



## Hall Measurement System RH 2030

### Specifications and part list

#### 1. RH 2030 electronic case

Bench top case (310x205x90mm), mains power **240 Volt**

**Wight: 1Kg**

including all electronic parts as:

current source and relais matrix,

voltage measurement facility,

0-10V voltage reference for magnet power supply

1x polarity switch for magnet power supply

**USB interface**

Specifications:

**current source:**

usable current range : 1nA - 10 mA

output voltage : +/- 10V (+/-20V)

output resistance : typical  $10^{13}$  Ohms

max. current resolution : 25 pA

6 current ranges in factors of 10 (100nA - 10mA) each with 12 Bit resolution are used for controlling the output current.

The output voltage can be limited to a maximum voltage or power value.

**voltage measurement facility:**

usable voltage range : 10  $\mu$ V - 10V

resolution : < 1  $\mu$ V (typical 500nV)

input resistace: : >  $10^{13}$  Ohms

automatic range selection



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## 2. Magnet (see product description from Oxford Instruments N38 Magnet)

dimensions: 250x182x140 mm

**wight: 25 Kg**

poletip diameter: 38 mm

max. field @ app.1cm poletip gap (air): 1 T

2 temperature sample stage

## 3. Magnet power supply

**wight: 12 Kg**

maximum output voltage : 95 V

maximum current : 5 A

## 3. Software

1 CD with our Hall measurement software. 2 security hardlock keys

Requires a computersystem with CD-drive, printer and WIN NT or WIN 95 or WIN 98 or WIN 2000 or Win XPoperating system. **The computer system can be included on request.**

## 4. Spare part box

including all necessary cables and spare parts.

## Typical Performance:

(theoretical limits of the electronic facilities)

Resistance :  $1 \times 10^{-3}$  Ohm -  $1 \times 10^9$  Ohm

with 1 micrometer layer thickness:

Resistivity :  $1 \times 10^{-5}$  Ohm\*cm -  $1 \times 10^7$  Ohm\*cm

Concentration :  $10^7$  cm<sup>-3</sup> -  $10^{21}$  cm<sup>-3</sup>

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