BULLETIN 778C

MODELS 2208 and 2209 COMPACT, HIGH CAPACITY SQUARE DRIVE REACTION TORQUEMETERS

300,000 to 3,000,000 lbf-in (33.9 kNm to 339 kNm)

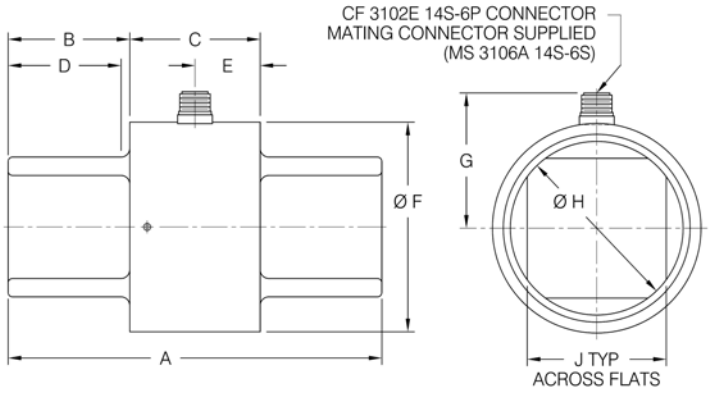
These strain gage torquemeters are calibrated CW and CCW to full rated load in our NVLAP accredited laboratory (Lab Code 200487-0*). A NVLAP approved Calibration Certificate documenting NIST traceability is supplied. Their low weight and compact size simplify installation and handling. The design yields high stiffness, very high overload and high extraneous load capacity. See Bulletin 770 for reaction torque measurement theory and definition of extraneous loads.

* See our website or follow the "Lab Accreditation" link at NIST.gov or details.

Standard Ratings

Model No.	Torque Range		Torque Overload		Torsional Stiffness[1]		Maximum Weight	Maximum Extraneous Loads	
								Thrust (F)[2]	Bending Moment[2]
	(lbf-in)	(N-m)	(lbf-in)	(N-m)	(lbf-in/rad)	(N-m/rad)	(lb)	(lbf)	(lbf-in)
2208(3-5)	300,000	33,900	2,400,000	271,000	55,800,000	6,305,000	57	400,000	400,000
2208(6-5)	600,000	67,800							
2208(12-5)	1,200,000	135,600							
2209(75-4)	750,000	84,750	6,000,000	678,000	149,000,000	16,840,000	166	1,500,000	1,500,000
2209(15-5)	1,500,000	169,500							
2209(3-6)	3,000,000	339,000							

NOTES: 1. Conservatively rated from end-to end. 2. See Bulletin 770 for definition of extraneous loads.



MODEL	A	B	C	D	E	F	G	H	J
2208	10 3/4	3 1/2	3 3/4	3 1/4	1 7/8	6	3 7/8	4 31/32	4
2209	16	5 1/2	5	5	2 1/2	8 1/2	5 1/8	7 1/2	5 1/2

Pinout

A = +Exc.	D = -Exc.
B = +Exc. Sen.	E = - Sig.
C = -Exc. Sen.	F = +Sig.

Use Model 708 to display one Torque or Model 788 for two Torques.

Specifications

Bridge Impedance: (Ohms, Nominal) 350
Output: (mV/V, Nominal) 3
Zero Unbalance: (% of Range) . . . . . ≤±1
Nonlinearity (% of Range) . . . . . ≤ 0.5
Hysteresis (% of Range) . . . . . ≤ 0.5
Nonrepeatability: (% of Full Scale) . . . . . ≤±0.05

Temperature Effects
Zero Drift: (% of Full Scale/Degree F) . . . . . ≤±0.002
Span Drift: (% of Reading/Degree F) . . . . . ≤±0.002
Compensated Temperature Range: (Degrees F) +75 to +175
Usable Temperature Range: (Degrees F) . . . . . - 65 to +225
Maximum Excitation: (Volts, ac or dc) 15

Specifications and dimensions are subject to change without notice. Certified drawings are available on request.

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