

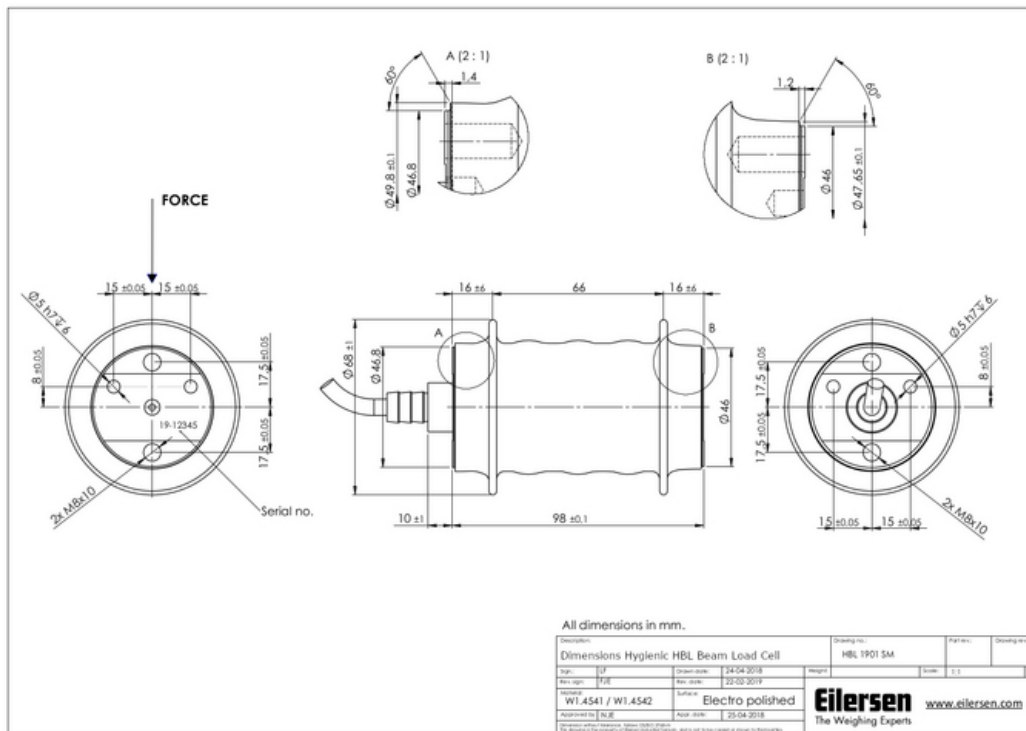
## Hygienic Beam Load Cell HBL (HBL-Ex)

Compact digital hygienic beam load cell for dynamic weighing, multihead scales, combination weighers, small tanks and vessels. The hygienic design of the HBL load cell is unique and ensures an easy to clean installation and a very high resonance frequency (spring rate) for rapid dynamic weighing. The hygienic load cell type HBL-Ex can be used in ATEX (Ex) and IECEx applications (Zone 1, 2, 21 and 22)

|                            |  |
|----------------------------|--|
| <b>Type:</b>               | HBL  |
| <b>Capacity (Emax):</b>    | 5, 10, 20, 30, 50, 100kg                                 |
| <b>Accuracy:</b>           | Industrial 0.025% Precision 0.015% High Precision 0.010% |
| <b>Overload Tolerance:</b> | Up to 1000% of rated capacity                            |

- Patented hygienic design
- Made in Denmark
- Produced in Stainless steel
- Robust capacitive technology
- Patented high reliability capacitive sensor
- High tolerance of up to 1000% overload
- Laser welded (IP68)
- ATEX and IECEx certified (Zone 1, 2, 21, 22)
- High accuracy, High resolution
- Small deflection at rated capacity
- Capacity (Emax): 5, 10, 20, 30, 50, 100, 150kg
- Accuracy: Industrial 0.025% Precision 0.015% High Precision 0.010%
- High resonance frequency (spring rate) for rapid dynamic weighing
- Digital filters
- Cable length up to 100meters
- Calibration independent of cable length
- Load cell cable replaceable
- Easy mechanical and electrical installation
- Withstands welding voltages and ESD
- Can be used in both ATEX / IECEx and non-ATEX installations

- [HBL Datasheet](#)
- [Digital Beam Load Cell Type HBL Dimensions PDF](#)
- [ATEX Certificate SEV23 ATEX 0689 X \(ENG\) PDF](#)
- [IECEx Certificate SEV 23.0028 X \(ENG\) PDF](#)
- [HBL Beam Load Cell STEP 3D CAD File \(right click -> "Save as..."\)](#)
- [Guideline Correct Mounting of BNC Connector \(UK\) PDF](#)
- [VIDEO - Correct Mounting of BNC Connector \(UK\) PDF](#)



| Parameter                         | Unit           | 0.025%   | 0.015% |
|-----------------------------------|----------------|--|--------|
| Rated capacity ( $E_{max}$ )      | kg             | 5, 10, 20, 30, 50, 100*  |        |
| Safe overload limit               | % of $E_{max}$ | 300 to 1000  |        |
| Safe sideload limit               | % of $E_{max}$ | 500 to 2000  |        |
| Minimum dead load                 | % of $E_{max}$ | 0  |        |
| Combined accuracy                 | % of $E_{max}$ | 0.025  | 0.015  |
| Repeatability                     | % of $E_{max}$ | 0.012  | 0.010  |
| Hysteresis                        | % of $E_{max}$ | 0.013  | 0.008  |
| Creep 30 min.                     | % of $E_{max}$ | 0.015  | 0.012  |
| Temperature effect on zero        | % /10°C        | 0.050  | 0.035  |
| Temperature effect on sensitivity | % /10°C        | 0.050  | 0.050  |
| Compensated temperature range     | °C             | -10 to 50  |        |
| Operating temperature range       | °C             | -50 to 70 (100**)  |        |
| Deflection at $E_{max}$           | mm             | max 0.10   |        |
| Measuring rate                    | Hz             | 500  |        |
| Supply                            | Vdc            | 24Vdc ±5%  |        |
| Internal resolution               | Bit            | 24   |        |
| Material                          |                | Stainless Steel 17-4PH and AISI316   |        |
| Protection                        |                | IP68   |        |
| Cable                             |                | 6meter standard coaxial RG-58 (Ø6mm)<br>with BNC connector                             |        |
| Maximum cable length              | m              | 100  |        |
| Weight                            | kg             | 1.5  |        |
| Output options                    |                | EtherNet/IP, PROFINET, EtherCAT, Profibus DP,<br>Modbus TCP/IP, RS485, 4-20mA, 0-10Vdc |        |

\* available in other capacities on request

\*\* with Teflon cable

- Hygienic weighing
- Combination weighers
- Multihead weighers
- Filling machines
- Small tanks and vessels

- ATEX and IECEx (Zone 1, 2, 21, 22) version type HBL-Ex
- ATEX II 2G Ex ia IIC T6 / ATEX II 2D Ex iaD 21 T85°C
- Customized versions available
- Load cell cable length 10, 20, 50 or 100meters
- Special PE load cell cable available for freezing low temperature (can be used down to -50 degrees Celsius)
- Special Teflon load cell cable available for very high temperature (can be used up to 100 degrees Celsius)