

Compression Load Cells



FEATURES

- Capacity range: 20K, 50K, 100K, 200K, 300K, and 500K lb (9K, 13.6K, 22.7K, 45.4K, 90.7K, 136K, and 227K kg)
- Compact and rugged
- Operational: -30° to +175°F
- Low deflection
- Environmentally sealed
- NTEP Certificate of Conformance for Class III scale applications (20K to 200K)
- FM and CSA approved

OPTIONAL FEATURES

- Capacities greater than 500K lb (227K kg) - consult factory

DESCRIPTION

C2P1 load cells are designed for various types of weighing and force measurement. Construction of C2P1 load cells utilizes all of the advantages of SR-4® strain gages. C2P1 load cells meet or exceed NIST Handbook 44 requirements and are Factory Mutual approved. Also, the National Type Evaluation Program (NTEP) has issued Certificate of Conformance number 87-060 for C2P1 20K to 200K pound capacities.

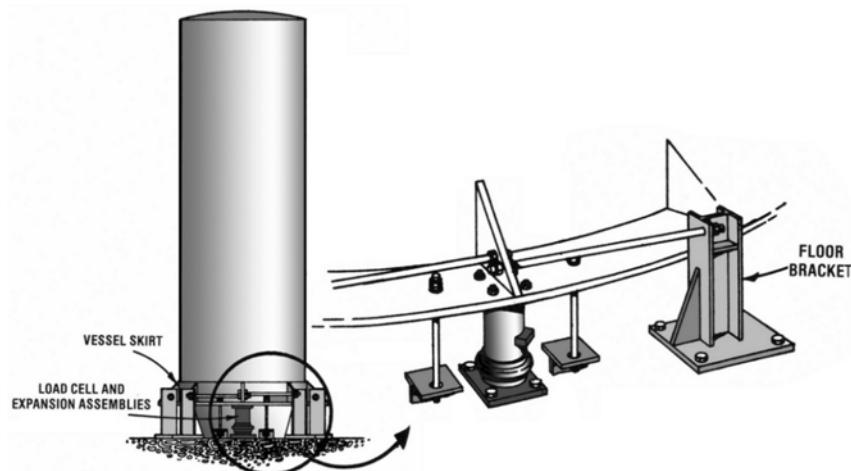
Double diaphragm fabrication and gage linearizing combine to offer precision performance and long term reliability. Low

deflection and superior sealing guarantee trouble-free operation. Relatively low mass and small deflection under load, produce excellent frequency response. Overall, C2P1 cells perform superbly in many services where other transducers cannot.

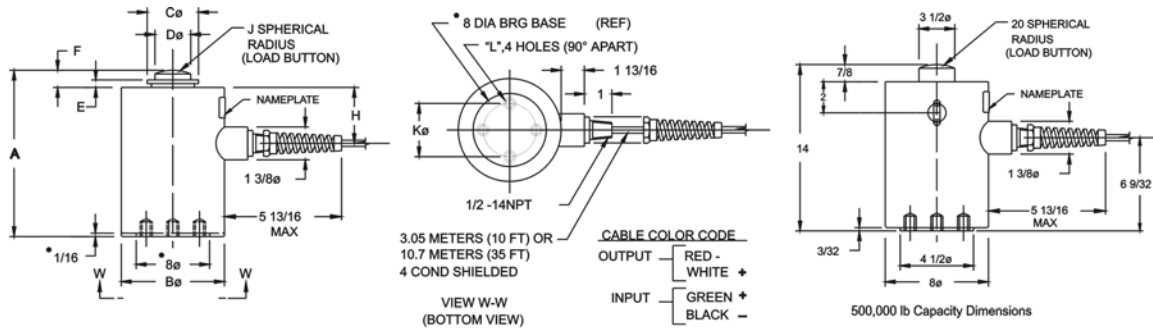
APPLICATIONS

- Coal silos
- Rail car weighing
- Truck scales
- Force measurement

CONFIGURATION



DIMENSIONS



CAP.	KILOGRAMS (POUNDS)	A	Bø	Cø	Dø	E	F	H	J	Kø B.C.	L (TAPPED)
9072 (20,000)	22,680 (50,000)	190.50 (7 1/2)	114.30 (4 1/2)	57.15 (2 1/4)	31.75 (1 1/4)	12.70 (1/2)	19.05 (3/4)	63.50 (2 1/2)	152.40 (6)	60.33 (2 3/8)	3/8 - 24UNF - 2B X 3/8 DP
45359 (100,000)		231.78 (9 1/8)	152.40 (6)	79.38 (3 1/8)	44.45 (1 3/4)	15.88 (5/8)	26.98 (1 1/16)	64.29 (2 17/32)	304.80 (12)	101.60 (4)	1/2 - 20UNF - 2B X 3/4 DP
90718 (200,000)		295.28 (11 5/8)	203.20 (8)	114.30 (4 1/2)	63.50 (2 1/2)			89.69 (3 17/32)		139.70	5/8 - 18UNF - 2B X 1 DP
136077 (300,000)		355.60 (14)	254 (10)	127 (5)	76.2 (3)	19.05 (3/4)	33.34 (1 5/16)	109.54 (4 5/16)	381 (15)	5 1/2	3/4 - 16UNF - 2B X 1 1/4 DP
500,000										3 1/2	1/2 - 20UNF - 2B X 3/4 DP

NOTE: CONFIGURATION & DIM'S () ARE FOR 136077 Kg/(300,000 LB) CAP. ONLY 20K - 200K lb capacities have NTEP CoC

SPECIFICATIONS

Performance

Capacities	20K, 50K, 100K, 200K, 300K, and 500K lb (9K, 13.6K, 22.7K, 45.4K, 90.7K, 136K, and 227K kg)	
Rated Output (RO) 0.25%	20K - 300K	500K
Repeatability	0.01% RO	0.02% RO
Combined Error	0.05% RO	0.08% RO
Zero Balance	1.0% RO	1.0% RO
Creep (20 minutes)	0.02% RO	0.03% RO
Temperature Effects:		
On Zero Balance	0.0015%RO/°F all capacities	
On Rated Output	0.0008%Load/°F all capacities	

Electrical

Recommended Excitation	10 Vac-dc
Input Resistance	350 ohms (+/-3.5)
Output Resistance	350 ohms (+/-3.5)
Cable Length	10 or 35 foot cable

Temperature

Safe Range	-30 to +175°F
Compensated Range	+30 to +130°F

Adverse Load Ratings

Safe Overload	150% rated capacity
Ultimate Overload	300% rated capacity

Material

Element	high grade tool steel
Cannister	low carbon steel, painted*

Sealing

Environmental Class	IP67
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Deflection

20K lb	0.0075 inches
50K lb	0.0065 inches
100K lb	0.0075 inches
200K lb	0.007 inches
300K lb	0.012 inches
500K lb	0.020 inches

Approvals

NTEP	Class III L, 4,500 divisions
FM/CSA Intrinsically Safe	Class I, II, III; Division 1, Groups A-G
FM/CSA Nonincendive	Class I, Division 2, Groups A-D

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

*single component, waterborne polyurethane copolymer - high gloss.