

• **Voltage input up to 800 Vrms (AC + DC) 94000uCA**
 Two input ranges: 100V and 800V

• **Current input (AC and DC)**
94000iCA : direct input. Up to 10A
94000iCHall : for remote Hall effect sensor up to 250A
94000iCmV : mV input for shunt or Tio (current transformer)
94000iCROGO: input for Rogowski coil sensor

• **Frequency measurement 94000-Hz**

• **1000 pts Led display for measurement**
 Available in Red, Green, Yellow, Blue

• **Relay output option: 94000CA/R**

• **4-20mA analog output option**

• **Size 72 x 36 mm**
 Compact depth



The 94000CA is a digital meter for voltage or current measurement designed for low-cost or small size applications. The optional relay allows to use it as a protection relay.

Description:

94000uCA (voltmeter)
 - TRMS voltage measurement (100Vac+dc and 800 Vac+dc ranges)
 - frequency range : 0...50...60Hz, option for 400 Hz
 - compatible with wave train, phase angle variation
 - configurable PT ratio for external potential transformer

94000iCA (ammeter)
 - RMS current measurement (10A ac+dc direct input)
 - frequency range: 0...50...60Hz, option for 400 Hz
 - compatible with wave train, phase angle variation
 - configurable CT ratio for external current transformer

94000-Hz (frequency meter)
 - frequency measurement (100Vac and 800 Vac input ranges)
 - measurable frequency range 1Hz to 450 Hz

Front face :

- 3 digits, 7 segments LED display (1000 pts), 14 mm height
 - 2 push buttons for device configuration:
 external Transformer ratio, threshold setting, ...
 - LED indicator for alarm status

Relay output: (option 94000CA/R)

- 1 free potential changeover contact
 usable in alarm, protection ,
 - Threshold, direction of alarm, delay adjustable with push buttons in front face.

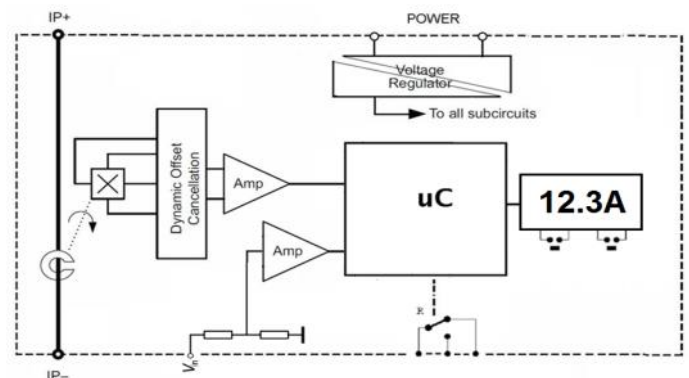
Analog output: (94000CA/S)

- One 4-20mA isolated output. Available only on the model with isolated current sensor input, for the retransmission of measure (configurable output range).

Feature:

- DIN panel case : 72 x 36 mm
 - Pluggable screw terminal blocks (2.5 mm²)
 - Universal power supply AC and DC
 - Galvanic isolation input / power supply / relay
 - Conformal coating
 - Protection rating IP54 (front face without buttons)

Synoptic:



Associated current sensors



Version and order code:

[Request a quote](#)

94000uCA	AC+DC voltmeter (100V and 800V, 50-60Hz)
94000iCA	AC+DC ammeter, direct input, 10A max
94000iCHall	AC+DC ammeter, for Hall effect sensor up to 250A (sensor type: Hco-d8 up to 80A, HCO12v-d20 up to 250A)
94000iCmV	ammeter, mV input for shunt (AC+DC) or Tio : split core current transformer (AC only)
94000iCROGO	ammeter for Rogowski coil sensor (AC only)
94000-Hz	Panel frequency meter

option: /R: 1 threshold relay
 /S: 4-20mA analog output (Only for 94000iCA model)
 - **400Hz** for measure on networks up to 440Hz
 option /R and /S are not cumulative.

INPUT		
TYPE	RANGE	ACCURACY
94000uCA		
AC voltage (direct input)	800 V	0.3% +/-1digit
DC voltage (direct input)	800 V	0.3% +/-1digit
Input impedance	800Kohms	
Measurement Threshold	10 V	
Power consumption	0.8 W	
AC voltage (direct input)	100 V	0.3% +/-1digit
DC voltage (direct input)	150 V	0.3% +/-1digit
Input impedance	100Kohms	
Measurement Threshold	1.5 V	
Power consumption	0.1 W	
Overload	1.5 x Un for 3 seconds	
94000iCA		
AC current (direct input)	10A	+/- 0.6 %
Overload	6 x In for 3 sec	
Measurement Threshold	2% of input range	
94000iCmV		
AC voltage (direct input)	2000mV	+/-0.2%
Overload	6 x Un for 3sec	
Measurement Threshold	1% of input range	
94000-Hz		
Frequency (for all inputs)	1Hz....440 Hz	+/-0.2% +/-1 digit
response time: standard	1000ms (measure integration) configurable from 0.01 to 60s	

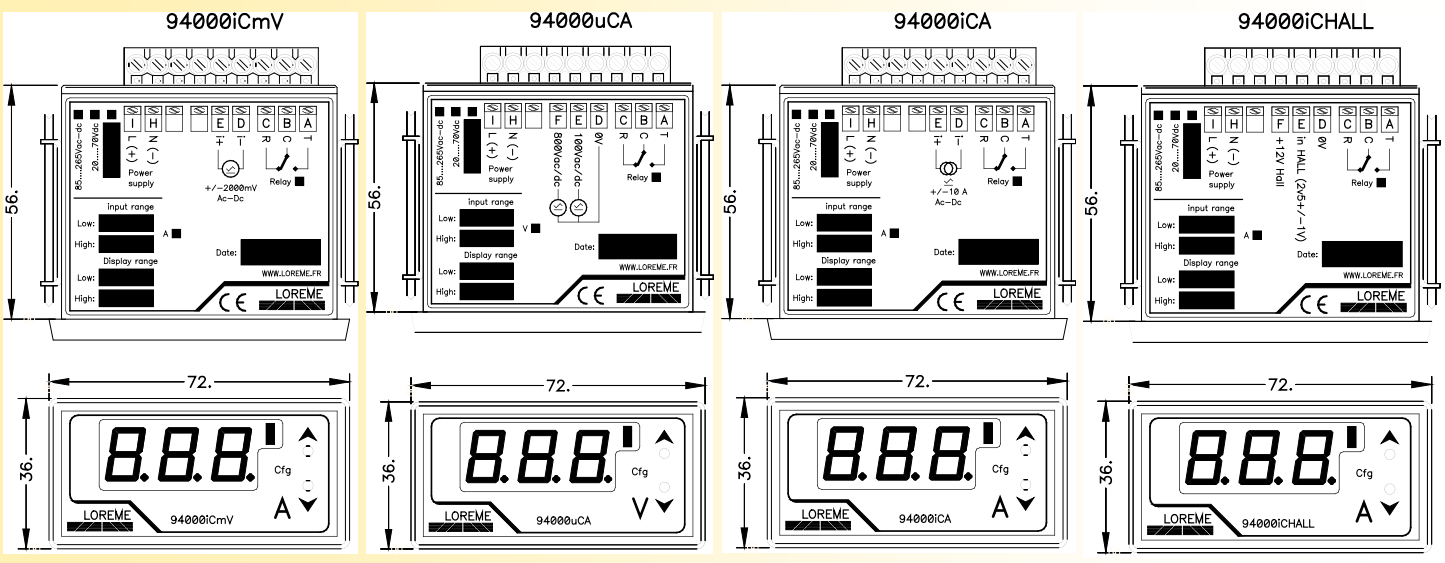
RELAY	
Switching power:	2A / 250 V, 60VA
changeover contact isolation:	1500 Vac
Analog output	
Current:	4...20mA +/-10µA
admissible load:	0...350 Ohms
POWER SUPPLY	
Universal, not polarized, available in 3 versions	
20....70Vac/dc	
85....265Vac/dc	
11Vdc....30Vdc.	
consumption < 1.5 VA	
ENVIRONMENT	
Operating Temperature	-10 to 60°C
Storage Temperature	-20 to +85 °C
Thermal drift (% of the full scale)	< 0.02% / °C
Humidity :	85 % (not condensed)
Protection rating :	IP54
Weight :	95 g
Dielectric strength	1500 Vrms continuous
	Input/Power/Output-Relay
MTBF (MIL HDBK 217F)	> 3 000 000 Hrs @ 25°C
Life time	> 200 000 Hrs @ 30°C

Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

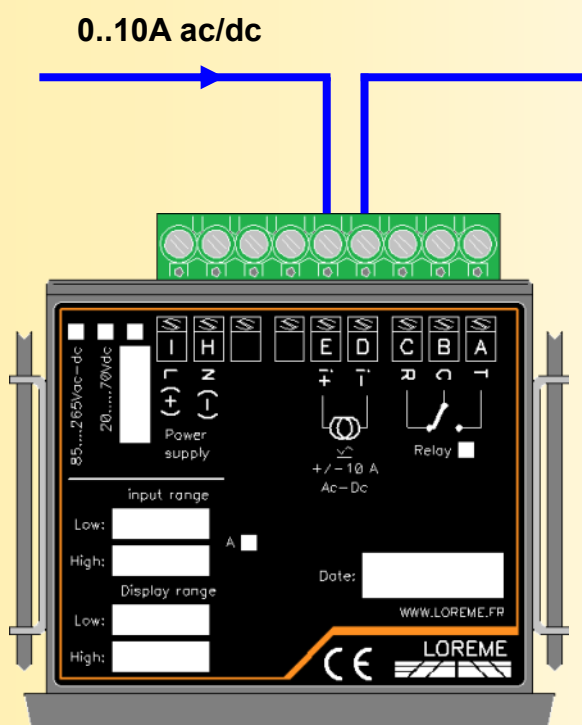
Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	
EN 61000-4-6 RF	EN 61000-4-29 DC dips	



WIRING AND OUTLINE DIMENSIONS: panel cut-out : 68.5 x 32.5mm



AC or DC Direct current input up to 10A input range



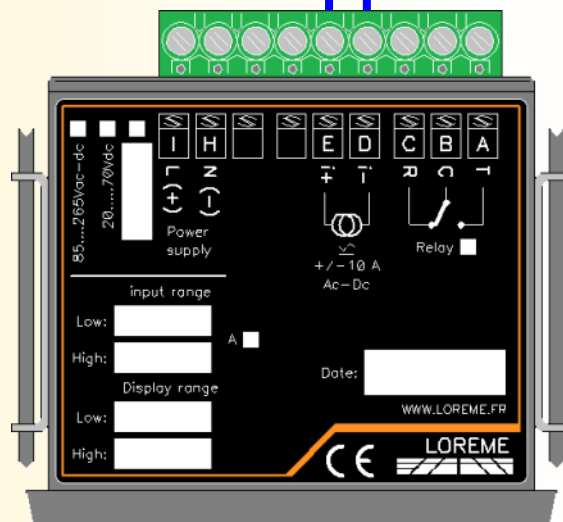
AC Input via current transformers 1A or 5A range

Split core current transformer

10A...3000A ac



1A / 5A ac



Current transformer

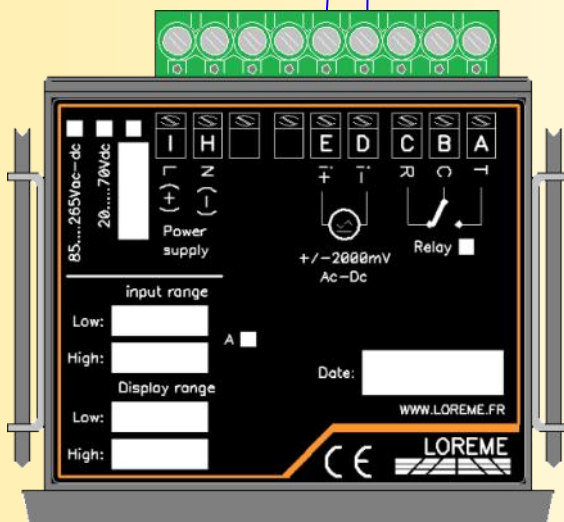


AC or DC current input on external shunt

10A...15KA ac/dc



50mV, 60mV
75mV, 100mV
150mV, 200mV



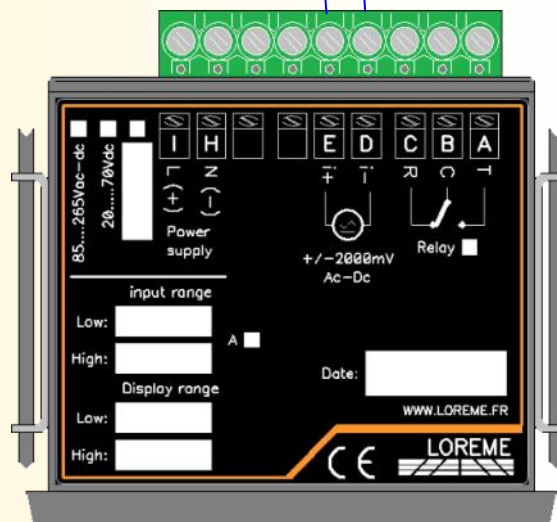
AC Input via split core current transformer with voltage output

5A...500A ac

[Miniature split core current transformer](#)



0...200mVac



[Miniature split core current transformer](#)

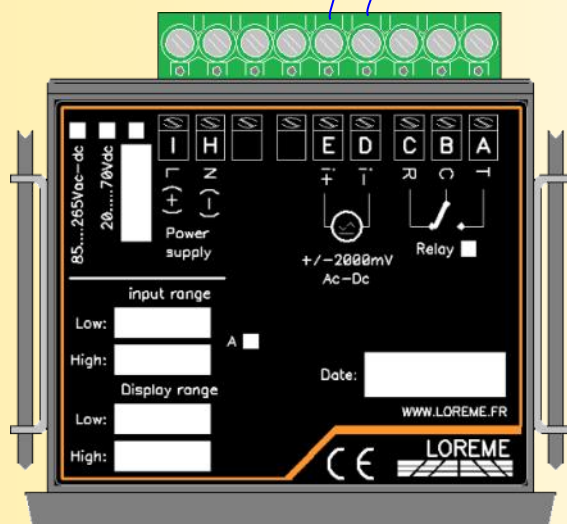


AC Input via Rogowski coil with mv output

Flexible split core
current sensor
(Rogowski coil)
Type : ROGOFLEX

100A...40kA ac

0...2000mVac



<http://www.loreme.fr/fichtech/Rogoflex.pdf>



AC or DC input via Hall effect
current sensor for high current

0..100A ac-dc

Signal 2.5V +/-1V
ac/dc
and +12Vdc sensor
supply

