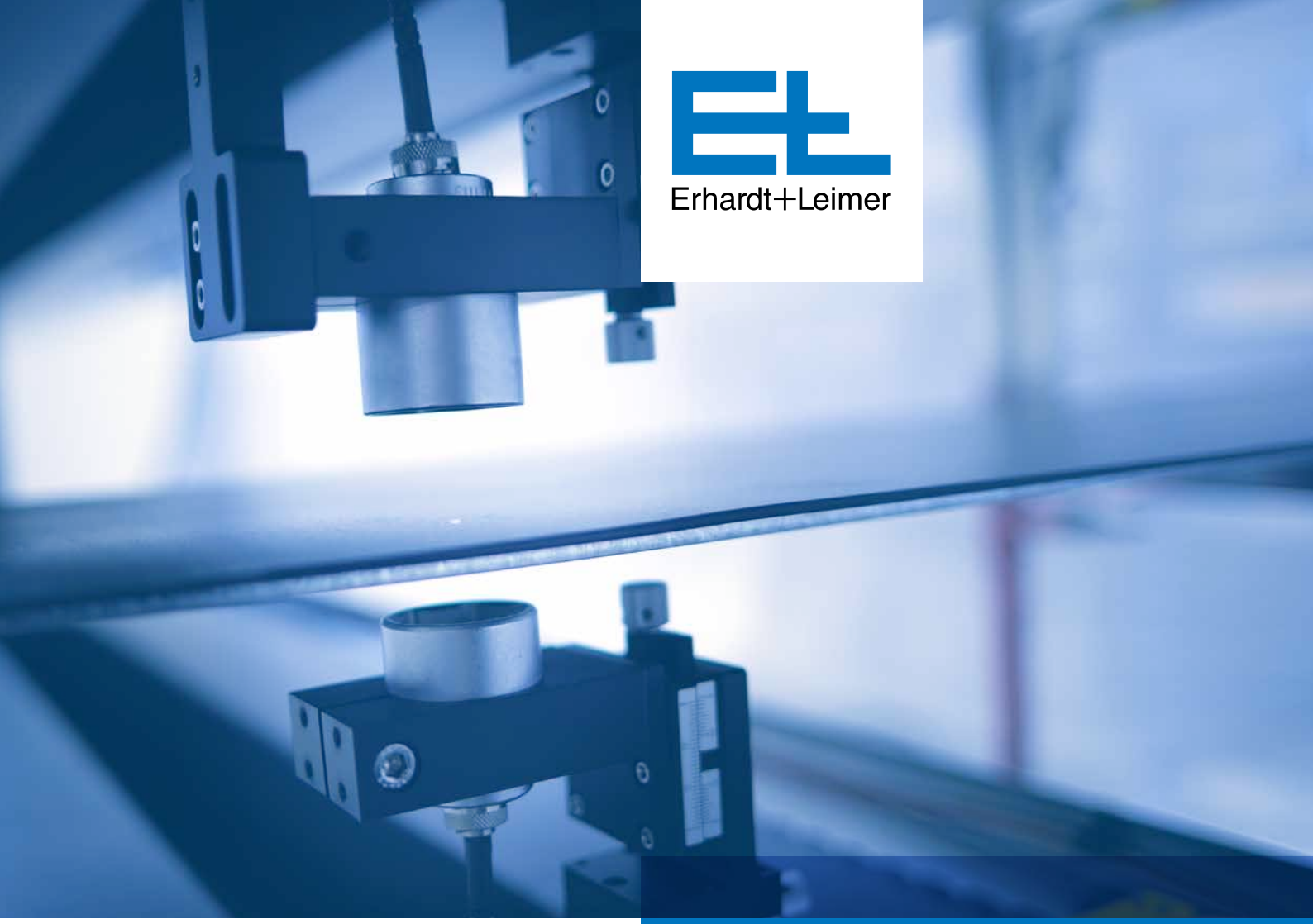
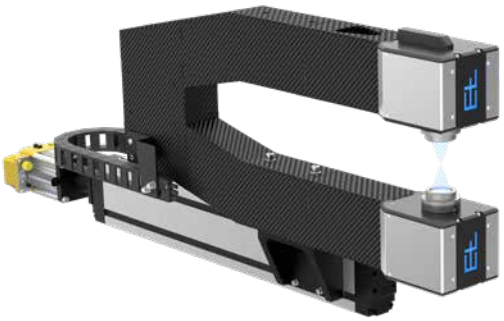


Erhardt+Leimer



EL-THICKNESS C-frame made of CFRP

Erhardt+Leimer online thickness measurement system with CFRP frame

High-precision online thickness measurement

In addition to many other parameters, material thickness is a decisive factor for reliable production. Our measuring systems use state-of-the-art sensor technologies to precisely detect defects and irregularities in a wide variety of materials.

Our non-contact online thickness measurement system EL-THICKNESS C-frame made of CFRP is particularly suitable for continuous measurement and monitoring of material thickness.

Our various sensors ensure highly accurate measurement of material thickness. At the same time, the CFRP frame, which despite its light weight has high rigidity and the same temperature stability as the granite frame, ensures that the measurement accuracy remains constant over time. Precise material measurement not only enables the highest quality standards to be achieved but also minimizes waste and thus saves resources.

Due to its slimmer design, the space required for the CFRP frame is significantly less than for a granite frame. In particular, however, installing the entire system is much easier, since there is no longer a need to move several hundred kilograms during installation.

Robust, precise, and highly dynamic sensor system

Lightweight yet robust
- Very low weight
- Maximum dynamics thanks to CFRP
- High stability

High measurement accuracy
- Low thermal expansion
- Minimized susceptibility to vibration
- Precise measurement results

Easy integration
- Easier installation thanks to low weight
- Less space required thanks to slim design

Closed design
- Cable ducts, lighting, and sensors integrated into the frame
- Protection of individual components

Sensor technologies
- Laser triangulation
- Chromatic-confocal
- Interferometric

Technical data	
Nominal width (NB)	Up to 900 mm (more on request)
Frame	CFRP (carbon fiber reinforced polymer)
Available sensor types	Laser triangulation, chromatic-confocal, interferometric
Clearance height	63 mm
Size	NB + 175 mm (length) x 350 mm (height) x 110 mm (depth)
Measuring points	Up to 3 (more on request)
Measuring equipment capability (Cg&Cgk): [TW = 10 x accuracy]	> 1,67
Interface	EtherNet/IP, Profinet (more on request)
Relative atmospheric humidity	30 % to 75 % (non-condensing)
Ambient temperature	0 °C to +50 °C
Operating voltage	115 V bis 230 V; 50 Hz/60 Hz; 16 A
Protection class	IP 54

Sensor technologies	Laser triangulation	Chromatic-confocal	Interferometric
Measuring range	Up to 78 mm	Up to 30 mm	Up to 8 mm
Measurement range extended by positioning the sensor vertically	No	Yes	Yes
Accuracy	Up to ±3 µm	Up to ±1 µm	< ±1 µm possible
Resolution	< 1 µm	< 0.1 µm	< 0.01 µm
Displayed resolution	1 µm	0.1 µm	0.1 µm
Scan frequency	Up to 10 kHz	Up to 4 kHz	Up to 70 kHz

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