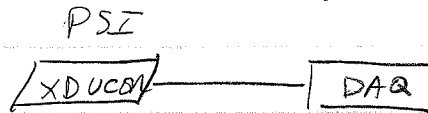


(CAN I READ TO $\pm .1$ PSI?)



0-100PSI

16 BIT

0-10V

± 10 VOLT RANGE

$\pm .5\% FS$ LIN

$\pm .25\% FS$ REP.

± 22.8 MV

$\pm .25\% FS$ HYS

$$\frac{100 \text{ PSF}}{10 \text{ V}} = \frac{10 \text{ PSI}}{\text{V}}$$

$$\frac{20 \text{ V}}{2^{16} - 1} = \frac{20}{65535} = \frac{305.18 \times 10^{-6} \text{ V}}{\text{BIT}} \times \frac{10 \text{ PSF}}{\text{V}} = \frac{.00305 \text{ PSF}}{\text{BIT}}$$

LIN $\pm .5\% FS = .5 \text{ PSI}$

REP $\pm .25\% FS = .25 \text{ PSF}$

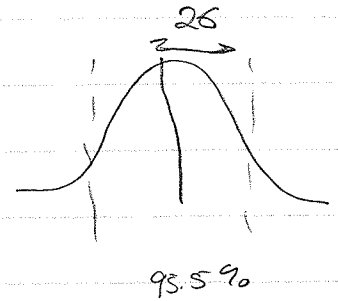
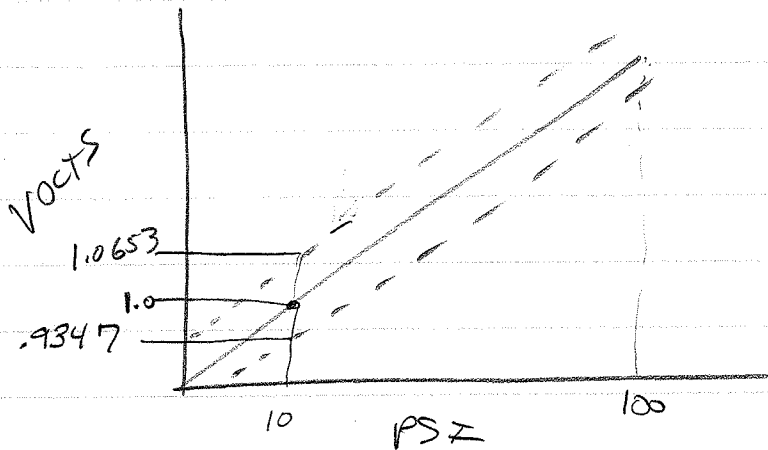
HYS $\pm .25\% FS = .25 \text{ PSI}$

	$6 \times$	$6 -$	$\Delta 6$	
LIN	$\frac{100.5}{10} = 10.05$	9.95	.05	2.5×10^{-3}
REP	$\frac{100.25}{10} = 10.025$	9.975	.025	$625. \times 10^{-6}$
HYS	$\frac{100.25}{10} = 10.025$	9.975	.025	$625. \times 10^{-6}$
DAQ	$\frac{100}{104.0228} = 9.9773$	10.0229	.0227	515.29×10^{-6}

$$\sqrt{4.265 \times 10^{-3}}$$

$$= .0653$$

$$10 \pm .0653 \text{ PSF/V}$$



$$\begin{aligned} \text{UNCERTAINTY} &= \frac{.0653 \text{ PSI}}{.00305 \text{ PSI}} = 21.4 \text{ BITS} \\ \text{RDS (DAQ)} &= \end{aligned}$$

EVEN THOUGH THE BOARD CAN READ IT
DOESNT MEAN ITS ACCURATE DATA.