

AVAILABLE  
with Signature  
Calibration  
SEE PG. IN-5

# Ultra Precision Universal Canister Load Cells

## Model UG



0.03% NON-LINEARITY

100-200,000 lb.

STAINLESS STEEL

ALL-WELDED DESIGN

Model UG Ultra Precision Universal load cell achieves scale quality and performance standards. The Model UG achieves  $\pm 0.03\%$  non-linearity with very little deflection (typically .0045"). It utilizes a four arm strain gage bridge which is bonded and tested for high precision and dependability. Female threads on both ends facilitate mounting in any position for tension, compression, or universal force measurements. Model UG load cells can be used in both static and dynamic applications. Stainless steel construction ensures high reliability. Typical applications include wind tunnels; rocket engine tests; hopper, tank, or bin weighing; and weighing scales.

### Model UG Order Code BL122

#### PERFORMANCE

Load Ranges .....	100 to 200,000 lb.
Non-Linearity (max) .....	$\pm 0.03\%$ F.S.*
Hysteresis (max) .....	$\pm 0.03\%$ F.S.
Non-Repeatability (max) .....	$\pm 0.02\%$ F.S.
Output .....	3mV/V
Resolution .....	Infinite
Creep (max) .....	0.02% (20 min.)

#### ENVIRONMENTAL

Temperature, Operating .....	-30° F to 185° F
Temperature, Compensated .....	60° F to 160° F
Temperature Effect	
- Zero (max) .....	0.0015% F.S./° F
- Span (max) .....	0.0008% Rdg./° F

#### ELECTRICAL

Strain Gage Type .....	Bonded foil
Excitation (calibration) .....	10VDC
Bridge Resistance .....	350 ohms
Wiring Code (std) .....	#2 (See Pg. AP-8)
Electrical Termination (std)	
100-200,000 lbs.....	MS3102E-14S-6P
Mating Connector (not incl.) .....	MS3106A-14S-6S

#### MECHANICAL

Static Overload Capacity .....	50% over capacity
Casing Material .....	Stainless steel
Deflection-Full Scale .....	0.0045"

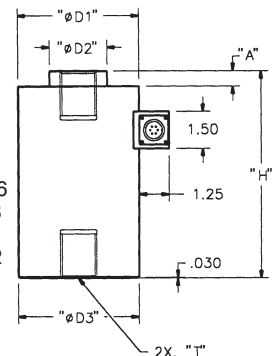
**Notes** Standard calibration for tension/compression load cells is in tension only.  
\* 0.05% at ranges  $\leq 250$  lb., and  $\geq 75,000$  lb.

## Dimensions (inches)

### Model UG (Order Code BL122)

#### Available Ranges

Available Ranges	H"	D1" Dia.	D2" Dia.	D3" Dia.	A"	T Typ.
100; 250; 500 lb.	2.75	2.00	0.63	1.9	0.09	3/8-24 UNF x 7/16
1,000; 2,000; 3,000; 4,000 lb.	4.13	2.50	0.75	2.0	0.09	1/2-20 UNF x 5/8
5,000; 7,500; 10,000 lb.	5.88	3.50	1.56	3.0	0.19	1-14 UN x 1-1/8
15,000; 20,000; 30,000 lb.	8.50	5.00	2.38	4.3	0.63	1-1/2-12 UNF x 2
50,000; 75,000 lb.	12.00	6.00	3.63	5.5	0.69	2-12 UN x 2-1/2
100,000; 150,000 lb.	17.00	8.00	6.00	6.8	0.69	3-8 UN x 4-1/2
200,000 lb.	21.00	9.00	7.50	8.1	0.75	4-8 UN x 5-1/2



## Options (See Appendix)

Temperature compensated 1b, 1c; Electrical termination 6e, 6f, 6g, 6j; Int. Shunt cal 8a  
Special calibration 30a, 30b; Signature calibration 53e

**Premium Options:** 9a, 9b

**Accessories:** Mating connectors and connector/cable assemblies; Load buttons