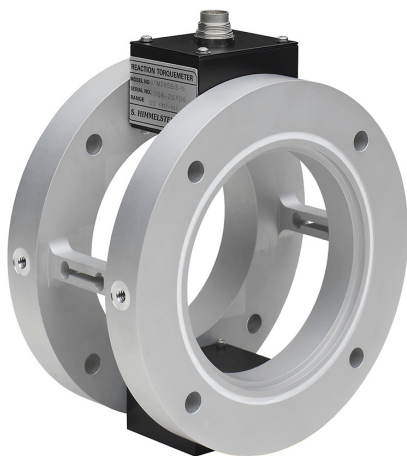


CF2800V High Precision, C-Face Reaction Torquemeters With Analog and Digital Outputs Have The Best Performance of Any Large Bore Reaction Torquemeter, Torque Sensor or Torque Transducer



- 50 lbf-in to 20,000 lbf-in Ranges (5.65 to 2,260 N-m)
- 500% Overload Rating
- 150% Overrange Rating
- 0.05% Combined Nonlinearity & Hysteresis
- No Bearings, No Speed Limit
- Remote Bi-directional Shunt Calibration
- RS232 Communication
- PC Interface Software Included
- 0 to ± 10.000 Volt Analog Output
- 11 Bessel Response Data Filters
- No Manual Adjustments
- Large Through Bore
- NIST Traceable* Bi-directional Calibration

* To review our NVLAP Certificate of Accreditation and its Scope, see our website or follow the "Laboratory Accreditation" link at www.nist.gov.

Series CF2800V Torquemeters have high accuracy, high stiffness, and low deflection. Overload capacity is 5 times rated torque. All are calibrated CW and CCW to rated load in our NVLAP* accredited laboratory. These devices mate directly with NEMA C-Face motors and generators. There are no pots, switches or other parts subject to misadjustment during vibration or by unauthorized users. You can select from any of 10 Units of Measure without re-calibrating.

Analog and digital outputs are simultaneously available. Use the RS232 port with the furnished software or write your own. The Torquemeter has low drift, exceptional temperature performance, and 150% Overrange. Without High Overrange, clipped peaks cause large errors**. Tare and Zero may be invoked via I/O lines or computer. Use the 11 selectable Bessel filters for signal processing. Use your PC to Display Current, Max, Min and Spread Data, to Save and Plot Data, and to Store Test Setups.

** See Application Note 20805B

Specification Notes.

1. May be re-set, via com port, to any value between 1 and 10 volts.
2. Based on best fit line; see Technical Memorandum 230104.
3. Invoke bi-directional Cal via the com port.
4. Clear Tare via com port; see note 7 below.
5. Invoke Tare function is also available via com port.
6. Invoke Zero via com port or ground both pins 1 & 6.
7. Cycling Power Off/On Clears Tare and Resets Max/Mins.
8. Specifications are subject to change without notice.
9. Analog outputs are short circuit protected.

Specification

Full Scale Analog Output⁹: (volts) $\pm 10.000^{1,9}$
 Allowable Loads: 10 k Ω , 0.05 μ F
 Selectable Bessel Data Filters: 0.2 to 500 Hz. In 1-2-5 steps.
 Com Port: RS232, Baud Rate is 38.4 kB
 Sampling Rate: (kHz) 8
 Measurement Bandwidth: (Hz) 500
 System Resolution: (% of Range) ≤ 0.005
 Combined Nonlinearity & Hysteresis: (% of Range)
 Standard (Code N) $\leq 0.1^2$, Enhanced (Code C) $\leq 0.05^2$
 Nonrepeatability: (% of Range) $\leq \pm 0.02$
 Zero Drift: (% of Range/ $^{\circ}$ F) $\leq \pm 0.001$
 Span Drift: (% of Reading/ $^{\circ}$ F) $\leq \pm 0.002$
 48 Hour Drift (% of Range) ≤ 0.04
 Compensated Temperature Range: +75 to +175 $^{\circ}$ F
 Usable Temperature Range: -40 to +185 $^{\circ}$ F
 Overrange: (% of Range) 150
 Nonlinearity in Overrange: (% of Range) ≤ 0.1
 Supply Voltage: .. 10 to 26VDC, reverse polarity protected.
 Supply Power: (W): ≤ 0.5
 Overvoltage Protection: . Power In, Analog Out, Control Lines
 Pinout: 1. +Cal³, 2. RXD, 3. Analog Ground 4, TXD,
 5. Analog Out, 6. Tare⁴, 7. +Power, 8. Ground
 Selectable Units of Measure: lbf-in, lbf-ft, ozf-in, ozf-ft,
 N-m, kN-m, N-cm, kgf-m, kgf-cm, gf-cm

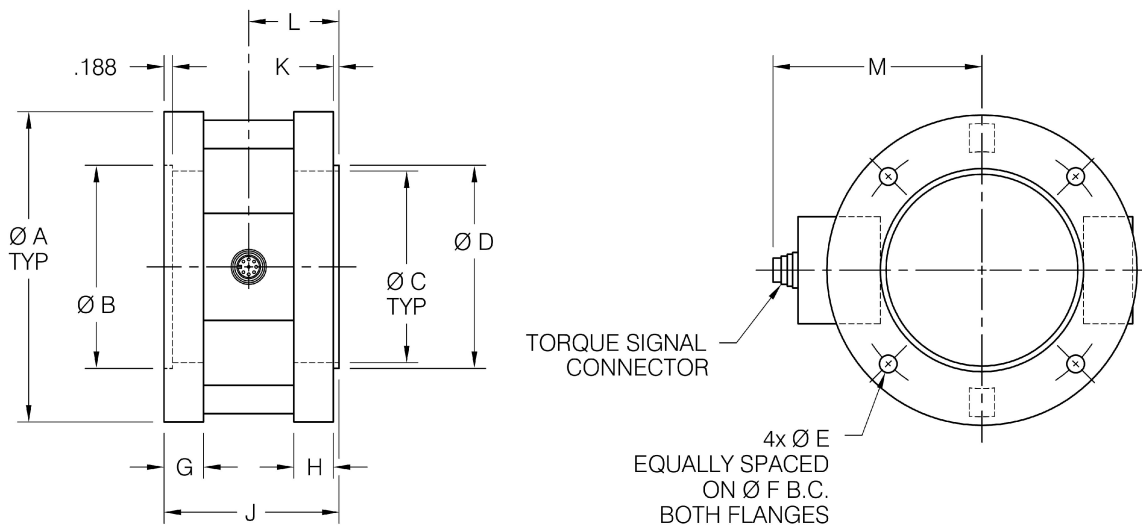
S. HIMMELSTEIN AND COMPANY

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Standard Ratings, Series CF2800V C-Face High Precision, Reaction Torquemeters

MODEL NUMBER	NEMA Motor Frame Size	TORQUE RANGE		TORQUE OVERLOAD		TORSIONAL STIFFNESS (FLANGE FACE-FACE)		WEIGHT		MAXIMUM EXTRANEOUS LOADS*					
										THRUST		BENDING			
		(lbf-in)	(N·m)	(lbf-in)	(N·m)	(lbf-in/rad)	(N·m/rad)	(lb)	(kg)	(lbf)	(N)	(lbf-in)	(N·m)		
CF2856V(5-1)	56C 143TC 145TC	5.00e+01	5.65e+00	2.50e+02	2.82e+01	4.80e+04	5.42e+03	5.5	2.5	2.00e+02	9.00e+02	4.00e+02	4.52e+01		
CF2856V(1-2)		1.00e+02	1.13e+01	5.00e+02	5.65e+01	1.35e+05	1.53e+04			2.50e+02	1.11e+03	6.00e+02	6.78e+01		
CF2856V(2-2)		2.00e+02	2.26e+01	1.00e+03	1.13e+02	3.85e+05	4.35e+04			3.00e+02	1.33e+03	8.00e+02	9.04e+01		
CF2856V(5-2)		14	6.4	5.00e+02	5.65e+01	2.50e+03	2.82e+02	5.60e+05	6.33e+04	5.00e+02	2.22e+03	1.50e+03	1.69e+02		
CF2856V(1-3)				1.00e+03	1.13e+02	5.00e+03	5.65e+02	1.60e+06	1.81e+05	1.00e+03	4.45e+03	2.00e+03	2.26e+02		
CF2856V(2-3)				2.00e+03	2.26e+02	1.00e+04	1.13e+03	4.55e+06	5.14e+05	2.00e+03	9.00e+03	4.00e+03	4.52e+02		
CF2856V(5-3)				5.00e+03	5.65e+02	2.00e+04	2.26e+03	1.80e+07	2.03e+06	5.00e+03	2.22e+04	1.00e+04	1.13e+03		
CF2882V(2-2)	182TC 184TC 213TC 215TC 254TC 256TC	11	5.0	2.00e+02	2.26e+01	1.00e+03	1.13e+02	2.50e+05	2.83e+04	3.50e+02	1.56e+03	1.50e+03	1.69e+02		
CF2882V(5-2)				5.00e+02	5.65e+01	2.50e+03	2.82e+02	9.50e+05	1.07e+05	5.00e+02	2.22e+03	2.00e+03	2.26e+02		
CF2882V(1-3)				1.00e+03	1.13e+02	5.00e+03	5.65e+02	2.80e+06	3.16e+05	1.00e+03	4.45e+03	3.00e+03	3.39e+02		
CF2882V(2-3)				2.00e+03	2.26e+02	1.00e+04	1.13e+03	3.80e+06	4.29e+05	2.00e+03	9.00e+03	4.00e+03	4.52e+02		
CF(2882V(5-3)				5.00e+03	5.65e+02	2.50e+04	2.82e+03	1.50e+07	1.70e+06	27	12	5.00e+03	2.22e+04	1.00e+04	1.13e+03
CF2882V(1-4)				1.00e+04	1.13e+03	5.00e+04	5.65e+03	4.40e+07	5.00e+06			1.00e+04	4.45e+04	2.00e+04	2.26e+03
CF2884V(2-3)	284TC	17	7.7	2.00e+03	2.26e+02	1.00e+04	1.13e+03	7.20e+06	8.14e+05	2.00e+03	9.00e+03	5.00e+03	5.65e+02		
CF2884V(5-3)				5.00e+03	5.65e+02	2.50e+04	2.83e+03	1.45e+07	1.64e+06	5.00e+03	2.22e+04	1.00e+04	1.13e+03		
CF2884V(1-4)				1.00e+04	1.13e+03	5.00e+04	5.65e+03	4.20e+07	4.75e+06	1.00e+04	4.45e+04	2.00e+04	2.26e+03		
CF2884V(2-4)				2.00e+04	2.26e+03	6.00e+04	6.78e+03	1.19e+08	1.35e+07	2.00e+04	9.00e+04	4.00e+04	4.52e+03		

Outline: C Diameter is thru bore. Dimensions are in inches.



MODEL	A	B	C	D	E	F	G	H	J	K	L	M
CF2856	6.875	4.503/4.501	4.250	4.500/4.498	0.391	5.875	0.875	0.875	3.875	0.125	4 15/32	4 15/32
CF2882	9.125	8.505/8.502	5.375	8.500/8.497	0.515	7.250	1.313	0.875	5.813	0.250	5 11/32	5 11/32
CF2884	11.250	10.505/10.502	7.000	10.500/10.497	0.515	9.000	1.594	1.156	6.500	0.250	6 9/32	6 9/32

Order Number

CF2856VN(1-2)

A CF2856VN is rated 100 lbf-in and has Standard, Code N, Performance.

Model Number from table with performance suffix; N = Standard Performance, C = Enhanced Performance.