

Ore wells logging Coal and water wells logging

LOM-2 BOREHOLE PROCESSOR MAGNETOMETER WITH OVERHAUSER SENSOR



The LOM-2 processor Overhauser magnetometer is a precision measuring tool based on the principle of dynamic polarization of nuclei (Overhauser effect), intended for measuring the module of the Earth's magnetic field induction. The magnetometer is based on an Overhauser nuclear precession converter with a stable working substance (lifetime is about 3-5 years). By compared to proton converters, this type of converter has lower power consumption, greater sensitivity and gradient stability.

Operates with three-core logging cable.

SPECIFICATIONS

Magnetic induction module measuring range, nT	30000-70000
Sensor transformation coefficient	$1,0 \cdot 10^{12} \pm 0,5$
The main systematic measurement error, nT	3
Additional measurement error in the temperature range from 10 ° C to +50 ° C, nT	1
Additional measurement error when the primary transducer deviates by an angle of 45 ° from the optimal orientation, nT	1
Downhole tool supply voltage, V	40-80
Output code	RS-232
The life time of the working substance of the sensor, years	3-5
Gradient stability, nT / m	10000
Time of establishment of an operating mode, sec	10
Duration of a single measurement, sec, no more	1
Cycle of automatic start of measurements, sec	1, 2, 3, 4...
The angle of the optimal orientation of the axis of the cylinder of the primary transducer relative to the direction of the magnetic field, deg	not orientable
Maximum operating temperature, °C	-30..+80
Maximum hydrostatic pressure, MPa	20
Dimensions (excluding connectors), mm:	
- sonde	42x1500
- electronic unit	160x90x60
Weight, kg	10