

# Selector Guide

## Low Voltage/Low Resistance Meters

| Model                             | 2182A  | 6220/6221   | 3706  | 2750   | 2010  | 2002                                   |
|-----------------------------------|--|---|---|--|---|--|
| Page                              | 229  | 235   | 240   | 40   | 29  | 23                                     |
| <b>VOLTAGE RANGE (Full Scale)</b> |  |   |   |  |   |  |
| From                              | 10 mV  | N/A   | 100 mV  | 100 mV   | 100 mV  | 200 mV                                 |
| To                                | 100 V  | N/A   | 300 V   | 1000 V   | 1000 V  | 1000 V                                 |
| Input Voltage Noise               | 1.2 nV rms   | N/A   | 100 nV rms  | <1.5 $\mu$ V rms   | 100 nV rms  | 150 nV rms                             |
| <b>CURRENT RANGE</b>              |  |   |   |  |   |  |
| From                              | N/A  | 100 fA DC<br>(also 2 pA peak AC, 6221 only)                         | N/A   | N/A  | N/A   | N/A                                    |
| To                                | N/A  | $\pm$ 105 mA DC<br>(also 100 mA peak AC, 6221 only)                 | N/A   | N/A  | N/A   | N/A                                    |
| <b>RESISTANCE RANGE</b>           |  |   |   |  |   |  |
| From <sup>1</sup>                 | 10 n $\Omega$ <sup>3</sup>   | 10 n $\Omega$ (when used with 2182A)                                | 0.9 m $\Omega$  | 0.4 m $\Omega$   | 0.9 m $\Omega$  | 1.2 m $\Omega$                         |
| To <sup>2</sup>                   | 100 M $\Omega$ <sup>3</sup>  | 100 M $\Omega$ (when used with 2182A)                               | 100 M $\Omega$  | 100 M $\Omega$   | 100 M $\Omega$  | 1 G $\Omega$                           |
| <b>THERMOCOUPLE TEMPERATURE</b>   |  |   |   |  |   |  |
| From                              | -200°C   | N/A   | -150°C  | -200°C   | -200°C  | -200°C                                 |
| To                                | 1820°C   | N/A   | 1820°C  | 1820°C   | 1372°C  | 1820°C                                 |
| <b>FEATURES</b>                   |  |   |   |  |   |  |
| IEEE-488                          | •  | •   | •   | •  | •   | •                                      |
| RS-232                            | •  | •   | •   | •  | •   | •                                      |
| CE                                | •  | •   | •   | •  | •   | •                                      |
| Input Connection                  | Special low thermoelectric w/copper pins. Optional 2187-4 Modular Probe Kit adds banana plugs, spring clips, needle probes, and alligator clips. | Trigger Link, Digital I/O, Ethernet                                 | Rear panel 15 pin D-SUB. Optional accessories: 3706-BAN, 3706-BKPL, 3706-TLK                            | Banana jacks (4)   | Banana jacks (4)  | Banana jacks (4)                       |
| Special Features                  | Delta mode and differential conductance with Model 6220 or 6221. Pulsed I-V with Model 6221. Analog output. IEEE-488. RS-232.                    | Controls Model 2182A for low-power resistance and I-V measurements. | Dry circuit. Offset compensation. Plug-in switch/relay modules. USB. LXI Class B/Ethernet. Digital I/O. | Dry circuit. Offset compensation. DMM. IEEE-488. RS-232. Digital I/O. Plug-in modules. | Dry circuit. Offset compensation. DMM. IEEE-488. RS-232. Plug-in scanner cards. | 8½ digits. DMM. Plug-in scanner cards. |

### NOTES

- Lowest resistance measurable with better than 10% accuracy.
- Highest resistance measurable with better than 1% accuracy.
- Delta mode, offset voltage compensation with external current source. 10n $\Omega$  if used with 5A test current with Model 2440.

1.888.KEITHLEY (U.S. only)

[www.keithley.com](http://www.keithley.com)

**KEITHLEY**

A GREATER MEASURE OF CONFIDENCE