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### Description

- ◆ 50/60 Hz, Single Phase, AC Current Sensor
- ◆ Dynamic Range from 0.25 to 80Amps
- ◆ Meets IEC62053-21 class 1
- ◆ Meets IEC 60044-1 class 0.1 Phase error < 5'
- ◆ Immune to external AC magnetic field. Immune to DC current & DC magnetic field
- ◆ Very low temperature coefficient
- ◆ Meets UL class B (130°C) thermal insulation system
- Meets UL 94V-0
- AC isolation resistance: 4KV for 60s

### Application

- Electricity meter
- Recording
- Power monitoring
- Energy management
- Alternative energy monitoring

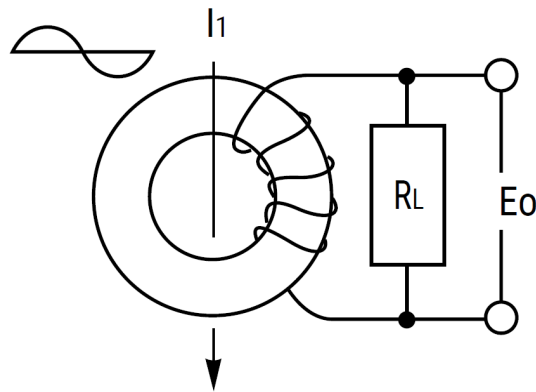
ELECTRIC SPECIFICATION AT 25°C										
Model number	Turns Ration	I <sub>pri</sub> <sup>4</sup>	I <sub>out</sub> <sup>5</sup>	I <sub>primax</sub> <sup>6</sup>	I <sub>outmax</sub> <sup>7</sup>	R <sub>s</sub>	Accuracy Class <sup>3</sup>	R <sub>L</sub> <sup>8</sup>	Weight	Frequency range
		Amps	mA	Amps	mA	Ohms		Ohms	(g)	(Hz)
LO-EM0005	1:2500	5	2	80	32		0.1	20		50-60

**Note:**

1. Output voltage is proportional to the derivative(di/dt)of the input current based on the Rogowski Coil principle.
2. All current and voltages assumed to be sinusoidal waveforms at Fr, the constant rated frequency in Hz, measured as RMS value.
3. Accuracy class per IEC60044-1Table 11.
4. I<sub>pri</sub>=Rated primary current.
5. I<sub>out</sub>=Rated secondary current.
6. I<sub>primax</sub>=Sensed max primary current.
7. I<sub>outmax</sub>=Sensed max secondary current.
8. R<sub>L</sub>=Terminating resistance. Varying terminating resistance increases or decreases output Voltage /Amps according to following equation  $R_L = V_{out} * N_{sec} / I_{pri}$

ABSOLUTE MAXIMUM RATINGS	
Operating free air temperature range	-40°C to 85°C
Storage temperature range	-40°C to 100°C
LEADS INFORMATION	
24AWG UL1569 Lead wires	Leads length: 105 ± 5mm
Stripped and tinned	4 ± 2mm

## Measuring Circuit



$I_1$  : Primary current (AT)  
 $R_L$  : Load resistance ( $\Omega$ )  
 $E_o$  : Output voltage ( $mV_{rms}$ )

## Mechanical Specifications

