

# Bending beam load cell up to 500 kg

## Model F3833

tecsis data sheet FO 51.22



### Applications

- Hopper scales
- Packing scales
- Gravimetric feeder
- Industrial weighing systems

### Special features

- Measuring ranges 0 ... 5 kg up to 0 ... 500 kg
- Bending beam load cell with welded-on metal bellows
- Protection class IP68



Bending beam load cell, model F3833

### Description

Bending beam load cells are designed for static and dynamic measurement tasks. They determine the forces in a wide scope of applications.

These bending beam load cells are used in industrial weighing and laboratory as well as in the process industry.

The load cells of the F3833 series are made of stainless steel, which are particularly suitable for the application areas. The output signal is a mV/V signal.

#### Note

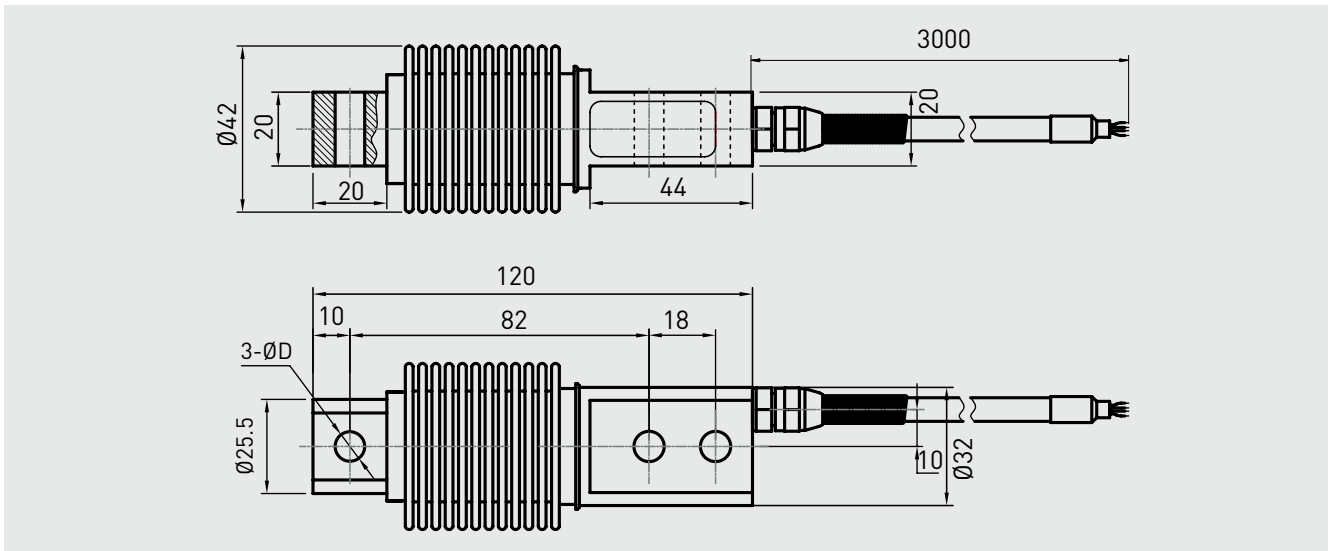
In order to avoid overloading, it is advantageous to connect the load cell electrically during installation and to monitor the measured value. The force to be measured must be applied concentrically and free of transverse force.

The load cells are to be mounted on a level surface.

## Technical data in accordance with VDI/VDE/DKD 2638

Model F3833	
Nominal load $F_{nom}$ kg	5 / 10 / 20 / 30 / 40 / 50 / 75 / 100 / 150 / 200 / 250 / 300 / 500
Relative linearity error $d_{lin}$	$\pm 0.02 \% F_{nom}$
Relative creep, 30 min.	$\pm 0.03 \% F_{nom}$
Relative reversibility $v$	$\leq \pm 0.02 \% F_{nom}$
Relative deviation of zero signal $d_{S,0}$	$\pm 2 \% F_{nom}$
Temperature effect on zero signal $TK_0$	$\leq \pm 0.03 \% / 10^\circ C$
Temperature effect on characteristic value $TK_C$	$\leq \pm 0.03 \% / 10^\circ C$
Force limit $F_L$	$150 \% F_{nom}$
Breaking force $F_B$	$200 \% F_{nom}$
Material	Stainless steel
Rated temperature range $B_{T, nom}$	$-10 \dots +60^\circ C$
Operating temperature range $B_{T, G}$	$-20 \dots +80^\circ C$
Input resistance $R_e$	$385 \pm 10 \Omega$
Output resistance $R_a$	$350 \pm 5 \Omega$
Insulation resistance $R_{is}$	$\geq 5,000 M\Omega / DC 100 V$
Output signal (rated output) $C_{nom}$	$2.0 \pm 1 \% mV/V$
Electrical connection	Cable $\varnothing 5 \times 3,000 mm$
Rated range of excitation voltage $B_{U, nom}$	$10 V (max. 15 V)$
Protection (acc. to IEC/EN 60529)	IP68
Weight in kg	0.6
Certificate	Nominal loads from 0...50 kg to 0...250 kg acc. OIML R60 – Edition 2000 (E) with accuracy class C3 certificated

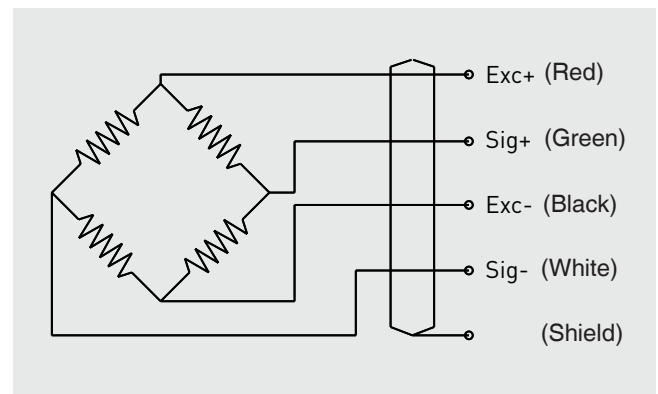
## Dimensions in mm



Nominal load in kg	Dimensions in mm
	D
5 / 10 / 20 / 30 / 40 / 50 / 75 / 100 / 150 / 200 / 250	8.2
300 / 500	10.2

## Pin assignment

Electrical connection	
Excitation voltage (+)	Red
Excitation voltage (-)	Black
Signal (+)	Green
Signal (-)	White
Screen $\oplus$	Screen



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