

## Compression Load Cells



### FEATURES

- Capacity range: 20K, 30K, 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.

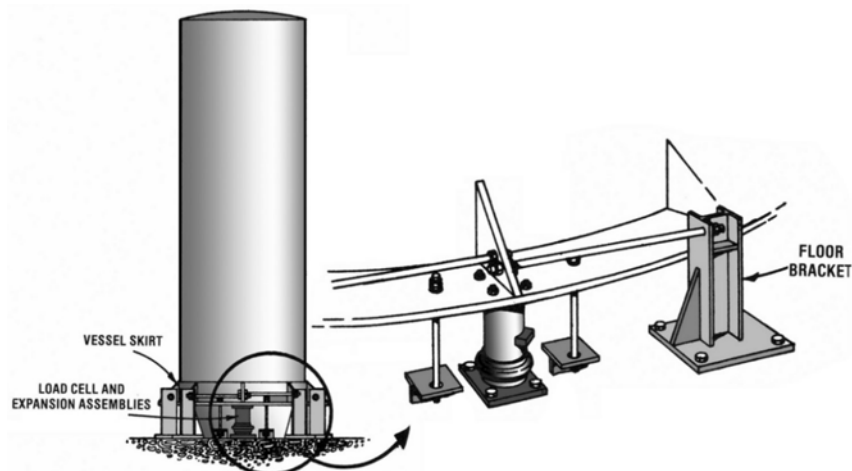
Double diaphragm fabrication and gage linearizing combine to offer precision performance and long term reliability. Low

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.

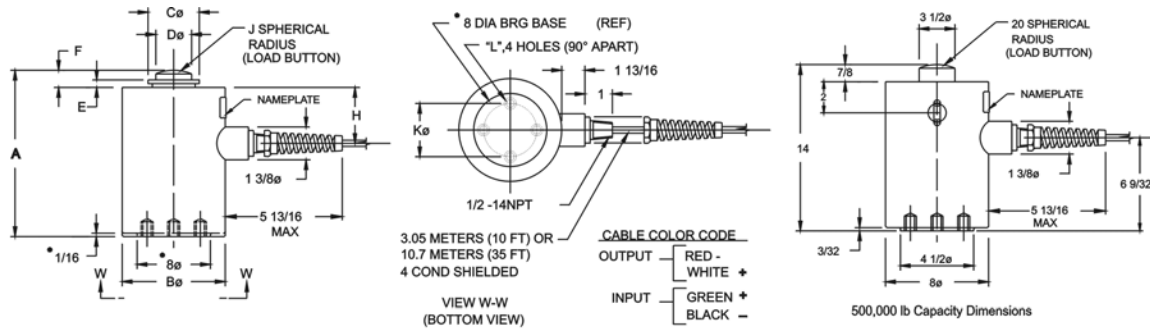
### APPLICATIONS

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

### CONFIGURATION



### DIMENSIONS



CAP. KILOGRAMS (POUNDS)	A	B $\emptyset$	C $\emptyset$	D $\emptyset$	E	F	H	J	K $\emptyset$ B.C.	L (TAPPED)
9072 (20,000)	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 1/2)	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)		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, 30K, 50K, 100K, 200K, 300K, and 500K lb (9K, 13.6K, 22.7K, 45.4K, 90.7K, 136K, and 227K kg)

Rated Output (RO) 2.0 mV/V (+/-0.1%) (+/- 0.25%)  
 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

#### Deflection

20K lb 0.0075 inches  
 30K 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, 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

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

\*single component, waterborne polyurethane copolymer - high gloss.

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\*Asia except China