EC6061

VP1000 Voltage preamplifier

EC6061

- **1Hz to 1MHz bandwidth Hi-pass filter options**
- **6 level gain selection**
- **100Mohm inputimpedance**
- **Excellent low-noise characteristic**

The VP1000 is a 1MHz bandwidth single ended voltage preamplifier, designed for use with piezoelectric hydrophone and a variety of transducers. VP1000 offers excellent low-noise performance, gain selection in 6 levels and options of 12 Hi-Pass filters.

The high input impedance of 100Mohm allow for low frequency measurements with even very small sensor element capacities.

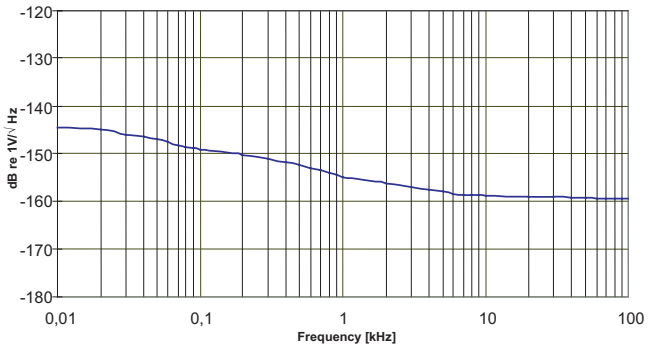
Encapsulated in aluminum box The VP1000 is water stain resistant.

TECHNICAL SPECIFICATIONS	
Input:	
Impedance:	100MΩ//2.5pF
Max. level:	2.8Vrms at 12V supply
Output:	
Impedance:	10ohm/100µF
Max. level:	2.8Vrms at 0dB gain
Max. load:	10nF ≈100m cable
DC offset Phase @:	OmVdc (capacitive coupling) -180°
Gain:	
Gain settings:	0, 6, 12, 20, 26, 32 dB
Tolerance:	±0.5dB
Bandwidth	
Operating frequency range -3dB at 20dB gain:	0.5Hz to 1MHz
Noise:	
Power spectrumdensity noise:	20nV/√Hz (at 1kHz)
Hi-Pass Filters:	1,5,10,20,100,1k,2k,
-3dB @ Hz:	5k, 10k, 20k, 50k
-12dB @ Hz:	0.1
Power supply:	12Vdc
Voltage nominal:	min 9Vdc, max 18Vdc
Current quiescent:	12mA @ 12Vdc
Weight:	305g. (with supply cable and LEMO adaptor)
Accessories included:	Supply cable TL 8088

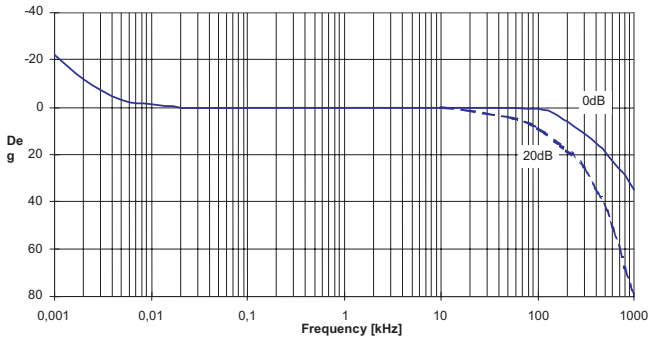
EC6061

VP1000 Voltage preamplifier

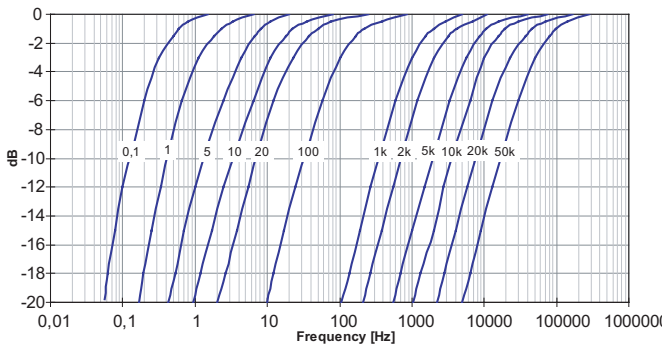
Noise power density spectrum re input
Input load 1nF, gain 20dB, 0.1Hz filter



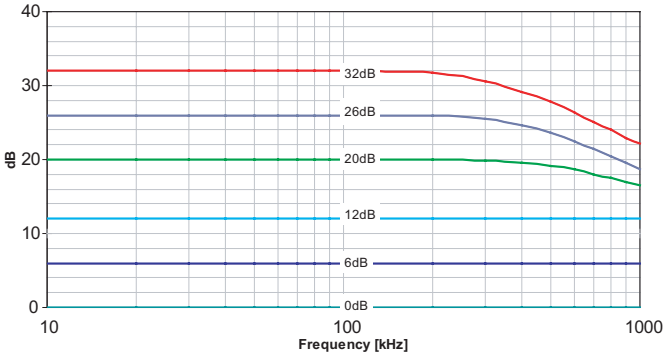
Voltage preamplifier VP1000
Phase shift with 0.1Hz filter at 0dB and 20dB gain



VP1000 filter characteristics



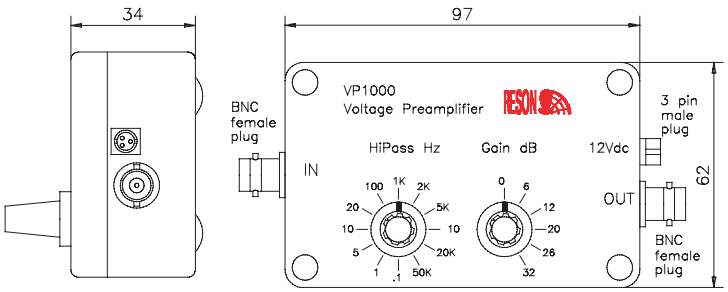
VP1000 Frequency roll-off versus gain



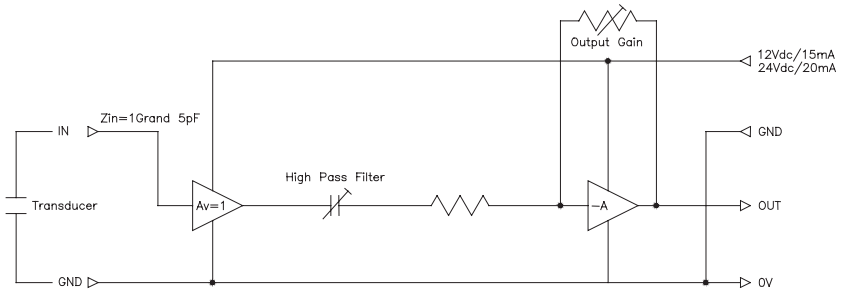
EC6061

VP1000 Voltage preamplifier

VP1000 outline dimensions and layout



Functional Block Diagram



Transducer Capasitance

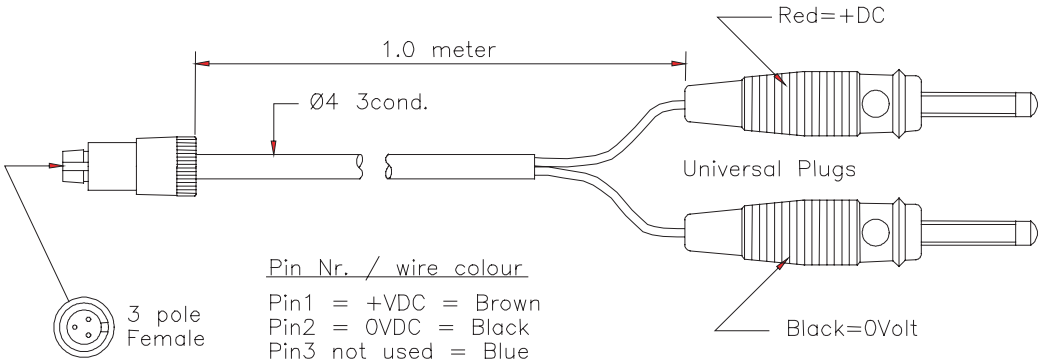
1nF nominell
Range: 100pF to 10nF

High Pass Filter
0.1Hz/−6dB
1Hz to 50KHz/−3dB

Gain:
0dB to +32dB
Output signal max:
+/−3V peak

Upper Limit Frequency / worst case=1MHz at gain +32dB
Roll−off=6dB at 1MHz at Load max. 600ohm and/or 10nF and output signal max.
−6dBm=387mVrms

TL 8088 Supply cable



RESON A/S
Denmark
Tel: +45 4738 0022
reson@reson.com

RESON Inc.
USA
Tel: +1 805 964-6260
sales@reson.com

RESON Offshore Ltd.
United Kingdom
Tel: +44 1224 709 900
sales@reson.co.uk

RESON GmbH
Germany
Tel: +49 431 720 7180
reson@reson-gmbh.de

RESON B.V.
The Netherlands
Tel: +31 (0)10 245 1500
info@reson.nl

RESON (Pte.) Ltd
Singapore
Tel: +65 6725 9851
sales@reson.com

Version: B122 060122 / A4