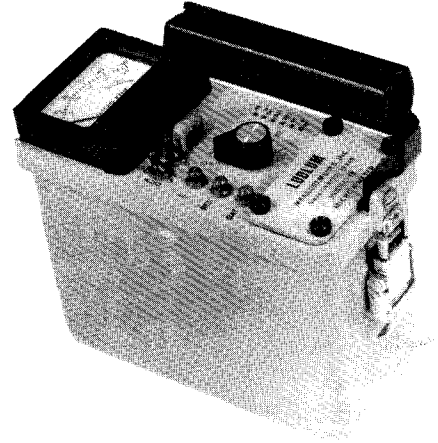


LMI MODEL 19 MICRO R METER

Sept. 1988

The Ludlum Model 19 Micro R Meter is a hand held survey instrument used for the detection of low intensity gamma radiation in environmental surveys. It determines the presence of low specific activity (LSA) material in remedial action programs. The Model 19 possesses an internally mounted 1" diameter by 1" long NAI scintillation crystal which provides approximately 200 counts per micro R per hour ($\mu\text{R/hr}$) calibrated using a Cs-137 standard. The instrument is energy dependant and will over respond in the 60 - 350 keV range, thereby increasing the sensitivity of the instrument. It is capable of detecting small increases in radiation levels above the 4 $\mu\text{R/hr}$ to 15 $\mu\text{R/hr}$ background levels.

The Model 19 displays a 5 scale analog meter with the most sensitive scale reading of 0 - 25 $\mu\text{R/hr}$ and the highest scale capability of measuring radiation fields up to 5 mR/hr. This LMI Micro R Meter features an audio unimorph speaker with an ON/OFF switch, FAST/SLOW meter response switch, battery check, meter reset switch, a meter illumination lamp, high voltage adjustment, and front panel calibration potentiometers for each of the five range selections. The instrument uses 2 standard "D" cell batteries which have a typical life of 200 hours.



CALIBRATION TIPS : GAS PROPORTIONAL DETECTORS *Sept. 1988*

Quite frequently some of you inquire about information on our LMI gas proportional detectors. We are always glad to offer information on how we "check out" this product. In the following example, we will demonstrate the check out procedure for both LMI Models 43-68 and 43-20, gas proportion detectors.

The equipment necessary to begin includes a Ludlum counter (scaler or portable survey meter), a pressurized container of P-10 counting gas (90 % argon, 10 % methane approximately 2000 psi or 13790 kPa), a dual stage regulator supplied with a needle valve and input/output flow meters and a supply of calibrated sources (alpha, beta/gamma). Please note that both quick connects (male and female) are double ended shut off valves. Caution: If either the output quick connect or the input quick connect attachment is removed the gas must be turned off.

The gas proportional detector can be flushed at a high rate (4-5 inches of water) by attaching the gas input quick connect and by removing the hose from the output quick connect which allows the gas to flow freely. Flush for approximately 15 minutes (larger detectors may require a longer flush period), turn gas off, reconnect hose to quick connect and set gas flow to 120 cc/min. The output should read approximately the same cc/min as the input, if not check the detector for gas leakage. The detector should now be ready to check or plateau if the preceding procedures have been followed.

To check the detector, set the counting instrument's threshold adjustment to 10 mV sensitivity. Connect the detector to the counting instrument and begin the plateau. The typical operating voltage should be 1000 - 1200 volts for alpha and 1600 - 1700 volts for beta/gamma. If you have questions, please give our Customer Service Department a call at 915/235-5494.

LMI TIPS : INSTRUMENT REPAIR AND CALIBRATION

REPAIR:

Ludlum Measurements is continuously trying to improve our product and service process. An area that we are trying to improve is that of instrument repair and calibration. Our goal for returning repaired instrument has been set at approximately 5 to 10 working days, while our goal for routine calibration has been set at three days.

To help us shorten the turn around time for your repair, we need your help. Frequently we receive instruments to be repaired which have no instructions as to the problems you, the customer, are experiencing with the instrument. When this happens we attempt to communicate with the end user to find out what problem is. Many times we are unsuccessful in communicating with the right person who is the end user of the instrument. Please include the information as follows your returned instruments for repair.

NAME:

ADDRESS:

USERS NAME, DEPT. & PHONE NO.:

INSTRUMENT MODEL AND SERIAL NO.:

CALIBRATION _____ REPAIR _____ (check one)

(continued from previous page)

Sept. 1988

CALIBRATION INTERVAL:

TYPE OF WORK INSTRUMENT IS USED FOR:

FAILURE SYMPTOMS: (Please list example)

DETECTORS OR COMPATIBLE INSTRUMENT: (Please list what type and Model of instrument the returned instrument is used with in your operation.)

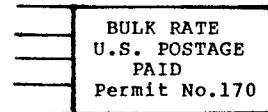
SHIPPING INFORMATION:

BILLING INFORMATION: If a quote is required, please list phone number and name of person to contact. Also, list billing address.

CALIBRATION:

To reach our turn around calibration goal, we need the following information. Please specify whether the returned instrument is to be repaired or has been sent in for a routine calibration. Please list name, department and telephone number of a person to contact in case we find a problem or if the instrument could benefit from a modification or update.

LUDLUM MEASUREMENTS, INC.
501 OAK STREET
P.O. BOX 810
SWEETWATER, TX 79556



PLEASE FORWARD
ADDRESS CORRECTION REQUESTED