



Viva Portable Eddy Current System

Supporting following methods

- Eddy Current Testing (ECT)
- Remote-Field Testing (RFT)
- Near-Field Testing (NFT)
- Magnetic Flux Leakage (MFL)
- Rotary Inspection

- Training and support
- Long life battery
- Documenting inspection results
- PC connectivity
- Easy user interfaces



Pencil & Spring-Loaded Probes



Absolute & Differential Probes



ID Probes



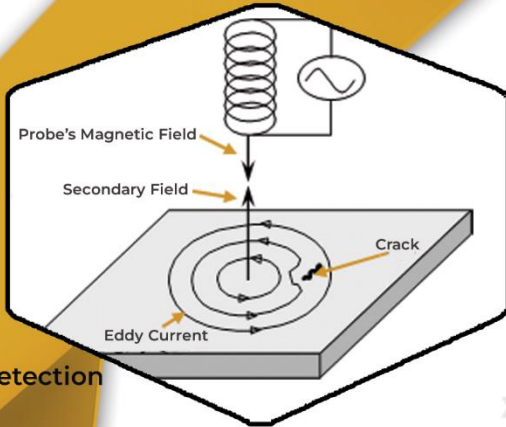
Probe Cables

Housing	
Overall dimensions (width × height × depth)	272 mm × 185 mm × 88 mm (10.70 in. × 7.28 in. × 3.46 in.)
Weight	3.0 kg, including Lithium-ion Battery
Power requirements	100 VAC to 120 VAC, 200 VAC to 240 VAC, 50 Hz to 60 Hz.
Input and Outputs	2 15-Pins TTL Inputs, One Encoder, 16-Pins LEMO, BNC or LEMO 1 (optional)
Environmental Conditions	
Operating temperature	-10 °C to 50 °C (14 °F to 122 °F)
Storage temperature	0°C to 50°C (32 °F to 122 °F) [with batteries] and -20°C to 70°C (-4 °F to 158 °F) [without batteries].
IP rating	Designed to meet requirements of IP64.
Battery	
Battery type	Lithium-ion rechargeable battery with BMS - 14.4V
Battery life	Up to 12 hours for standard operation
Display	
Display size (W × H, diagonal)	176.6 mm × 99.36 mm × 203.8 mm (6.95 in. × 3.9 in. × 8 in.)
Display type	Full VGA (800 × 480 pixels) color, LED
Screen modes	Normal or Full screen
Grids and display tools	Yes
Connectivity and Memory	
PC software	EddyWise PC software. EddyWise PC allows viewing saved files, printing reports, and viewing online eddy current data, Password protected supervisor level for adjusting basic testing parameters and locking them. data logger (opt.)
Data storage	Micro SD
Interface	
Language	English
Applications	Application selection menu for easy and rapid configuration.
Real-time readings	2 real-time readings measuring signal characteristics

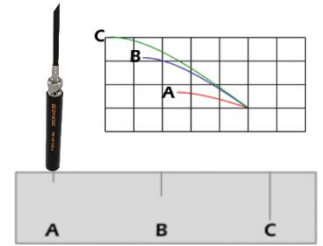
Eddy Current Specifications	
Probe types	Absolute and differential in either bridge or reflection configuration. The instrument is fully compatible with EDDYWISE NDT probes, as well as other main probe and accessory suppliers per request.
Probe connectors	16-Pins LEMO and BNC featuring internal automatic balancing for BNC connector (absolute probes).
Frequency range	10 Hz to 10MHz
Gain	0 dB to 90 dB in 0.1 or 1 dB increments
Rotation	0° to 359.9° in 0.1° or 1° increments.
Sweep	Variable from 0.005 s to 10 s per division
Filters	Low-pass: 10 Hz to 2000 Hz and wide band. Highpass: off or 2 Hz to 1000 Hz. Continuous null (low-frequency HP filter): 0.2 Hz, 0.5 Hz, 1.0 Hz.
Probe drive	HIGH (20 V) into 100 Ω.
Display erase	0.1 s to 60 s
Available alarm types	3 simultaneous alarms. Choices include BOX (rectangle), POLAR (circle), SECTOR (pie), SWEEP (time-based), CONDUCTIVITY, and COATING THICKNESS.
A/D resolution	16 bit
Number of channels	Viva I: One Channel Viva II: Two Channels
Hardness, Conductivity and Coating Thickness Measurement	
Hardness	Dependent on conductivity range, probe frequency and range of calibration
Digital conductivity specification	0.9% to 110% IACS or 0.5 to 64 MS/m. Accuracies are dependent on conductivity range, probe frequency and range of calibration.
Non-conductive coating Thickness	Both ferrous and non-ferrous base material. Accuracies dependent on conductivity range, probe frequency and range of calibration.
Scanners	
Scanner compatibility	120 RPM to 3000 RPM
Dual Frequency (Viva II)	
Frequency adjustment	Two fully independent frequencies, operating modulated injection.
Mix options	F1-F2, F1+F2



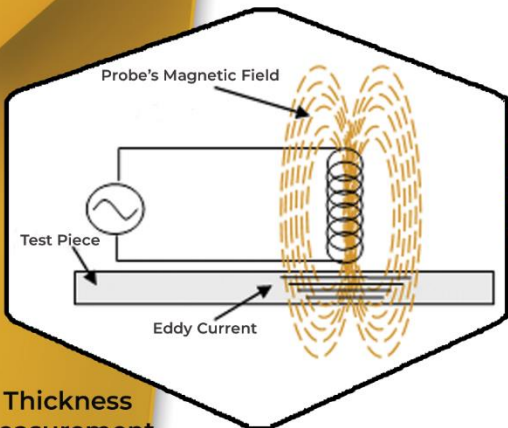
- Inspection**
- Detecting surface defects**
- Thickness measurement**
- Monitoring microstructural properties**
- Heat treatment evaluation**
- Material Sorting**



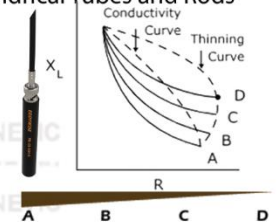
- Surface Crack
- Sub-Surface Crack
- Corrosion
- Welding
- Monitoring Fatigue Cracks
- Evaluation of Crack Depth Profile



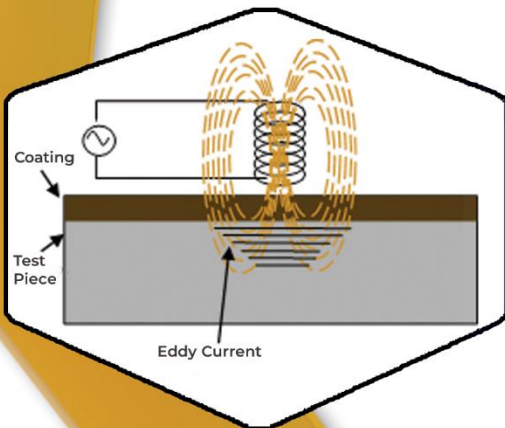
Crack Detection



- Detection and Characterization of Corrosion Damage
- Inspection of Multi-layered Structure
- Thickness Measurement of Thin Conductive Sheet, Strip and Foil
- Measuring the Amount of Metal Thinning
- Measurement of Cross-sectional Dimensions of Cylindrical Tubes and Rods

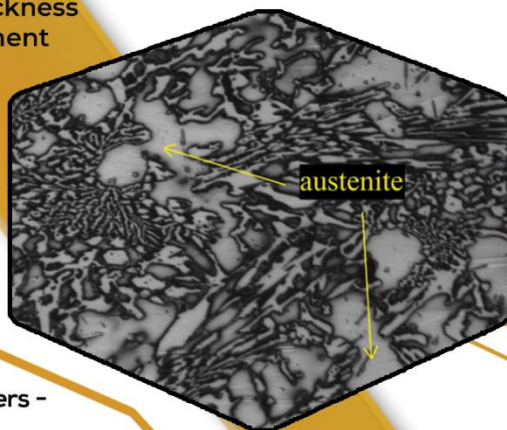


Thickness Measurement



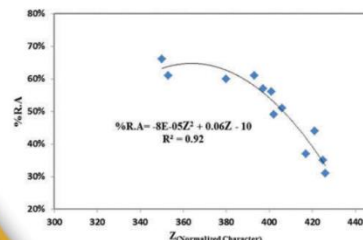
- Thickness Measurements of Nonconducting Coatings on Conductive Materials (paint and plastic coatings on NFE & FE Metal Base)
- Thickness of a Thin Layer of Metal on a Metallic substrate
- Thickness of Very Thin Protective Coatings of Ferromagnetic Metals (i.e. chromim and nickel) on Non-ferromagnetic Metal Bases

Coating Thickness Measurement



- Conductivity Measurement
- Heat treatment & Aging Monitoring
- Measurement of Hardness, Case depth, Yield Strength, UTS, and so on
- Early detection of thermal deterioration, neutron embrittlement, fatigue, & Creep damage
- Pearlite Percentage, Retained Austenite Percentage, and so on.
- Residual stress state determination

Material Characterization



Absolute Probe Specifications

Code	Probe	Frequency range	Probe diameter	Weight
18516	PN-30-105-S	200kHz-1MHz	30mm	120 g
18515	PN-30-104-S	100kHz-500kHz	30mm	120 g
18514	PN-30-103-S	50kHz-200kHz	30mm	120 g
18513	PN-30-102-S	20kHz-100kHz	30mm	120 g
18512	PN-30-101-S	10kHz-50kHz	30mm	120 g
18511	PN-30-100-S	1kHz-20kHz	30mm	120 g
18508	PN-10-105-S	200kHz-1MHz	10mm	65 g
18507	PN-10-104-S	100kHz-500kHz	10mm	65 g
18503	PN-10-103-S	50kHz-200kHz	10mm	65 g
18501	PN-10-102-S	20kHz-100kHz	10mm	65 g
18498	PN-10-101-S	10kHz-50kHz	10mm	65 g
18495	PN-10-100-S	1kHz-20kHz	10mm	65 g
18509	PN-05-105-S	200kHz-1MHz	10mm	60 g
18494	PN-05-104-S	100kHz-500kHz	5mm	60 g
18493	PN-05-103-S	50kHz-200kHz	5mm	60 g
18489	PN-05-102-S	20kHz-100kHz	5mm	60 g
18485	PN-05-101-S	10kHz-50kHz	5mm	60 g
18481	PN-05-100-S	1kHz-20kHz	5mm	60 g
18510	PN-03-105-S	200kHz-1MHz	10mm	60 g
18475	PN-03-104-S	100kHz-500kHz	3mm	50 g
18469	PN-03-103-S	50kHz-200kHz	3mm	50 g
18422	PN-03-102-S	20kHz-100kHz	3mm	50 g
18420	PN-03-101-S	10kHz-50kHz	3mm	50 g
18417	PN-03-100-S	1kHz-20kHz	3mm	50 g

Differential Probe Specifications






Code	Probe	Frequency range	Probe diameter	Weight
18575	PD-10-104-S	100kHz-500kHz	10mm	65 g
18574	PD-10-103-S	50kHz-200kHz	10mm	65 g
18573	PD-10-102-S	20kHz-100kHz	10mm	65 g
18572	PD-10-101-S	10kHz-50kHz	10mm	65 g
18571	PD-10-100-S	1kHz-20kHz	10mm	65 g
18570	PD-05-104-S	100kHz-500kHz	5mm	60 g
18569	PD-05-103-S	50kHz-200kHz	5mm	60 g
18568	PD-05-102-S	20kHz-100kHz	5mm	60 g
18567	PD-05-101-S	10kHz-50kHz	5mm	60 g
18565	PD-05-100-S	1kHz-20kHz	5mm	60 g
18563	PD-03-104-S	100kHz-500kHz	3mm	50 g
18562	PD-03-103-S	50kHz-200kHz	3mm	50 g
18553	PD-03-102-S	20kHz-100kHz	3mm	50 g
18552	PD-03-101-S	10kHz-50kHz	3mm	50 g
18551	PD-03-100-S	1kHz-20kHz	3mm	50 g

General Specifications

core	Ferrite
Probe Recognition	NA
Connector	BNC/LEMO per order
Probe drive	High (20V) into 75Ω
Tip Angle	Straight
Overall Dimensions *	100mm Lx 10 mm D
Operating Temperature	-10°C to 50°C
IP rating	IP63

* For Absolute Probe with ferrite core 30 mm: 20mm Lx 30 mm D



Pics	Code	Probe	Frequency range	Overall dimension	Tip Angle
	18999	PN-03-005-S	200kHz-1MHz	150mm×12mm	0°
	18600	PN-03-004-S	100kHz-500kHz	150mm×12mm	0°
	18601	PN-03-003-S	50kHz-200kHz	150mm×12mm	0°
	18602	PN-03-002-S	20kHz-100kHz	150mm×12mm	0°
	18603	PN-03-001-S	10kHz-50kHz	150mm×12mm	0°
	18604	PN-03-000-S	1kHz-20kHz	150mm×12mm	0°
	17000	PN-03-395-S	200kHz-1MHz	150mm×55mm	30°-90°
	18605	PN-03-394-S	100kHz-500kHz	150mm×55mm	30°-90°
	18606	PN-03-393-S	50kHz-200kHz	150mm×55mm	30°-90°
	18607	PN-03-392-S	20kHz-100kHz	150mm×55mm	30°-90°
	18608	PN-03-391-S	10kHz-50kHz	150mm×55mm	30°-90°
	18609	PN-03-390-S	1kHz-20kHz	150mm×55mm	30°-90°
	17001	PN-03-455-S	200kHz-1MHz	170mm×14mm	45°
	18610	PN-03-454-S	100kHz-500kHz	170mm×14mm	45°
	18611	PN-03-453-S	50kHz-200kHz	170mm×14mm	45°
	18612	PN-03-452-S	20kHz-100kHz	170mm×14mm	45°
	18616	PN-03-451-S	10kHz-50kHz	170mm×14mm	45°
	18617	PN-03-450-S	1kHz-20kHz	170mm×14mm	45°
		17002	PN-03-905-S	200kHz-1MHz	170mm×23mm
18618		PN-03-904-S	100kHz-500kHz	170mm×23mm	90°
18619		PN-03-903-S	50kHz-200kHz	170mm×23mm	90°
18620		PN-03-902-S	20kHz-100kHz	170mm×23mm	90°
18621		PN-03-901-S	10kHz-50kHz	170mm×23mm	90°
18622		PN-03-900-S	1kHz-20kHz	170mm×23mm	90°
		17003	PN-03-915-S	200kHz-1MHz	167mm×26mm
	18624	PN-03-914-S	100kHz-500kHz	167mm×26mm	90°-bent
	18625	PN-03-913-S	50kHz-200kHz	167mm×26mm	90°-bent
	18626	PN-03-912-S	20kHz-100kHz	167mm×26mm	90°-bent
	18627	PN-03-911-S	10kHz-50kHz	167mm×26mm	90°-bent
	18628	PN-03-910-S	1kHz-20kHz	167mm×26mm	90°-bent

General Specifications

Core	Ferrite
Probe diameter	3mm
Probe recognition	NA
Connector	LEMO
Probe drive	High (20V) into 100Ω
Tip Angle	Straight
Operating Temperature	-10°C to 50°C
IP rating	IP63



Spring-Loaded Probes

Code	Probe	Frequency range
17501	SL-03-105-S	200kHz-1MHz
18629	SL-03-104-S	100kHz-500kHz
18630	SL-03-103-S	50kHz-200kHz
18631	SL-03-102-S	20kHz-100kHz
18632	SL-03-101-S	10kHz-50kHz
18633	SL-03-100-S	1kHz-20kHz



General Specifications

Core	Ferrite
Probe diameter	3mm
Probe recognition	NA
Connector	LEMO
Probe drive	High (20V) into 100Ω
Overall dimension	115mm L x 20mm D
Tip Angle	Straight
Operating Temperature	-10°C to 50°C
IP rating	IP63

T-Probe



Code	17502
Probe	PT-G-T00-S
Frequency Range	1kHz-20kHz
Core	Ferrite
Probe diameter	3mm
Probe recognition	NA
Connector	LEMO
Probe drive	High (20V) into 100Ω
Overall dimension	115mm L x 20mm D
Tip Angle	Straight
Operating Temperature	-10°C to 50°C
IP rating	IP63

Sliding Probes

Code	Probe	Frequency range
17503	PS-03-105-S	200kHz-1MHz
17504	PS-03-104-S	100kHz-500kHz
17505	PS-03-103-S	50kHz-200kHz
17506	PS-03-102-S	20kHz-100kHz
17507	PS-03-101-S	10kHz-50kHz
17508	PS-03-100-S	1kHz-20kHz

General Specifications

Core	Ferrite
Probe diameter	3mm
Probe recognition	NA
Connector	LEMO
Probe drive	High (20V) into 100Ω
Overall dimension	100mm L x 40mm W x 40mm H
Radius	160mm
Tip Angle	Straight
Operating Temperature	-10°C to 50°C
IP rating	IP63

