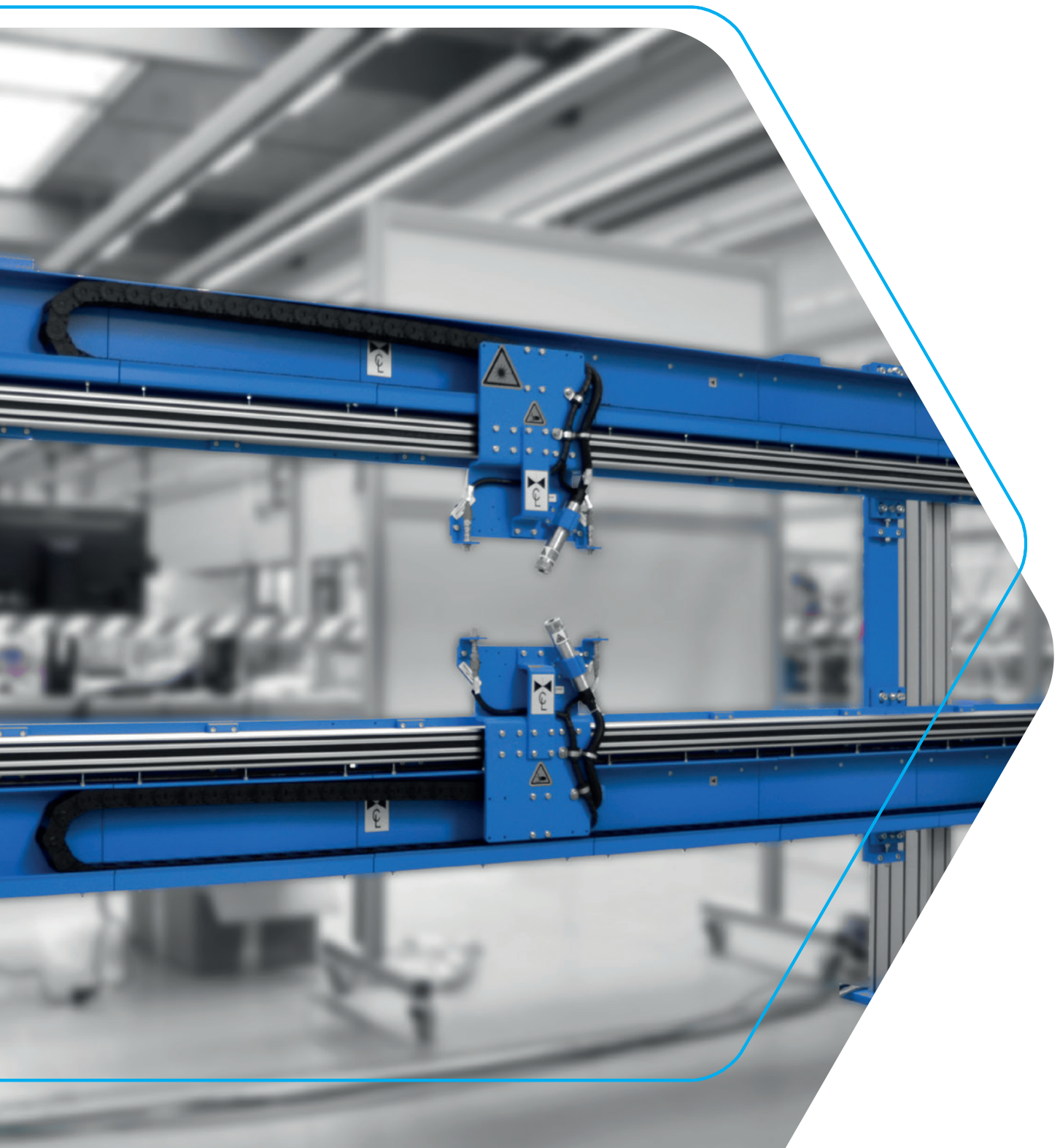
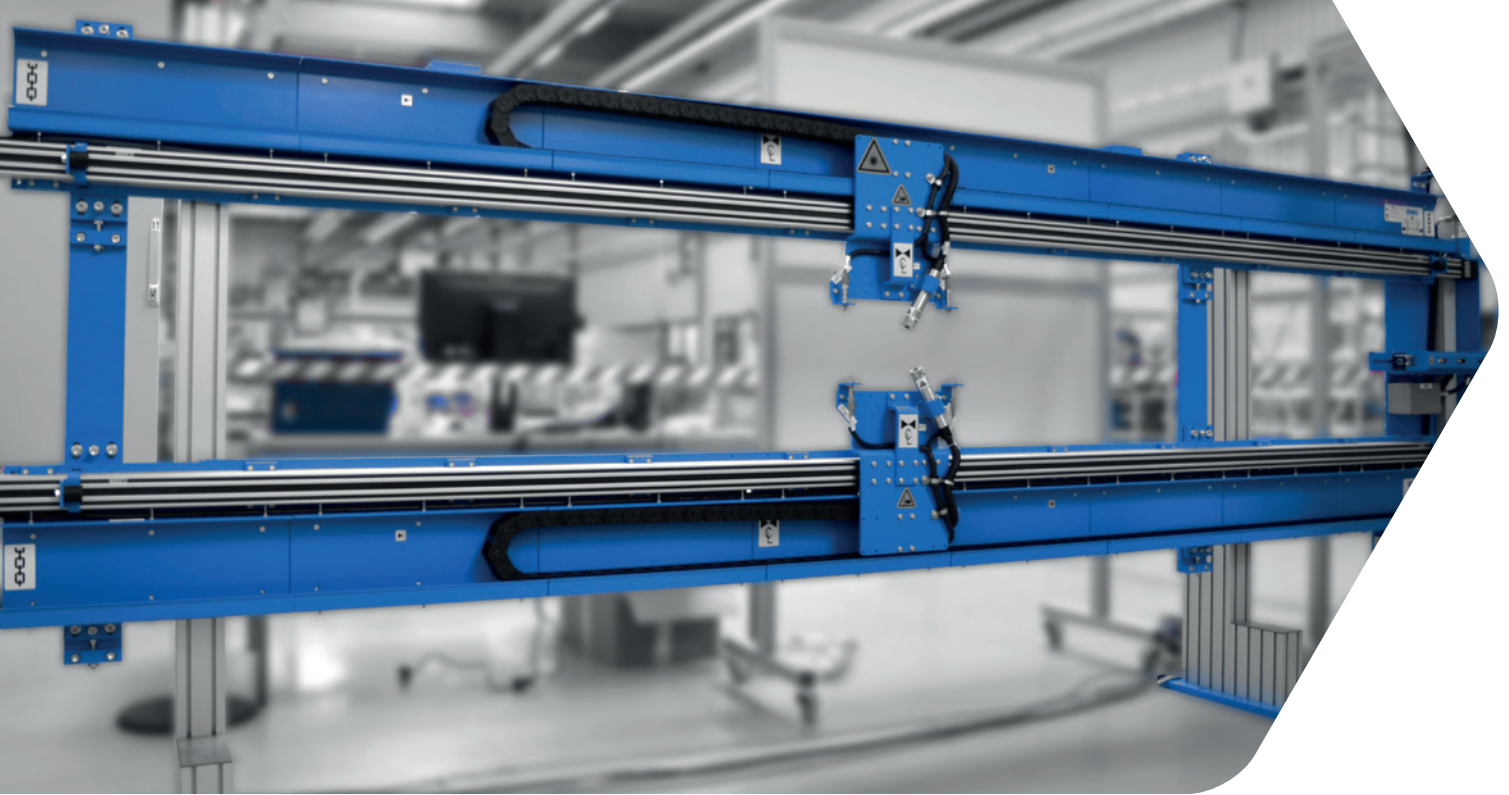


THE solution for electrical strip

EMG SOLID[®] DFT Dry Film Thickness Measurement





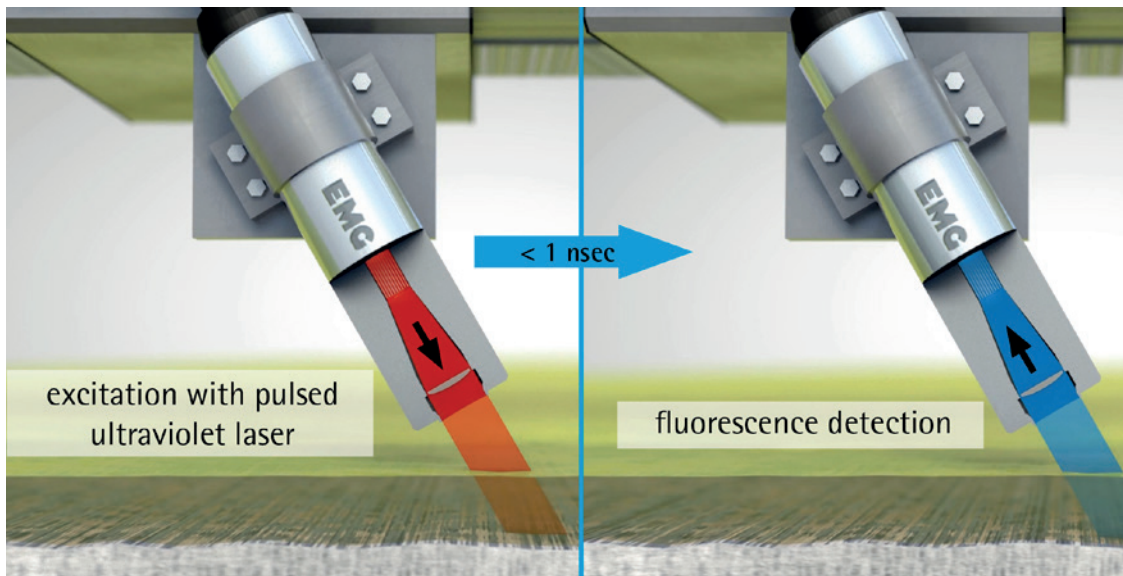
EMG SOLID® DFT

Dry film thickness measurement

Functional principle

EMG SOLID® DFT (Dry Film Thickness) measures the coating weight of the transparent and low pigmented film layer via laser-induced fluorescence spectroscopy and visualises it over the entirely measured material surface:

- » Special solid state laser delivers 10.000 single pulses per second and stimulates the film to glow.
- » The more lacquer lies on the material surface, the stronger the glowing effect.
- » A micro controller controls the analysing system, manages the system calibrations and calculates the results.



Transparency about quality features

Technical data

Measuring method	laser-induced fluorescence spectroscopy
Measured variable	dry film thickness of the lacquer in μm
Measuring range	0 - 9 μm (depending on the lacquer type)
Measuring accuracy	+/- 10 % of upper measuring range value (e.g. in the set measuring range of 0 - 0.5 μm : measurement accuracy: +/- 0.05 μm)
Repetition accuracy	0.1 g/m^2
Measuring resolution	0.11% of the set measuring range end value
Coating materials	Classification according to insulation classes C3 to C6 in accordance with AISI-ASTM A 976-9, other lacquers on request
Strip temperature	+5°C up to +75°C (at constant strip temperature)
Operating distance (measuring position)	40 mm (traversing)
Strip height deviations	+/- 20 mm
Ambient temperature	+5 °C up to +45 °C (extended temperature range with cooling/heating possible)
Measuring frequency	10 kHz
Traversing speed	0.5 m/sec

Your benefits

- » Improved process stability and reliability
- » Transparency of input quality and essential quality features as well as targeted control of the forming process
- » Minimised scrap
- » Secure production release
- » Joint database and combined visualisation of the measured values possible
- » Delivery and system integration from a single source
- » Low influence of roughness and textures
- » Only very small space required
- » Relative measurement possible
- » Special EMG solution for keeping the lens clean
- » Very high measuring frequency (10 kHz) and high definition of measuring spot ($\varnothing = 8 \text{ mm}$)



EMG SOLID® DFT
measuring head

The logo for EMG, consisting of the letters 'EMG' in a bold, white, sans-serif font. The background of the entire page is a blue-tinted photograph of industrial machinery, with large circular components and a metal structure visible. A white line graphic starts from the left edge, goes down, then curves around the right side of the text area, and goes back up to the left edge.

EMG

an **eLEXIS** company

EMG Automation GmbH
Industriestraße 1
57482 Wenden
Germany

T +49 2762 612-0
www.emg.elexis.group
info@emg-automation.com