



PHOTONIC HALL EFFECT MEASUREMENT SYSTEM

FYTRONIX HE-9300



FYTRONIX Hall effect systems measure the electrical properties of semiconductor materials.

TECHNICAL SPECIFICATIONS

The device is compact and suitable for benchtop use.

Resistance (resistance) measuring range: 10^{-4} and 10^7 (Ohm.cm)

Carrier density: 10^7 - 10^{21} cm^{-3}

Mobility measuring range: 10^7 ($\text{cm}^2/\text{Volt.s}$).

Carrier concentration: 10^7 - 10^{21} cm^{-3}

Current source range: 1 nA to 200 mA

Output voltage: 12V

Magnetic field: 0.5 Tesla

Hall voltage value: at least 1 mV



Sample measurement area: Measurement area up to 20x20 mm

Hall effect switcher

Photonic light source: Hall effect measurements at wavelengths 620 nm (R), 520 nm (G), 456 nm (B), 575 nm (Yellow), 595 nm (Orange), and 435 nm (Violet)

Measured parameters

Sheet resistance, resistivity,

Conductivity

Resistivity

Hall coefficient

Magneto resistance

These parameters are displayed on the computer screen via software.

Measurements made with software

Hall effect measurements

Current-voltage measurements (I-V)

Current-Resistance measurements (I-R)

Sample holder: For samples up to 20x20 mm

Reference sample

Direct attachment of the sample to the sample holder with pins

Preparing contacts with silver paint

HALL EFFECT MEASUREMENT SYSTEM

Current: Delay (ms): Mode: Filter Coefficient:

Threshold (mV): Magnetic Field (mT): Filter Index: Filter Coefficient:

Distance (cm): Nulling (mV): Filter (1/Hz): Nulling Rate (1/s):

Status:

MEASUREMENT DATA

IX (mV)	IC (mV)	IX-IC (mV)	IX+IC (mV)	IX/IC (mV)
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0

IX (mV)	IX-IC (mV)	IX+IC (mV)	IX/IC (mV)	IX/IC (mV)
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0

RESULTS

Sub Concentration (m ³):	<input type="text" value="0.0"/>	Wind Concentration (m ³):	<input type="text" value="0.0"/>
Initiality (m ³ /V):	<input type="text" value="0.0"/>	Conductivity (m ³ /V):	<input type="text" value="0.0"/>
Resistivity (Ω·m):	<input type="text" value="0.0"/>	Average Hall Coefficient (m ³ /C):	<input type="text" value="0.0"/>
W-C Cores Hall Coefficient (m ³ /C):	<input type="text" value="0.0"/>	W-C Cores Hall Coefficient (m ³ /C):	<input type="text" value="0.0"/>
Proposed Resistance (Ω):	<input type="text" value="0.0"/>	Ratio of Vertical / Horizontal:	<input type="text" value="0.0"/>
Wind Resistance (Ω·m):	<input type="text" value="0.0"/>		

