Coating Thickness Gauge PCE-CT 80HP-FN3


Coating thickness gauge with V-groove sensor / Measuring range from up to 0 ... 5000 µm /
Adjustable alarm limits / Robust housing / Software / Data storage /
High accuracy of up to ±(1.0% of reading + 0.5 µm) / Optionally with ISO calibration certificate

The coating thickness gauge can reliably determine the thickness of, for example, plastics, paints and other coatings on ferrous and non-ferrous metals. With a measuring range of up to 0 ... 5000 µm on ferrous metals, the coating thickness gauge covers a wide range of measuring tasks. Because of the accuracy of up to ±(1.0% of mv. + 0.5 µm), the coating thickness gauge is a very precise measuring device. The sensor on the coating thickness gauge has a V-groove. Thanks to this V-groove, it is possible to carry out measurements on convex surfaces with the coating thickness gauge. In addition to the convex surfaces, measurements can also be carried out on concave surfaces with the coating thickness gauge.

During the measurements, the measured values can be saved on the coating thickness gauge. A memory of a maximum of 2,000 measured values is available for the coating thickness gauge. After a measurement run, the measured values from the coating thickness gauge can be transferred to a computer and analyzed using the software. For further processing of the measured values, they can be exported in CSV format.

A target/actual range can be stored with the limit value alarm function on the coating thickness gauge. If the test object is within the stored area at the coating thickness gauge, this is signaled by a green LED. If the measured value is outside the set range, this is indicated by a red LED from the coating thickness gauge. Because of the limit value alarm function, the coating thickness gauge is used, for example, in incoming and final inspection for quality assurance.

For a special protection of the electronics, the housing of the coating thickness gauge is additionally rubberized. Optionally, the coating thickness gauge can be equipped with an ISO calibration certificate.

- Practical V-groove on the measuring heads
- High accuracy for small coatings
- Adjustable limit values
- Data memory for 2000 readings
- Measuring range of up to 0 ... 5000 µm
- Optionally with ISO calibration certificate

Subject to change

Specifications

Measuring range	**Fe: 0 ... 3000 µm, NFe: 0 ... 3000 µm**
Accuracy after foil calibration	±(1.0 % of measured value + 1 µm)
Accuracy after zeroing	±(1.5 % of measured value + 1 µm)
Probe diameter	Ø17 mm / 0.67"
Resolution	0.1 µm (<100 µm), 1 µm (>100 µm)
Measurable materials	
Fe substrates such as:	Fe substrates such as: steel and iron
NFe substrates such as:	NFe substrates such as: aluminum and copper
Min. radius of curvature convex	5 mm / 0.19"
Min. radius of curvature concave	25 mm / 0.98"
Min. measuring surface	Ø17 mm / 0.67"
Min. layer thickness	0.2 mm / 0.007" (on magnetic materials)
	0.05 mm / 0.002" (on non-magnetic materials)
Probe mode	Auto material detection mode (Fe + NFe)
	Magnet mode (Fe)
	Eddy current mode (NFe)
Calibration	Multi-point calibration
	(1 ... 4 points for each group)
	Zero calibration
Units	µm, mm, mils
Data transfer	USB 2.0
Memory	A volatile measurement group (DIR mode)
	Four measurement groups with autom.
	storage and max. 2000 readings (GEN mode)
Statistics functions	Number of measured values, mean,
	minimum, maximum, standard deviation
Alarm	Display when the adjustable value is exceeded
	upper and lower alarm limit
Automatic shutdown	auto. shutdown mode (3 min.)
Power supply	3 x 1.5 V AAA batteries
Display	128 x 128 px LCD display
Additional displays	battery status, error detection
Operating conditions	0 ... +50 °C / 32 ... 122 °F
	20 ... 90 % RH non-condensing
Storage conditions	-10 ... +60 °C / 14 ... 140 °F
	20 ... 90 % RH non-condensing
Dimensions	143 x 71 x 37 mm / 5.6 x 2.8 x 1.4" (L x W x H)
Weight	with sensor and batteries: 271 g / 9.5 oz

More information

Datasheet

More product info

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