

Type 5114

5114 POWER SUPPLY/COUPLER

This single channel signal conditioner provides constant current excitation required by low impedance voltage mode sensors with built-in electronics (Piezotron®, PiezoBEAM®, ICP compatible, etc.) or for high impedance sensors with an external impedance converter. Sensor power is supplied by the same two-wire cable that

provides the low impedance, output signal. The 5114 decouples the DC bias voltage from the output signal.

A 3.5 digit LCD with 0.5 inch high digits indicates sensor DC bias voltage. Three light-emitting diode on the display panel indicate the basic status of the sensor circuit. Bias voltages in the range of 4 to

- Provides constant current excitation
- Monitors condition of sensors and cables
- 3.5 digit LCD display
- AC, DC or battery powered
- Conforming to CE

Continued



Technical Data	Units	5114
Sensor Excitation		
Voltage , min.	VDC	20
Supply Current	mA	2
Gain		1
Frequency Response ⁽¹⁾ (±5%)	Hz	0.07 ... 60 K
(1 MΩ Load; 3 meter total cable length and 5Vpp signal level)		
Time Constant	s	10
Temperature Range Operating	°F	-15 ... 130
(alkaline battery)	°C	-10 ... 54
Storage	°F	-5 ... 140
	°C	-20 ... 60
Output		
Voltage	Vpp	20
Impedance	Ω	<100 (in series w/47 μF)
Internal Battery	type	9V alkaline
Battery Life	h	≥36
External Voltage Source	VDC	12 ... 24
	mA	20
Connectors		
Input/output	type	BNC neg.
External Power	type	2.1 mm jack
Weight (with battery)	g	250

(1) Actual response is dependent upon cable length and signal amplitude

(2) Accelerometer types 8614A500 and 8694M1 have a normal operating bias in the range of 2.5 to 5VDC

1 g = 9.80665 m/s², 1 inch = 25.4 mm, 1 gram = 0.03527 oz

Kistler Instrument Corporation reserves the right to discontinue or change specifications, designs or materials without notice consistent with sound engineering principles and quality practices.

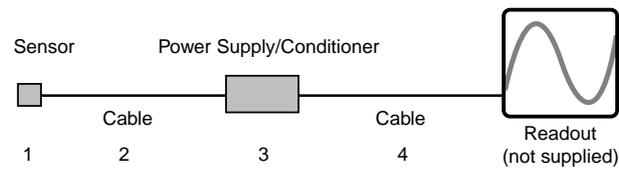
Kistler Instrument Corporation, 75 John Glenn Drive, Amherst NY 14228
Phone 716-691-5100, Fax 716-691-5226, e-mail: kicsales@kistler.com, www.kistler.com

P. 2

16 volts are normal and result in a "Normal" (green) indication; bias voltages below 4 volts (see model exception note 2) produce a "Short" (red) indication; and, a voltage above 16 volts will result in an "Open" (yellow) indication.

The unit operates from a single 9 volt battery or DC power from an external AC/DC power adapter. "LOBAT" is indicated on the LCD readout when battery replacement is required. One 9 volt battery is installed in a compartment in the bottom of the case and operates 36 hours. The meter will operate at least one hour when displaying "LOBAT". The device can also be powered externally, using an optional AC/DC power adapter where an external 12 volt DC power is supplied through the 2.1 mm jack on the end panel. A power "On/Off" switch is located on front of the case.

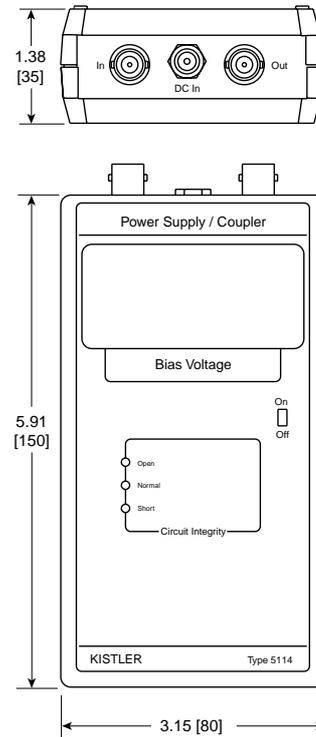
Ordering Information



Specify:

- 1 - sensor low impedance voltage mode sensor
- 2 - 1761B... sensor cable, 10-32 pos. to BNC pos. specify length in meters
- 3 - 5114 supplied with 9V alkaline battery
- 5114S1 supplied with 9V alkaline battery
- 5752 AC-DC power adapter, and
- 605-2501-001 carrying case,
- 4 - 1511... output cable, BNC pos. to BNC pos., specify length in meters

Dimensions in inches [mm]



Optional Accessories

- 5752 AC-DC power adapter (120V, 60Hz)
- 5757 AC-DC power adapter (230V, 50Hz, CE certified)
- 3.750.067 protective rubber boot
- 704-2068-001 DC power cable (6 ft)
- 300-0092-002 alkaline battery, 9V
- 605-2501-001 carrying case

000-330e-09.00 (DBK12.5114e-09.00)