

MV

A.L.DESIGN, INC.
1411 MILITARY ROAD
BUFFALO, NEW YORK, 14217
U.S.A.

(716) 875-6240
FAX: (716) 875-2404

THIS PROGRAM BY A.L.DESIGN, INC. CALCULATES THE
NON LINEARITY, HYSTERESIS, REPEATABILITY, AND
BEST FIT STRAIGHT LINE THROUGH THE ACTUAL
CALIBRATION POINTS OF THIS TRANSDUCER

OUR CALIBRATION STANDARDS ARE TRACEABLE TO THE N.I.S.T., (NBS).

CUSTOMER: U.S.
BUFFALO, N.Y. 14260

THIS CALIBRATION SHEET SHOWS THE CHARACTERISTICS OF THE TRANSDUCER

DATE : 06/13/06

MODEL : 2310

SERIAL NO. : 88780

CAPACITY = 300 KLB

EXCITATION = 10 VOLTS DC

RESISTANCE BETWEEN RED & BLACK WIRES = 700 OHMS NOMINAL

RESISTANCE BETWEEN WHITE & GREEN WIRES = 700 OHMS NOMINAL

SAFE OVERLOAD = 150% OF RATED CAPACITY

ULTIMATE OVERLOAD = 250% OF RATED CAPACITY

NOMINAL TEMPERATURE EFFECT ON RATED OUTPUT (15-115 deg.F) *
= 0.08% / deg.F OF RATED OUTPUT

NOMINAL TEMPERATURE EFFECT ON ZERO BALANCE (15-115 deg.F) *
= 0.08% / deg.F OF RATED OUTPUT

* THIS DOES NOT APPLY TO GAGED BOLTS
OR TRANSDUCERS MADE OF MATERIALS OTHER THAN
17-4PH STAINLESS STEEL.

STRAIN GAGE TEMPERATURE LIMITS FOR HIGH/LOW TEMP. OPTION.
HIGH TEMP. = +450 degrees F. LOW TEMP. = -452 degrees F.
THESE TEMPERATURE EFFECTS ARE FOR FOIL STRAIN GAGES ONLY.
SEMICONDUCTOR STRAIN GAGES HAVE HIGHER TEMPERATURE SENSITIVITY

NUMBER OF CALIBRATION POINTS IS : 10
 AT NO LOAD, INDICATOR OUTPUT READS 0 mV

RUN #1

RUN #2

POINT	LOAD	TRANSDUCER OUTPUT	POINT	LOAD	TRANSDUCER OUTPUT
#1	60 KLB	3.19 mV	#6	60 KLB	3.19 mV
#2	180 KLB	9.11 mV	#7	180 KLB	9.11 mV
#3	300 KLB	15.12 mV	#8	300 KLB	15.12 mV
#4	180 KLB	9.11 mV	#9	180 KLB	9.11 mV
#5	60 KLB	3.19 mV	#10	60 KLB	3.19 mV

CHARACTERISTICS PARTICULAR
 TO THIS TRANSDUCER ARE :

NON LINEARITY = +/- .18 % F.S.

HYSTERESIS +/- 0 % F.S.

REPEATABILITY = +/- 0 % F.S.

RATED OUTPUT = 14.91 mV

SENSITIVITY = 1.49 mV/V

LOADCELL'S UNADJUSTED ZERO OFFSET = 0 mV

ADJUSTED INDICATOR ZERO OFFSET = 0 mV

CALCULATED VALUES USING THE BEST FIT
 STRAIGHT LINE THROUGH THE EXPERIMENTAL POINTS

POINT	LOAD	TRANSDUCER OUTPUT
#1	30 KLB	1.7 mV
#2	60 KLB	3.2 mV
#3	90 KLB	4.7 mV
#4	120 KLB	6.2 mV
#5	150 KLB	7.6 mV
#6	180 KLB	9.1 mV
#7	210 KLB	10.6 mV
#8	240 KLB	12.1 mV
#9	270 KLB	13.6 mV
#10	300 KLB	15.1 mV

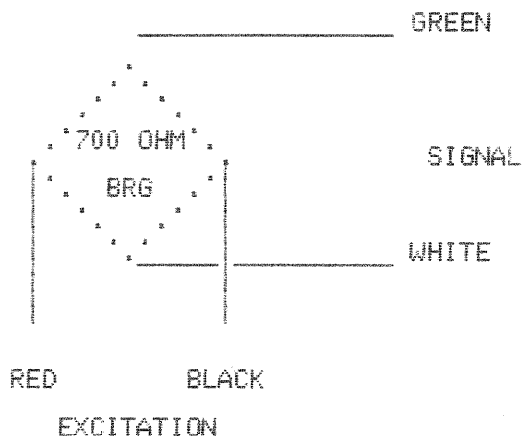
SHUNT CALIBRATION DATA

LOAD CELL SERIAL NO. = 88780
SHUNT RESISTOR VALUE = 0 OHMS
EXCITATION = 10 Vdc
SHUNT OUTPUT = 0 mV
SHUNT CONNECTION = RED and WHITE
EXCITATION = (+)RED and (-)BLACK
SIGNAL OUTPUT = (+)WHITE and (-)GREEN

WHEN USING AN ALD-MINI-UTC TENSION/COMPRESSION LOAD CELL THE SMOOTH FLAT SURFACE SHOULD NOT TOUCH ANYTHING. THE OTHER SIDE WITH THE CIRCLE NEAR THE OUTER EDGE IS THE BASE. IT IS OK TO MOUNT OTHER PARTS TO IT AND TO TOUCH THIS SURFACE ONLY.

WHEN CONNECTORS ARE SUPPLIED,
CONNECTOR PIN ASSIGNMENTS ARE:

A = BLACK (-) EXCITATION
B = WHITE (+) SIGNAL
C = RED (+) EXCITATION
D = GREEN (-) SIGNAL



INTERNAL WHEATSTONE BRIDGE

COMPUTED TRANSDUCER OUTPUT VS. LOAD

