

10 Reasons for using Eilersen Digital Load Cells

1. Robust and Shockproof Load Cells for Industrial Applications

The Eilersen digital load cells are based on a capacitive measurement principle where a non-contacting ceramic sensor is mounted inside the load cell body. As the load cells contain no moving parts and the sensor is not in contact with the load cell body, the load cells tolerate shocks and very high overloads and sideloads (up to 1.000% of Rated Capacity). Furthermore, the load cells are not sensitive to torsion.

The load cells are hermetically sealed (IP68/IP69K) to ensure superb waterproof protection for tough industrial applications.



Eilersen digital load cells can measure from a few milligrams and up to 500 tons so there is a shockproof load cell for every industrial application.

2. Simple Mechanical Installation

Mechanical protection devices are not necessary when installing Eilersen digital load cells as the capacitive measuring principle allows for extreme overloads, sideloads, torsion and shocks.

This is an important installation 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 to transmit the load directly in gram, kilogram, ton or Newton which eliminates the need for on-site calibration in many applications.

This is an important feature in high capacity applications where it is difficult to find calibration weights.

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.

The Eilersen load cells are able to withstand welding voltages and ESD (IEC 1000-4-4) and 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 loads cells to a host of industrial interfaces (Profibus DP, DeviceNet, EtherNet/IP, Modbus, RS232, 4-20 mA, 0-10 VDC).



5. Specifications

The Eilersen digital load cells are supplied in OIML (up to C6 MI10) and ATEX certified (zone 1, 2, 21, 22) versions.

The internal resolution is 24 bit (16.000.000 divisions).

6. Hygienic Installations

The simple mechanical installation without overload protection devices ensures hygienic installations with a minimal 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 100 µm 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 solutions using the Eilersen digital load cells, it is possible to monitor the load and status of each individual load cell with the integrated diagnostics functionality.

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 capacity of the Eilersen load cells allow for in-factory installation of the load cells in OEM equipment which eliminates the need for expensive and inconvenient on-site installation of 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 individually calibrated and compensated to ensure that all load cells are meeting the highest quality standard on the market.

Eilersen digital load cells are backed by a 3 year warranty.