

50012 Series

ROLLING RESISTANCE LOAD CELL

This multi-component force transducer was originally designed to measure "rolling resistance" or F_x , a common measurement needed in the automotive tire manufacturing and test industry. It is still used primarily for this purpose, and has also been adapted to other applications where F_y and F_z need to be measured. Various ranges and sizes are available up to a 20:1 ratio of capacities (consult our application engineers). The sensor can be cross talk compensated eliminating off axis loading effects.



SPECIFICATIONS

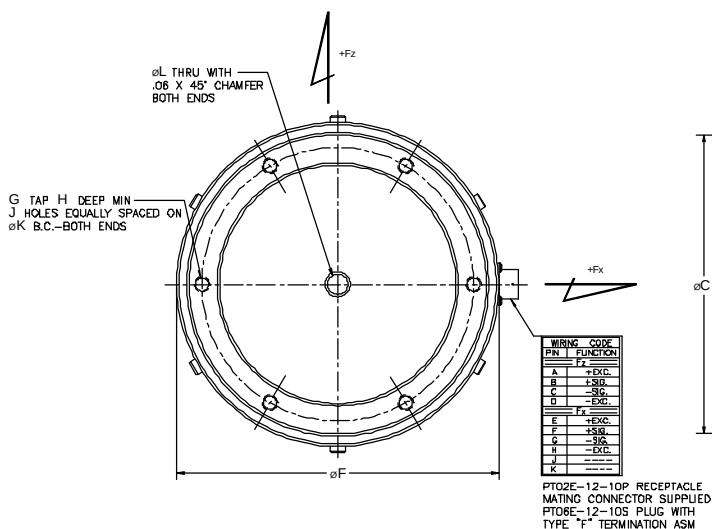
Capacity..... See chart
 Overload capacity..... 150% of F.S.(In either direction)
 Output at full scale load 0.5 to 2mV/V (load dependant)
 Non-linearity..... 0.10% of F.S.
 Hysteresis..... 0.10% of F.S.
 Zero balance..... 1% of F.S.
 Compensated temperature..... 70 to 170°F
 Useable temperature..... -65 to +250°F
 Temperature effect on zero..... 0.002% of F.S./°F
 Temperature effect on span..... 0.002% of Rdg./°F
 Bridge resistance..... 700/350 Ohms
 Excitation voltage, maximum..... 20 Vdc
 Material..... Alloy steel

DIMENSIONS

MODEL	CAPACITY		A	B	C	D	E	F	G	H	J	K
	F_x	F_z										
50012-00A	200	2000	8	2.43	7.5	6.000 5.999	4	8.00	3/8-24	.75	6	6.75
50012-00B	1000	15000	12	3.43	12.38	9.000 8.999	6	12.88	3/4-16	1.0	8	10.75
50012-00C	300	3000	8	2.43	7.5	6.000 5.999	4	8.00	3/8-24	.75	6	6.75
50012-00D	1000	10000	12	3.43	12.38	9.000 8.999	6	12.88	3/4-16	1.0	8	10.75
50012-00E	500	10000	12	3.43	12.38	9.000 8.999	6	12.88	3/4-16	1.0	8	10.75

AXIAL LOAD CONFIGURATIONS

MODEL	CAPACITY			A	B	C	D	E	F	G	H	J	K
	F_x	F_y	F_z										
30003-00A	-	5000	7500	10	2.31	-	6.499	2.87	14	3/4-16	1.25	8	5.0
30004-00A	-	5000	5000	8	2.43	7.5	6.000 5.999	3.5	8	3/8-24	.75	6	6.75
70055-00A	350	5000	3000	8	2.43	7.5	6.000 5.999	4.0	8	3/8-24	.75	6	6.75



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