

SERIES 10000 PRECISION LOAD BEAMS

FOR FORCE, TENSION, WEIGHT MEASUREMENT AND CONTROL APPLICATIONS

- ± 5 to ± 1000 Pound Ranges
- .03% Linearity*
- .0008% Temperature Compensation
- .01% Repeatability*
- Full Foil Gage Bridge
- NIST Traceable Calibration



* Applies to 50 thru 1,000 Pound Ranges — See Tabulation Below.

S. HIMMELSTEIN AND COMPANY LOAD BEAMS are unique, very high precision, low-cost force sensors. These temperature compensated strain gage transducers are well suited for most force and weight measurements either indoors or in protected outdoor locations, (see Bulletin 500 for information on sealed Himmelstein Load Cells). When de-rated to obtain 300% overload capacity, LOAD BEAM accuracy is equal to or greater than that of conventional, general purpose Load Cells.

Standard Ratings

Model No.	Range (Pounds)	Linearity (% of F.S.)	Hysteresis (% of F.S.)	Repeatability (% of F.S.)	Max. Weight (Ounces)
10005	± 5	0.05	0.03	0.02	4
10010	± 10	0.05	0.03	0.02	4
10025	± 25	0.05	0.03	0.02	4
10050	± 50	0.03	0.02	0.01	6
10100	± 100	0.03	0.02	0.01	6
10250	± 250	0.03	0.02	0.01	6
10500	± 500	0.03	0.02	0.01	12
11000	± 1000	0.03	0.02	0.01	12



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General Specifications

Bridge Impedance	350 ohms ($\pm 1\%$)
Output	3 MV/Volt, nominal
Excitation Voltage (AC or DC)	15, maximum
Maximum Creep	0.03% of full scale
Overload Capacity	1.5 times full scale
Temperature Effects:	
Compensated Range	0 to +150 degrees F
Operating Range	-65 to +200 degrees F
Zero Change	0.0008% of F.S. per degrees F
Span Change	0.0008% of rdg. per degrees F

Installation Data

ELECTRICAL – ALL MODELS

Pin	Function
A	+ Excitation
B	+ Signal
C	- Signal
D	- Excitation
E	Cable Shield
F	N/C

MECHANICAL – MODELS 10050 – 11000

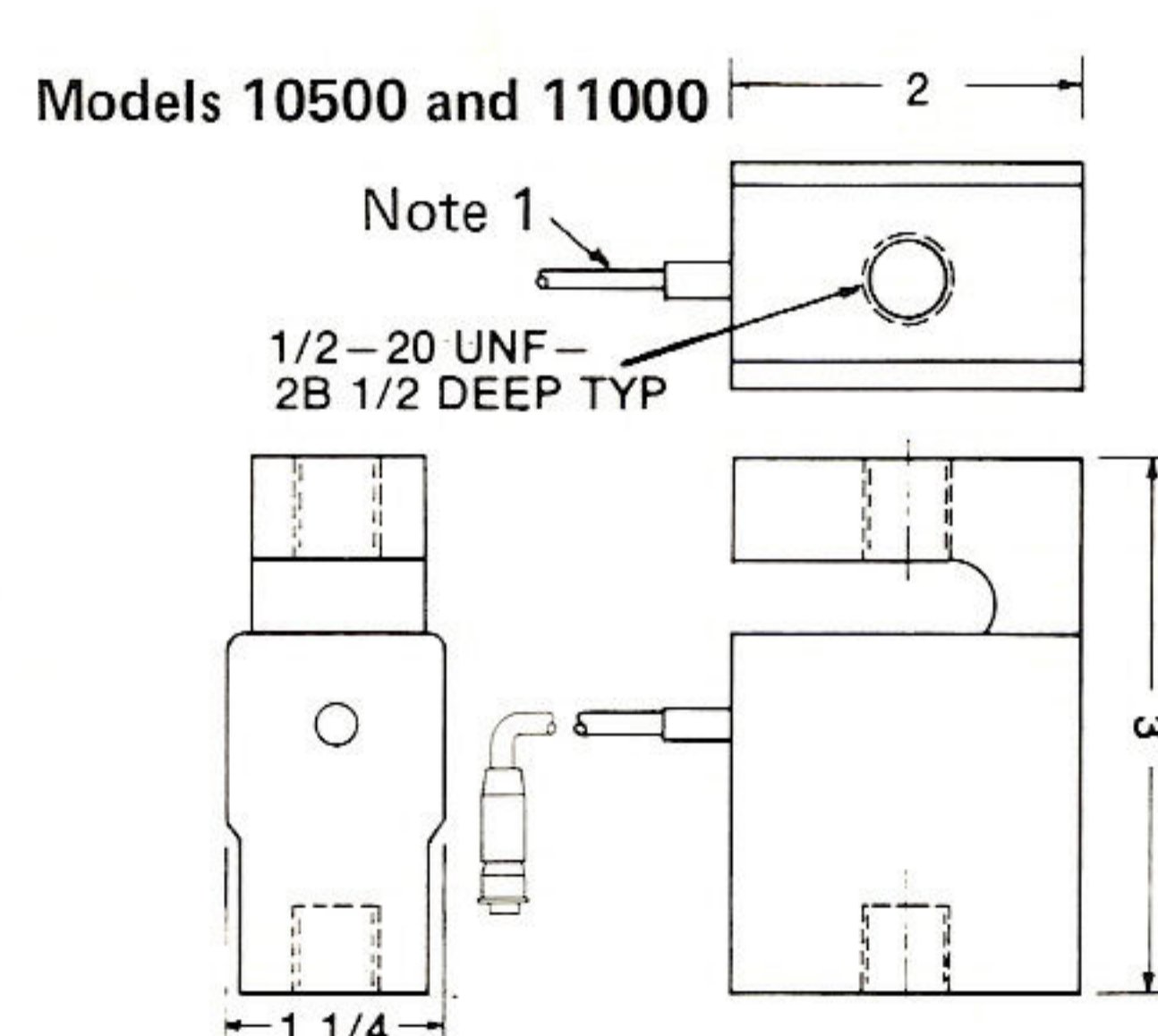
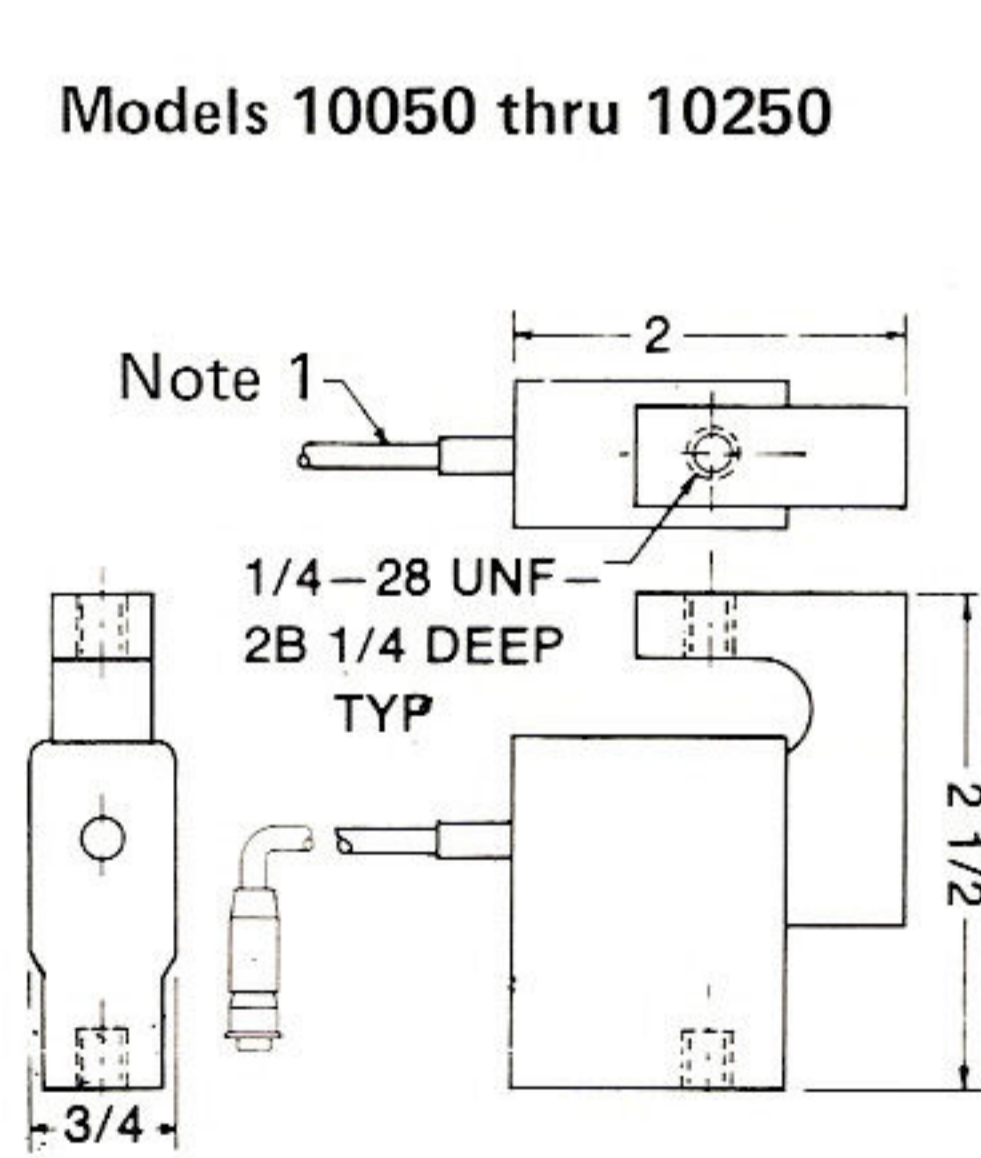
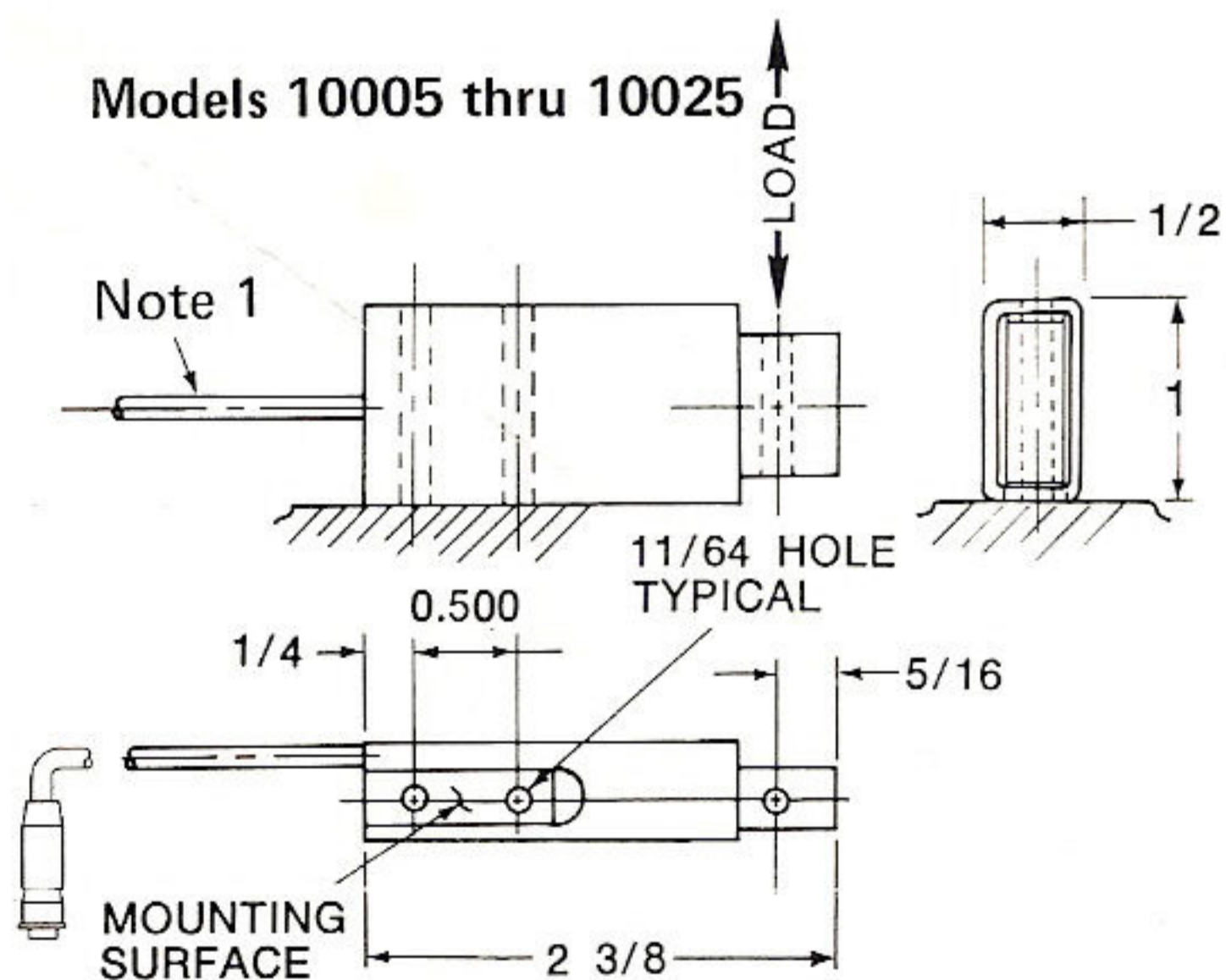
At least one diameter of thread engagement should be provided (see table). Jam nuts may be used but installation torque should be limited to the values tabulated below.

Model	Minimum Thread Engagement	Jam Nut Max. Torque
10050 thru 10250	1/4"	5 Lb.-Ft.
10500 and 11000	1/2"	20 Lb.-Ft.

MECHANICAL – MODELS 10005 – 10025

Fasten Load Beam securely to flat rigid surface with two 8/32 x 1 1/4 screws.

Dimensional Outlines



- Notes:
1. 4 1/2' long shielded cable terminated in Bendix PCOW-10-6P connector.
 2. Precision wire wound shunt calibration resistor furnished with each load beam.