

## 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

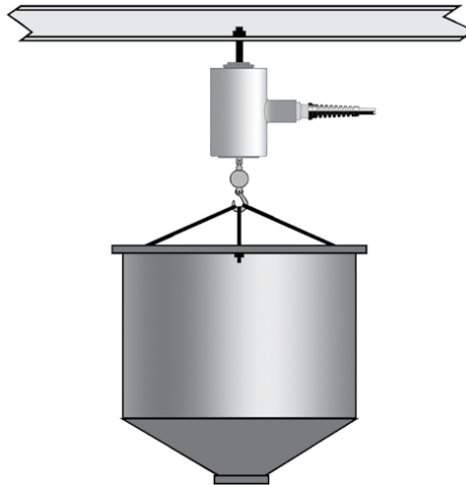
### DESCRIPTION

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



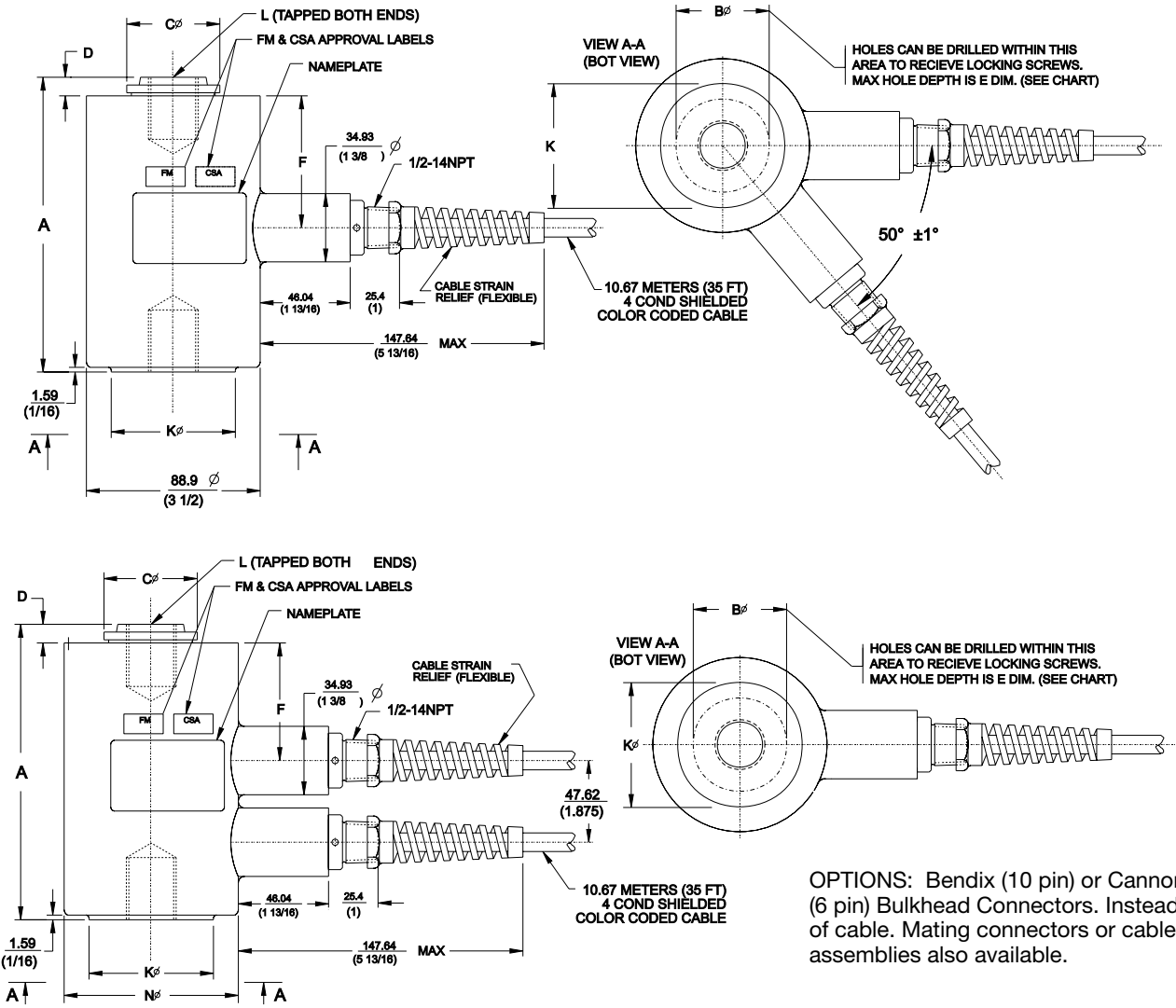
contain a second bridge. The second bridge can be used simultaneously with the first bridge for dual output or be reserved as a backup in case of failure.

### CONFIGURATION



Precision Force and Weight Measurement Canisters

**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

## Precision Force and Weight Measurement Canisters

SPECIFICATIONS							
PARAMETER		VALUE		PARAMETER		VALUE	
<b>PERFORMANCE</b>				<b>TEMPERATURE</b>			
Type		<b>U3</b>	<b>T3</b>	Safe Range	-30 to +175°F		
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)			Compensated Range	+30 to +130°F		
Rated output (RO)	3 mV/V – 0.25%	3 mV/V ± 0.1%		Effect on Zero Balance	0.0015% RO/°F		
Non-Linearity	0.10% RO	0.05% RO		Effect on Rated Output	0.005% load/°F	0.0008% load/°F	
Hysteresis—% RO	0.02% 1–100K lb; 0.05% 500 lb	0.02% 1–50K lb; 0.05% 500 lb		<b>ADVERSE LOAD RATINGS</b>			
Repeatability	0.02% RO	0.02% RO		Safe Overload	150% RO		
Creep (20 min.)	0.03% RO	0.03% RO		Max Overload	300% RO		
Variance Ten.—Cmp	0.015 mV/V max.	NA					
<b>ELECTRICAL</b>							
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						

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



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