

Strip Tension Measuring Systems



Product Features and Advantages

- ▶ Ultra high stability
- ▶ high contraction stiffness of the sensor body for smoothest operation e.g. under shapemeter-rolls
- ▶ 8-times overload capacity (of nom. load); optional up to 20-times
- ▶ with 1, 2 or 3 measuring-axle positions
- ▶ available for installation under the pillow-block (standard) or with integrated bearing housings to host standard or customer-specific bearings
- ▶ available for all standard bearings manufacturer/standard pillow-blocks
- ▶ output signals with double shielded cable: analog, ProfiBus/ProfiNet
- ▶ perfectly sealed measuring zones (plastics or laser welded): IP 65; IP 67 or higher on request
- ▶ body made of high-strength-alloy steel, stainless steel or aluminium (optional: nickel-coated – depending on application field)
- ▶ temperature compensation -20 °C ...+ 80 °C / 100 °C (higher values on request)
- ▶ 0.5% or 0.1% combined full-scale error (of nom.load)
- ▶ ATEX – certified available
- ▶ customer specific design on request at minimum extra costs

Strip Tension Measuring Systems in furnaces



Use:

Strip tension measuring for the furnace of a continuous running line e.g. CAL or CGL or similar application.

Design:

The system consists of a pair of casted more-component aluminium alloy frame. In this frame construction two(2) or more special designed load cells are mounted in such a way that roll-axe shifting will not make any distortion to the measuring results. Horizontal or vertical measuring load cells can be integrated into the same frame type.

Product Features and Advantages:

- ▶ Elimination of the influence of shifting motions caused by roll-axe elongation or contraction during heating or cooling phases of the furnace. Result: highest stability of ZERO and SPAN over the entire temperature range of the furnace
- ▶ Very high measuring accuracy and fast response time to load changes
- ▶ Insensitive to electromagnetic effects, particular to high frequency effects
- ▶ Simple and secure handling in case of roll change
- ▶ Frames will be delivered to site fully equipped, calibrated and ready for mounting
- ▶ Horizontal and vertical measuring axis can be applied
- ▶ 20 years positive experience with more than 500 furnace tensiometers installed worldwide



Dr. Brandt GmbH

Measuring mechanical values electrically

- ▶ Force, weight, torque and pressure measurement technology
- ▶ Non-destructive testing systems for wire-ropes, flat-ropes and conveyor belts
- ▶ Custom tailored load cells and 3rd party replacements
- ▶ Technology leader in the field of high-precision measuring systems
- ▶ Our company is also a specialist furnishing and integrating spare parts or retrofitting existing installations, particularly in rolling mills or processing lines
- ▶ Dr. Brandt GmbH is ISO 9001: 2015 certified and has an ATEX certification for safety critical applications
- ▶ Successful since almost 70 years in the metal and heavy industry



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