

Contact Zone Measuring System NIP CON SMART



Innovative measuring system for fast adjustment of the pressure between hard and soft rollers. Intuitive operation via tablet with data export and protocoling function. Intelligent measured value correction for exact absolute values.

Polygraphische innovative
Technik Leipzig





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Working Principle

The signals from two sensors positioned between hard/soft paired rollers are analysed. The contact zone width is digitally displayed as a typical value for roller adjustment in the printing industry. To adjust the paired roller setting, the sensors remain between the rollers so that the changes to the measured value can be immediately displayed during correction. The dual-sided reading, taking the roller parameters into consideration, is the basis for a fast measurement and exact absolute values. The extremely lightweight sensors allow a single person to conduct the measurement.



PITSID develops systems for the graphic arts industry together with the Sächsisches Institut für die Druckindustrie.

The current product assortment comprises devices for measuring and testing print registration, contact pressure, traction force, packing height, gap widths, UV curing, IPA concentrations, book block strength and also printing plate positioning in plate bending devices and roller adjustments.

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Innovative Operating Concept and Data Handling

The system is used for roller adjustment in various processing machines (e.g. printing presses). The roller parameters are taken into account when calculating the true contact zone width and thus achieves an exact match with visible contact zone widths under all conditions. The printing press roller diagram is created only once on the PC and is used on the tablet for convenient operation and visualisation. Measurement locations are selected on the touchscreen and measured results are differentiated by colour. All results can be easily compiled in protocols or evaluated on the PC for further analysis. The possible integration of the system into a user's existing network is an important requirement. The considerable time-saving benefits achieved in comparison to visual strip control and correction is a further economic effect.

Technical Data

Measurement range

0 ... 35 mm

Resolution

0.1 mm

Application range

Roller diameter (hard): Any size

Roller diameter (soft): ≤ 300 mm

Rubber hardness: Approx. 20 ... 60 Shore A

Rubber layer thickness: Approx. 5 ... 20 mm

Dimensions

Hand-held device: 150 mm x 80 mm x 40 mm

Tablet: 260 mm x 160 mm x 15 mm

Sensor: 140 mm x 22 mm x 3 mm

Operating temperature

15 ... 30 °C

Total weight

Approx. 1625 g

Hand-held device power supply

Lithium ion/polymer 1-cell battery 3.7 V/1260 mAh

Scope of delivery

Hand-held device, two sensors, USB cable, carrying case, operation manual, installation software, tablet (10.1") with protective case