

Digital Compression Load Cell – Type DM 0-6.000 kg →0-50.000 kg



Special Features

- Robust capacitive technology
- High tolerance of up to 400 % overload
- Hermetically sealed to IP69K
- ATEX certified
- Low profile and hygienic design
- High resolution
- Withstands welding voltages and ESD
- Cable length up to 100 meters
- Load cell cable replaceable
- Pre-calibrated with signal in kg or N
- Calibration independent of cable length
- Easy mechanical and electrical installation
- 3 years warranty

Technology

The shockproof digital load cell is based on a capacitive measurement principle where a non-contacting ceramic sensor is mounted inside the load cell body. As the load cell contains no moving parts and the sensor is not in contact with the load cell body, the load cell tolerates shocks, torsion, and very high overloads and sideloads. Therefore, the mechanical installation of the load cell can be done without expensive and complicated mounting kits and overload protection devices.

The electrical installation of the digital load cell is pure plug-and-play as the signal from the non-contacting sensor is directly converted, compensated and calibrated by a microprocessor to a digital load cell output in grams, kilograms, or Newton. Measurements and status codes are transmitted as RS485 data on a single wire coaxial cable (RG-58) which may be up to 100 meters long. The load cell cable can be replaced on-site if necessary.

The technology and mechanical design of the Eilersen load cells is covered worldwide by a number of patents.



Capacities (in kg)

- 6.000
- 8.000
- 10.000
- 15.000
- 25.000
- 50.000

Options

- ATEX (Zone 1, 2, 21, 22) version type DMA
- ATEX II 2G Ex ia IIC T6
- ATEX II 2D Ex iaD 21 T85°C
- Base plate available

Applications

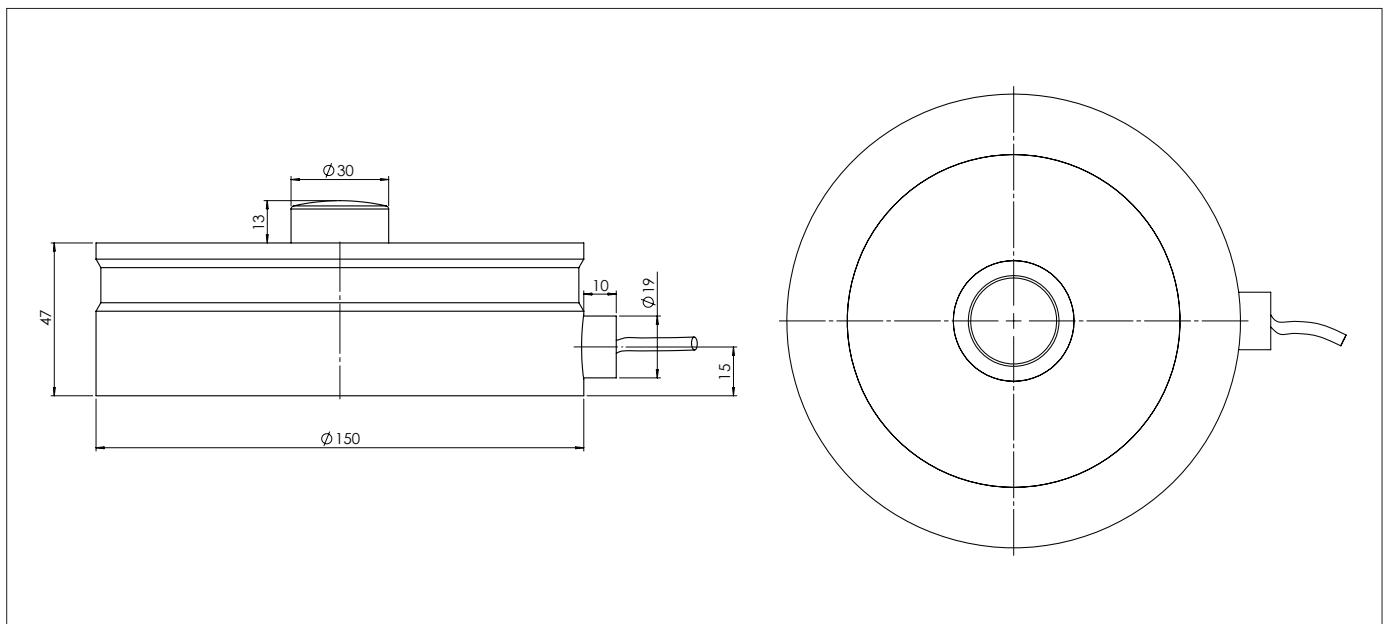
- Tank and silo weighing
- Process weighing
- Filling, batching, sorting and dosing equipment
- Process vessels
- Level measurement
- Offshore/Marine applications
- Heavy duty applications

Specifications

Parameter	Unit	0,10	0,05
Rated capacity (Emax)	Kg	6.000, 8.000, 10.000, 15.000, 25.000, 50.000	
Safe overload limit	% of Emax	200 to 400	
Safe sideload limit	% of Emax	400	
Minimum dead load	% of Emax	0	
Accuracy	% of Emax	0,080	0,040
Repeatability	% of Emax	0,020	0,010
Hysteresis	% of Emax	0,060	0,030
Creep 30 min.	% of Emax	0,060	0,030
Temperature effect on zero	% / 10 °C	0,025	0,010
Temperature effect on sensitivity	% / 10 °C	0,025	0,015
Compensated temperature range	°C	-10 to 50	
Operating temperature range	°C	-50 to 80 (100*)	
Deflection at Emax	mm	Max 0,10	
Measuring rate	Hz	Up to 1.000	
Supply	Vdc	24 +/- 10%	
Internal resolution	Bit	24	
Material		Stainless Steel 17-4 PH and AISI 316	
Protection		IP69K	
Cable		6 meter standard coaxial RG-58 (ø 6 mm) with BNC connector	
Maximum cable length	meters	100	
Weight	grams	8.000	
Standard output		RS485	
Output options		Profibus DP, DeviceNet, EtherNet/IP, Modbus ASCII/RTU, 4-20 mA, 0-10 V	
Warranty		3 years	

* with Teflon cable

Dimensions (in mm)



Dealer/Distributor:

┌

└

Order Information

Type

Capacity

Accuracy

Example

DM

10.000 kg

0,10 %

┌

└

Disclaimer and Legal Information: The information in this document is provided in connection with products supplied by Eilersen Electric A/S and affiliated companies ("Eilersen"). No license, expressed or implied, to any intellectual property rights is granted by this document. Eilersen assumes no liability and disclaims any expressed or implied warranty, relating to sale and/or use of Eilersen products including liability or warranties relating to fitness for a particular purpose, or infringement of any patent, copyright or other intellectual property right. The information in this document is subject to change without prior notice, and Eilersen assumes no responsibility or liability for any errors or inaccuracies that may appear in this document.