

General Specifications	
Adapter Connection	4x 4mm safety sockets mounted on the rear of the unit 1x Remote thermal overload protection connection (3.5mm jack socket)
Adapter Dimensions	28cm x 12cm x 6cm Colour : Cream
Connection to Calibrator	Via supplied 4mm to 4mm connection leads (x2) to 3000 series current terminals and remote thermal overload connection to EA012 Transconductance Amplifier
Coil Configuration	2 Turn (LHS) : 10 Turn (RHS) : 50 Turn (CENTRE)
Coil Type	High accuracy balanced configuration
Min. internal jaw dimensions	10mm (2 Turn & 10 Turn) : 25mm (50 Turn)
Maximum Current	40A
Maximum RMS voltage	4V
Frequency Range	DC to 500Hz
Construction	Loose wound coil (for heat dissipation) in moulded ABS enclosure
Durability	Fully enclosed coil for maximum protection from mechanical damage
Compatibility	Designed for use with Transmille EA012 Transconductance Amplifier

2 Turn Coil Accuracy (Input 0 to 40A : Freq. DC - 30Hz to 60Hz : Effective Output 0 to 80A)								
	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 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 40A : Freq. DC - 30Hz to 60Hz : Effective Output 0 to 400A)								
	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 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 40A : Freq. DC - 30Hz to 60Hz : Effective Output 0 to 2000A)								
	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 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 3041/3010 directly

Remote thermal cutout link MUST be connected if used with EA012 Transconductance Amplifier

(can be used up to 30A without remote thermal cutout link connected)

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 (size 275x295x45mm)

DC Resistance	
At Coil*	0.09Ω
With Connection Leads	0.1Ω

*Typical resistance of 50 turn coil

Duty Cycle	
10A	Continuous
20A	2mins on ~ 5mins off
30A	40secs on ~ 5mins off
40A*	30secs on ~ 5mins off

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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 between 17°C and 27°C.

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