

# M100A1 | V-I Converter



V-I Converter **M100A1** is used to expand the functionality of the Comparator M100 and other traditional comparison devices during the calibration and verification of low power current transformers (LPCT) with an analog output in the form of an alternating voltage.

M100A1 converts secondary voltage of LPCT into current

## FEATURES AND BENEFITS

- Continuous range of rated secondary voltages of verified LPCT
- Calibration of LPCT of class 0.1 and less accurate
- Ability to use with any comparison device
- Simple use by intuitive user interface
- Storage of individual voltage settings, which can be corrected as required
- Possibility of using with automated CT calibration system

## APPLICATIONS

**M100A1** is used by:

- Manufacturers of LPCT
- Metrology Institutes
- Calibration Laboratories
- On-site testing of LPCT

**TEST ARRANGEMENT**

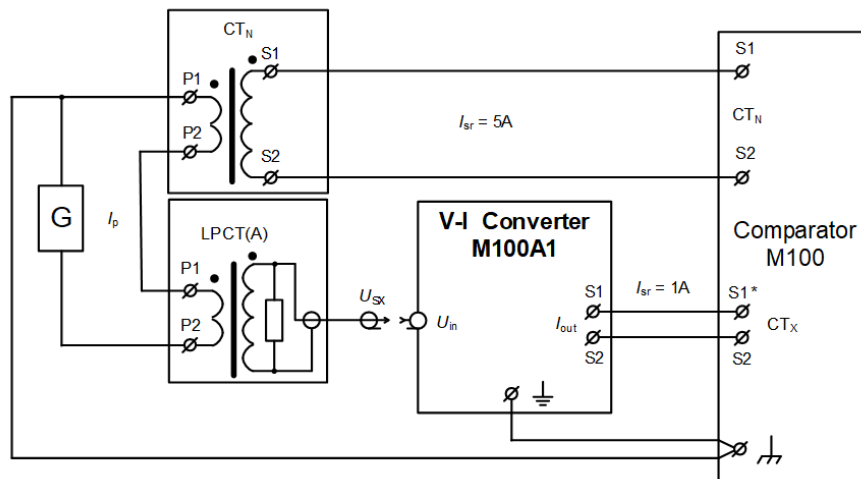


Fig.1 LPCT testing





**TECHNICAL SPECIFICATIONS**

Rated output current	1 A		
Output current range	0.01 ... 2 A (1...200%)		
LPCT rated secondary voltages range ( $U_{sr}$ )	0.02 ... 4.00 V		
Step of changing the LPCT rated secondary voltage	0.1 mV ( $0.02 \leq U_{sr} < 0.1$ V) 1 mV ( $0.1 \leq U_{sr} < 1$ V) 10 mV ( $1 \leq U_{sr} \leq 4$ V)		
Input impedance	2 MOhm    50 pF		
Rated frequency	50 or 60 Hz		
Output burden	$\leq 0,2$ Ohm		
<b>The M100A1 errors:</b>			
Output current	0.01 A (1%)	0.05 A (5%)	0.2...2 A (20...200 %)
Ratio error $\epsilon_{U-I}$	$\pm 0.1\%$	$\pm 0.03\%$	$\pm 0.015\%$
Phase displacement $\Delta\varphi_{U-I}$	$\pm 3$ min	$\pm 1.5$ min	$\pm 0.50$ min
Phase displacement $\Delta\varphi_{U-I}$	$\pm 0.09$ crad	$\pm 0.05$ crad	$\pm 0.015$ crad

**Power mains**

Voltage	100...240 V
Rated frequency	50/60 Hz
Operating temperature	0...40 °C
Relative humidity	up to 80 % non-condensing
Size	245 × 135 × 325 mm
Weight	5 kg

**ORDERING INFORMATION**

No	Item Name	Part no.	
1	M100A1 V-I Converter	M100A1.000.000.000	
2	Power cord	Purchased item	
3	MC(I) Measuring cable (1,6 m)	685612.131	
4	Functional Earth Cable (FE) (1,5 m)	M100A1.000.001.000	
5	Operating manual	M100A1.000.000.000 OM	
6	Passport	M100A1.000.000.000 P	
7	Package bag	S3U255.000.000.000	

**OLTEST LLC**

Development and production  
of measurement devices

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