

## Load Cell



### FEATURES

- Capacity range: 20000 to 100000lb (9072 to 45360kg)
- Tension service
- Operational: -30° to +175°F
- Low deflection
- Environmentally sealed
- FM and CSA approved

### DESCRIPTION

T2P1 load cells, developed by BLH, are designed for various types of weighing and force measurement. T2P1 load cell construction uses all the advantages of SR-4® strain gages.

T2P1 Load Cells are fabricated with high strength 'column type' elements that provide output signals of 2mV/V at rated capacity. Each cell is designed for minimum deflection and maximum safe overload during periods of full capacity tension.

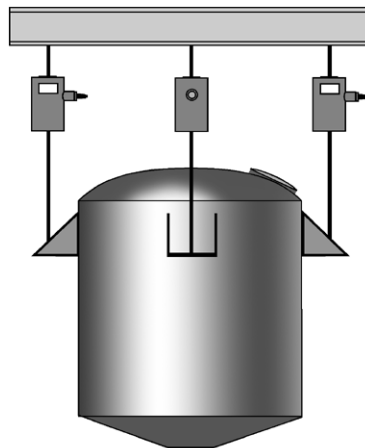
Double diaphragm fabrication and gage linearizing combine to offer precision

performance and long term reliability. Low deflection and superior sealing guarantee trouble-free operation. Relatively low mass and small deflection under load, produce excellent frequency response. Overall, T2P1 cells perform superbly in many environments where other transducers cannot.

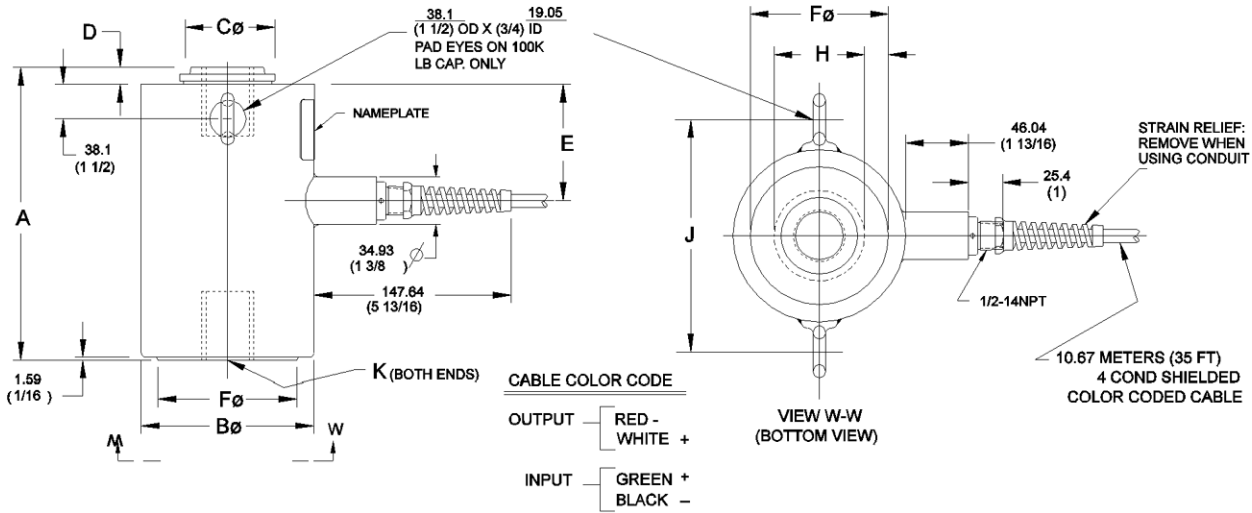
### APPLICATIONS

- Tensile testing
- Crane scales
- Grain silos
- Suspended vessels

### CONFIGURATION



**DIMENSIONS**



CAP. POUNDS	A	B $\phi$	C $\phi$	D	E	F $\phi$	G	H	J	K (TAPPED)
20,000	8 1/2	5	2 3/4	1/2	3 3/8	4	1	2 5/8	N/A	1 1/2-12UNF-2B X 2 DP
50,000	11 7/16	6 1/2	4	5/8	5	5 3/4		3 3/4		2-12UN-2B X 2 5/8 DP
100,000	17 3/4	9	5 1/2	1 1/8	9	7 3/4		4 3/4	10 1/2	3-8UN-2B X 4 3/4 DP

DIMENSIONS SHOWN IN INCHES

**SPECIFICATIONS**

**Performance**

Capacity	20K, 50K, and 100K lb 9.1K, 22.7K, and 45.4K kg
Rated Output (RO)	2mV/V $\pm$ 0.1%
Combined Error (Hys.& Lin.)	$\pm$ 0.03% full scale
Repeatability - %RO	0.02
Creep - %RO (20 min.)	0.02

**Electrical**

Recommended Excitation	10V ac-dc
Maximum Excitation	20V ac-dc
Zero Balance - %RO	1.0
Input Resistance	350 $\pm$ 3.5 Ohms
Output Resistance	350 $\pm$ 3.5 Ohms
Number of Bridges	single
Electrical Connection	35 foot cable

**Temperature**

Safe Range	-30 to +175°F
Compensated Range	+15 to +115°F
Effect on Zero Balance	0.0015 %RO/°F
Effect on Rated Output	0.0008% load/°F

**Adverse Load Ratings**

Safe Overload	150% full capacity
Ultimate Overload	300% full capacity

**Approvals**

FM (Factory Mutual)	3611 (Class I, II, III; Div.1,2; Groups A-G)
CSA	C22.2 (Class I, II, III; Div.1,2; Groups A-G)

**Mechanical Data**

	20K lb	50K lb	100K lb
Weight (lb)	25	55	160
Deflection (in.)	0.0075	0.01	0.009
Deflection (mm)	0.191	0.254	0.229
Nat. Freq. (Hz) @ EFF. WT. (lb)	3500/2	3100/5	2100/25

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

Many performance specifications are proven on a statistical sample basis.

## Disclaimer

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