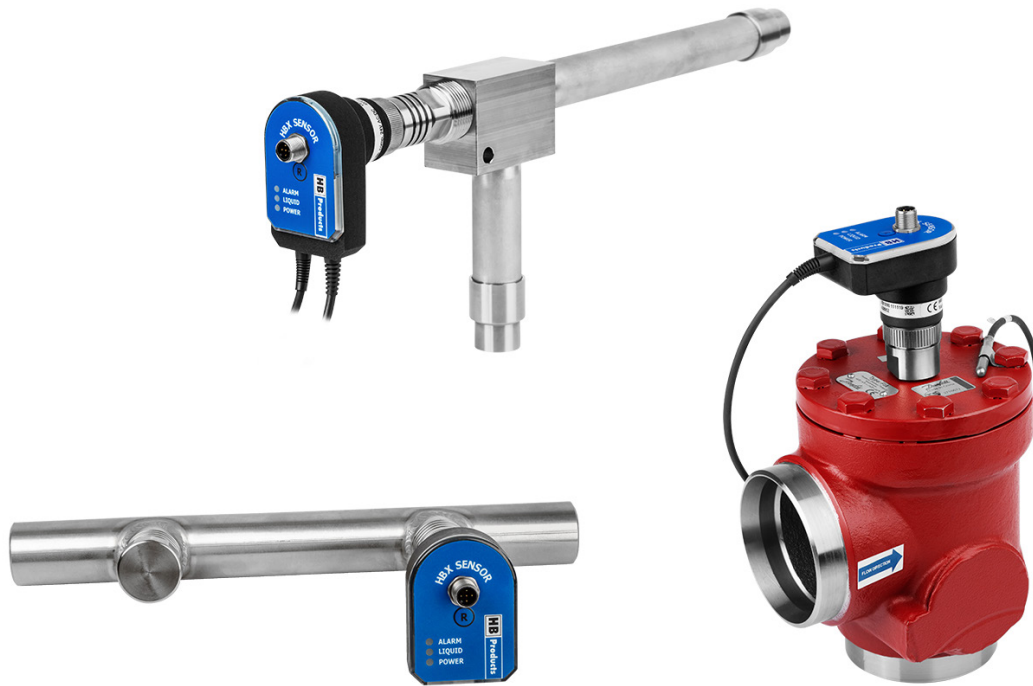


HB Products

We increase Uptime, Safety and Efficiency in Refrigeration Systems

Experts in:

- Level Control and Sensors
- Evaporator and Defrost Control

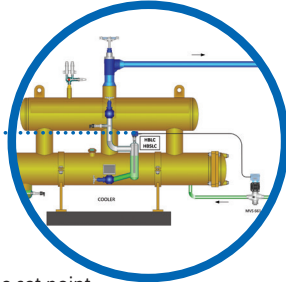


Intelligent "float" regulators

HBSLC – Level Control



Low pressure "float" control

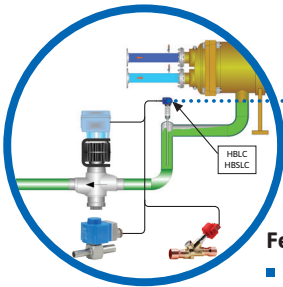


Applications

- Low pressure "float" control
- High pressure "float" control
- Smart Level Control with variable set point

"Evaporator Load dependent set point"

High pressure "float" control



HBSLC – Level control



Features

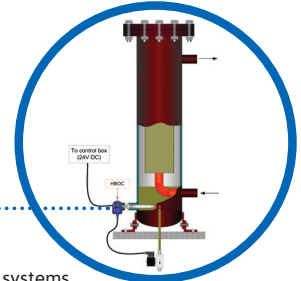
- Remote Control
- Load dependent set point
- External Start/Stop
- Integrated Level and Control function
- 50% lower installation cost
- Split design – can be serviced without depressurizing the system
- With low or high alarm function
- Stand-alone unit – requires no special control
- Built in regulator – for precise electronic level regulation
- Service friendly – requires no periodic cleaning or maintenance
- Compact design – more flexibility during installation

Automatic & effective oil management

HBOC – oil level control



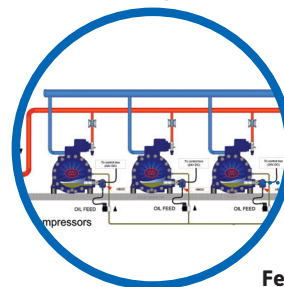
Oil separator



Applications

- Oil level management on rack systems
- Oil level regulation on separators
- Oil level management in CO₂, ammonia & HFC systems

Oil management



HBOC – oil level control



Features

- Stand-alone unit – requires no pack controller or PLC
- Built in regulator – multiple parameters easily set via USB cable
- Plug and play – requires no periodic cleaning
- Pressure resistance up to 150 bar
- Direct supply and operation of solenoid valve
- HB split design for easy troubleshooting
- One unit for all applications

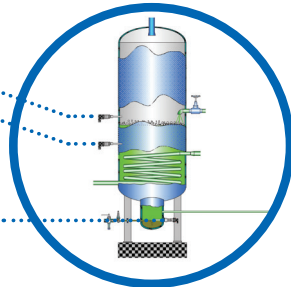
AND EFFICIENCY IN THE REFRIGERATION INDUSTRY

Level Switch for safe Refrigerant-and Oil Control

HBSR - Refrigerant Switch

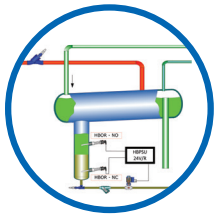


Level Switch



Applications

- On/Off control of refrigerant liquid injection
- Low level alarm
- High level alarm
- Safety Switch used for Defrost pump down Control



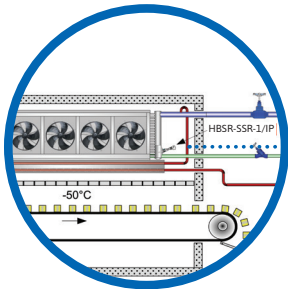
HBOR for safe Oil-return

- Switch OFF when the oil is drained
- Presence of Ammonia will always close the valve
- Service friendly split design

Safety Switch for Defrost Control

Ice proof

HBSR-SSR-1/IP - Ice proof Switch



Features

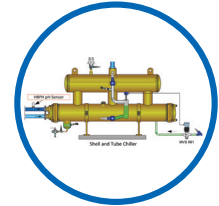
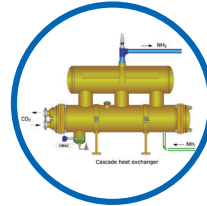
- 50% installation cost reduction by using threaded sleeve
- 75 % component cost reduction compared to mechanical design
- Pressure resistance up to 100 bar
- Temperature resistance down to -50°C
- Plug and play – requires no periodic cleaning
- HB split design for easy troubleshooting
- Ice proof design suitable for high pressure CIP cleaning
- Safety switch used for defrost pump down control

Increase Safety and Uptime and save Cost with solutions from HB Products



HBAC – NH₃/CO₂ Leakage Switch

- Detects even small CO₂ leaks in cascade systems into NH₃
- Prevents creation of ammonia carbamate



HBPH – NH₃/Brine Leakage Sensor

- pH-sensor that detects even small leaks of NH₃ into brine or glycol
- Prevents pollution of brine



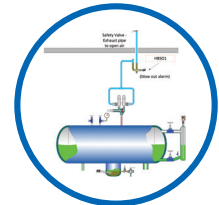
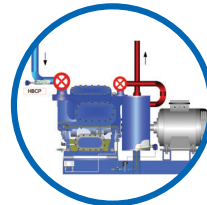
HBGS – NH₃ Leakage Alarm/Sensor

- Detects NH₃-leaks
- 3 levels of alarm – 25-500 ppm



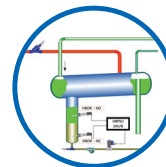
HBPC – Compressor Protection

- Protect compressors against liquid hammering



HBSO – Oil Switch

- Detects oil presence at safety valve at exhaust piping
- Alarm tells when safety valve has blown and oil has gone



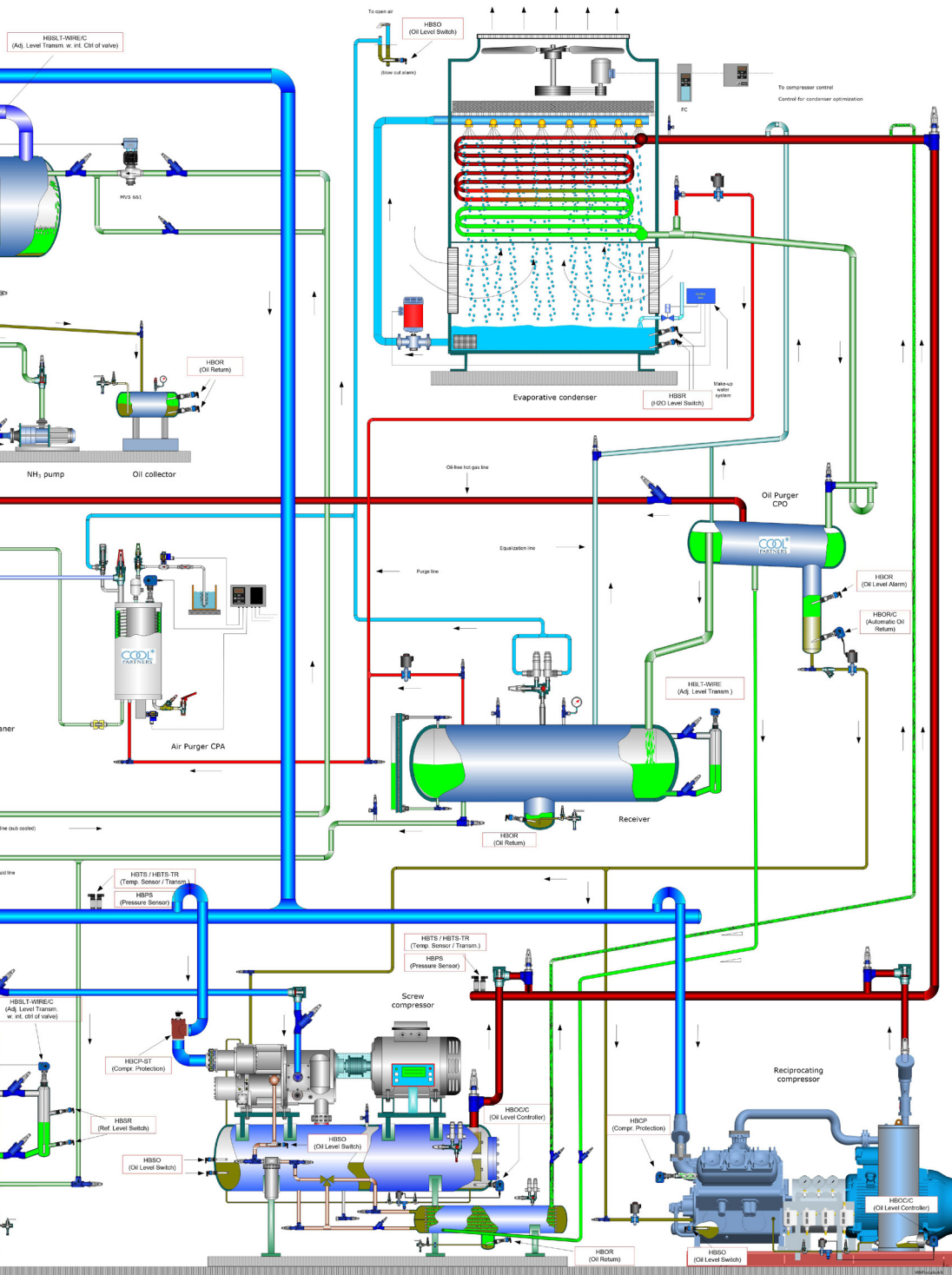
HBOR – Safe Oil Return

- Automatic oil return sensor
- Ensures no NH₃ is released to ambient during oil drainage

AND EFFICIENCY IN THE REFRIGERATION INDUSTRY

ant - principle

PRINCIPLE

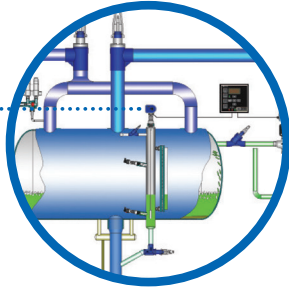


HBLT-Wire a real Plug and play sensor

HBLT-Wire – level sensor



Refrigerant level measurement



Applications

- Pump safety control
- Level regulation

Features - Level transmitter

- Accurate and reliable measuring technology
- Suitable for marine applications
- Pre-calibrated, plug and play
- With 3-digits LED display, only 3-wire
- Available as 2-wire sensor
- Now with ATEX / IECEx certificate

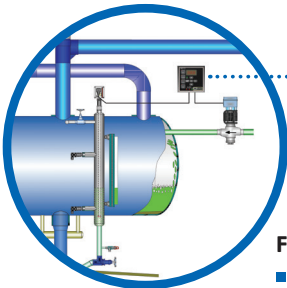


Can soon be delivered as 2-wire with ATEX / IECEx certificate.

HBLT-C1 – level controller



Refrigerant level control



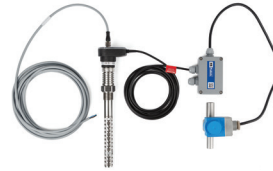
Features - Level controller

- Front programmable controller
- Local calibration function
- Relay output for min/max level (pump safety)
- Universal control – control pump, modulating valve, AKVA valves or other pulse motor valves

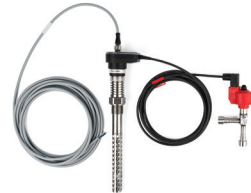
Control valves directly with smart sensors Saving installation cost Makes it more safe



Work with all types of 4-20mA Modulating valves



PWM, Pulse Width Modulation valves

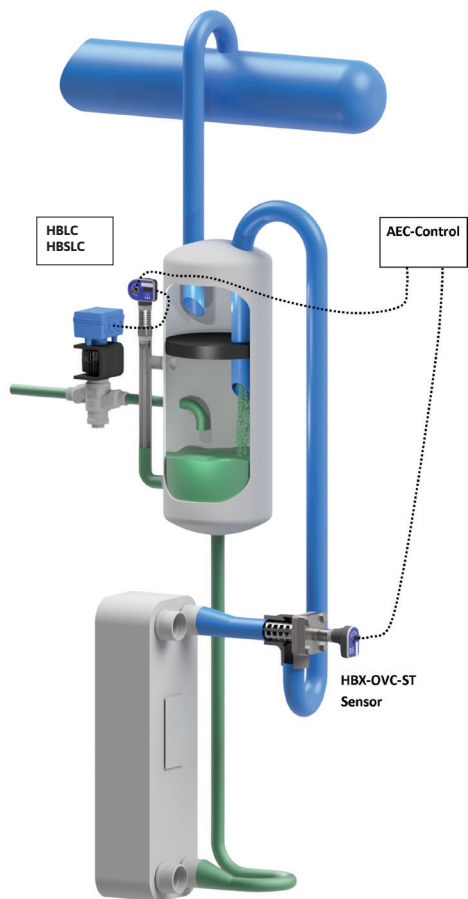


Works with all type of Stepper motor valves

Closed Loop and smart Control of the liquid level & Vapor Quality with HB sensors

AND EFFICIENCY IN THE REFRIGERATION INDUSTRY

Optimum heat transfer on Flooded system
Measuring Vapor Quality/dryness
Regulates the circulation rate depending
on the system load, CR 1.2 to 1.4

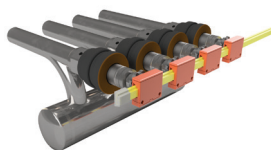


Closed Loop and smart Control of the liquid level in
combination with Vapor Quality measurement ensure
homogeneous phase of the refrigerant for Optimum
heat transfer at all loads.

The future's electronic liquid distribution
system for DX air coolers with multi circuit

The system is based on a manifold in the liquid inlet
and a manifold in the gas outlet where sensors and
associated expansion valves are connected in a
communication bus. Easy electrical connection
based on a standard two wire AS-Interface.

HBX-EFD sensor



HBX-EFD valve

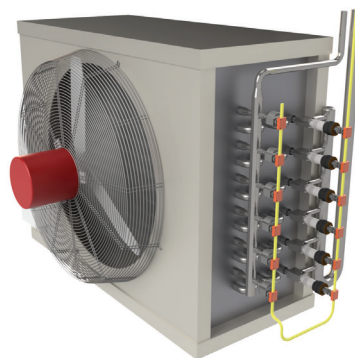


Distributes the refrigerant fluid evenly at
all loads depending on dryness of the vapor



GWP
↓

HBX-EFD
Master
Controller



Patent pending

HB Products – dedicated to increase efficiency and reduce carbon footprint of the industry.

HB Products is a well established company. For more than 25 years, we have developed, produced and sold high quality sensors to the refrigeration industry.

We continue to explore new innovative products and solutions and we have strong ambitions to improve our performance every day.

Worldwide Coverage by Local Distributors



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