DFT-400/420
Dry Film Thickness Gauge

AIRBLAST

The DFT-400 Dry Film Thickness Gauge provides a fast and economical solution to non-destructive dry film thickness assessment on ferrous substrates.
The DFT-420 Dry Film Thickness Gauge provides a fast and economical solution to non-destructive dry film thickness assessment on ferrous and non-ferrous substrates.

In order for coating systems to perform as designed the thickness of each coat of paint must be within tolerances set by the material manufacturer – assessing the dry film thickness of the paint after the coating process is an invaluable tool to ensuring that the thickness of the coating is as specified.

The DFT-400 & DFT-420 Dry Film Thickness Gauges are ergonomic and light weight yet tough and reliable, and are powered by standard alkaline batteries. Both units are switched on by placing the probe on the substrate to be measured and feature single button operation and intuitive menus. An audible signal confirms that a reading has been successfully taken and the back lit screen displays readings clearly and quickly. Each gauge is supplied with calibrated for life; this means that there is no requirement to calibrate the gauge before use, or in changing climatic conditions - simply use the zero plate provided to zero the gauge before use, or in changing climatic conditions, to ensure the accuracy of the readings.

Both gauges are available in integral or separate probe design both with an industry leading polished ruby tip ensuring millions of fast, reliable and accurate readings of up to Fe 5000 microns or/and NFe 3000 microns. Each gauge features a sleep mode which turns the unit off after a short period of inactivity, by placing the probe onto a surface to be measured the unit reactivates and is immediately ready for use.

The DFT-400 & DFT-420 are supplied in foam filled hard plastic carry cases with an additional soft plastic pouch for ease of transportation in the job site, reference plates, 2 x 1,5 V Mignon batteries (type AA alkaline), test certificate and instruction manual. Both gauges have hand sizes straps allowing for easy fixing on the wrist or clothes.

Simply perfect
With the DFT-400/420, precise measurements on steel, iron and non-ferrous metals are simply perfect. Switch between the measuring procedures by simply pressing the button.

The sensitive measuring probe is fully integrated into this extremely small, light and handy gauge – optionally available as Cable Probe. Its readable LCD informs about readings, battery condition, mode of operation and serial number.

Product advantages
- ◇ Gauge for standard applications – easy, safe and fast measurements.
- ◇ One-hand operation. Only one button.
- ◇ No calibration required.
- ◇ Automatic On/Off.
- ◇ High precision over the entire measuring range: NFe 0 – 3000 µm and Fe 0 – 5000 µm.
- ◇ Broad spectrum of use for non-destructive measurements on steel, iron and non-ferrous metals such as aluminum, zinc, copper and brass.
- ◇ Proven technology: Hall sensor and Eddy Current technology.
- ◇ Acoustic signal confirms taking of a measurement.
- ◇ Wear-proof ruby probe tip for long-term use.

Optimal LCD-Display
- ◇ Large clear numbers for optimum readability.
- ◇ Precise display of readings, battery condition, mode of operation and serial number.
- ◇ Backlit display.

DFT-400/420 SPECIFICATIONS	
Measuring Principle	Two magnetic measuring principles: Fe: Magnetic-Flux/Hall Effect ref Fe* NFe: Eddy Current (DFT-420 only)
Standards & Regulation	DIN EN ISO 2808, ISO 2178, ASTM B 499, ASTM D 7091 (only DFT-420: ISO 2360)
Probe Type	integrated or - optional - cable probe with 1 m. cable
Measuring Range	Fe: 0.0 – 5000 µm or 0.0 – 3000 µm. NFe: 0.0 – 3000 µm (DFT-420 only)
Metric System µm / mil	Yes
Measuring Interval	Single measurement: 850 ms
Display Metric	from 0.0 – 999 in µm, from 1000 µm in mm
Resolution	1 µm in the range up to 999 µm, 0.01 mm in the range from 1 mm
Accuracy	± (2µm + 3% of the readings)
Minimum Measuring Area	Ø 25 mm
Minimum Curvature	convex: 5mm, concave: 25mm
Minimum Substrate Thickness	Fe: 0.2 mm. NFe: 0.05 mm (DFT-420 only)
Display	Graphic-LCD
Temperature Range	0 – 50° C
Permitted Storage Temperature	-10° C – 60° C
Power Supply	2 x Mignon Batteries: 1.5 V (type AA alkaline)
Dimensions (L x W x H in mm)	100 x 60 x 27 (gauge with integrated probe)
Weight incl. battery	Gauge with integrated probe: 105 g. Gauge with cable probe: 147 g

Fe* Measuring of non-ferromagnetic coatings on ferromagnetic substrate, for example measuring on steel- or iron-substrates.
NFe* Measuring of non-ferromagnetic and electrically non-conductive coatings (insulating coatings) on non-ferromagnetic and electrically conductive substrate, for example measuring on aluminum-, zinc-, brass- and certain stainless (high-grade) steel-substrates.

Technical data subject to change without notice.

DFT-400/420 SPARE PARTS	
7864010	Cable for DFT-400/420
7864011	Probe Fe 3mm for DFT-400
7864012	Probe Fe 5mm for DFT-400
7864211	Probe Fe/NFe 3mm for DFT-420
7864212	Probe Fe 5mm / NFe 3mm for DFT-420

Related Literature	
LT9000E	AIE Airblast Inspection Equipment - The Guide
LT9440E	Data Sheet - DFT-440/441 Dry Film Thickness Gauge
MN9400E	Instruction Manual - DFT-400/420 Dry Film Thickness Gauges
MN9440E	Instruction Manual - DFT-440/441 Dry Film Thickness Gauge
MN9441E	Instruction Manual - DFT-441 Dry Film Thickness Gauge

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