

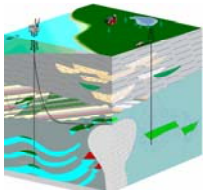


# Land Induction Coil (LIC) 120



## KMS Technologies - KJT Enterprises Inc.

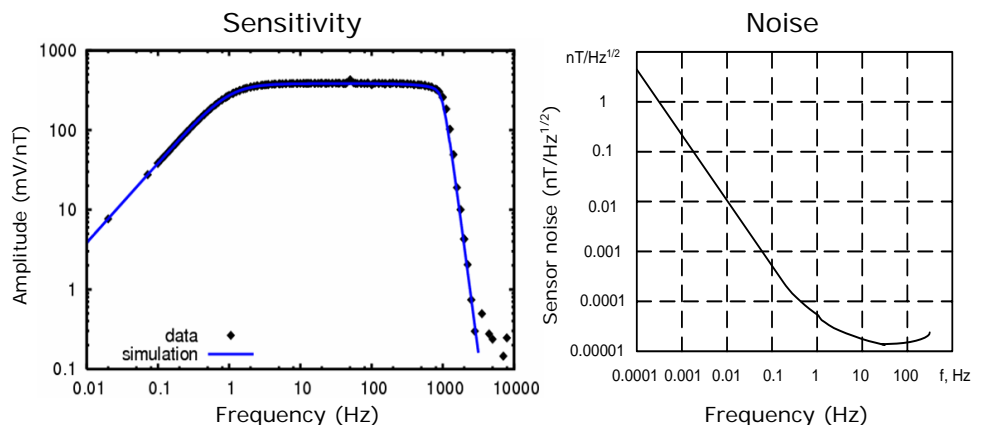
The KMS LIC-120 broadband land induction coil magnetometer was developed to measure variations of the Earth's magnetic field, particularly for applications in Magnetotellurics (MT) and Controlled Source Audio Magnetotellurics (CSAMT). It is intended for the study of magnetic field fluctuation in the frequency range from 0.0001 up to 1,000 Hz in land conditions. In spite of its wide bandwidth, the LIC-120 induction coil magnetometer shows outstanding low-noise characteristics, extremely low temperature drift of input offset voltage and offset current and a very stable transfer function over temperature and time. The LIC-120 is the result of many years of experience of KMS Technologies and its partners in the design, manufacture and application of induction coil magnetometers. Extensive comparison tests with other commercial induction coils the KMS LIC-120 showed superior performance due to its higher sensitivity, larger dynamic range and lower noise level. All KMS field sensors are highly reliable, lightweight, and manufactured to high standards, and designed for use in the most demanding environments. Our sensors have proven their reliability and quality on many MT and AMT sites around the world. A marine version in a specialized pressure housing (conductive or non-conductive) is available as well (product code: MIC-120).



## KMS Technologies

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## KMS LIC-120 Induction Coil Performance:



## Technical Specs

Frequency range	0.0001 Hz – 1,000 Hz
3 dB points frequency band	1 Hz ~ 1000 Hz
Shape of transfer function	Linear - Flat
Corner frequency	1 Hz
Output sensitivity Transformation factor <sup>1</sup> at main differential output (pins 1 & 3)	200 mV/nT 200*f mV/nT
<ul style="list-style-type: none"> <li>at the flat part</li> <li>at the linear part<sup>2</sup></li> </ul>	
Transformation factor at auxiliary output (pin 5)	20 mV/nT 20*f mV/nT
<ul style="list-style-type: none"> <li>at the flat part</li> <li>at the linear part<sup>2</sup></li> </ul>	
Transformation factor error	< 3 dB
Magnetic noise level	
<ul style="list-style-type: none"> <li>at 0.001 Hz</li> <li>at 0.01 Hz</li> <li>at 1 Hz</li> <li>at 100 Hz</li> </ul>	$\leq 100 \text{ pT}/\sqrt{\text{Hz}}$ $\leq 10 \text{ pT}/\sqrt{\text{Hz}}$ $\leq 0.1 \text{ pT}/\sqrt{\text{Hz}}$ $\leq 0.01 \text{ pT}/\sqrt{\text{Hz}}$
Output voltage range	+/- 10 V
Function	Induction coil with magnetic field feed back
Connector	10-pin
Length of connecting cable	$\leq 100 \text{ m}$
Supply voltage	$\pm (12 \pm 0.2) \text{ V}$
Power consumption	270 mW
Weight	7.5 kg
External dimensions	Length: 1,215 mm, Diameter: 96 mm
Operating temperature	-10 °C – +50 °C
Housing	Non-conductive pressure

Several housing options are available. For marine coils we offer conductive or non-conductive housing (please specify depth range).

