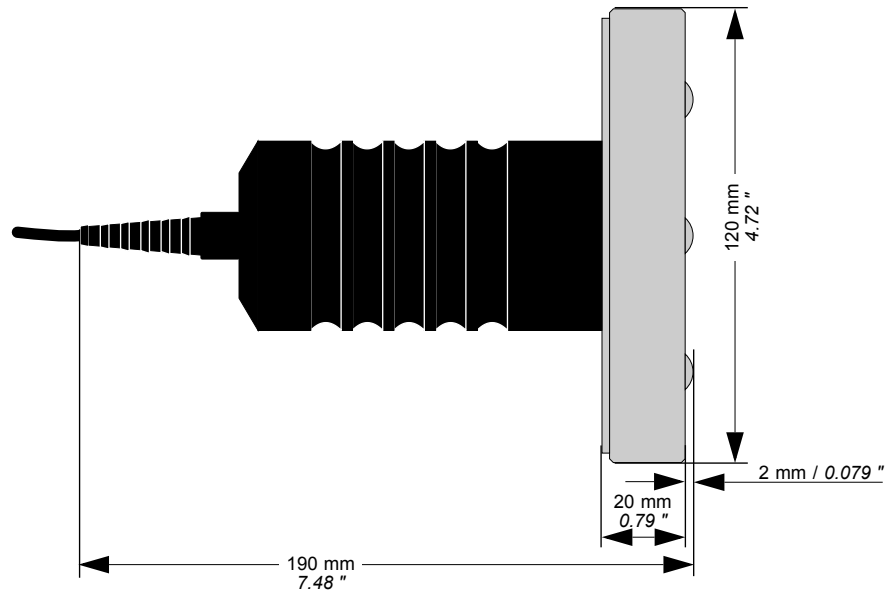




Probe model	FA100	
Part no.	604-604	
Applications	Measurement of very thick isolation coatings (Iso) either on nonferrous metal substrates (NF) or on steel, iron or cast iron (Fe). The probe is particularly suited for measurements of very thick coatings with rough surfaces, e.g. for propylene coatings on pipelines or thick insulating coatings on outer skins of yachts. The probe must be calibrated to the diameter (radius of curvature) of the pipeline to be measured. For measurements of coating thicknesses smaller than 50 mm we recommend the use of our other FA probe types.	
Examples	<p>Non-ferrous metal base materials (NF)</p> <ul style="list-style-type: none"> • Vulcanised rubber or plastic coatings on aluminium, copper or brass (NF) <p>The probes feature 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>	<p>Steel, iron, cast iron base materials (Fe)</p> <ul style="list-style-type: none"> • Vulcanised rubber or plastic coatings on steel, iron or cast iron (Fe)
Probe design	Axial probe with fixed 3 point support measuring system	
Applications	NC/NF	NC/Fe
Measurement range	<p>Non-ferrous metal base materials (NF)</p> <p>0 ... 100 mm / 0 ... 3.94 "</p>	<p>Steel, iron, cast iron base materials (Fe)</p> <p>0 ... 100 mm / 0 ... 3.94 "</p>
Trueness based on Fischer standards	<p>Non-ferrous metal base materials (NF)</p> <p>0 ... 10 mm: ≤ 0.1 mm 10 ... 75 mm: ≤ 1 % of reading 75 ... 100 mm: ≤ 2 % of reading 0 ... 0.39 ": ≤ 0.0039 " 0.39 ... 2.95 ": ≤ 1 % of reading 2.95 ... 3.94 ": ≤ 2 % of reading</p>	<p>Steel, iron, cast iron base materials (Fe)</p> <p>The values listed under "Non-ferrous metal base materials (NF)" are valid after performing a specific 2-point-calibration on Fe base material for each thickness range and surface curvature.</p>
Repeatability precision based on Fischer standards	<p>Non-ferrous metal base materials (NF)</p> <p>0 ... 10 mm: ≤ 0.05 mm 10 ... 75 mm: ≤ 0.5 % of reading 75 ... 100 mm: ≤ 1 % of reading 0 ... 0.39 ": ≤ 0.002 " 0.39 ... 2.95 ": ≤ 0.5 % of reading 2.95 ... 3.94 ": ≤ 1 % of reading</p>	<p>Steel, iron, cast iron base materials (Fe)</p> <p>The values listed under "Non-ferrous metal base materials (NF)" are valid after performing a specific 2-point-calibration on Fe base material for each thickness range and surface curvature.</p>

Influences	Aluminum base material	Steel, iron, cast iron base materials (Fe)
<p>The following values are valid for a reference coating thickness of 5 mm (0.2"). The measurement errors are stated with the expanded measurement uncertainty U with the expanded factor of k = 2 (defines an interval with the confidence level of 95.45 %) - according to DIN V ENV 13005 "Leitfaden zur Angabe der Unsicherheit beim Messen" (Guide to Measurement of Uncertainty).</p>		
Curvature (R), measurement with reference to master calibration on flat surface		
	No measurement error as of $R = 16.1 \text{ m} \pm 0.46 \text{ m} / R = 52.8 \text{ ft} \pm 1.5 \text{ ft}$ Measurement error of 10 % for $R = 1.61 \text{ m} \pm 0.044 \text{ m} / R = 5.3 \text{ ft} \pm 0.1 \text{ ft}$	No specification
Edge distance (X), specification from probe pole center		
	No measurement error as of $X = 83,3 \text{ mm} \pm 4.5 \text{ mm} / X = 3.28 \text{ " } \pm 0.18 \text{ "}$ Measurement error of 10 % for $X = 60,3 \text{ mm} \pm 1.5 \text{ mm} / X = 2.37 \text{ " } \pm 0.06 \text{ "}$	No specification
Admissible ambient temperature at operation	- 10 °C ... + 40 °C / + 14 °F ... + 104 °F	
Probe sensor material	Plastic	
Probe sensor replaceable	No	
Probe sensor radius	60 mm / 2.36 "	
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 plates for instrument check, calibration standards with about 2 and 25 mm (0.08 and 0.98 ") thicknesses	
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: 1.5 m / 59.06 "

FE07 doc04/13