



SPEETEC

CAPTURES MOTION. WITHOUT CONTACT.

Non-contact motion sensors

SICK
Sensor Intelligence.

SPEETEC transcends the limits in the monitoring of movements. Non-contact and with no measuring elements or scales, it reliably determines the length, position and speed of all kinds of objects and surfaces. Whether it be continuous roll materials or single items, paper, plastic, metal, wood or textile. Its advantages are particularly evident for sensitive or soft surfaces, which can be damaged by conventional tactile sensors. Being virtually wear and maintenance free in operation, it is so economical that the investment pays off in no time at all.

SPEETEC at a glance

- Ensure a high level of product quality by using optical sensors and avoiding damage and contamination to the surfaces being measured
- The class 1 laser saves costs as no additional laser protection measures are required
- High measurement accuracy and reproducibility, including in start-stop operation and at short measurement lengths
- Optimized productivity and process quality through measurement without slippage
- Broad range of applications thanks to compatibility with many materials, colors and surfaces



SPEETEC stands for non-contact measurement of speed, length and position.

SPEETEC MEASURES WHATEVER COMES IN FRONT OF THE LASER

SPEETEC can be employed in applications where tactile sensors have not been able to be used in the past due to the characteristics of the material. This opens up a whole new range of possibilities for measuring a wide range of different and

also sensitive, soft or smooth materials. SPEETEC also offers significant advantages over existing applications using rotative or measuring wheel encoders if the speed and dynamics of the processes are increasing.

Example applications

Packaging



Measurement of speed and length in a packaging process with simple electrical and mechanical integration and without damaging the material or abrading it with a measuring wheel.

Digital printing



Speed measurement directly on the object being printed on without damaging the sensitive surface and with a high signal quality and resolution delivers the best print results.

Tire manufacturing



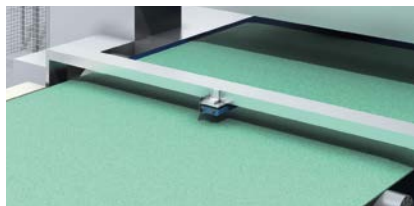
Non-contact and precise speed and length measurement directly on the rubber and other soft or slippery materials eliminates slippage.

Extrusion



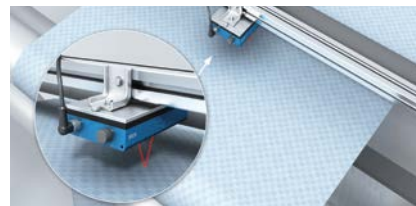
Quality control for cutting processes through automated 100 % length measurement directly on the material and efficient statistical process control.

Building material



The production of plasterboard requires a very high level of quality. The fast production processes involved demand a reliable speed and length measurement to ensure adherence to the standard dimensions of the plasterboard. SPEETEC solves this task reliably without any contact with the product.

Textile industry



The SPEETEC non-contact motion sensor measures the speed and length of fabric sheets optically and without making contact. Inaccuracies caused by slippage or impairment of the web goods are no longer a problem thanks to the direct contact, which makes high product quality possible.

Technical data

Dimensions	140 mm x 95 mm x 32.5 mm
Measuring dimensions	1D, bi-directional
Speed measuring range	> 0 m/s ... 10 m/s
Repeatability	≥ 0,05 % ¹⁾
Measurement accuracy	≥ 0,10 % ²⁾
Measurement step	4 - 2,000 (at 90° electrical)
Interface	12 ... 30 V DC, TTL or HTL
Working distance/static field depth	50 mm / ± 5 mm (material-dependent)

¹⁾ Maximum permissible measurement deviation in accordance with DIN 1319-1:1995 under constant conditions. Valid between 0.2 m/s ... 10 m/s, averaged over 0.25 m measuring length.

²⁾ Error limit for systematic measurement deviation in accordance with DIN 1319-1:1995. Valid between 0.2 m/s ... 10 m/s, regular adjustment required.