



Probe models	FGAB1.3	FGAB1.3L5	FGAB1.3T	FGAB1.3TL5
Part no.	604-141	604-544	604-182	604-418

Applications
 Measurement of electrically non-conductive and non-ferrous metal coatings on steel or iron base material (NC/Fe and NF/Fe). The probes are well suited for measurements of electroplated metal coating thicknesses. However, measurement data variation is relatively high on rough (e.g., sand-blasted) surfaces. For such cases we recommend special probes for measurements on rough surfaces from our probe program.

Probes including a T in the model designation be equipped with a temperature-resistant plastic cover for measurements on specimens with surface temperature up to + 80 °C (176 °F).

Examples
Steel or iron base materials (Fe)

- Paint, varnish or plastic coatings on steel or iron (NC/Fe)
- Copper, brass, zinc, tin and chrome coatings on steel or iron (NF/Fe)

Probe design
 Axial single tip probe with spring-loaded measuring system

Applications
 NC/Fe or NF/Fe

The values for measurement range, trueness, repeatability precision and measurement errors are valid for electrically non-conductive coating materials on steel or iron (NC/Fe). The values may differ for measurements on non-ferrous coating materials (NF).

Measurement range*
Steel or iron base materials (Fe)
 0 ... 2000 µm / 0 ... 78.74 mils

Trueness*
 based on Fischer standards
Steel or iron base materials (Fe)
 0 ... 100 µm: ≤ 1 µm
 100 ... 1000 µm: ≤ 1 % of reading
 1000 ... 2000 µm: ≤ 3 % of reading
 0 ... 3.94 mils: ≤ 0.039 mils
 3.94 ... 39.37 mils: ≤ 1 % of reading
 39.37 ... 78.74 mils: ≤ 3 % of reading

Repeatability precision*
 based on Fischer standards
Steel or iron base materials (Fe)
 0 ... 100 µm: ≤ 0.3 µm
 100 ... 2000 µm: ≤ 0.3 % of reading
 0 ... 3.94 mils: ≤ 0.012 mils
 3.94 ... 78.74 mils: ≤ 0.3 % of reading

Influences*
Probe models FGAB1.3 and FGAB1.3L5 | **Probe models FGAB1.3T and FGAB1.3TL5**

The following values are valid for a reference coating thickness of 75 µm / 2.95 mils and steel or iron base material.

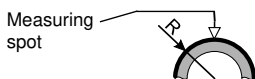
Curvature (R), measurement with reference to master calibration on flat surface



Measurement error
 ≥ 10 % for R ≤ 15 mm / R ≤ 0.6 "
 Probe needs a minimum of R = 5 mm (support stand necessary) / R = 0.2 "

Measurement error
 ≥ 10 % for R ≤ 14,5 mm / R ≤ 0.57 "

Curvature (R), measurement with reference to master calibration on flat surface



Measurement error ≥ 10 % for R ≤ 8 mm / R ≤ 0.32 "
 Probe needs a minimum of R = 1 mm (support stand necessary) / R = 0.039 "