NAMISENS

METALSCOPE [MI-LAB 2] – METAL FOIL THICKNESS
TECHNICAL DATASHEET

The METALSCOPE [MI-LAB 2] is a mobile hand-held device for precise testing of metal foil thicknesses. It is suitable for all non-ferrous metals and stainless steel alloys. The thickness of rolled products made of aluminium or copper is detected non-destructively with nanometer resolution. In our Graphical User Interface you can store your own calibration points, switch between alloy databases and log your measurement results.

METALSCOPE [MI-LAB 2]

Degree of protection:	IP67
Displays:	Multi Color LED / Smartphone
EC conformity	CE
Detector:	Titan covered, Magnetic
Measuring spot:	5mm
Mass:	200g
Dimensions:	50mm x 40mm x 50mm
Operating temperature:	0°C…40°C
Storage temperature:	0°C…70°C
Charging voltage:	5V
Charging time:	12h
Charging current:	100mA
Charging socket:	USB type C
Power consumption:	about 400mW
Battery capacity:	LiPo 1800mAh
Battery life:	18h
Interfaces:	USB C / Bluetooth

METALFOIL THICKNESS - EXPERT GUI

Software requirements:	Windows 10
Measurement principle:	Eddy current
Measurement frequency:	10kHz – 600kHz
Measuring range:	1µm to 300µm
Repeatability:	< 0.1µm
Resolution (0µm – 10µm):	0,001µm
Resolution (10µm –300µm):	0,01µm
Distance compensation:	< 1000µm
Data sampling:	10 Spectrum / sec,
Metal foil alloys:	Al-Base, Cu-Base, Ti-Base,
	V2A, V4A, Au-Base, Ag-Base
	Mg-Base, Zn-Base, Sn-Base,
Expandable database:	up to 1000 Alloys
Profile measurement:	11 points per width
	3 or 5 measurement / point
	generated report with graph
Data export:	csv, pdf

METALFOIL THICKNESS - APP

Software requirements:	Android
Measurement principle:	Eddy current
Measurement frequency:	10kHz – 600kHz
Measuring range:	1µm to 300µm
Repeatability:	< 0.1µm
Resolution (0µm – 10µm):	0,001µm
Resolution (10µm –300µm):	0,01µm
Distance compensation:	< 1000µm
Data sampling:	10 Spectrum / sec
Preinstalled Database:	EN-AW 1050

COMPLIENCE CLOUD DATA CENTER

ISO/IEC 27000 - International Electrotechnical Commission
ISO/IEC 27001:2013 - Security Management System
ISO/IEC 17021:2015 - Security Management System
ISO/IEC 27017 - Guidelines for Information Security Controls
ISO/IEC 27018 - Data protection in the cloud

SENSORS AND MEASUREMENT TECHNOLOGY

ASTM E 1004 - Standard Electromagnetic Method
DIN EN 2004:1 - Test methods for products made of Al alloys
DIN EN ISO 15548:1 – Non-destructive eddy current testing
DIN EN ISO 12718 - Electrical and magnetic test methods
DIN EN ISO 15549 - Non-destructive testing in general

ELECTRICAL AND ELECTRONIC WASTE ACT

WEEE-Reg.-Nr:	DE93492845

RADIO AND BLUETOOTH

Bluetooth Module:	BM71BLES1FC2
Certificate No:	IC12246A-BM71S2 / RSS-247 EU RED-RTTE
Tested by:	TÜV Rheinland
Radio Report / EMC Report:	EN 300328 / EN301489

INDUSTRIAL BATTERY

MSDS Report No:	MMI2ZJDW39542716 / Li-ion Battery 18350
Tested by:	PONY Testing International Group

EMC EMISSION AND IMMUNITY

EN 61326-1:2013-01, IEC 61326-1:2012-07, DIN EN 61326-1:2013_07

MEASURING PROCESS

Connect the device with USB, or plug the Bluetooth dongle in. Start the Connection Assistant to connect the device. Place a metal foil on the reference plate. If the display values seem unlikly, perform a system calibration. Have fun!

SERVICE

If you have any question about the measuring process or the device, please contact our service department. service@namisens.de

MANUFACTURER

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