

## Data sheet: HBLC & HBSLC

Liquid Level Sensors are vital for accurately measuring liquids in tanks and vessels across industries. These capacitive sensors are designed to measure liquid levels in gas-filled vessels. The HBLC provides a 4-20 mA output, while HBSLC includes a built-in controller for direct valve control. Both are part of the split-design sensor family, sharing the same electronic unit with a digital display that shows the liquid level percentage.

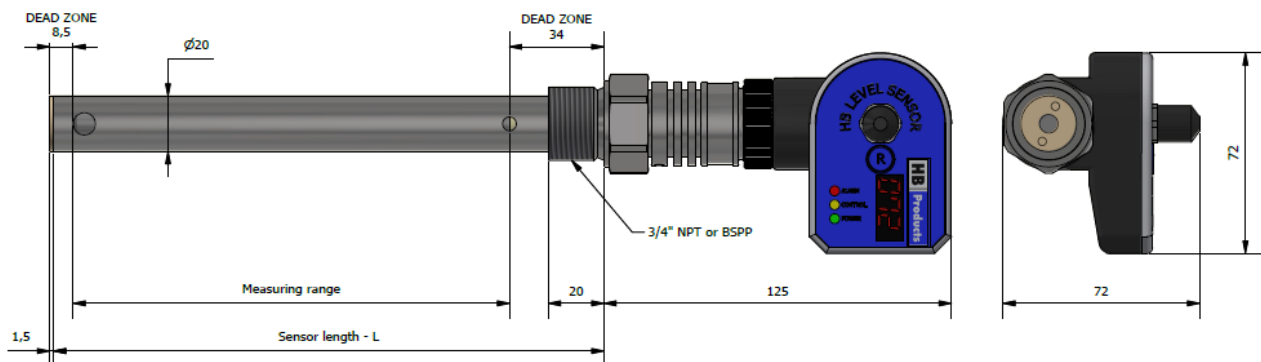


| Model                           | Refrigerants                | Liquids                                                 |
|---------------------------------|-----------------------------|---------------------------------------------------------|
| <b>HBLC-CO2 &amp; HBSLC-CO2</b> | R744, R600, R600a, R290     | CO2, Propane, Butane Iso butane, and other hydrocarbons |
| <b>HBLC-HFC &amp; HBSLC-HFC</b> | All HFC, HFO, CFC, HCFC     | Synthetic refrigerants in general                       |
| <b>HBLC-OIL &amp; HBSLC-OIL</b> | Mineral, PAO, PAG, POE oils | All oils in refrigeration systems                       |

| Power supply                          | HBLT & HBLC                                                                | HBSLC/C, S, PWM               |
|---------------------------------------|----------------------------------------------------------------------------|-------------------------------|
| Voltage                               | 24V AC/DC + 10%                                                            | 24V AC/DC + 10%               |
| Max. load resistance                  | 500 Ω                                                                      | 500 Ω                         |
| Max. energy consumption               | 600 mA                                                                     | 600 mA + valve consumption    |
| Plug connection                       | M12 - 5 pins                                                               | M12 - 5 pins + cable output   |
| Output                                |                                                                            |                               |
| Analog output                         | 4-20 mA                                                                    | 4-20 mA + valve output max 1A |
| Transistor output - alarm             | PNP, 1 A                                                                   | None                          |
| Contact function - alarm              | NO/NC (Programmable)                                                       | None                          |
| Environmental conditions              |                                                                            |                               |
| Ambient temperature                   | -30°C to 50°C (-22°F to 122°F)                                             |                               |
| Liquid temperature                    | -50°C to 145°C (-76°F to 140°F)                                            |                               |
| Max. pressure                         | 150 bar (2175 psi)                                                         |                               |
| Protection degree                     | IP65                                                                       |                               |
| Vibrations                            | IEC 60068-2-6 (4g)                                                         |                               |
| Mechanical specifications             |                                                                            |                               |
| Thread connections                    | 3/4" NPT or BSPP                                                           |                               |
| Adapter - 3/4" NPT / 1" BSPP (option) | HBS/ADAP/8/2 and HBS/ADAP/9/6                                              |                               |
| Sensor length                         | 200 mm to 3.000 mm                                                         |                               |
| Installation                          | Top-down or bottom-up                                                      |                               |
| Dead zone                             | 8.5 mm at the bottom – max 34 mm at the top, depending on the installation |                               |
| Size                                  | See the dimensional drawing on the next page                               |                               |
| Material - mechanical part            | AISI 304 / PTFE / PEEK / PA6                                               |                               |

|                            |                                                                             |
|----------------------------|-----------------------------------------------------------------------------|
| Material - electronic part | PA46 / PC                                                                   |
| House type                 | Angled oval house for vertical installation                                 |
| <b>Approvals</b>           |                                                                             |
| EMC-Emission               | EN 61000-3-2                                                                |
| EMC-Immunity               | EN 61000-4-2                                                                |
| <b>Indication</b>          |                                                                             |
| Display                    | 3-digit percentage display                                                  |
| LED indication             | Green, yellow & red LED                                                     |
| <b>Configurations</b>      |                                                                             |
| Configuration              | HB Tool is used for calibration USB-M12 cable is needed                     |
| Calibration                | Standard for CO <sub>2</sub> , R134a or mineral oil other liquid on request |
| <b>Scope of supply</b>     |                                                                             |
| Package includes           | Sensor with specified length<br>5m Supply cable with M12 plug               |

## Dimensional drawing



For any inquiries or further information, please don't hesitate to contact us at [info@hbproducts.dk](mailto:info@hbproducts.dk).

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