Phototherm

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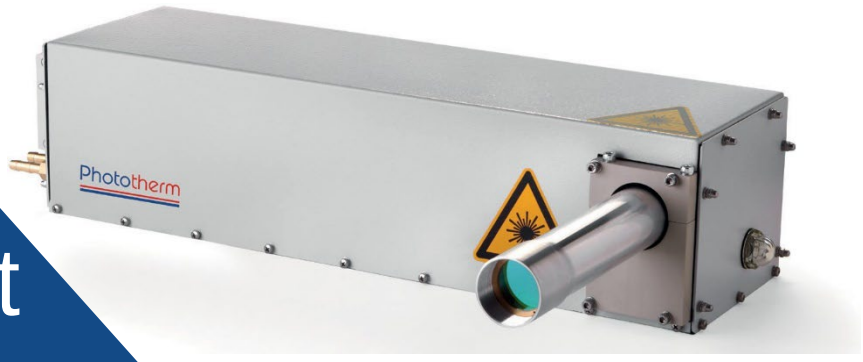

PS Industrial robot

PHOTOTHERMAL COATING THICKNESS MEASURING DEVICE FOR 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 robot is designed for measuring the thickness of coatings using a robot. It is mostly used to measure the thickness of coatings inline, particularly on car bodies.

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 100 µm. Typically, the accuracy is usually better than ± 1 µm.

PS Industrial robot can be attached to robots and is perfectly suited for measuring the thickness of coatings in painting lines 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.

Berndt Kautter
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Substrate materials:
metal

Maintenance at Phototherm:
recommended every 5 years

Optional:
explosion proof (ATEX)

Measuring range:
typ. 5 µm up to 80 µm

Precision: typ. < ± 1 µm

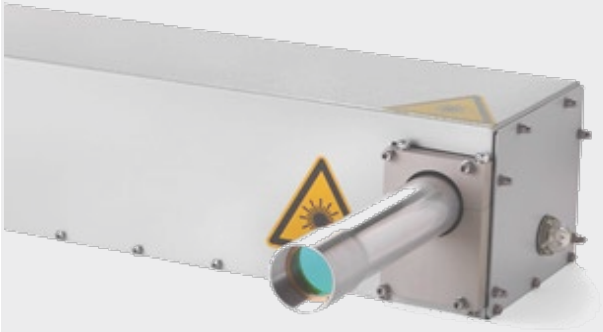
Working distance:
typ. 325 mm ± 50 mm

Angle tolerance: typ. up to ± 20°

Measuring spot diameter:
approx. 8 mm

Measuring time: typ. < 1,5 – 2 s

Special features: Detector head with CO_2 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

www.phototherm.de/zh