Series 2500 & 2900 **PRECISION LOAD CELLS**
for force, tension, weight measurement and control applications

- ✓ *0.05% Nonlinearity*
- ✓ *0.02% Hysteresis*
- ✓ *0.0008%/°F T.C.*
- ✓ *0.1% Symmetry*

Universal Ranges: 50 to 200,000 lb. (222 to 890,000 newton)
Compression Only Ranges: 1,000 to 200,000 lb. (4,448 to 890,000 newton)

S. HIMMELSTEIN AND COMPANY LOAD CELLS are *sealed, low profile sensors* suitable for precision force and weight measurements. The transducing element is strain gaged and compensated to eliminate temperature induced zero and span errors. Element design provides exceptional tolerance of extraneous loads assuring accuracy and long life.

When de-rated to provide 300% overload capacity, their accuracy is equal to or greater than general purpose units with only 150% overload capacity. These load cells are ideally suited for cradled dynamometers, bearing and sleeve press force tests, draw bar measurement and virtually any laboratory or production force/weight measurement.

General Specifications

Bridge Impedance (Ohms): . . . . . 350 ±1%
Zero Balance (% of range): . . . . . ±1%
Output and Dimensions: . . . . . see overleaf
Maximum Excitation Voltage (ac or dc)
2500 Series: 20
2900 Series: 15
Nonlinearity (% of range, end point method): 0.05%
Hysteresis (% of range): . . . . . 0.02 below 5,000 lb. range, 0.04 for 5,000 lb. range and higher
Non-repeatability (% of range): 0.02
Tension and Compression Symmetry: . . . . . 0.1% of full scale range (Universal Models only)
Overload Capacity: . . . . . 1.5 times full scale range
Temperature Effects (°F): . . . . . from +15 to +115
Operating Range (°F): . . . . . -65 to +200
Zero Drift (% of range per °F): 0.0008
Span Drift (% of reading per °F): 0.0008

Base and Compression Overload Options

Mounting bases (see overleaf) are optional for all models. Without them, the cells must be mounted to a surface ground extremely flat. With an attached mounting base, installation isn't critical and, tension loading is simplified. The 5X (times) compression overload option requires an installed mounting base.

Complete Systems

We can furnish a complete force or weight measurement system including sensors, cabling, readout and/or controller and NIST traceable calibration.
Himmelstein readouts feature superb strain gage signal conditioners with exceptional noise immunity, engineering unit displays, digital computation, tare, hold, max, min, digital limits, computer ports and much more. Contact the factory for details.

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S. HIMMELSTEIN AND COMPANY PRECISION LOAD CELLS

MODEL NUMBER	OPTIONAL BASE PART NUMBER	RANGE (POUND)	OVERLOAD CAPACITY (POUND) *5 times compression only overload is optional on cells below 50,000 lbs. Larger cells have a 3 times overload option.*	OUTPUT (MV/V)	WEIGHT (POUND)	DIMENSIONS (INCHES)							
						A	B	C	D	E	F	G	H
UNIVERSAL LOAD CELLS													
2940(5-1)	338	50	75	2	0.38	1.03	2.50	0.03	1.75	0.48	22½°	Note 1	10-32 X ¼ Deep
2940(1-2)	338	100	150	2	0.38	1.03	2.50	0.03	1.75	0.48	22½°	Note 1	
2960(25-1)	340	250	375	2	0.50	1.03	3.00	0.03	2.00	0.60	22½°	Note 2	¼ - 28 X 3/8 Deep
2960(5-2)	340	500	750	2	0.50	1.03	3.00	0.03	2.00	0.60	22½°	Note 2	
2540(1-3)	322	1,000	1,500	4	1.5	1.37	4.12	0.12	2.56	1.37	22½°	Note 3	5/8 - 18
2540(2-3)	322	2,000	3,000	4	1.5	1.37	4.12	0.12	2.56	1.37	22½°	Note 3	5/8 - 18
2540(5-3)	324	5,000	7,500	4	3.25	1.37	4.12	0.12	2.56	1.37	22½°	Note 3	5/8 - 18
2540(1-4)	324	10,000	15,000	4	3.25	1.37	4.12	0.12	2.56	1.37	22½°	Note 3	5/8 - 18
2560(25-3)	326	25,000	37,500	4	9.50	1.75	6.06	0.12	3.50	2.44	15°	Note 4	1¼ - 12
2560(5-4)	326	50,000	75,000	4	9.50	1.75	6.06	0.12	3.50	2.68	15°	Note 4	1¼ - 12
2584(1-5)	344	100,000	150,000	4	26	2.50	8.00	0.25	4.50	3.86	11¼°	Note 5	1¾ - 12
2600(2-5)	330	200,000	300,000	4	68	3.50	11.00	0.50	6.00	4.92	11¼°	Note 6	2¾ - 8
COMPRESSION LOAD CELLS													
2542(1-3)	322	1,000	1,500	2	1.50	1.37	4.12	0.12	2.56	1.37	22½°	Note 3	N/A
2542(2-3)	322	2,000	3,000	2	1.50	1.37	4.12	0.12	2.56	1.37	22½°	Note 3	
2542(5-3)	324	5,000	7,500	4	3.25	1.37	4.12	0.12	2.56	1.37	22½°	Note 3	
2542(1-4)	324	10,000	15,000	4	3.25	1.37	4.12	0.12	2.56	1.37	22½°	Note 3	
2562(25-3)	332	25,000	37,500	4	6.75	1.75	4.75	0.12	2.87	1.60	45°	Note 7	
2562(5-4)	332	50,000	75,000	4	6.75	1.75	4.75	0.12	2.87	1.60	45°	Note 7	
2582(1-5)	328	100,000	150,000	4	13.50	2.25	7.50	0.25	4.25	3.17	15°	Note 8	
2602(2-5)	336	200,000	300,000	4	40	3.25	8.25	0.25	4.62	3.27	45°	Note 9	

NOTES:

1. 3/16 dia., hole, 9/32 dia C'bore 4 places equally spaced on 2.125 B.C.
2. 7/32 dia., hole, 5/16 dia C'bore 4 places equally spaced on 2.500 B.C.
3. 9/32 dia., 8 holes, equally spaced on 3.500 B.C.
4. 13/32 dia., 12 holes, equally spaced on 5.125 B.C.
5. 17/32 dia., 16 holes, equally spaced on 6.500 B.C.
6. 11/16 dia., 16 holes, equally spaced on 9.000 B.C.
7. 11/32 dia., 4 holes, equally spaced on 4.000 B.C.
8. 15/32 dia., 12 holes, equally spaced on 6.250 B.C.
9. 11/16 dia., 4 holes, equally spaced on 6.750 B.C.
10. Connector: Bendix PC04A-10-6P. Optional Mating P/N 320-1079 includes cable clamp and boot.

LOAD CELLS

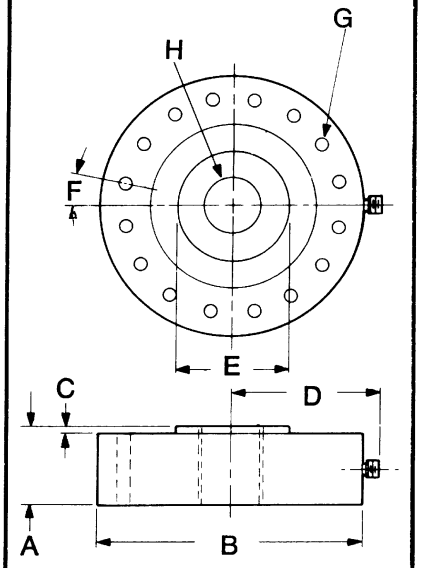


FIGURE 1 – UNIVERSAL

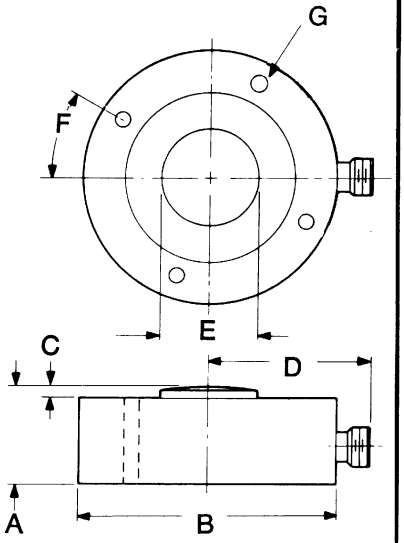
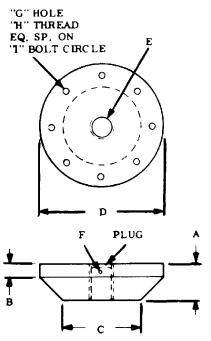


FIGURE 2 – COMPRESSION

BASES

These heat treated, high strength bases are available in standard sizes. When the base and load cell are ordered together, a plug is supplied in both the cell and the base to prevent damage or errors caused by over-engagement of mating parts. Standard thread "E" is the same as the mating load cell.



P/N	A	B	C	D	E	F	G	H	I	Wt.lbs.
322*	1-1/8	1/2	2-3/4	4-1/8	5/8-18	1/4	8	1/4-28	3.500	1-3/4
324	1-1/8	1/2	2-3/4	4-1/8	5/8-18	1/4	8	1/4-28	3.500	4
326	1-3/4	3/4	4	6-1/16	1-1/4-12	5/16	12	3/8-24	5.125	12
332	1-1/4	–	–	4-3/4	1/2-20	–	4	5/16-24	4.000	6
338*	15/32	–	–	2-1/2	10-32	–	4	8-32	2.125	1/4
340*	15/32	–	–	3	1/4-28	–	4	10-32	2.500	1/2
344	2	–	–	8	1-3/4-12	–	16	1/2-20	6.500	26
330	3	–	–	11	2-3/4-8	5/16	16	5/8-18	9.000	78
328	2	–	–	7-1/2	1-3/4-12	5/16	12	7/16-20	6.250	24
336	2-1/2	–	–	8-1/4	3/4-16	–	4	5/8-18	6.750	38

*Aluminum – all others are steel.