



ADVANCED MECHANICAL TECHNOLOGY INC.
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Multi-axis Force Transducer Calibration Data
Model: BP6001200-2000 Serial Number: 9738M

Calibration Filed under 9738M.1
Calibrated on: 3/16/2015

GENERAL USE (Only main sensitivity terms)

The 'Sensitivities' (output/input) for each channel are:
----- Forces ----- ----- Moments -----

	uV/V x N	uV/V x lb	uV/V x N-m	uV/V x in-lb
Fx	.35023	1.55782	Mx .34880	.03941
Fy	.34803	1.54802	My .49393	.05580
Fz	.08645	.38454	Mz .86391	.09761

Location of the center of the top plate relative
to the effective XYZ center of the transducer.

xo = -0.425 yo = -1.326 zo = -59.160 [millimeters]
xo = -0.017 yo = -0.052 zo = -2.329 [inches]

ADVANCED USE (Sensitivity Matrix Analysis) 9738M

SI Units: SENSITIVITY MATRIX S(i, j)
Output of channel i (uV/Vex) is S(i,j) times the
mechanical input j (N, N-m)

j i	Fx	Fy	Fz	Mx	My	Mz
Vfx	.35023	.00170	-.00094	.00020	.00054	-.01726
Vfy	.00159	.34803	-.00037	.00044	.00177	.00097
Vfz	-.00061	-.00138	.08645	-.00066	.00020	-.00242
Vmx	.00151	.00007	-.00046	.34880	.00100	.00403
Vmy	.00010	.00027	.00021	-.00156	.49393	.00091
Vmz	.00186	-.00035	.00089	-.00109	-.00168	.86391

SI Units: INVERTED SENSITIVITY MATRIX B(i, j)
Input to channel i (N, N-m) is B(i,j) times the
electrical output j (uV/Vex)

j i	VFx	VFy	VFz	VMx	VMy	VMz
fx	2.85508	-.01375	.03039	-.00140	-.00289	.05715
fy	-.01300	2.87346	.01228	-.00366	-.01031	-.00341
fz	.01955	.04581	11.56714	.02176	-.00474	.03267
mx	-.01223	-.00045	.01536	2.86694	-.00585	-.01358
my	-.00059	-.00157	-.00486	.00904	2.02458	-.00219
mz	-.00618	.00115	-.01192	.00361	.00395	1.15735

USC Units: SENSITIVITY MATRIX S(i, j)
Output of channel i (uV/Vex) is S(i,j) times the
mechanical input j (lb/in-lb)

j i	Fx	Fy	Fz	Mx	My	Mz
Vfx	1.55782	.00756	-.00418	.00002	.00006	-.00195
Vfy	.00708	1.54802	-.00166	.00005	.00020	.00011
Vfz	-.00270	-.00614	.38454	-.00007	.00002	-.00027
Vmx	.00670	.00030	-.00206	.03941	.00011	.00046
Vmy	.00043	.00118	.00093	-.00018	.05580	.00010
Vmz	.00826	-.00156	.00394	-.00012	-.00019	.09761

USC Units: INVERTED SENSITIVITY MATRIX B(i, j)
Input of channel i (uV/Vex) is B(i,j) times the
electrical output j (uV/Vex)

j i	VFx	VFy	VFz	VMx	VMy	VMz
fx	.64188	-.00309	.00683	-.00031	-.00065	.01285
fy	-.00292	.64601	.00276	-.00082	-.00232	-.00077
fz	.00440	.01030	2.60053	.00489	-.00107	.00735
mx	-.10824	-.00398	.13594	25.37528	-.05178	-.12016
my	-.00518	-.01389	-.04298	.07997	17.91954	-.01940
mz	-.05468	.01017	-.10551	.03197	.03492	10.24367