Load Cell

FEATURES

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

APPLICATIONS

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

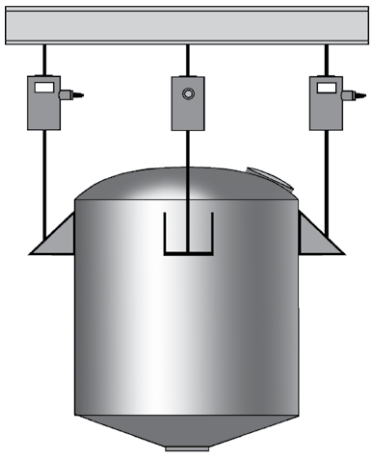
DESCRIPTION

T2P1 load cells, developed by BLH Nobel, 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.

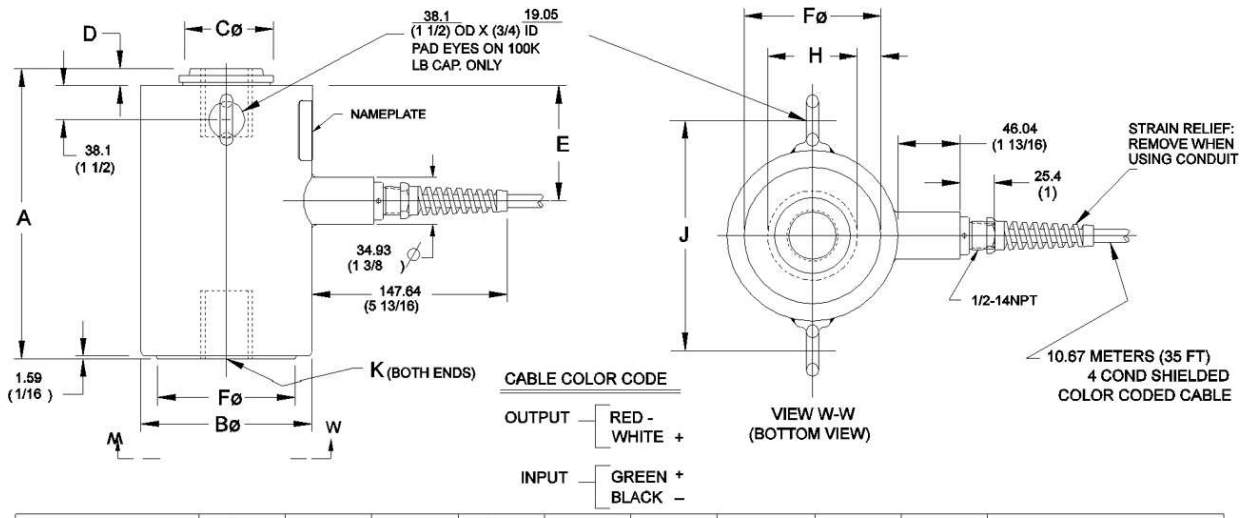
CONFIGURATION



BLH NOBEL
A VPG Brand

Load Cell

DIMENSIONS



CAP. POUNDS	A	Bø	Cø	D	E	Fø	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

SPECIFICATIONS

PARAMETER	VALUE
PERFORMANCE	
Capacities	20K, 50K, and 100K
Rated output (RO)	2.0 hv/v ±0.10%
Combined error (Hys.& Lin.)	±0.03% F.S.
Repeatability—%RO	0.02 F.S.
Creep—%RO (20 min.)	±0.02% F.S.
ELECTRICAL	
Recommended excitation	10 VAC or VDC
Maximum excitation	20 VAC or VDC
Zero balance —%RO	0.02% F.S.
Input resistance	350 ±3.5 Ω
Output resistance	350 ±3.5 Ω
Number of bridges	2
Cable length	35 ft

PARAMETER	VALUE		
TEMPERATURE			
Safe range	15–115°F		
Compensated range	15–115°F		
Effect on zero balance	±0.0015% F.S./°F		
Effect on rated output	±0.0008%/°F		
ADVERSE LOAD RATINGS			
Safe overload	150%		
Ultimate overload	300% capacity		
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 Nobel is continually seeking to improve product quality and performance. Specifications may change accordingly. Many performance specifications are proven on a statistical sample basis.

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