

Precision Tension Load Cells

Models 81 and 82

0.03% NON-LINEARITY
5 TO 20,000 lbs.
COMPACT SIZE
HERMETICALLY SEALED OPTION


Models 81 and 82 load cells combine both a compact form and high precision to offer a superior tension force transducer. The one-piece S-shaped design achieves a maximum non-linearity of 0.03% full scale for load ranges from 100 to 20,000 lbs. Additional features include minimal temperature effects on zero and span of 0.001% and 0.0008% per degree F respectively. Models 81 and 82 load cells are well suited for steelyard rod conversions. Additional applications include converting mechanical weigh bridges and platform scales into electronic scales.

PERFORMANCE

	Model 81 (Tension Only) Order Code BL433	Model 82 (Tension Only) Order Code BL434
Load Ranges	5 to 250 lbs.	100 to 20,000 lbs.
Non-Linearity (max)	±.05% F.S.	±.03% F.S.
Hysteresis	±.03% F.S.	±.02% F.S.
Non-Repeatability (max)	±.02% F.S.	±.01% F.S.
Output	3mV/V*	2mV/V
Resolution	Infinite	Infinite

ENVIRONMENTAL

Temperature, Operating	0° F to 130° F	0° F to 130° F
Temperature, Compensated	30° F to 130° F	30° F to 130° F
Temperature Effect		
– Zero (max)	.001% F.S./° F	.001% F.S./° F
– Span (max)	.0008% Rdg./° F	.0008% Rdg./° F

ELECTRICAL

Strain Gage Type	Foil	Foil
Excitation (calibration)	10VDC	10VDC
Bridge Resistance	350 ohms	350 ohms
Wiring Code (std)	#1 (See Pg. AP-8)	#1 (See Pg. AP-8)
Electrical Termination (std)	Cable (5 ft.)	Cable (5 ft.)

MECHANICAL

Static Overload Capacity	50% over capacity	50% over capacity
Material		
5 to 250 lbs.	Aluminum	Aluminum
500 to 20,000 lbs.	N.A.	Stainless Steel

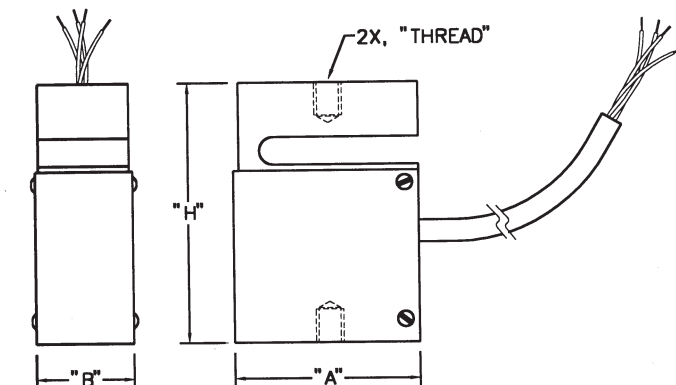
Dimensions

Model 81 (Order Code BL433)

Available Ranges	H"	A"	B"	Thread
5; 10; 25; 50; 100	2.38	1.7	.9	1/4-28 UNF
250	2.75	1.7	.9	3/8-24 UNF

Model 82 (Order Code BL434)

Available Ranges	H"	A"	B"	Thread
100; 250;	3.0	2.0	1.0	1/4-28 UNF
500; 1000; 2000; 3000	3.0	2.19	.94	1/2-20 UNF
5000	3.75	2.25	1.0	3/4-16 UNF
10,000; 20,000	6.00	5.0	2.0	1 1/4-12 UNF



NOTE: Optional hermetically sealed construction for Model 82 above 500 lbs.

* 5lb. output is 2mV/V.