9100-200 10/50 Turn Coils

The Model 9100's unique Current Coil option (Option 200) overcomes all the magnetic circuit problems normally associated with clamp-on ammeter calibration. The coil module incorporates x10 and x50 coils, both of which feature internal magnetic shielding to eliminate interference from stray flux. Even the x50 coil accepts the full 20A output of the Model 9100 with sufficient voltage compliance to calibrate most popular clamp meters at currents up to 1000Arms. Yet the whole module is small enough and light enough to sit comfortably on the bench. Because the coils can be driven with AC or DC currents, they are just as suitable for calibrating meters based on Hall-Effect♠ sensors as they are for calibrating meters that use a current transformer. Once you've selected the x10 or x50 coil from the Model 9100's on-screen menu.

DC Current Accuracy and Resolution via Current Coils

Equivalent Current Output +ve & -ve Polarities	**Accuracy †** ±(% of Output + Floor) **1Year** — Tcal ±5°C [1]	**Absolute Resolution**
10-Turn Coil:		
03.2001A -32.0000 A	0.060 + 1.18mA	100µA
032.001A -105.000A	0.055 + 9.40mA	1mA
105.001A -200.000 A *	0.055 + 45.0mA	1mA
50-Turn Coil:		
016.001A -160.000A	0.060 + 5.9mA	1mA
0160.01A -0525.00A	0.055 + 47mA	10mA
0525.01A -1000.00 A *	0.055 + 225mA	10mA

∗ = With output 'ON', maximum duty cycle of (>0.525FS : ≤0.525FS) is (1 : 4).
Continuous output >0.525FS will automatically reduce to <0.525FS after 2 Minutes.
† = Refers to accuracy at 9100 output terminals. With Option 200 coils connected, then at the output from the coils, add ±0.2% of output from coils for uncertainty of coils.

Maximum Terminal Inductance: 3.2A -1000A : 700µH

AC Current Accuracy and Resolution via Current Coils

Current Output	**Frequency Band** [2] (Hz)	**Accuracy †** ± (% Output + Floor) **1 Year** - Tcal [1] ± 5°C	**Compliance Voltage** (VRMS at 9100 terminals)	**Compliance Voltage** (VRMS at 9105 Lead End)	**Total Harmonic Distortion** (% Output)	**Absolute Resolution**
03.2001A -32.0000A ♥	10 -100	0.20 + 5.5mA	2.5V	2.5V	0.15	100µA
	100 -440	0.78 + 27mA	2.5V	2.5V	0.50	100µA
032.001A -200.000A*♥	10 -100	0.21 + 90mA	2.5V ♦	2.3V ♦	0.15	1mA
	100 -440	0.67 + 0.25A	2.5V	2.3V	0.50	1mA
016.001A -160.000A ♣	10 -100	0.20 + 28mA	2.5V	2.5V	0.15	1mA
0160.01A -1000.00A*♣	10 -100♠	0.21 + 0.45A	2.5V ♦	2.3V ♦	0.15	10mA

∗ = With output 'ON', maximum duty cycle of (>0.525FS : ≤0.525FS) is (1 : 4). Continuous output >0.525FS will automatically reduce to <0.525FS after 2 Minutes.
† = Total uncertainty includes compliance errors for Voltage ≤0.5VRMS. Above 0.5V, add appropriate compliance error, except for Outputs marked ♥ and ♣.
♥ = Refers to accuracy at 9100 output terminals. With Option 200 10 turn coil connected, then at the output from the coil, add ±0.2% of output from coil for uncertainty of coil.
♣ = Refers to accuracy at 9100 output terminals. With Option 200 50 turn coil connected, then at the output from the coil, add ±0.2% of output from coil for uncertainty of coil.
♦ = For frequencies <40Hz, compliance voltage is reduced by 0.5V RMS.
♠ = These coils have been designed for optimum accuracy and inductance for use with the Model 9100. With some Hall effect clamp meters the increase in inductance, due to the current clamp design, will limit the obtainable 9100 Current/Hertz profile. In some cases, 1000A cannot be reached at higher frequency.