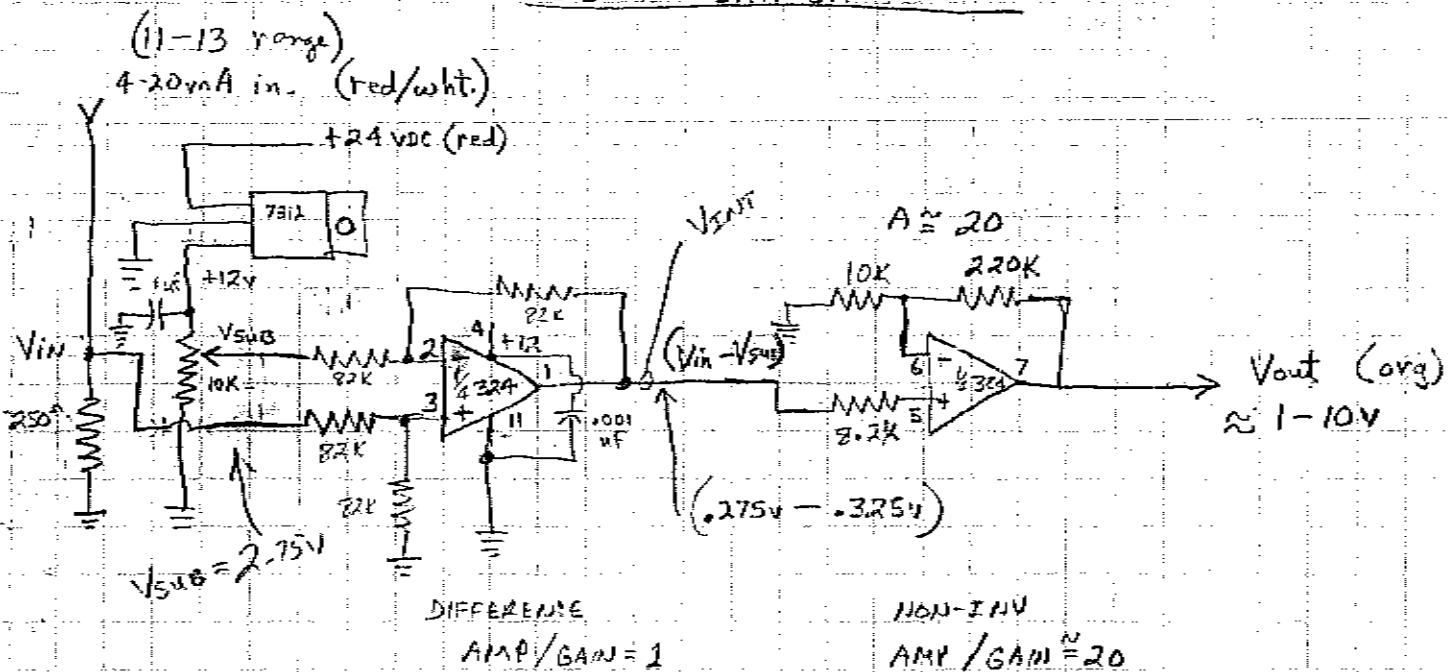


# SIGNAL SHIFTER + AMP.



SAMPLE ( $V_{sub} = 2.38V$ )

V<sub>IN</sub>

- 2.75
- 2.79
- 2.84
- 2.89
- 2.92
- 2.97
- 3.01
- 3.06
- 3.11
- 3.15

<u>V<sub>OUT</sub></u>	
1.0V	250Ω
2.0V	.013A
3.0V	750
4.0V	250
5.0V	3.250V
6.0V	
7.0V	
8.0V	
9.0V	
10.0V	

Designed for a transducer which is operating in its mid range but has less than the normal 4-20mA excursion, 11-13mA in this case.

The input current is passed thru a 250Ω resistor to charge it to voltage of 2.75V to 3.25V. An offset voltage is adjusted with 10k trim pot. In operation, the intermediate output voltage  $V_{int}$  is  $V_{in} - V_{sub}$ .

The  $V_{int}$  is fed to Non-INV Amp with gain of about 20. This gives 10V output when input is 3.15V.