

## Digital Beam Load Cell – Type BBM80 0-5.000 kg → 0-7.500 kg



### Special Features

- Stainless steel
- Robust capacitive technology
- High tolerance of up to 500 % overload
- Hermetically sealed to IP68
- High accuracy, High resolution
- Digital filters
- Cable length up to 100 meters
- Calibration independent of cable length
- Load cell cable replaceable
- Easy mechanical and electrical installation
- Withstands welding voltages and ESD
- ATEX certified
- 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)

- 5.000
- 6.000
- 7.500

### Options

- ATEX (Zone 1, 2, 21, 22) version type BBMA
- ATEX II 2G Ex ia IIC T6
- ATEX II 2D Ex iaD 21 T85°C
- Mounting kits available
- Customized versions available

### Applications

- Dynamic weighing
- Process weighing
- Tank and silo weighing
- Vibration feeders
- Hopper scales
- Conveyor scales
- Heavy duty platform scales
- Big-bag equipment
- On-board vehicle weighing
- Offshore/Marine applications
- Heavy duty applications

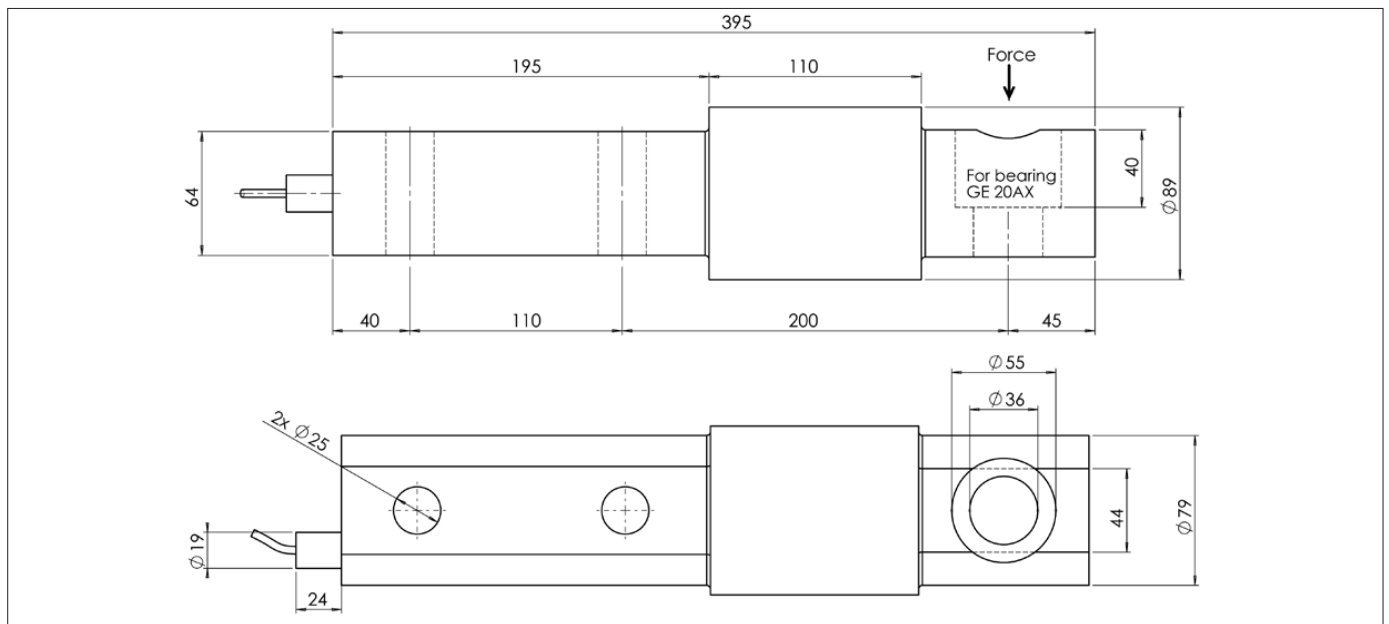
## Specifications

Parameter	Unit	0,10	0,05	0,025**
Rated capacity (E <sub>max</sub> )	Kg	5.000, 6.000, 7.500		
Safe overload limit	% of E <sub>max</sub>	300 to 500		
Safe sideload limit	% of E <sub>max</sub>	500 to 1.000		
Minimum dead load	% of E <sub>max</sub>	0		
Accuracy	% of E <sub>max</sub>	0,100	0,050	0,025
Repeatability	% of E <sub>max</sub>	0,025	0,020	0,010
Hysteresis	% of E <sub>max</sub>	0,033	0,020	0,016
Creep 30 min.	% of E <sub>max</sub>	0,040	0,025	0,016
Temperature effect on zero	% / 10 °C	0,045	0,030	0,016
Temperature effect on sensitivity	% / 10 °C	0,045	0,030	0,016
Compensated temperature range	°C	-10 to 50		
Operating temperature range	°C	-50 to 80 (100*)		
Deflection at E <sub>max</sub>	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		IP68		
Cable		6 meter standard coaxial RG-58 (ø 6 mm) with BNC connector		
Maximum cable length	meters	100		
Weight	grams	10.500		
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

\*\* higher accuracies available on request

## Dimensions (in mm)



Dealer/Distributor:

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### Order Information

Type	Capacity	Accuracy
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### Example

BBM80	7.500 kg	0,05 %
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