



**Products**

WE INCREASE  
UPTIME AND EFFICIENCY  
IN THE REFRIGERATION INDUSTRY



**Our goal is to innovate and to push the boundaries of the industry - and now you can reap those rewards!**



HBLT-Wire sensor

**flexibility**

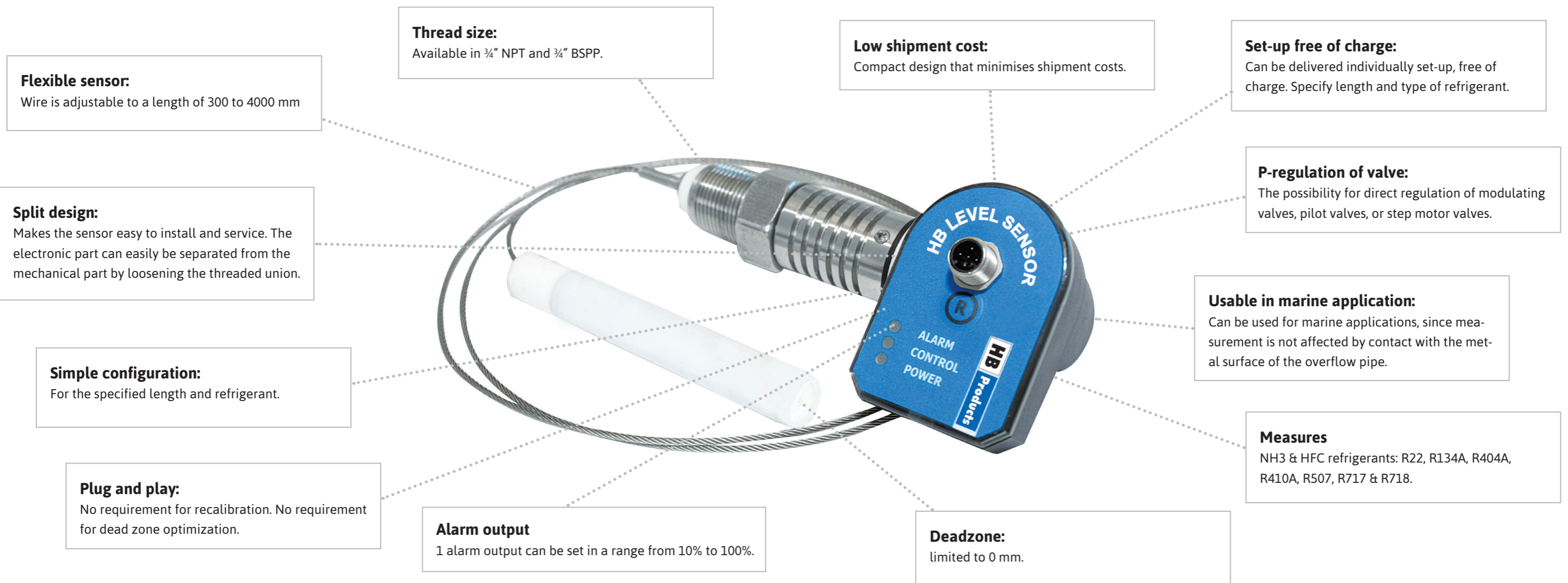
**usability**

**reliability**

# Better, smaller, and more installation-friendly - this is the future of the refrigeration industry!

**Configuration by HB – free of charge – or by installer – done in 5 minutes.** HBLT-wire can be adjusted in length to the current application. The sensor element consists of a 2mm steel wire as well as a Teflon tube. Both parts are provided with a length of 4m and can be shortened with diagonal cut-

ters or other pliers. In cases where the customer wanted to configure the sensor, the target of a maximum of 5 minutes was achieved. There are only two parameters to set up in order to use the sensor for level measurement, which is a process that can easily be carried out in less than 5 minutes.



## One sensor for NH3 & HFC refrigerants – stationary or marine

The sensor is unique in its design, since one product number covers all application requirements. The sensor can be installed in traditional stationary systems as well as in marine systems, where the rough waters lead to movement of the wire. Traditionally, a wire solution was not recommended for marine installations, but since the wire is coated in Teflon, there is no risk of the measurements being affected by contact with the wall of the tank or with the stand-pipe.

## Level measurement or P-regulation of valve

HBLT-wire is a capacitive sensor for level measurement of NH3 refrigerant in industrial refrigeration systems. The sensor has an output signal of 4-20 mA, which is proportional with 0 and 100%. Its output signal is 4 mA for an empty tank and 20 mA for a full tank. It can be used as a level sensor, or it can be used as a combined level sensor and direct P-regulator of modulating valves e.g. level regulation in a chiller or plate heat exchanger.



## Sensor designed with focus on usability

The HBLT-Wire sensor has been designed so installation is as simple as possible. This has been achieved by:

- No requirements for 0% or 100 % calibration
- No requirements for dead zone elimination
- A very low installation height (< 200 mm)
- Split design for easy troubleshooting
- Quick configuration of alarm outputs and sensor length
- Can be ordered for refrigerant and length, or configured on site

Benchmark of available level sensors for the industrial refrigeration industry:

	RTK	E+H	Hansen	Danfoss	HB Products
<b>Adjustable length</b>	No	No	No	Yes <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/>
<b>Configuration of parameters</b>	No	Yes by HMI, HART or PC <input checked="" type="checkbox"/>	No	Yes by HMI <input checked="" type="checkbox"/>	Yes by PC <input checked="" type="checkbox"/>
<b>Dead zone (bottom)</b>	0 mm <input checked="" type="checkbox"/>	0 mm <input checked="" type="checkbox"/>	16 mm	115-240 (90) mm	0 mm <input checked="" type="checkbox"/>
<b>Split design</b>	No	Yes <input checked="" type="checkbox"/>	No	Yes <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/>
<b>Installation height required</b>	420 + L	L+150...1000+230 mm	337 + L	220 mm	155 mm <input checked="" type="checkbox"/>
<b>Require preparation before installation</b>	No – can be ordered in fixed length at no extra cost <input checked="" type="checkbox"/>	Yes	No – can be ordered in fixed length at no extra cost <input checked="" type="checkbox"/>	Yes	No – can be ordered in fixed length at no extra cost <input checked="" type="checkbox"/>
<b>Required accessories for set-up</b>	No <input checked="" type="checkbox"/>	HMI display at extra cost	No <input checked="" type="checkbox"/>	HMI display at extra cost	Free software tool <input checked="" type="checkbox"/>
<b>Time for configuration</b>	Not possible	>30 min	Not possible	>30 min	<5 min <input checked="" type="checkbox"/>
<b>Time for calibration</b>	> 30 min	> 30 min	> 30 min	> 30 min	0 min <input checked="" type="checkbox"/>
<b>Require 0% calibration</b>	No <input checked="" type="checkbox"/>	Yes	Yes – if not 3" standpipe and R717	Yes – for smaller dead zone (90 mm)	No <input checked="" type="checkbox"/>
<b>Require 100 % calibration</b>	No <input checked="" type="checkbox"/>	Yes	Yes - if not 3" standpipe and R717	No <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>

L = sensor length

