

EA002

**2 / 10 / 50 TURN
30A (1500A SIMULATED)
CLAMP COIL ADAPTER**



SPECIFICATIONS

Warm Up Time	Double the time since last used up to 20 minutes maximum
Standard Interface	Transmille Adapter Interface (9 Pin Female 'D' Type connector)
Temperature Performance	Storage : -5°C to +60°C Operation : 0°C to +50°C
Relative Humidity	Operation : <80% to 30°C, <70% to 40°C, <40% to 50°C Storage : <95%, non-condensing
Altitude	Operation : 3000m (10,000ft) Maximum Transit : 12000m (40,000ft) Maximum
Coil Configuration	2 Turn (LHS) : 10 Turn (RHS) : 50 Turn (Centre)
Coil Type	High Accuracy Balanced Configuration
Min. Internal Jaw Dimensions	10mm (2 & 10 Turn) : 25mm (50 Turn)
Maximum Current	30A
Maximum RMS Voltage	4V
Frequency Range	DC to 400Hz
Construction	Loose wound coil (for heat dissipation) in moulded enclosure
Durability	Fully enclosed coil for maximum protection from mechanical damage
Connections	2 Turn Coil Input 1x Yellow Safety Terminal 10 Turn Coil Input 1x Yellow Safety Terminal 50 Turn Coil Input 1x Yellow Safety Terminal Coil Common Input 1x Blue Safety Terminal
Dimensions	28cm x 12cm x 6cm
Warranty Period	1 Year (Parts & Labour)
Recommended Service Interval	1 Year
Supplied Connections	1x Yellow Connection Lead : 1x Blue Connection Lead

2 Turn Coil Accuracy (Input 0 to 30A : Freq. DC - 30Hz to 60Hz : Effective Output 0 to 60A)								
	90 Day Rel.		180 Day Rel.		1 Year Rel.		2 Year Rel.	
	%	A	%	A	%	A	%	A
Effective accuracy - Coil only (wound clamps)	0.35	+ 0.008	0.35	+ 0.008	0.35	+ 0.008	0.35	+ 0.008
Effective accuracy - Coil only (hall effect clamps)	0.48	+ 0.07	0.48	+ 0.07	0.48	+ 0.07	0.48	+ 0.07
Total uncertainty with 1000 (All clamps)	0.49	+ 0.23	0.49	+ 0.23	0.49	+ 0.23	0.54	+ 0.25
Total uncertainty with 3050 (All clamps)	0.51	+ 0.09	0.51	+ 0.09	0.52	+ 0.09	0.56	+ 0.10
Total uncertainty with 3041 (wound clamps)	0.36	+ 0.028	0.36	+ 0.028	0.36	+ 0.028	0.38	+ 0.036
Total uncertainty with 3041 (hall effect clamps)	0.49	+ 0.090	0.49	+ 0.090	0.49	+ 0.090	0.50	+ 0.098
Total uncertainty with 3010 calibrator (wound clamps)	0.36	+ 0.010	0.36	+ 0.010	0.36	+ 0.010	0.37	+ 0.010
Total uncertainty with 3010 (hall effect clamps)	0.48	+ 0.072	0.49	+ 0.072	0.49	+ 0.072	0.49	+ 0.072

10 Turn Coil Accuracy (Input 0 to 30A : Freq. DC - 30Hz to 60Hz : Effective Output 0 to 300A)								
	90 Day Rel.		180 Day Rel.		1 Year Rel.		2 Year Rel.	
	%	A	%	A	%	A	%	A
Effective accuracy - Coil only (wound clamps)	0.41	+ 0.01	0.41	+ 0.01	0.41	+ 0.01	0.41	+ 0.01
Effective accuracy - Coil only (hall effect clamps)	0.59	+ 0.11	0.59	+ 0.11	0.59	+ 0.11	0.59	+ 0.11
Total uncertainty with 1000 (All clamps)	0.60	+ 0.27	0.60	+ 0.27	0.60	+ 0.27	0.65	+ 0.29
Total uncertainty with 3050 (All clamps)	0.61	+ 0.13	0.62	+ 0.13	0.62	+ 0.13	0.65	+ 0.14
Total uncertainty with 3041 (wound clamps)	0.42	+ 0.03	0.42	+ 0.03	0.42	+ 0.03	0.43	+ 0.04
Total uncertainty with 3041 (hall effect clamps)	0.60	+ 0.13	0.60	+ 0.13	0.60	+ 0.13	0.61	+ 0.14
Total uncertainty with 3010 calibrator (wound clamps)	0.41	+ 0.012	0.42	+ 0.012	0.42	+ 0.012	0.42	+ 0.012
Total uncertainty with 3010 (hall effect clamps)	0.59	+ 0.112	0.59	+ 0.112	0.60	+ 0.112	0.60	+ 0.112

50 Turn Coil Accuracy (Input 0 to 30A : Freq. DC - 30Hz to 60Hz : Effective Output 0 to 1500A)								
	90 Day Rel.		180 Day Rel.		1 Year Rel.		2 Year Rel.	
	%	A	%	A	%	A	%	A
Effective accuracy - Coil only (wound clamps)	0.24	+ 0.04	0.24	+ 0.04	0.24	+ 0.04	0.24	+ 0.04
Effective accuracy - Coil only (hall effect clamps)	0.45	+ 0.42	0.45	+ 0.42	0.45	+ 0.42	0.45	+ 0.42
Total uncertainty with 1000 (All clamps)	0.49	+ 0.58	0.49	+ 0.58	0.49	+ 0.58	0.64	+ 0.60
Total uncertainty with 3050 (All clamps)	0.48	+ 0.44	0.48	+ 0.44	0.49	+ 0.44	0.53	+ 0.45
Total uncertainty with 3041 (wound clamps)	0.25	+ 0.06	0.26	+ 0.06	0.26	+ 0.06	0.28	+ 0.07
Total uncertainty with 3041 (hall effect clamps)	0.46	+ 0.44	0.46	+ 0.44	0.46	+ 0.44	0.47	+ 0.45
Total uncertainty with 3010 calibrator (wound clamps)	0.25	+ 0.042	0.25	+ 0.042	0.25	+ 0.042	0.26	+ 0.042
Total uncertainty with 3010 (hall effect clamps)	0.45	+ 0.42	0.46	+ 0.42	0.46	+ 0.42	0.46	+ 0.42

Accuracy is dependant on proper alignment of the clamp meter within the coil

Certain clamp meters have alignment marks which should be aligned with the centre of the coil.

Certain types of clamp meter may have additional errors, or be outside the range which can be driven by the 1000/3041/3010A directly

**Uncertainty calculated as the square root of the square of coil accuracy + square of calibrator accuracy
using empirical data obtained for both wound & hall effect instruments from a wide range of manufacturers
Clamp coil adaptor is supplied complete with workstation incorporating alignment marks**

DC Resistance	
At Coil	0.14Ω
With Connection Leads	0.18Ω

Duty Cycle	
10A	Continuous
20A	2mins on ~ 5mins off
30A	30secs on ~ 5mins off

Inductance	
Coil Only	120uH
Coil with typical clamp meter on 50 Turn coil	200uH
Coil with typical clamp meter on 10 Turn coil	50uH
Coil with typical clamp meter on 2 Turn coil	5uH

Specifications apply at TCal ± 5°C

Outside this range an allowance of 0.18 x 1 Year Spec. per °C should be added.