

U3G1, U3G2, T3P1, T3P2 Load Cells**Applications:**

**Dynamometers
Tensile Testing
Tension and Compression**



- **Capacity Range 500 to 100,000 Pounds**
- **Compact - Rugged**
- **Operational: -30° to +175°F**
- **Low Deflection**
- **Environmentally Sealed**
- **Many Capacities are FM and CSA Approved**

Product Description

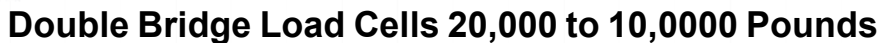
T3 type load cells, developed by BLH Electronics, are designed for various types of weighing and force measurement. Construction of the U3 and T3 load cell utilizes all of the advantages of BLH SR-4[®] strain gages. All cells are fabricated with high strength 'ring' type elements to provide an output signal of 3 mV/V at rated capacity. Each cell is designed for minimum deflection and 150% safe overload without damage. U3G1 and U3G2 universal load cells are shipped with calibration data verifying accuracy in both tension and compression modes. U3G2 and T3P2 cells contain a second bridge. The second bridge can be used simultaneously with the first bridge for dual output or be reserved as a backup in case of failure.

Performance Specifications

Performance	U3G	T3P
Rated Output	3mV/V +/-0.25%	3mV/V +/-0.1%
Non-linearity - % RO	0.10	0.05
Hysteresis - % RO	0.02% 1-100K	0.02% 1-50K
	0.05% 500 lb	0.05% 500 lb
Variance Ten.-Cmp.	0.015 mV/V max.	NA
Repeatability - %RO	0.02	0.02
Creep - %RO (20 min.)	0.03	0.03
Electrical		
Recommended Excitation	10V ac-dc	10V ac-dc
Zero Balance - %RO	1.0	1.0
Input Resistance (ohms)	350 +/-3.5	350 +/-3.5
Output Resistance (ohms)	350 +/-3.5	350 +/-3.5
Number of Bridges	single/double	single/double
Min. Insulation Resistance - megohms (@ 50 Vdc)		
Bridge to Ground	5000	5000
Shield to Ground	2000	2000
Electrical Connection	35 foot cable	35 foot cable
Temperature		
Safe Range	-30 to 175°F	-30 to 175°F
Compensated Range	+30 to +130°F	+30 to +130°F
Effect on Zero Balance	0.0015 %RO/°F	0.0015 %RO/°F
Effect on Rated Output	0.005% Load/°F	0.0008% Load/°F
Adverse Load Ratings		
Safe Overload - %R.O.	150	150
Max Overload -%R.O.	300	300

Thermo BLH
An ISO 9001 Registered Company

Product Outline Dimensions



CAP (lb)	A	B dia.	C dia.	D	E	F	K dia.	L (tapped)	N dia.
500 - 3000	4 9/16	-	1 1/16	1/4	-	2 1/4	1 1/4	1/2-20UNF-2Bx1/2 DP	-
5000 - 10000	5 15/16	1 3/4	1 7/8	3/8	1/2	2 21/32	2 1/2	1-14UNS-2Bx1 1/4 DP	-
20000-30000	8 1/2	2 5/8	2 3/4	1/2	1	3 13/32	4	1 1/2-12UNF-2Bx1 3/4 DP	5
50000	11 7/16	3 3/4	4	5/8	1	4 15/32	5 3/4	2-12UN-2Bx2 1/4 DP	6 1/2
100000	17 3/4	4 3/4	5 1/2	1 1/8	1	7 3/8	7 3/4	3-8 UN-2Bx4 1/2 DP	9

Capacity (lb)	500	1000	2/3000	5000	10000	20000	50000	100000
Weight (lb)	6	6	6	10	10	25	70	200
deflection in.	0.007	0.006	0.005	0.007	0.005	0.007	0.010	0.013
Nat. Freq. @ Eff. Wt HZ/lb	1250/0.45	1800/0.50	2600/0.56	2200/1.5	3400/1.7	2400/5	1900/15	1350/43

**Dimensions
are
shown in
inches**

Main Office

75 Shawmut Road - Canton, MA 02021
Tel: (781) 821-2000 - Fax: (781) 828-1451
web site: <http://www.blh.com>

ISO 9001
Registered

Canada

41 Horner Ave, Unit 5
Toronto, Ontario M8Z 4X4
Tel:(416) 251-2554 - Fax: (416) 251-2690
Toll Free: (800) 567-6098

ThermoBLH
PD 430 - March 2002

BLH is continually seeking to improve product quality and performance. Specifications may change accordingly.

A Thermo Electron business