



Micro-Spherically Focused Log

General Tool Description

The Micro-Spherically Focused Log (MSFL) is a pad-type miniature version of the SFL (Spherically Focused Log) that was developed to eliminate borehole effects and achieve superior shallow investigation. The MSFL measurement involves only the first few inches of the formation immediately adjacent to the borehole, the flushed zone (Rxo), in which drilling fluid has displaced all formation fluids. The MSFL log provides a measurement of the flushed zone resistivity with low mudcake correction. The electrodes for the MSFL are imbedded in a insulating pad mounted on a powered caliper arm. A caliper curve is usually provided with the resistivity measurement.

A computed focusing scheme is used to implement the focusing conditions. This eliminates the monitoring loop found traditionally in MSFL and increases accuracy.

SPECIFICATIONS

Diameter (Tool Body)	3.5 in. (9 cm)
Max OD:	5.0 in (12.7 cm)
Length	163.4 in. (4.15m)
Weight	217 lb. (98 kg)
Operating Voltage	100VDC 60mA OR 250VAC 60Hz 30mA OR 180VAC 60Hz 40mA

MEASUREMENT RANGE

MSFL	0.2 to 2,000 ohm-m
Accuracy	± 5 %
Caliper	5-1/2" to 16"

LIMITATIONS

Maximum Pressure	15,000 PSI
Maximum Temperature	350°F (177°C)