

PS Industrial speed

PHOTOTHERMAL COATING THICKNESS MEASURING
DEVICE FOR COIL COATING WITH DRY; WET AND
POWDER PAINTS



PS Industrial is a robust solution for automated measurements of the thickness of coatings in paint lines. The **PS Industrial speed** is designed for measuring the thickness of coatings on moving objects and is particularly used in coil coating lines.

Functional principle: A modulated laser beam slightly heats up the coating. Part of this heat flows through the coating into the substrate, the rest is re-emitted as infrared radiation. The temporal progression of the radiated heat depends on the thickness of the coating. This temporal progression is measured using an infrared detector that uses this information to calculate the coating's thickness. **PS Industrial** can be used to measure coating thicknesses between 5 μm and 80 μm . Typically, the accuracy is usually better than $\pm 1 \mu\text{m}$.

PS Industrial speed is perfectly suited for measuring the thickness of band coatings on a traverse in harsh conditions. It can be used in numerous applications, ranging from a simple thickness inspection to automated solutions.

Of course, we are any time available for individual advice regarding your requirements and wishes.



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Substrate materials:

metall

Maintenance at Phototherm:

recommended every 5 years

Optional: suitable for robot use, explosion proof (ATEX)

Measuring range:

typ. 5 μm up to 80 μm

Precision: typ. $< \pm 1 \mu\text{m}$

Working distance:

typ. 250 mm \pm 50 mm

Object speed:

0 m/min up to 140 m/min

Angle tolerance: typ. bis $\pm 20^\circ$

Measuring spot diameter:

approx. 8 mm

Measuring time: typ. $< 1 \text{ s}$

Special features: Detector head with CO₂ laser (laser class 4, NOHD 1.8 m, MTBF 20,000 h) with water cooling (closed circuit), infrared detector with an integrated cooler and infrared optics



Exemplary, not technically binding

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