

Standard Features

- » ASTM E74 performance: Lower Limit Factor (LLF) better than 0.02 %, Class A better than 8 % of capacity when used only in a single direction.¹
- » ISO 376 Class 1 or better
- » Compression and/or tension modes
- » Capacities from 500 – 112,000 lbf, or equivalent kgf/Newton
- » Direct reading calibration accuracy typically around 0.1 % of capacity
- » Available accessories such as: Morehouse Adapters, custom-cut protective cases, various indicators

¹When the directions are combined, there may be a reduction in the loading range. The reduction varies by capacity, and the verified range of forces could increase to 40 % of capacity.

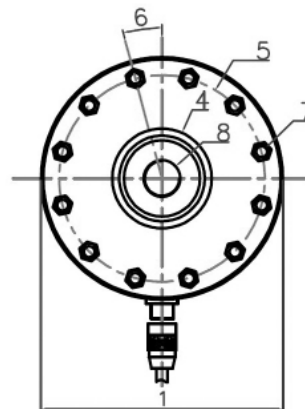
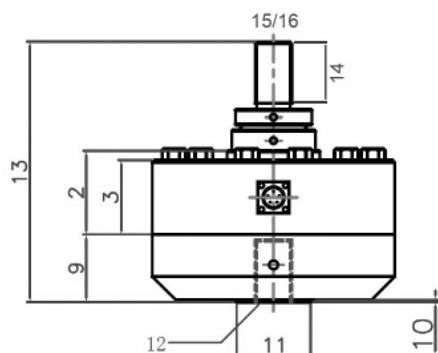


Technical Specifications

Specifications	Model - Capacity (lbf / kN)						
	0.5K, 1K, 2K / 2.5, 5, 10	5K / 25	10K / 50	25K / 100	50K / 250	60K / 300	100K / 500
Accuracy							
Static Error Band, % R.O.	± 0.03	± 0.03	± 0.03	± 0.04	± 0.04	± 0.04	± 0.04
Non-Linearity, % R.O.	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03
Hysteresis, % R.O.	± 0.04	± 0.04	± 0.04	± 0.04	± 0.04	± 0.04	± 0.04
Non-Repeatability, % R.O.	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01
Creep, % Rdg / 20 Min.	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03
Off-Center Load Sensitivity, %/in	± 0.10	± 0.10	± 0.10	± 0.10	± 0.10	± 0.10	± 0.10
Side Load Sensitivity, %	± 0.10	± 0.10	± 0.10	± 0.10	± 0.10	± 0.10	± 0.10
Zero Balance, % R.O.	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0
Temperature							
Range, Compensated, °F	+15 to +115	+15 to +115	+15 to +115	+15 to +115	+15 to +115	+15 to +115	+15 to +115
Range, Operating, °F	-25 to +180	-25 to +180	-25 to +180	-25 to +180	-25 to +180	-25 to +180	-25 to +180
Sensitivity Effect, % Rdg / 100°F	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Zero Effect, % R.O. / 100°F	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Electrical							
Recommended Excitation, VDC	10	10	10	10	10	10	10
Input Resistance, Ω	1400 +40/-3.5	1400 +40/-3.5	1400 +40/-3.5	1400 +40/-3.5	1400 +40/-3.5	1400 +40/-3.5	1400 +40/-3.5
Output Resistance, Ω	1400 ± 3.5	1400 ± 3.5	1400 ± 3.5	1400 ± 3.5	1400 ± 3.5	1400 ± 3.5	1400 ± 3.5
Sensitivity (R.O.), mV/V, Nominal	4	4	4	4	4	4	4
Insulation Bridge/Case, MegΩ	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC
Mechanical							
Safe Overload, % R.O.	120	120	120	120	120	120	120
Weight, lbs	5	8	8	24	24	30	50
Flexure Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel

Capacity (lbf)	500	1,000	2,000	5,000	10,000	25,000	50,000	60,000	100,000
Capacity (kN)	2.5	5	10	25	50	100	250	300	500
Part No.	BLC-500	BLC-1k	BLC-2k	BLC-5k	BLC-10k	BLC-25k	BLC-50k	BLC-60k	BLC-100k

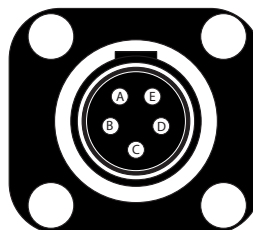
Dimensions



Dimensions	Model - Capacity (lbf / kN)						
	0.5K, 1K, 2.25K / 2.5, 5, 10	5K / 25	10K / 50	25K / 100	50K / 250	60K / 300	100K / 500
1 – Cell & Base Diameter (in/mm)	3.5 / 90.00	4.12 / 104.65	4.12 / 104.65	6.06 / 153.92	6.06 / 153.92	6.06 / 153.92	8 / 203
2 – Cell Height to Hub (in/mm)	1.10 / 28	1.41 / 36	1.41 / 36	2.04 / 52	2.04 / 52	2.28 / 58	2.55 / 65
3 – Cell Body Height (in/mm)	0.98 / 25	1.29 / 33	1.29 / 33	1.81 / 46	1.81 / 46	2.00 / 51	2.24 / 57
4 – Hub Diameter (in/mm)	1.10 / 28	1.57 / 40	1.57 / 40	2.67 / 68	2.67 / 68	2.67 / 68	3.5 / 90
5 – Mounting B.C. Diameter (in/mm)	2.95 / 75	3.54 / 90	3.54 / 90	5.11 / 130	5.11 / 130	5.11 / 130	6.61 / 168
6 – Symmetric B.C. Offset	15 Degrees	15 Degrees	15 Degrees	15 Degrees	15 Degrees	15 Degrees	11.25 Degrees
7 – Mounting Hole Diameter (in/mm)	0.25 / 6.5	0.25 / 6.5	0.25 / 6.5	0.41 / 10.5	0.41 / 10.5	0.41 / 10.5	0.49 / 12.5
8 – Hub Thread Size, Depth (in)	0.625"-18, UNF-3A	0.625"-18, UNF-3A	0.625"-18, UNF-3A	1.25"-12, UNF-3A	1.25"-12, UNF-3A	1.5"-12, UNF-3A	1.75"-12, UNF-3A
9 – Base Thickness, Total (in/mm)	1.06 / 27	1.14 / 29	1.14 / 29	1.49 / 38	1.49 / 38	2.00 / 51	2.00 / 51
10 – Base Step Height (in/mm)	0.04 / 1	0.04 / 1	0.04 / 1	0.04 / 1	0.04 / 1	0.04 / 1	0.04 / 1
11 – Base Step Diameter (in/mm)	1.10 / 28	1.25 / 32	1.25 / 32	2.28 / 58	2.28 / 58	2.75 / 70	3.07 / 78
12 – Base Thread Size, Depth (in)	0.625"-18, UNF-3B	0.625"-18, UNF-3A	0.625"-18, UNF-3A	1.25"-12, UNF-3A	1.25"-12, UNF-3A	1.5"-12, UNF-3A	1.75"-12, UNF-3A
13 – Total Height (in/mm)	3.77 / 96	4.40 / 112	4.40 / 112	6.37 / 162	6.37 / 162	7.38 / 187.5	8.34 / 212
14 – Adapter Thread Length (in/mm)	1 / 25.4	1 / 25.4	1 / 25.4	1.25 / 31.75	1.25 / 31.75	1.5 / 38.1	2.05 / 52.07
15 – Adapter End Radius (in/mm)	Flat	Flat	Flat	Flat	Flat	Flat	Flat
16 – Adapter Thread Size (in)	0.625"-18	0.625"-18	0.625"-18	1.25"-12	1.25"-12	1.50"-12	1.75"-12

Wiring

Budget Shear Web	
Connector Pin	Description
Pin A	+ Excitation (Red)
Pin B	- Signal (White)
Pin C	Shield (Bare)
Pin D	- Excitation (Black)
Pin E	+ Signal (Green)



The corporate philosophy is to make the world a safer place so we also offer these options to help reach that goal:

Calibration Services

Morehouse offers ISO 17025 accredited calibration services. We can calibrate load cells (regular and multi-axis), proving rings, force gauges, dynamometers, crane scales, aircraft scales, and other force measuring instruments.

- Primary Standards laboratory, directly traceable to SI through NIST.
- Accredited force calibration services through 10,000 kN (2,250,000 lbf) in compression and 5,000 kN (1,125,000 lbf) in tension.
- Deadweight calibration up to 533 kN (120,000 lbf), accurate to 0.002 % of applied force.



Indicator Options

Morehouse offers a range of indicator options to compliment your selection of loadcells. Choose from sophisticated standalone indicators, like our model 4215 Plus, that stores the polynomial values of the loadcell's calibration curve, giving you precise calibration results; or our HADI portable indicator that works with, and powered by, a laptop computer allowing you automate your calibration process and print certificates at the time of the calibration.



Training

At Morehouse we are passionate about ensuring our customers get the best possible performance out of their calibration equipment. This means having the right equipment, the right adapters, and also includes having the right consistent process. We offer a wide range of educational and training material, along with regular webinars and training sessions that teach best practices. Check our website for the current training seminar schedule.

