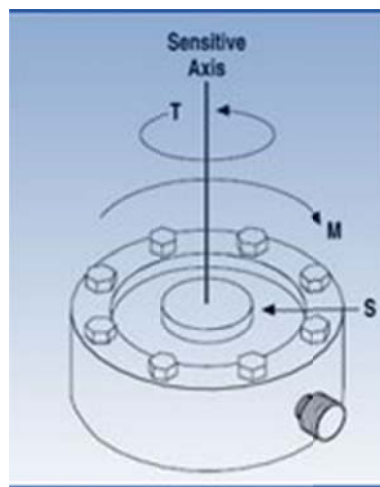


## Load Cell Moment Compensation

### Do you know if you have an accurate force reading?

In most applications it is difficult, if not impossible, to calculate or even estimate the effect of misalignments on the precision of a force measurement system. Moment sensitivity introduces errors into force measurements whenever forces cannot be applied precisely on-axis.

- The Low Profile design of the LGP 380 / 382 load cell has the intrinsic capability of canceling moment loads because of its radial design.
- The radial flexure beams are precision machined to balance the on-axis loading.
- The gages are precisely placed so that strains due to on-axis loads are additive and strains due to moment loads tend to cancel under actual moment loading.
- Slight discrepancies between gage outputs are carefully measured and each load cell is adjusted to further reduce extraneous load sensitivity, to meet the specifications in the table below.



	S	M	T	Max Error Due to S or M (% Rated Range)
	Max Side Force (% Rated Range)	Max Moment (% Rated Range x 1 inch)	Max Torque (% Rated Range x 1 inch)	
LGP 380 / 382	40%	40%	40%	0.04%

### Resistance to Extraneous Loads

The Low Profile design of the LGP 380 / 382 load cell provides optimum resistance to extraneous loads to insure maximum operation life and minimize reading errors. The above chart tabulates maximum allowable extraneous loads that may be applied singularly without electrical or mechanical damage to the cell and the maximum error that can be expected from side forces or bending moments. Several loads can be tolerated simultaneously if the total combined load is not more than 100% of the allowable maximum extraneous load.