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

HBLT-Wire sensor
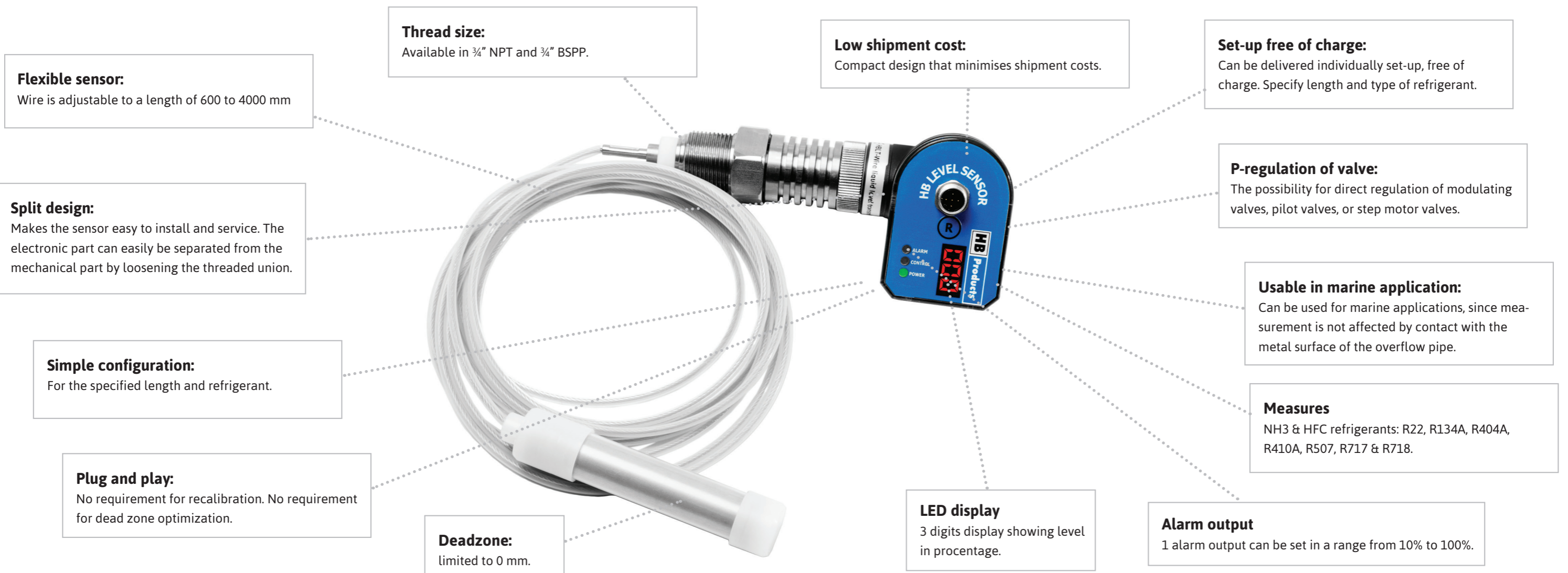
flexibility   **usability**   **reliability**

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.

Thread size:
Available in ¾" NPT and ¾" BSPP.

Low shipment cost:
Compact design that minimises shipment costs.

Set-up free of charge:
Can be delivered individually set-up, free of charge. Specify length and type of refrigerant.

Flexible sensor:
Wire is adjustable to a length of 600 to 4000 mm

P-regulation of valve:
The possibility for direct regulation of modulating valves, pilot valves, or step motor valves.

Split design:
Makes the sensor easy to install and service. The electronic part can easily be separated from the mechanical part by loosening the threaded union.

Usable in marine application:
Can be used for marine applications, since measurement is not affected by contact with the metal surface of the overflow pipe.

Simple configuration:
For the specified length and refrigerant.

Measures
NH3 & HFC refrigerants: R22, R134A, R404A, R410A, R507, R717 & R718.

Plug and play:
No requirement for recalibration. No requirement for dead zone optimization.

LED display
3 digits display showing level in procentage.

Alarm output
1 alarm output can be set in a range from 10% to 100%.

Deadzone:
limited to 0 mm.

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

L = sensor length