



# More Precision

**capaNCDT TFG6220** // Capacitive film thickness measuring system



# Offline measuring system for stationary measurement of thin film capaNCDT TFG6220

- Thickness measurement of very thin, electrically conductive film <1 mm, e.g. battery films
- High-precision results thanks to automatic smoothing of the film via vacuum
- Ready-to-use measuring system without installation effort
- Web interface for intuitive setting and measured value display - (no software installation required)



## Precise testing for reliable quality

The TFG6220 capacitive system measures the thickness of electrically conductive film, e.g. battery films, with maximum precision. A vacuum device sucks in the object to be measured, smoothes it and thus ensures optimum, wrinkle-free support. In this way, the measurement can be performed with the greatest possible precision.

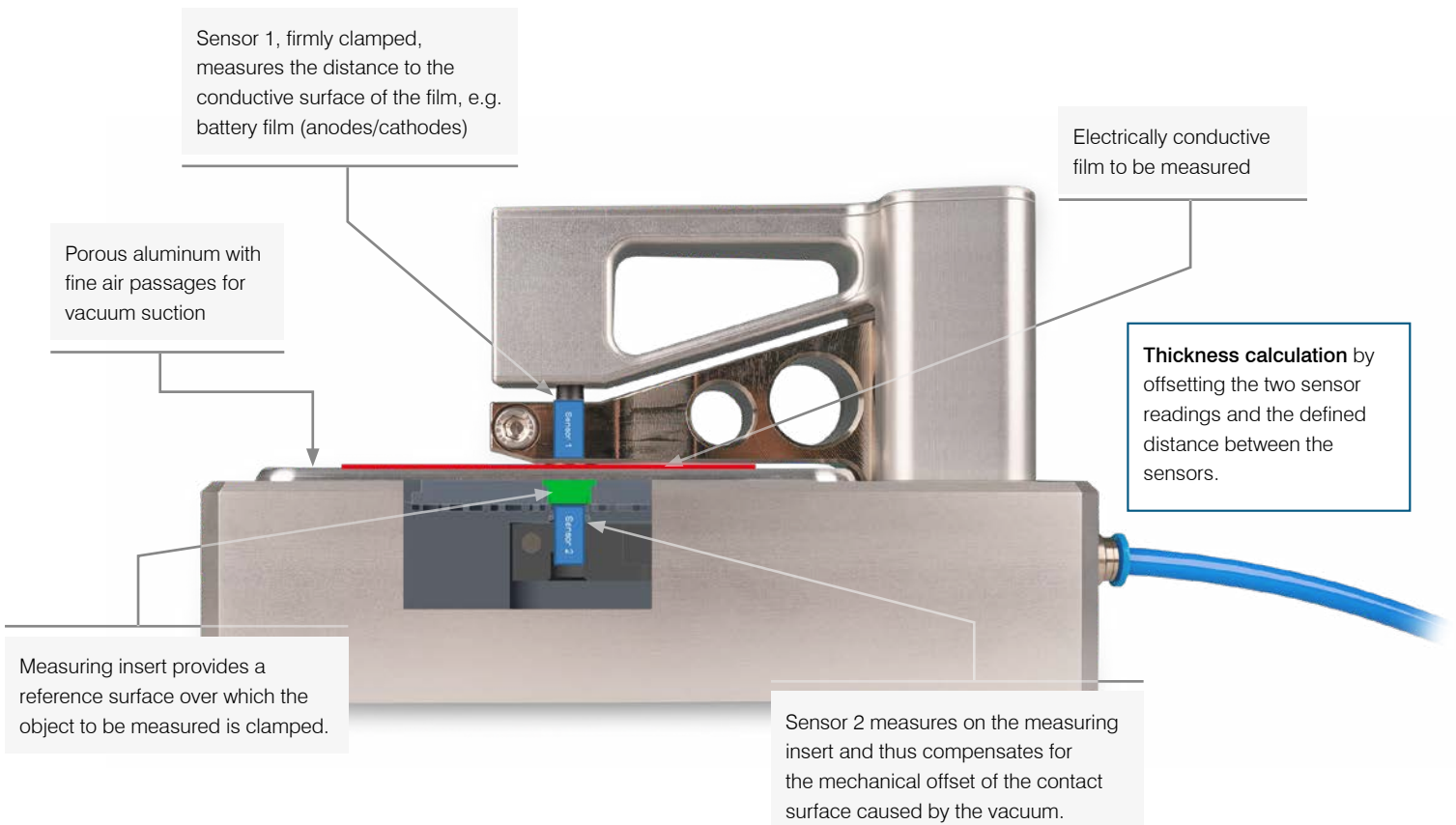
The TFG6220 consists of a measuring bracket including capacitive sensors and an external controller unit. It is used for quality inspection of offline random samples for thickness measurement. Pre-assembled and ready for use, this capacitive measuring system can be started quickly.

## Precision at the touch of a button

The intuitive web interface can be used to make settings, perform measurements and display and output the measured data.

The thickness is calculated by offsetting two opposing high-resolution capacitive sensors. In contrast to tactile measuring principles, the thickness measurement is always highly reproducible at the same point. High-precision results are achieved by automatically smoothing the test film using a vacuum device without damaging the measuring object.

The measurement is taken from two sides onto the measuring insert, which serves as a reference surface. This allows the system to be calibrated to zero before the thickness measurement.



Model	TFG6220	
Resolution <sup>[1]</sup>	0.001% <sup>[2]</sup>	
Measuring range <sup>[3]</sup>	< 1 mm	
Measuring rate	100 Hz with median filter width 7	
System accuracy <sup>[4]</sup>	1 μm	
Warm-up time	60 min	
Compressed-air connection	Ø 6 mm	
Power consumption	6.3 W (24 V)	
Supply voltage	12 ... 36 VDC (nominal value 24 VDC)	
Protection class (DIN EN 60529)	IP40	
Temperature range	Storage	-10 ... 60 °C
	Operation	18 ... 25 °C
Measuring object	Electrically conductive material <sup>[5]</sup>	
Recommended target size (flat)	110 mm x 110 mm	
Special features	Throttle valve with vacuum pump required (not included in scope of delivery) Recommended data: Vacuum 50 ... 100 mbar, pump speed max. 2 m <sup>3</sup> /h (at 50 Hz)	

<sup>[1]</sup> Electronics with sensor type CS1

<sup>[2]</sup> 10 nm at 100 Hz

<sup>[3]</sup> Depending on the suction power of the vacuum pump and the material properties

<sup>[4]</sup> Max. offset error without zero point adjustment, valid within the defined temperature range of 18 ... 25 °C

<sup>[5]</sup> Electrical conductivity > 10<sup>6</sup> S/m

### Scope of supply

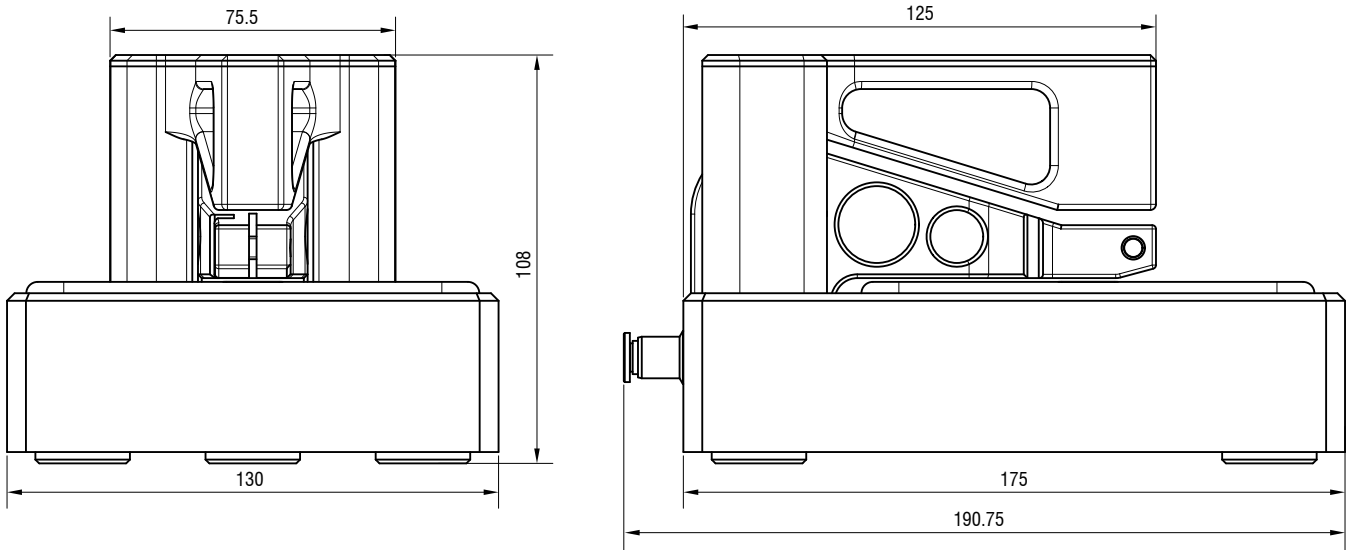
- Controller DT6220+2x DL6230
- Measuring bracket with sensors
- Power supply unit
- Ethernet cable
- Power supply cable
- Case
- Dust cover
- Assembly Instructions
- Protocol

### Not supplied:

- Vacuum pump with a maximum final vacuum of 50 – 100 mbar
- Compressed air hose (6 mm) for connecting the vacuum pump and thickness-measuring plate

# Dimensions

## Measuring bracket



## Controller

