


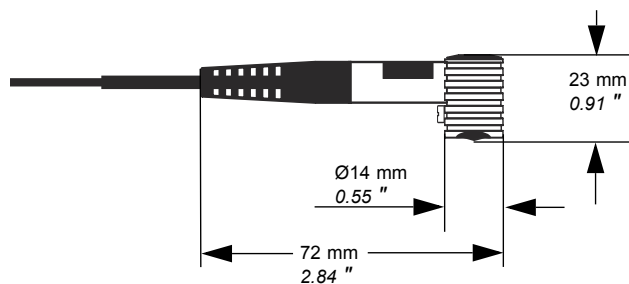


**FAW3.3**

Probe model	<b>604-193</b>
Applications	Measures electrically non-conducting coatings on non-ferrous metal base material (NC/NF). Suited for measurements on plane specimens or in pipes bore holes and recesses. Can possibly also be used when surfaces exhibit a damp condition (acidic contamination of test surface).
Examples	<ul style="list-style-type: none"> <li>• Paint, varnish or plastic coatings on aluminum, copper or brass (NC/NF)</li> </ul> <p>The probe features a patented conductivity compensation. So that the different electrical conductivities of e.g. various aluminum alloys have no effect of the coating thickness measurement.</p>
Probe design	Single tip angle probe with spring-loaded measuring system
Applications	NC/NF
Measurement range	<b>Non-ferrous metal base materials (NF)</b> 0 ... 1200 $\mu\text{m}$ / 0 ... 47.24 mils
Trueness	<b>Non-ferrous metal base materials (NF)</b> based on Fischer standards 0 ... 100 $\mu\text{m}$ : $\leq 1 \mu\text{m}$ 100 ... 800 $\mu\text{m}$ : $\leq 1 \%$ of reading 800 ... 1200 $\mu\text{m}$ : $\leq 3 \%$ of reading 0 ... 3.94 mils: $\leq 0.04 \text{ mils}$ 3.94 ... 31.50 mils: $\leq 1 \%$ of reading 31.50 ... 47.24 mils: $\leq 3 \%$ of reading
Repeatability precision	<b>Non-ferrous metal base materials (NF)</b> based on Fischer standards 0 ... 100 $\mu\text{m}$ : $\leq 0.5 \mu\text{m}$ 100 ... 1200 $\mu\text{m}$ : $\leq 0.5 \%$ of reading 0 ... 3.94 mils: $\leq 0.02 \text{ mils}$ 3.94 ... 47.24 mils: $\leq 0.5 \%$ of reading
Influences	<b>Aluminum base material</b> <i>The following values are valid for a reference coating thickness of 75 <math>\mu\text{m}</math> / 2.95 mils.</i>
Curvature (R), measurement with reference to master calibration on flat surface	
	Measurement error $\geq 10 \%$ for $R \leq 31 \text{ mm}$ / $R \leq 1.22 \text{ ''}$ Probe needs a minimum of $R = 13 \text{ mm}$ (support stand necessary) / $R = 0.51 \text{ ''}$
Curvature (R), measurement with reference to master calibration on flat surface	
	Measurement error $\geq 10 \%$ for $R \leq 27 \text{ mm}$ / $R \leq 1.06 \text{ ''}$ Probe needs a minimum of $R = 1 \text{ mm}$ (support stand necessary) / $R = 39.37 \text{ mils}$
Edge distance (R), specification from probe pole center	
	No measurement error as of $R > 6 \text{ mm}$ / $R > 0.24 \text{ ''}$ Measurement error $\geq 10 \%$ for $R \leq 1.5 \text{ mm}$ / $R = 59.06 \text{ mils}$ Probe needs a minimum of $R = 1 \text{ mm}$ (support stand necessary) / $R = 39.37 \text{ mils}$
Edge distance (X), specification from probe pole center	
	No measurement error as of $X > 2 \text{ mm}$ / $X > 78.74 \text{ mils}$ Measurement error $\geq 10 \%$ for $X \leq 1.2 \text{ mm}$ / $X \leq 47.24 \text{ mils}$

Influences	<b>Aluminum base material</b>
<i>The following values are valid for a reference coating thickness of 75 µm / 2.95 mils.</i>	
Base material thickness (D)	Measurement error $\geq 10\%$ for $D \leq 0.1\text{ mm}$ / $D = 3.94\text{ mils}$
Measuring spot	
Base material	Influence of the el. conductivity of the base material (NF) in the range from 30 to 100 % IACS: deviation of the coating thickness is $\leq 2\%$ valid for the total measurement range.
Admissible ambient temperature at operation	- 10 °C ... + 40 °C / + 14 °F ... + 104 °F
Probe tip material	Jewel tip
Probe tip replaceable	Yes
Probe tip radius	1,2 mm / 47.24 mils
Measuring method	Amplitude sensitive eddy current method according to ISO 2360, ASTM D7091, Non-conductive coatings on non-magnetic electrically conductive basis materials - Measurement of coating Thickness - Amplitude-sensitive eddy current method
Scope of supply	Probe, metal plate ISO/NF for instrument check, calibration foils
Works with instruments	All DUALSCOPE® and ISOSCOPE® hand-held instruments of the series FMP and FISCHERSCOPE® MMS® PC2 with F-Module PERMASCOPE®

## Dimensions



Cable length: 1.50 m / 59.06 "

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