

EXPERTS IN WEIGHING SINCE 1969

NEXT GENERATION DIGITAL LOAD CELLS

- Patented capacitive technology
- High accuracy and high resolution
- Very robust, up to 1000% overload
- Simple mechanical and electrical installation
- ISO 9001:2015 certified
- IECEx and ATEX certified
- Trusted in over 90 countries worldwide

Eilersen
The Weighing Experts



Weighing solutions for beverage processing



Load cells for mobile hygienic vessels



Load cells for pharmaceutical API manufacturing

EXPERTS IN WEIGHING SINCE 1969

Capacitive Digital Load Cells

Since the foundation in 1969, the Eilersen companies in Denmark and Switzerland have been dedicated to the development, manufacture and supply of high quality, robust industrial sensors based on capacitive technology for the measurement of force and weight.

Patented Technology with Unique Advantages

This extensive know-how is patented worldwide and applied in the current range of digital load cells. The capacitive technology developed by Eilersen features a number of advantages compared to other technologies used in transducers for measuring force and weight, such as high accuracy (up to 99.99%), outstanding reliability, simple mechanical and electrical installation, and minimal maintenance for use in tough and demanding industrial applications.

Eilersen load cells are produced in stainless steel and hermetically sealed to IP68 by laser welding. Furthermore, Eilersen load cells are available in capacities up to 500 tons with a broad range of instrumentation including weighing

indicators and weighing modules featuring EtherNet IP, Modbus TCP/IP, PROFINET, Profibus DP, EtherCAT, RS485, 4-20mA and 0-10VDC interfaces. The Eilersen weighing solutions can be supplied in OIML, ATEX and IECEx certified versions.

All Eilersen products are developed, manufactured and individually calibrated at the Eilersen ISO 9001:2015 certified manufacturing facilities.

Eilersen Load Cells are Trusted Worldwide

Eilersen customers include leading companies in more than 90 countries worldwide, and the continuous investment in technology, development, quality, and customer support has led to a very high level of customer loyalty.

The Eilersen companies have a sound financial basis and exercises environmental and social responsibility. Furthermore, Eilersen offers equal opportunity and non-discrimination policies, and benefits from a very stable team of dedicated employees.



Patents



OIML Certificates



IECEx/ATEX Certificates



ISO 9001:2015 Certificate



Material Certificates

Eilersen
The Weighing Experts

WHO WE ARE



90+

countries

Eilersen capacitive load cells are used by industrial customers in more than 90 countries. Our digital technology offers simple installation and integrated diagnostics while eliminating the need for maintenance.



50+

years of experience

Since the foundation in 1969, we have been dedicated to the development, manufacture and supply of high quality, robust industrial sensors for the measurement of force and weight to industrial customers worldwide.



15+

years of average tenure

We benefit from a very passionate and experienced team of employees, who on average have more than 15 years of tenure. The development of new products is based on all the know-how of our in-house team of engineers.



10+

worldwide patents

Our extensive know-how is covered by several patents worldwide and applied in the current range of digital capacitive load cells. We were granted our first worldwide patent on capacitive load cells back in 1971.



8+

nationalities

We have dedicated employees from more than eight different nations, and with our focus on CSR, our production facilities have been awarded top score in the yearly reviews by the Work Environment Authorities.



1

family

N. Juul Eilersen founded Eilersen Electric A/S in 1969 for the development, production and sales of capacitive sensors. We will remain family-owned, as the next generation has now taken over ownership.

WHAT WE DO



1500+
projects every year

Every year our digital weighing solutions are used by industrial customers in more than 1500 projects across many industries including pharmaceutical, food, logistics, automation, chemical, biotech and offshore.



10+ %
R&D investment

We invest more than 10% of our annual turnover in research and development in order to continuously bring better load cells to the market and retain our position as The Weighing Experts.



99.99 %
accuracy

Our reliable load cells offer up to 1000 % overload and up to 99.99 % accuracy, which makes life easier for our customers. With capacities up to 500 tons, our load cells cover most industrial applications.



100 %
high quality

Eilersen delivers a consistent, high level of quality, with all products being assembled, tested and calibrated in-house. We hold ISO9001:2015, OIML, ATEX, IECEx and other certifications.



4.8
on customer satisfaction

We asked more than 300 customers in 20 countries how they would rate our products and service on 15 different parameters on a scale from 1 to 5. The result was outstanding with an average rating of 4.8.



2100+
customers worldwide

An ever increasing number of world class machine builders and end users from industries such as pharma, food, biotech, logistics and offshore rely on Eilersen capacitive load cells and weighing instrumentation.

SELECTED REFERENCES



HYGIENIC LOAD CELLS

High Accuracy and Reliability



DIGITAL CAPACITIVE TECHNOLOGY

The Choice for Industrial Applications

The Eilersen digital capacitive technology is based on a non-contacting ceramic sensor mounted in a low stressed load cell body. As the load cell contains no moving parts and the ceramic sensor is not in contact with the load cell body, the load cell tolerates very high overloads, sideloads, torsion and welding voltages.

Simple and Hygienic Installation

This robust technology allows for a very simple and hygienic mechanical installation of the Eilersen load cells without expensive and complicated mounting kits, stay rods or overload protection devices. The simple installation eliminates the need for maintenance and reduces the total cost of ownership.

The True Digital Weighing Solution

The electrical installation of the Eilersen digital load cells is pure plug-and-play as the output from the ceramic sensor is directly converted, compensated and calibrated by a proprietary ASIC in the load cell.

The output from the load cell contains the measuring data and status codes for diagnostics, which is transmitted through the load cell cable to the weighing instrumentation.

This patented digital technology eliminates drift and inaccuracy found in analog circuits, since the complete measurement chain is digital.

Individually Calibrated for High Accuracy

Every Eilersen load cell is individually factory calibrated and compensated to ensure the highest accuracy (up to OIML C6 MI10 or 99.99%) and quality on the market.

Flexible Connectivity

The Eilersen proprietary design results in unsurpassed flexibility, fast communication and allows for connection to a wide range of equipment, fieldbus interfaces and outputs (PLCs, PCs, SCADA systems, Weighing Terminals, PROFINET, EtherCAT, EtherNet/IP, Modbus TCP/IP, RS485, 4-20mA, 0-10VDC etc.).

Easy Commissioning and Service

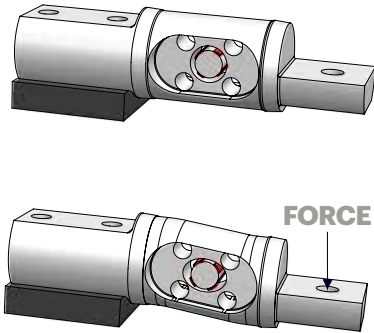
The pre-calibration of the Eilersen load cells and the possibility to monitor the load and status of each individual digital load cell, provides visibility, easy troubleshooting and saves time during commissioning.

Furthermore, the load cell cables can be replaced on-site if required, and the cable length (up to 100 meters) has no influence on the load cell calibration.

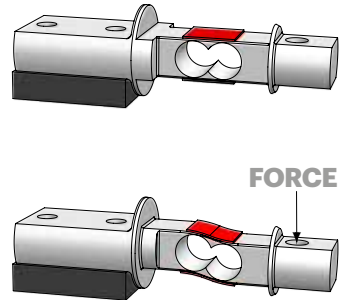
Patented and Trusted Worldwide

The capacitive technology and mechanical design applied in the Eilersen load cells is patented, and trusted by customers in more than 90 countries worldwide.

Capacitive load cell



Strain gage load cell



Patented Single Point Load Cell

The Eilersen digital capacitive technology is based on an accurate and stable ceramic sensor, which is non-contacting and therefore unaffected by overloads, sideloads, torsion and welding voltages.



Worlds first hygienic beam load cell



The load cell cable is field replaceable without re-calibration

TOP 10 REASONS

For Choosing Eilersen Weighing Solutions

#1

Robust and Reliable Load Cells

All Eilersen load cells tolerate very high overloads, sideloads and torsion. The load cells are produced in stainless steel and hermetically sealed to IP68 for tough industrial applications. Furthermore, Eilersen load cells are available in capacities up to 500 tons.

#2

Simple Mechanical Installation

Mechanical protection devices are not necessary when installing Eilersen digital load cells. This is not only an important cost and maintenance saver, but also allows for a hygienic installation.

#3

Simple Electrical Installation

Eilersen digital load cells feature true plug-and-play installation as the load cells are pre-calibrated, which eliminates the need for on-site calibration in many applications.

Eilersen digital load cells can be equipped with up to a 100 meter load cell cable and the cable length has no influence on the load cell calibration.

#4

Minimized on-site Installation Cost for OEM Customers

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

#5

Easy Commissioning and Service

It is possible to monitor the load and status of each individual Eilersen load cell with the integrated load cell diagnostics feature.

Eilersen digital load cells do not require regular maintenance but if maintenance is required, the integrated system will alert users, providing fast and easy troubleshooting.

#6

Ideal Load Cells for Dynamic Applications

Eilersen digital load cells feature sampling rates of up to 1000 measurements per second and a deflection of less than 0.1 mm at Full Scale (FS) which results in a high frequency of resonance.

#7

Top Specifications

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

#8

Flexible Solutions

Eilersen weighing modules are available with a range of fieldbus interfaces (Profibus DP, PROFINET, EtherCAT, Ethernet IP, Modbus TCP/IP, 4-20mA, 0-10VDC etc.).

#9

ISO 9001:2015 Certified Quality

All Eilersen load cells are developed, manufactured and individually calibrated at the Eilersen ISO 9001:2015 certified sites in Denmark and Switzerland to ensure that all products meet the highest quality standards on the market.

#10

Patented and Trusted Worldwide

The capacitive technology and mechanical design of the Eilersen load cells has been patented and is trusted by customers in more than 90 countries worldwide.



Eilersen corporate headquarters



Offshore weighing



Heavy duty weighing



Load cells for mixing



Load cells for vegetable dosing



Weighing meat tumblers



On-board weighing



Load cell calibration



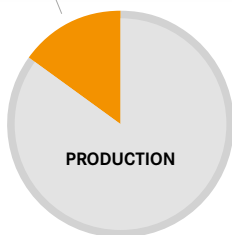
Certified catch weighing

ROBUST CAPACITIVE LOAD CELLS

Tolerates up to 1000% Overload

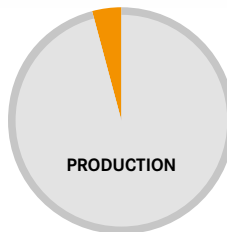


Cleaning
Calibration
Maintenance



Productivity using
Standard Load Cells

HIGHER PRODUCTIVITY



Productivity using
Eilersen Load Cells

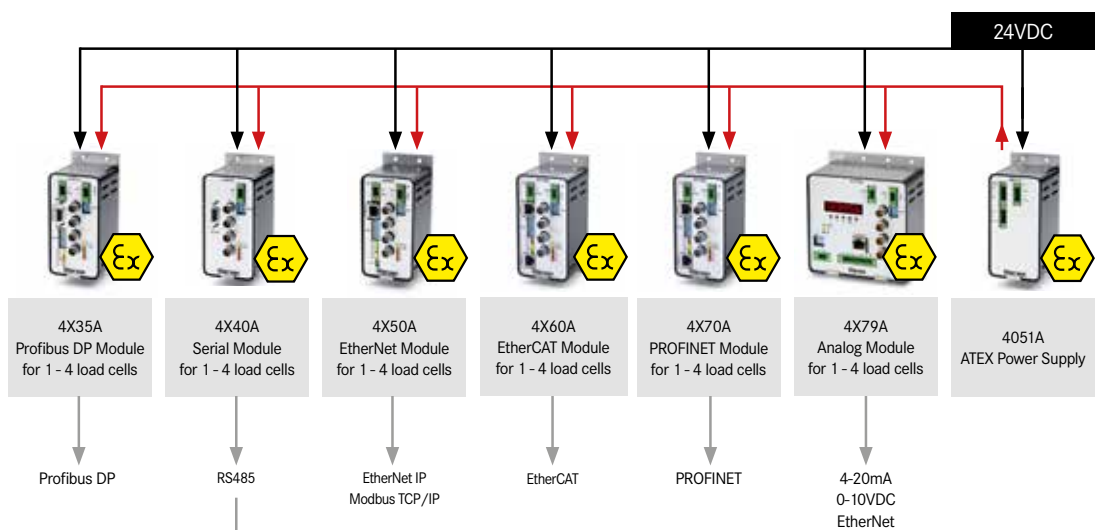
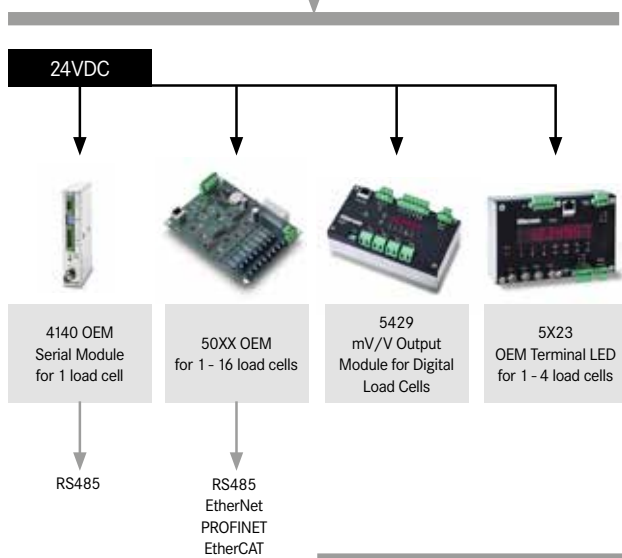
Eilersen
The Weighing Experts

Product Overview

Next Generation Digital Load Cells



Digital Weighing Modules



Digital Weighing Indicator



Load Cell Overview

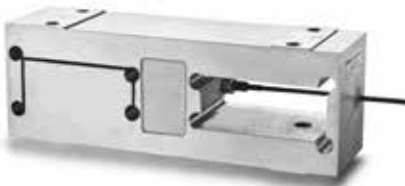
Standard Capacitive Load Cells



NON-ATEX	BL	BM	HBL	XBL	SPSX	SPSXL	CL/CM	CH
ATEX	BL-Ex	BM-Ex	HBL-Ex	XBL-Ex	SPSX-Ex	SPSXL-Ex	CL/CM-Ex	CH-Ex
Load Cell Type								
Compression							■	■
Bending Beam	■	■	■					
Single Point				■	■	■		
Load Cell Features								
Digital Capacitive Technology	■	■	■	■	■	■	■	■
Stainless Steel	■	■	■	■	■	■	■	■
Hygienic Design	■	■	■				■	
IP68	■	■	■	■	■	■	■	■
Robust	■	■	■	■	■	■	■	■
Specifications								
Maximum Capacity (kg)	1000	7000	100	150	200	300	50000	500000
Overload Tolerance > 300% of Rated Capacity								
Interface Options EtherNet IP, Modbus TCP/IP, PROFINET, Profibus DP, EtherCAT, RS485, 4-20mA, 0-10VDC								
Applications								
Process Weighing	■	■	■	■	■	■	■	■
Tank, Vessel & Silo	■	■					■	■
Filling & Dosing	■	■	■	■	■	■	■	
Level Measurement							■	■
Dynamic Weighing	■	■	■	■	■	■		
Scales	■	■		■	■	■		
Conveyer Belts	■	■		■	■			
Heavy Duty	■	■	■	■	■	■	■	■
On-Board Mobile Weighing		■						
Offshore Applications	■	■				■	■	■



Customized Solutions – Examples



Eilersen Electric Digital Systems A/S

Kokkedal Industripark 4

DK-2980 Kokkedal

Denmark

Tel: +45 49 180 100

info@eilersen.com

Visit us at www.eilersen.com

Rev. 1-2020

Eilersen
The Weighing Experts