

Current Probe Model HFR3000

The LEM HFR3000 is a high performance AC current probe utilising the Rogowski principle which can measure currents up to 3000A from 1Hz to 1 MHz. The output can be used in conjunction with oscilloscopes or recorders for accurate, non-intrusive measurement of sinusoidal, pulsed and other complex waveforms.



Electrical Characteristics

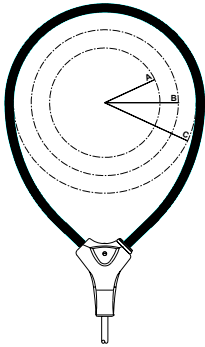
Current Ranges.....	: 300 A / 3000 A AC_{RMS}
Output Sensitivity (AC coupled)	: 10 mV / 1mV / A
Load Impedance	: 100 k Ohm minimum
Accuracy (at +25°C).....	: $\pm 1\%$ of reading $\pm 0.5A$
Noise.....	: 5 mV AC_{RMS} max
Frequency Range	: 1 Hz to 1 MHz (- 3 dB)
Phase Error.....	: +1.6° typical (at 50 Hz)
Power Supply	: 9 V alkaline, MN1604/PP3
.....	: 80 Hours, low battery indicator
.....	: or ext. power supply (9V/100mA)
Temperature Coefficient	: $\pm 0.02\%$ of reading per °C
Working Voltage (Head).....	: 600 V AC_{RMS} or DC
Working Voltage (Output to Earth)	: Output Common must be earthed

General Characteristics

Head Cable Lengths.....	: HFR3000/200 – 200 mm
.....	: HFR3000/500 – 500 mm
.....	: HFR3000/800 – 800 mm
Head Cable Diameter.....	: 7 mm
Cable Length (head to electronics)	: 2 meters
Power Supply Connection	: Socket for 2.1mm female jack
Output Connection	: Female BNC safety connector
Operating Temperature Range	: -20 to +70 °C
Storage Temperature Range	: -20 to +85 °C

Supplied Accessories:	: 1.5m BNC to BNC extension cable
Optional Accessories:	: PSUHFR9V Power Supply with
.....	: UK, EURO, USA/AJAPAN, AUST
.....	: interchangeable adaptors

Position Sensitivity



Distance from optimum (mm)	Head Length (mm)			Error
	200	500	800	
A	10	40	55	± 0.5 %
B	15	55	85	± 1.0 %
C	28	70	115	± 2.0 %

Safety Standards

BSEN61010-1: 2001

600 V_{RMS}, Category III, Pollution Degree 2 – Head

Output common must be earthed

EMC Standards

EN 61326 : 1998

Dimensions (in mm)

Aperture Diameter
 200mm Head = 60mm
 500mm Head = 150mm
 800mm Head = 250mm

