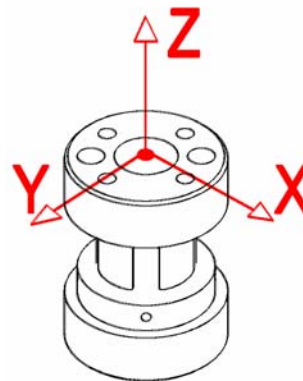


### Extraneous Load Factors

**Equation:**  $\sigma_{max} \geq (A)F_x + (B)F_y + (C)F_z + (D)M_x + (E)M_y + (F)M_z$



**Material:** Aluminum 2024-T4 (AL\*), 17-4 P.H. Stainless Steel (\*S.S.)

Material	Capacity (in-lb)	A	B	C	D	E	F
AL*	100	133.35	133.35	11.53	95.45	95.45	197.90
	150	94.29	94.29	9.01	50.65	50.65	97.35
	500	41.38	41.38	2.88	33.56	33.56	26.03
	1,300	18.80	18.80	1.63	14.83	14.83	11.14
*S.S.	3,000						

$\sigma_{max}$  **Table**

Material	Static Load (=60% Y.S.)	Fatigue (Non Reversing Loads)	Fatigue (Full Reversing Loads)
2024-T4/T351	28,000	18,000	15,000
17-4PH S.S.	87,000	78,000	62,000*

\*Value is 75% of Fatigue Strength based on 10-20 x 10<sup>6</sup> cycles and allow for factors that influence Fatigue such as surface finish, stress concentrations, corrosion, temperature and other variables for the production of the transducer, for infinite Fatigue Life (100 x 10<sup>6</sup>) use 75% of values shown.

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