Premium noise performance and 1000 Meg Ω input impedance are provided in a preamplifier with remotely-switchable gain and 50 Ω drive capability. Applications include hydrophones, low noise vibration work, radiometry—generally, any case where widely-varying signal amplitude is encountered.
CONSTRUCTION

1.141 inch diameter X 3.5 inch long hermetically sealed cylindrical module. Input on one end, all other functions on opposite end to make it convenient for applications where signal flow is in a straight line.

PIN CONNECTIONS

INPUT:

\[
\begin{align*}
G & \quad \text{GROUND} \\
H & \quad \text{INPUT HI} \\
L & \quad \text{INPUT LO}
\end{align*}
\]

OUTPUT:

\[
\begin{align*}
C & \quad \text{CALIBRATE} \\
O & \quad \text{OUTPUT} \\
G & \quad \text{GROUND} \\
B & \quad \text{POWER} \\
GC & \quad \text{GAIN CONTROL}
\end{align*}
\]
175N Block diagram

SPECIFICATIONS

VOLTAGE GAIN  40dB with control pin connected to B+
          20dB with control pin grounded

GAIN ACCURACY   ±0.5dB

GAIN STABILITY  ±0.1dB over rated supply voltage range

MAXIMUM NOISE REFERRED TO INOUT

1000 pF source  -166 dB V re 1 volt, 1 Hz BW@10kHz
                 1.5µV broadband, 5 Hz-100kHz
100 pF source   -140 dB V re 1 volt, 1 Hz BW@100kHz
                 3µV broadband, 20 Hz-100kHz
                 5µV broadband, 5 Hz-100kHz

FREQUENCY RESPONSE  -3dB maximum at 1 Hz and 200 kHz
**INPUT IMPEDANCE**  1000 meg Ω  minimum shunted by 15 pF maximum

**OUTPUT IMPEDANCE**  15 Ω maximum in series with 100 μF

**DISTORTION**  0.5%  at 1 V rms output

**OPERATING TEMPERATURE**  -25 °C to +55 °C  operation  
-55 °C to +85 °C  storage

**POWER SUPPLY**  15 Volts  to 30 Volts

**NOMINAL CURRENT**  15 mA*  to 32 mA**

**MAXIMUM OUTPUT**  7Vpk-pk  to 19V pk-pk

**PEAK SHORT CIRCUIT CURRENT**  30 mA pk  to 100mA pk

**SINE OUTPUT INTO 50 Ω**  1V rms  to 3V rms

*33 mA @ max load @ 15V

**77mA @ max load @ 30V

For more information please contact:

**DL INSTRUMENTS, LLC**
646 76 Road
Brooktondale, NY 14817
USA

Phone: (607)539-1108
Email: info@dlinstruments.com

www.dlinstruments.com