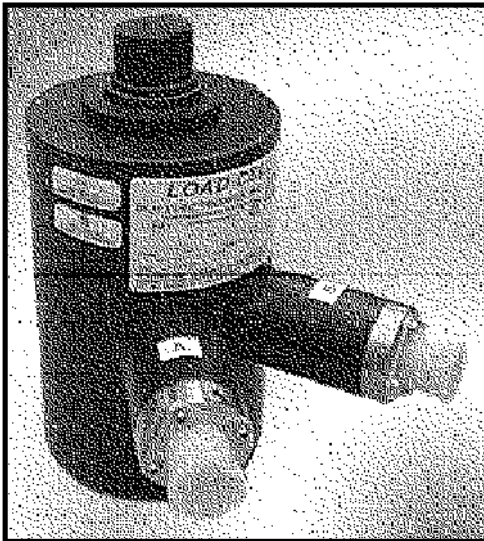


Compression Cell Applications

Test and Measurement Calibration Standards Redundant Weighing Systems



- Capacities 500 to 100,000 Pounds
- Environmentally Sealed
- Operational -30° to +175°F
- Low Deflection
- Compact Rugged

Product Description

C3P1 and C3P2 cells are fabricated with high strength 'ring' type elements to provide an output signal of 3 mV/V at rated capacity. Each cell is designed for minimum deflection and 150% safe overload without damage. C3P2 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 in the first bridge. 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, C3P1/C3P2 cells perform superbly in many environments where other transducers cannot.

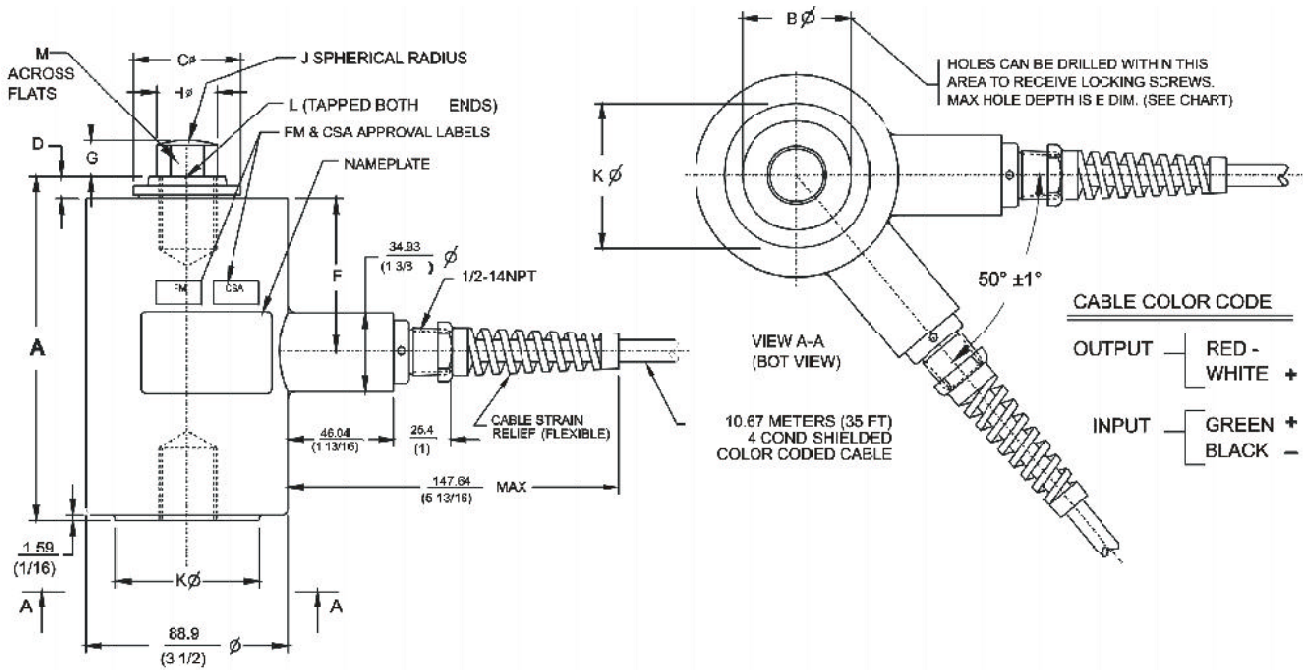
Specifications

Performance	
Rated Output	3mV/V +/-0.10%
Non-linearity - % RO	0.05
Hysteresis - % RO	0.02% 1-100K
	0.05% 500 lb
Repeatability - %RO	0.02
Creep - %RO (20 min.)	0.03
Electrical	
Recommended Excitation	10V ac-dc
Zero Balance - %RO	1.0
Input Resistance (ohms)	350 +/-3.5
Output Resistance (ohms)	350 +/-3.5
Number of Bridges	single or double
Min. Insulation Resistance - megohms (@ 50 Vdc)	
Bridge to Ground	5000
Shield to Ground	2000
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 - %R.O.	150
Max Overload -%R.O.	300

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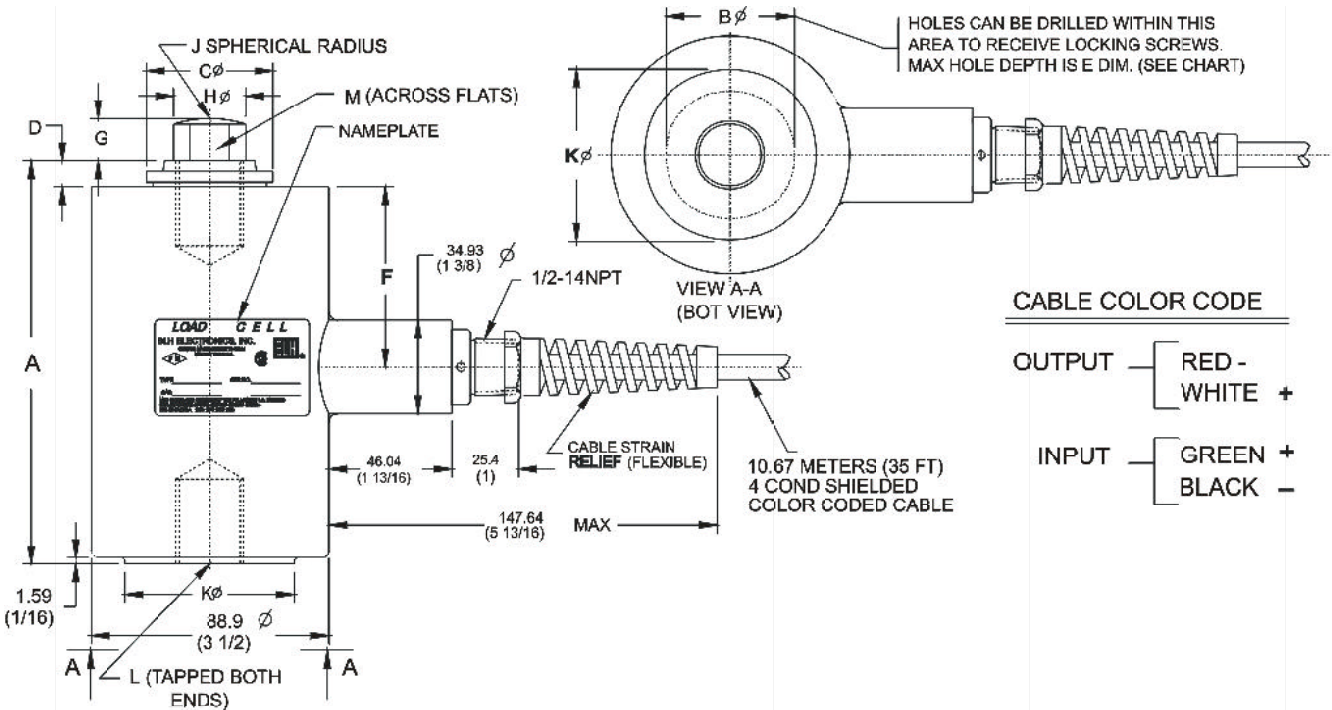
An ISO 9001 Registered Company

Outline Dimensions - Double Bridge - 500 to 10,000 Pounds



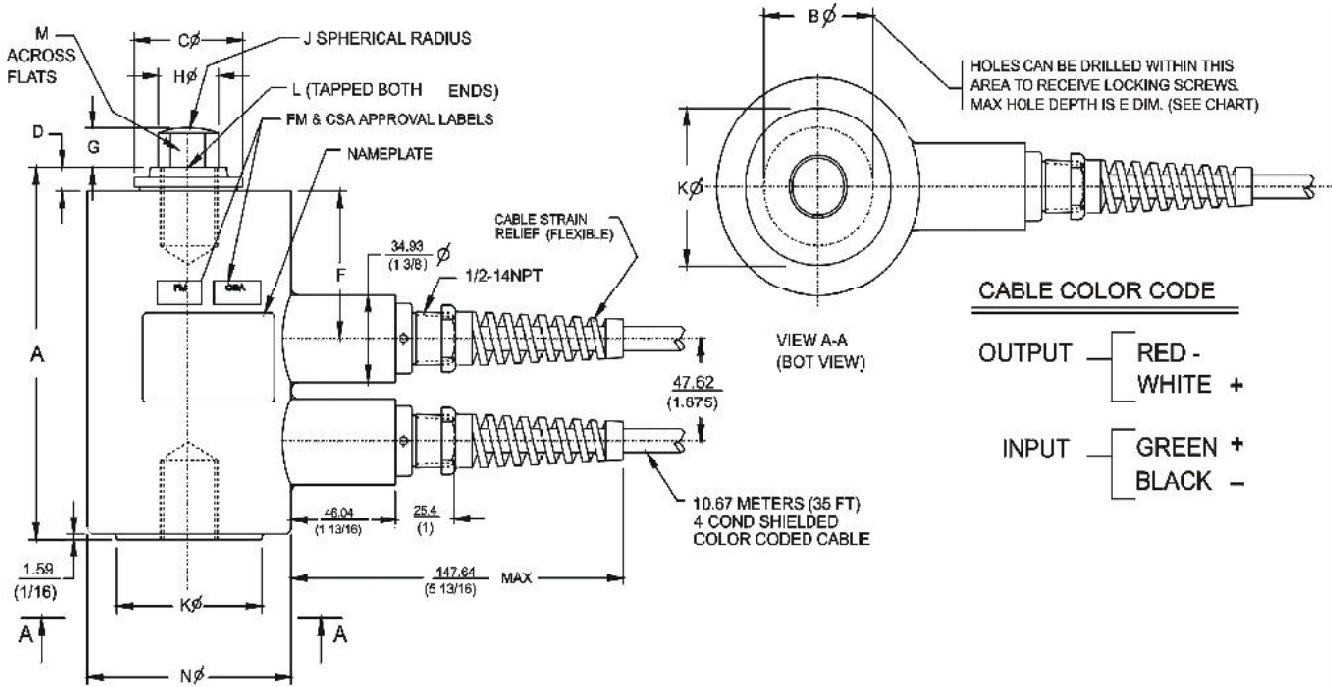
CAP.	KILOGRAMS (POUNDS)	A	B ϕ	C ϕ	D	E	F	G	H ϕ	J	K ϕ	L (TAPPED)	M
227 (500)	THRU 1381 (3000)	115.89 (4 9/16)	—	26.96 (1 1/8)	6.35 (1/4)	—	57.15 (2 1/4)	9.53 (3/8)	16 (5/8)	50.8 (2)	31.75 (1 1/4)	1/2-20UNF-2B X 1/2 DP	9.53 (3/8)
2268 (5000)	& 4536 (10000)	150.31 (5 15/16)	44.45 (1 3/4)	47.63 (1 7/8)	9.53 (3/8)	12.7 (1/2)	87.47 (2 21/32)	16 (5/8)	26.99 (1 1/16)	101.6 (4)	63.5 (2 1/2)	1-14UNS-2B X 1 1/4 DP	22.35 (7/8)

Outline Dimensions - Single Bridge - 500 to 10,000 Pounds



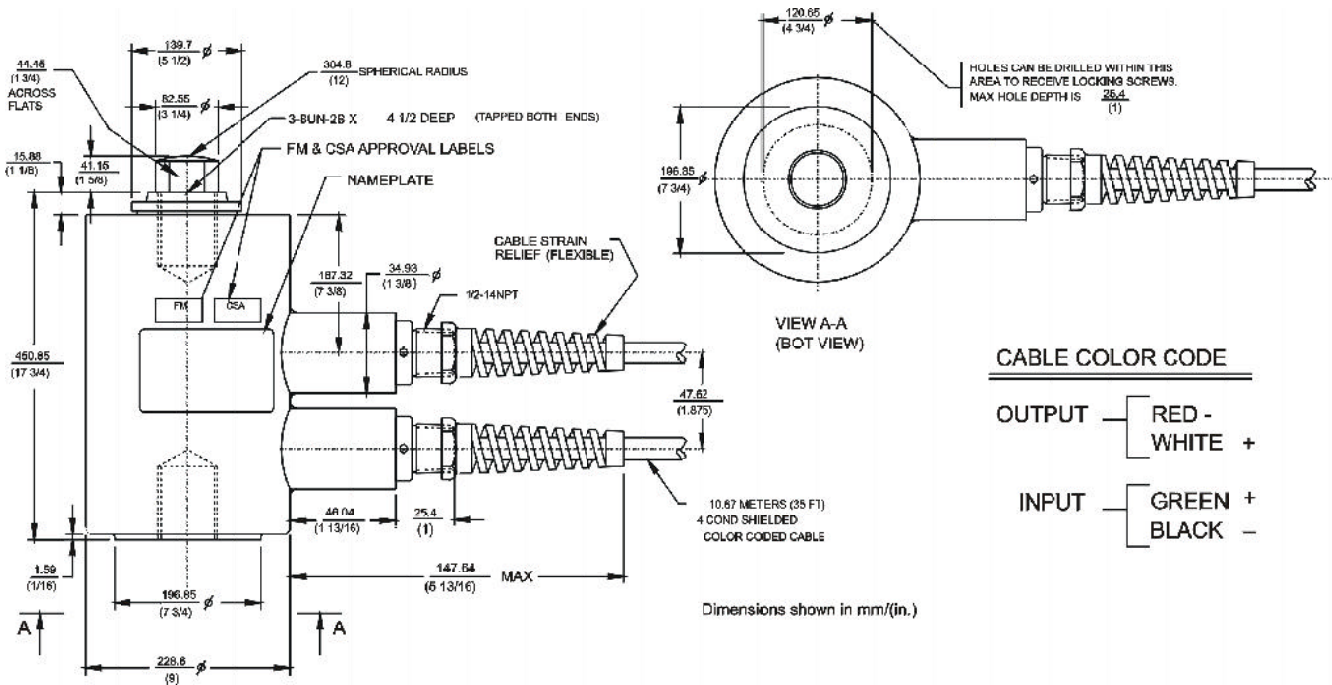
CAP.	KILOGRAMS (POUNDS)	A	B ϕ	C ϕ	D	E	F ϕ	G	H ϕ	J	K ϕ	L (TAPPED)	M
227 (500)	THRU 1381 (3000)	115.89 (4 9/16)	—	26.99 (1 1/8)	6.35 (1/4)	—	57.15 (2 1/4)	9.53 (3/8)	16 (5/8)	50.8 (2)	31.75 (1 1/4)	1/2-20UNF-2B X 1/2 DP	9.53 (3/8)
2268 (5000)	& 4536 (10000)	150.31 (5 15/16)	44.45 (1 3/4)	47.63 (1 7/8)	9.53 (3/8)	12.7 (1/2)	87.47 (2 21/32)	16 (5/8)	26.99 (1 1/16)	101.6 (4)	63.5 (2 1/2)	1-14UNS-2B X 1 1/4 DP	22.35 (7/8)

Outline Dimensions - Double Bridge - 20000 to 50,000 Pounds



CAP.	KILOGRAMS (POUNDS)	A	B ϕ	C ϕ	D	E	F	G	H ϕ	J	K ϕ	L (TAPPED)	M	N ϕ
9072 (20,000)	THRU 13606 (30,000)	215.9 (8 1/2)	66.68 (2 5/8)	68.85 (2 3/4)	12.7 (1/2)	25.4 (1)	86.52 (3 13/32)	25.00 (63/64)	41.28 (1 5/8)	203.2 (8)	101.6 (4)	1 1/2-12UNF-2B X 1 3/4 DEEP	31.75 (1 1/4)	127.0 (5)
22680 (50,000)		290.51 (11 7/16)	95.25 (3 3/4)	101.6 (4)	15.88 (5/8)	25.4 (1)	113.50 (4 15/32)	25.00 (63/64)	57.15 (2 1/4)	203.2 (8)	148.05 (5 3/4)	2-12UN-2B X 2 1/4 DEEP	44.45 (1 3/4)	165.1 (6 1/2)

Outline Dimensions - Double Bridge - 100,000 Pounds



Dimensions shown in mm/(in.)

Load Cell Mechanical Data

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

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

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