

WPH-DC Probe

DC – 40 kHz



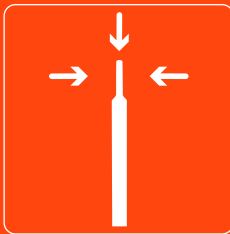
- Magnetic field measurement from DC to 40 kHz.
- Isotropic & True RMS measurement
- Static and time-variable fields
- Spectrum analysis probe up to 40 kHz.
- Measurements in accordance with International Standards
- Numerous static field limits (ACGIH, ICNIRP, EU, EMFV, EN 45502-2-1), accounting for exposure for Pacemakers/AIMDs, General population, occupational levels, limbs, projectile effects and many more scenarios.

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H

RMS

ISOTROPIC



Medical
(Magnetic resonance in hospitals) – IEC 60601-2-33



Magnets
Strong permanent magnets (Heavy duty magnet lifters)



Energy
(DC generators, DC motors, etc) – IEC/EN 62110



Railway
(DC powered railroads, etc) – IEC 62597, EN 50500



Industry
Low frequency industrial application (Magnetizers, electrolysis, etc).



Automotive
Electric vehicles



Workers Safety
Especially cardiac pacemaker and other AIMDs users

Technical Specifications

Part Number	WWP1501
Frequency range	DC (0 Hz) – 40 kHz
Field type	Magnetic Field
Field Sensor	Triaxial Hall sensor
Selectable Bandwidths	Low: DC – 20 kHz Full: DC – 40 kHz
Measurement range (DC+AC)*	10 μ T – 10 T
Overload/Damage level	20 T
Dynamic range	> 120 dB
Frequency Response	$\pm 1.5\%$ (0 Hz – 30 kHz) $+3\%$ @ 40 kHz
Noise level	< 5 μ T
Isotropy	< 3 %
Temperature deviation	0.002 dB/°C (-15 °C to +50 °C)
Linearity	0.6 % (100 μ T – 1 T) 1 % (100 μ T – 2.4 T) 0.5% (30 μ T - 2000 μ T @50 Hz)
Typical expanded uncertainty	< 4.5 % (< 0.38 dB)
Temperature	
- Operating	-20 °C to +55 °C
- Storage	-30 °C to +75 °C

*This measurement range applies to DC - 150 Hz



WPH-DC.EN.2510.v2.0



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Technical Specifications

Relative humidity	5 to 95 %, non-condensing
Weight	90 g
Probe size	273 x Ø 21 (mm) - Sensor stick Ø 9.4 (mm)
Operation (display unit)	Compatible with the SMPx device.
Data communication (Live measurement using a PC)	USB-C cable and Fiber optic cable with optical converter to USB.
Calibration	ISO 17025 ILAC-ENAC accredited calibration 24 months recalibration period (recommended)



Measurement Range

DC Range	
Frequency range	0 Hz to 1 Hz
Filter	Low-pass FIR filter with cut-off @ 1 Hz (-3 dB)
Measurement range	10 µT – 10 T
Limits	ICNIRP, EU, ACGIH, EMFV, EN 45502-2-1 and many more (for Pacemakers/AIMDs, General population, occupational levels, limbs, projectile effects, etc).
Reading update time	500 ms (selectable options for log time)
Graphical display	Total field value time plot (instantaneous and average field values vs time)
Result type	Total static field (instantaneous, maximum, minimum, average) and axis information. Units in µT, mT, T, mG, G, A/m, % H (Static field limits)

AC Range	AC	AC + DC
Frequency range	1 Hz – 40 kHz	DC – 40 kHz
Filter	High pass IIR 2nd Order filter @1 Hz	No filter
Result type	RMS, Peak, FFT and axis information. Units in µT, mT, T, mG, G, A/m	

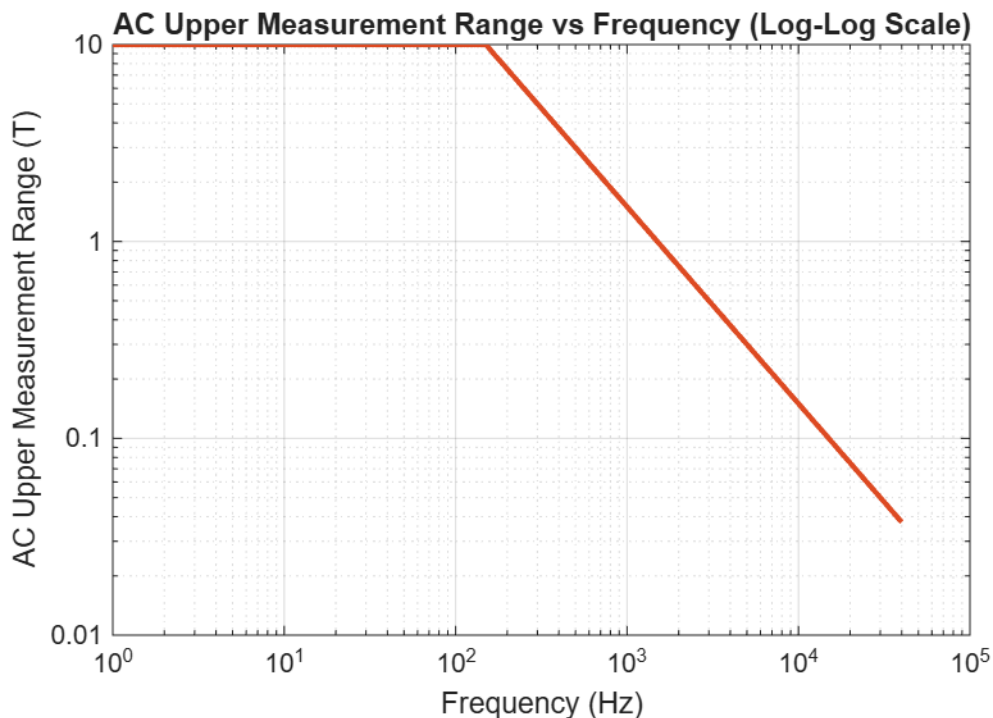
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Time Domain Mode				
Measurement range	10 μ T – 10 T (DC - 150 Hz) Upper range decreases linearly with increasing frequency above 150 Hz. See graph below.			
Graphical display	Total field value (RMS and Peak) time plot			
Noise level	5 μ T			
FFT Mode				
Measurement range	1 μ T - 10 T (DC - 150 Hz) Upper range decreases linearly with increasing frequency above 150 Hz. See graph below.			
Graphical display	Frequency analysis (real-time), total field and axis.			
SPAN (resolution)	40 Hz	400 Hz	4 kHz	40 kHz
Frequency range	0 – 40 Hz	0 – 400 Hz	0 – 4 kHz	0 – 40 kHz
Resolution	0.1 Hz	1 Hz	10 Hz	100 Hz
RBW	0.15 Hz	1.5 Hz	15 Hz	150 Hz
Noise level	0.15 μ T	0.25 μ T	0.06 μ T	0.02 μ T
Number of FFT points	400 points			

AC Measurement Range Graph:



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Accessories

Accessories	
Zero Gauss Chamber	PBL0018
Optional Accessories	
Fiber optic cable + converter USB to PC	WSNA0004 (10 meters) WSNA0015 (20 meters) WSNA0010 (45 meters)
Probe extension cable for LF H field measurement (recommended)	WSNA0011 (2 meters) WSNA0014 (5 meters)
Probe support for tripod (Recommended with the probe extension cable)	WSNA0013



Axes Position

