



## Load- Bending Beam



### 1. Application

Bending-beam force sensors of this type are designed for measuring compressive and tensile forces, and are available for measuring ranges .

Their high accuracy, low torque sensitivity and very low mounting height make these sensors particularly suitable for use in weighing technology.

Extremely simple force introduction makes the sensor easy to handle. It offers a very favourable price / per-formance ratio and can be used universally for static and dynamic measurements.

Some areas of applications:

- Spring characteristics
- Tension of wire and string windings
- Frictional forces

### 2. Description

The measuring element of this force sensor consists of a double bending beam carrying strain gauges whose resistance changes on the introduction of a force.

By applying a voltage to the strain gauge bridge, the change in the strain gauge resistance is converted into an output voltage directly proportional to the force.

The strain gauges and the entire measuring element are protected from splashing water by a rubber bellows.

To install the force sensor, clamp it securely on one side and use the free end to introduce the compressive or tensile forces to be measured. The forces are introduced easily in a direction perpendicular to the sensor axis.

The sensor is relatively insensitive to interference torques.

### 3. Special features

- Measuring ranges from 0 ... 5 N up to 0 ... 2000 N
- High linearity to = 0,1 %
- Very low mounting height
- Simple force introduction

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