

Type 5118B2

5118B2 POWER SUPPLY/COUPLER

The signal conditioner provides the constant current excitation required by low impedance, voltage mode sensors with built-in electronics (i.e., Piezotron®, PiezoBEAM®, K-SHEAR®, and Ceramic Shear) 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 5118B2 decouples the DC bias voltage from the output signal and provides a 2ma constant current source which can also be factory adjusted between 2 to 18 mA. Bias indicators display the condition of the sensor and cable. Amplifier gains of 1x, 10x and 100x are selectable

Continued

- Selectable gain and low pass, plug-in filters
- High pass filtering, panel selectable
- Monitor the condition of the sensors and cables
- Exclusive "Rapid Zero" feature
- AC, DC or battery powered
- Conforming to CE



Technical Data	Units	5118B2
INPUT		
Sensor Supply Current	mA	2 (1)
Signal Voltage	V	±5
Gain		1x, 10x, 100x
Bandwidth		
High Pass (switch selectable)		
Frequency -3db	Hz	0.03, 0.006
-5db	Hz	0.10, 0.02
Time Constant	s	5, 25
Low Pass (no filter; @ ±5V out)		
Gain 1x -3db	kHz	>100
-5%	kHz	>40
Gain 10x -3db	kHz	>100
-5%	kHz	>20
Gain 100x -3db	kHz	>30
-5%	kHz	>12
Noise (without low pass-filter)		
Gain 1x, 10x	mV _{rms}	<2
Gain 100x	mV _{rms}	<5
Output Impedance max.	Ω	100
Voltage Swing max.	V	±10
Connectors input/output	type	BNC neg.
Connector power	type	2.1 x 5.5mm concentric
Internal Battery (4 each)	type	1.5V AA, alkaline
Temperature Range Operating	°F	-5 ... 125
(alkaline batteries)	°C	-20 ... 50
Storage (w/o batteries)	°F	-20 ... 140
	°C	-30 ... 60
External Voltage Source (2)	VDC	6 ... 28
Weight	lb	1.1

(1) Sensor current can be set at factory for any current in the range of 2 ... 18 mA

(2) Optional AC adapter available

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.

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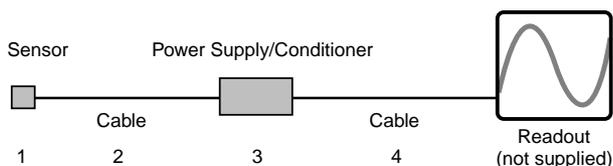
from a front panel switch. Highpass filter cutoff frequencies (-3dB) 0.006 and 0.03 Hz are also selectable by a switch on the front panel.

Plug-in, low pass filters are available to limit the frequency response of the amplifier. See ordering information for range of available cutoff frequencies. These low pass filters can be used to attenuate unwanted frequency and/or improve signal-to-noise ratio. Bias voltage is monitored and displayed with three front panel-mounted LEDs. Bias voltage in the range of 2 to 21V is normal and results in a green "OK" LED indication. Bias voltage below 2V or above 21V results in a red "LOW" or "HIGH" indication. A "LOW" generally indicates a short circuit in the cable or sensor while "HIGH" means an open circuit.

The coupler warns of a low battery audibly, with an intermittent chirping sound. Battery lifetime is about 12 hours at a sensor current of 2mA. Coupler power can be provided from three sources: four AA 1.5 volt batteries, AC-operated from a power line adaptor, or regulated DC source between 6 and 28VDC. Because of Kistler's unique "Rapid Zero" feature, the coupler is ready for taking measurements two seconds after powering. When changing gain or filter settings, the 5118B2 is ready to use in two seconds.

Note: For permanent installations, the unit is designed for panel mounting, using optional adapters

Ordering Information

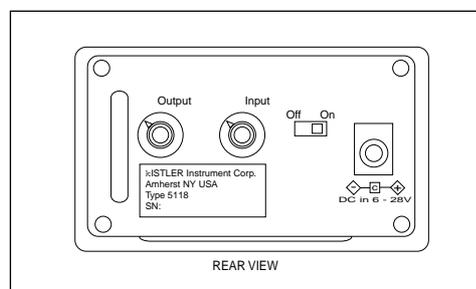
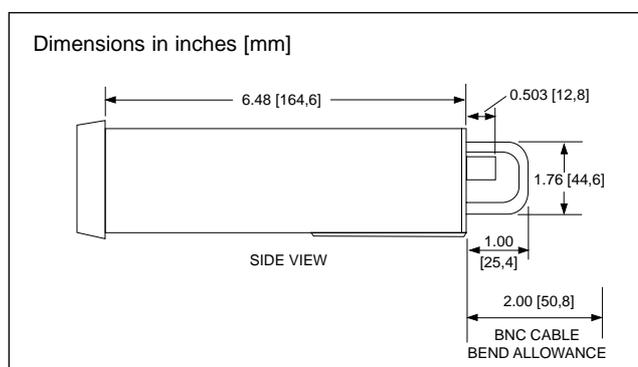
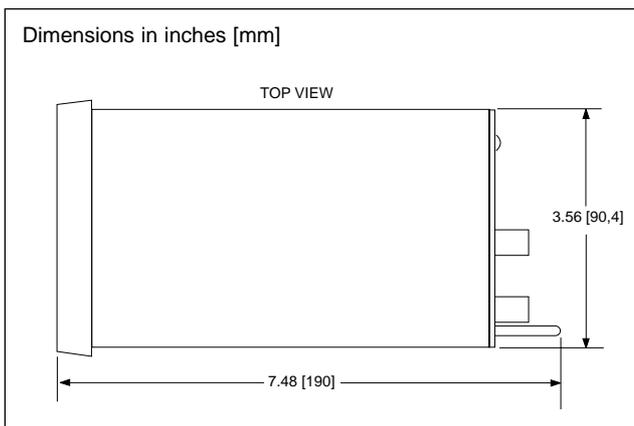


Specify:

- 1 - sensor low impedance, voltage mode
- 2 - 1761B... sensor cable, 10-32 pos. to BNC pos., specify length in meters
- 3 - 5118B2 power/supply coupler
- 4 - 1511... output cable, BNC pos. to BNC pos., specify length in meters

Optional Accessories

- 5752 power adaptor, 115 VAC, 60 Hz
- 5757 power adaptor, 230 VAC, 50 Hz, CE certified
- 5326A... low-pass filter, cut-off frequency; in Hz (10, 20, 50, 100, 200, or 500)
- 5327A... low-pass filter, cut-off frequency; in kHz (1, 2, 5, 10, 20)
- 5324A... high-pass filter, cut-off frequency; in Hz (1, 10, 100)
- 5702 panel mounting kit
- 704-2068-001 power cable (6ft.) with mating plug to pigtails



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