

Precision Force and Weight Measurement Canisters

FEATURES

- Capacity range: 500 to 100K lb (227 to 45K kg)
- Compact, rugged
- Operational: -30°F to +175°F
- Low deflection
- Environmentally sealed
- FM and CSA approved

APPLICATIONS

- Dynamometers
- Tensile testing
- Tension and compression weighing

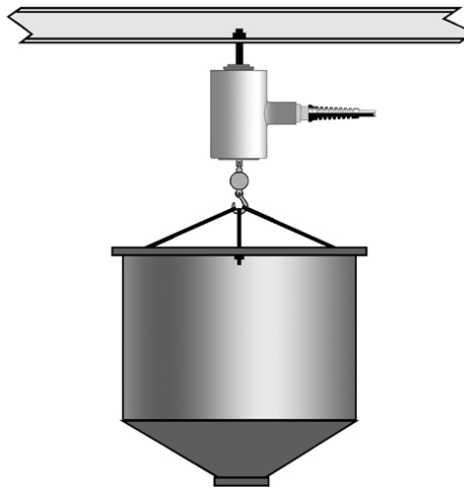
DESCRIPTION

T3 type load cells, developed by BLH Nobel are designed for various types of weighing and force measurement. Construction of the U3 and T3 load cell utilizes all of the advantages of SR-4® strain gages. All cells are fabricated with high strength 'ring' type elements to provide an output signal of 3mV/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



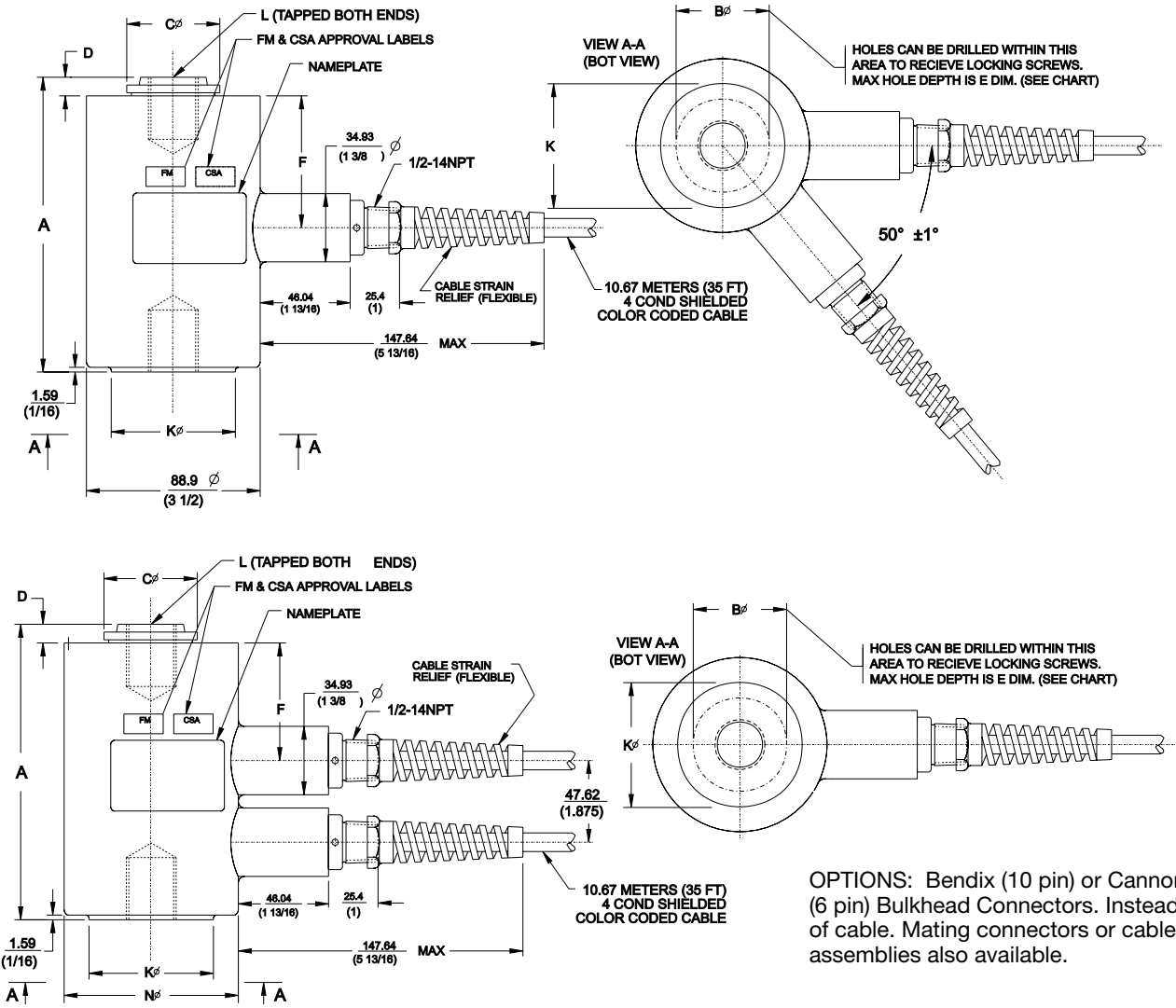
contain a second bridge. The second bridge can be used simultaneously with the first bridge for dual output or be reserved as a backup in case of failure.

CONFIGURATION



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OUTLINE DIMENSIONS



OPTIONS: Bendix (10 pin) or Cannon (6 pin) Bulkhead Connectors. Instead of cable. Mating connectors or cable assemblies also available.

Capacity (lb)	A	B DIA.	C DIA.	D	E	F	K DIA.	L (TAPPED)	N DIA.
500-3000	49/16	—	11/16	1/4	—	21/4	11/4	1/2-20UNF-2BX11/2DP	—
5000-10000	515/16	13/4	17/8	3/8	1/2	221/32	21/2	1-14UNS-2BX11/4DP	—
20000-30000	81/2	25/8	23/4	1/2	1	313/32	4	11/2-12UNF-2BX13/4DP	5
50000	117/16	33/4	4	5/8	1	415/32	53/4	2-12UN-2BX21/4DP	61/2
100000	173/4	43/4	51/2	11/8	1	73/8	73/4	3-8UN-2BX41/2DP	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

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SPECIFICATIONS			
PARAMETER	VALUE		
PERFORMANCE			
Type	U3	T3	
Capacities	500, 1K, 2K, 3K, 5K, 10K, 20K, 50K, and 100K lb (227, 454, 907, 1.4K, 2.3K, 4.5K, 9.1K, 13.6K, 22.7K, and 45.4K kg)		
Rated output (RO)	3 mV/V – 0.25%	3 mV/V ± 0.1%	
Non-Linearity	0.10% RO	0.05% RO	
Hysteresis—% RO	0.02% 1–100K lb; 0.05% 500 lb	0.02% 1–50K lb; 0.05% 500 lb	
Repeatability	0.02% RO	0.02% RO	
Creep (20 min.)	0.03% RO	0.03% RO	
Variance Ten.—Cmp	0.015 mV/V max.	NA	
ELECTRICAL			
Recommended Excitation	10 VAC-DC		
Zero Balance	1.0% RO		
Input Resistance	350 Ω ±3.5 Ω		
Output Resistance	350 Ω ±3.5 Ω		
Number of Bridges	single/double		
Min. Insulation Resistance MΩ (@ 50 VDC)	—		
Bridge to Ground	5000		
Shield to Ground	2000		
Electrical Connection	10 ft or 35 ft cable		

PARAMETER	VALUE	
TEMPERATURE		
Safe Range	–30 to +175°F	
Compensated Range	+30 to +130°F	
Effect on Zero Balance	0.0015% RO/°F	
Effect on Rated Output	0.005% load/°F	0.0008% load/°F
ADVERSE LOAD RATINGS		
Safe Overload	150% RO	
Max Overload	300% RO	

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