

## Web Tension Sensor PFN

Measuring direction is rectangular to mounting surface



### Purpose:

Measurement of the force component vertical to the mounting level

### Working method:

Measure the bend using a strain gauge.

### Advantages:

- Insensitive to forces acting at right angles to the measuring axis
- Quick response to load changes
- Direct assembly of the plummer block housing without intermediate plates, with or without fitting, projected customer-specific
- Standard can be overloaded up to 15 times the nominal load without any technical damage; Can be overloaded 30 times until it breaks.
- High spring rigidity of the transducer body in the direction of the measuring axis, ensures smooth running of the deflection roller as well as web run stability.

- Tried and tested in many applications around the world.
- Integrated calibration standard for checking the entire signal path and the calibration.
- High, proven long-term stability.
- Easy assembly and commissioning.

### Construction:

PFN transducers consist of two cantilever beams that are supported against a waist. The external dimensions are designed according to the plummer block housing sizes and the nominal load of the transducer and can be modified for specific applications if necessary. The signal cable is firmly connected, led out at the front and protected by a hose.

### Use:

In web tension measuring devices between the pillow block bearings of deflection rollers and their mounting base.

**Specification:**

Bridge resistor nominal 2000 Ω  
 Bridge resistor actual value see test certificate  
 Bridge feeding voltage 35 V DC<sub>max</sub>

Nominal sensitivity=output signal at nominal load 0,2mV/V standard

Calibration resistance installed

Cable length (standard) 3,0 m

Protective hose length (standard) 2,0 m

Combined error 0,3%  
 Hysteresis und linearity 0,2% v.E.  
 Repeatability <0,1% v.E.  
 Temperature gradient/10K <0,1%v.E.  
 Compensated temperature range +20°C...+80°C  
 Operating temperature range +20°C...+120°C

Nominal load steps see series table kN<sub>min</sub>...kN<sub>max</sub>

Overload factor without damage to the measuring system/breaking load related to nominal load 0,2 mV/V 15 / 30-fold nominal load

