

## 10 Reasons for using Eilersen Digital Load Cells

### 1. Robust Load Cells for Industrial Applications

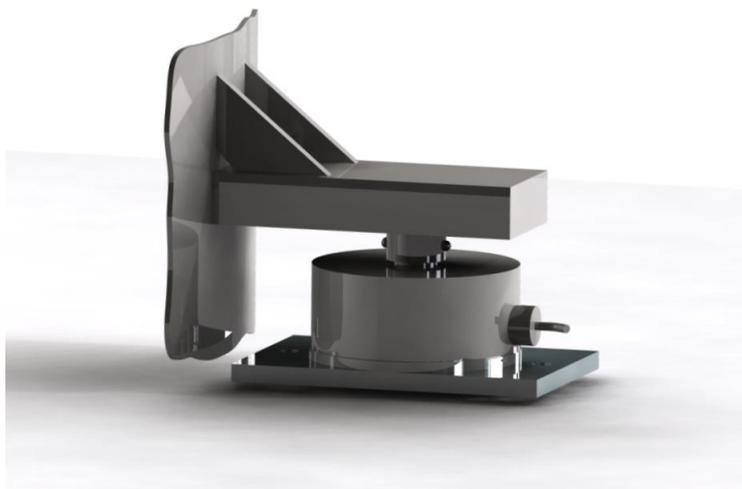
All Eilersen digital load cells are based on a capacitive measurement principle where a robust ceramic sensor is mounted inside the load cell body. As the load cells contain no moving parts and the ceramic sensor is not in contact with the load cell body, the load cells tolerate very high overloads, sideloads and torsion (up to 1.000% of rated load cell capacity).

The Eilersen load cells are produced in stainless steel and hermetically sealed (IP68/IP69K) by laser welding to ensure superb waterproof protection for tough industrial applications. Furthermore, Eilersen load cells are available in capacities up to 500t.



### 2. Simple Mechanical Installation

Mechanical protection devices are not necessary when installing Eilersen digital load cells as the capacitive measuring principle allows for very high overloads, sideloads, and torsion. This is an important cost and maintenance saver.



### 3. Simple Electrical Installation

The Eilersen digital load cells feature true plug-and-play installation, as the load cells are pre-calibrated. This is an important feature in high capacity applications where it is difficult to find calibration weights, which saves a tremendous amount of time during commissioning. Furthermore, a damaged load cell can be changed without the need for re-calibration.

The digital RS485 signal from the load cells not only eliminates the need for weighing amplifiers but also drift and inaccuracy found in analog electronics as the complete measurement chain is digital.

The Eilersen digital load cells are equipped with a standard single wire coaxial cable (RG-58) and the cable length has no influence on the calibration. The load cells can be equipped with cable lengths of up to 100 meters and the load cell cable can be changed on-site if necessary.

In addition, the digital signal from the load cells is insensitive to EMC.

#### **4. Easy Integration**

Electronic modules are available for converting the RS485 output from the Eilersen digital load cells to a host of industrial interfaces (Profibus DP, DeviceNet, Ethernet IP, EtherCAT, ProfiNET, Modbus, RS232, 4-20mA, 0-10VDC etc.).



#### **5. Specifications**

The Eilersen digital load cells can be supplied in OIML (up to C6 MI10) and ATEX certified (zone 1, 2, 21, 22) versions while still offering a very high overload tolerance.

#### **6. Hygienic Installations**

The simple mechanical installation of the Eilersen load cells without overload protection devices ensures a hygienic installation minimizing the need for maintenance.

#### **7. Dynamic Applications**

The Eilersen digital load cells feature sampling rates of up to 1.000 measurements per second and a deflection of less than 0,2mm at Rated Capacity.

These characteristics result in a high frequency of resonance, which together with a wide variety of digital filters makes it possible to achieve a very fast response for dynamic applications.

**8. Intelligent Load Cells with Integrated Diagnostics**

For installations using Eilersen digital load cells, it is possible to monitor the load and status of each individual load cell with the integrated load cell diagnostics feature.

The Eilersen digital load cells will send an error code if maintenance should be required for fast and easy troubleshooting.



**9. Minimizing on-site Installation Cost for OEM Customers**

The very high overload tolerance of the Eilersen load cells, allows for in-factory installation of the load cells in OEM equipment, which eliminates the need for expensive and inconvenient on-site installation of the load cells.

The digital technology is optimal for equipment with more than one load cell as several load cells can be connected to a single digital com port and thereby avoiding cabling and analog input cards.

**10. Quality**

All Eilersen load cells are developed, manufactured and individually calibrated at the Eilersen facilities in Denmark and Switzerland to ensure that the load cells are meeting the highest quality standards on the market.

