

Morehouse's Compression Only ISO 376 Precision Loadcells represent the best value approach to force measurement verification and calibration. Morehouse offers many different series of column-style, shear web and other style load cells for high, and low, capacity applications with increased, and decreased, accuracy needs, all of which can be readily customized to meet your unique requirements.

Standard Features

- » ISO 376, standard meeting Class 0.5 requirements from 10 % of the loading range or better
- » ASTM E74 performance: Lower Limit Factor (LLF) better than 0.01 %, Class A better than 4 % of capacity using ascending calibration data.
- » Compression top adapter is included; improves performance by maintaining consistent contact interface.
- » Capacities from 100–5,000 kN (22,000-1,124,044 lbf)
- » Comes standard with four wire cable (optional six wire cable available).
- » Direct reading calibration accuracy typically around 0.05 % of capacity
- » Available accessories such as: six wire cable, custom-cut protective cases, various indicators
- » Connector Protector as standard to prevent the need for field repairs of completely preventable damage.



Technical Specifications

Specifications	Model - Capacity (kN)							
	100, 300	600,1000	1500, 2000	2500	3000	5000	7500	10,000
Sensitivity (mV/V)	2.0 ± 0.01	2.0 ± 0.01	2.0 ± 0.01	2.0 ± 0.01	2.0 ± 0.01	2.0 ± 0.01	2.0 ± 0.01	2.0 ± 0.01
Total Error (%F.S)	± 0.2	± 0.2	± 0.3	± 0.3	± 0.3	± 0.3	± 0.3	± 0.3
Creep (30 Min) (%F.S)	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05
Zero Balance (%F.S)	± 1	± 1	± 1	± 1	± 1	± 1	± 1	± 1
TCO %F.S/10 (°C)	± 0.05	± 0.05	± 0.02	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05
TC SPAN %F.S/10 (°C)	± 0.05	± 0.05	± 0.02	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05
Input Resistance (Ω)	750 ± 10	1450 ± 10	1450 ± 10	1450 ± 10	1450 ± 10	1450 ± 10	1450 ± 10	400 ± 20
Output Resistance (Ω)	702 ± 5	1405 ± 5	1405 ± 5	1405 ± 5	1405 ± 5	1405 ± 5	1405 ± 5	352 ± 5
Insulation Resistance (M Ω)	≥5000	≥5000	≥5000	≥5000	≥5000	≥5000	≥5000	≥5000
Operating Temp Range (°C)	-30~ +70	-30~ +70	-30~ +70	-30~ +70	-30~ +70	-30~ +70	-30~ +70	-30~ +70
Safe Load Limit (%F.S)	120	120	120	120	120	120	120	120
Lateral Load Limit (%F.S)	150	150	150	150	150	150	150	150
Recommended Excitation (V)	10~12	10~12	10~12	10~12	10~12	10~12	10~12	10~12
Maximum Excitation (V)	15	15	15	15	15	15	15	15
Protection Class	IP67							IP66
Weight (kg / lb)	<4 / <8	<8 / <17	<25 / <55	<37 / <82	<39 / <85	<77 / <170	120/265	175/386
Material	Alloy Steel							
Base Available*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*Base recommended for all load cells over 2000kN.

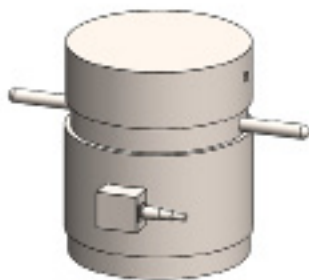
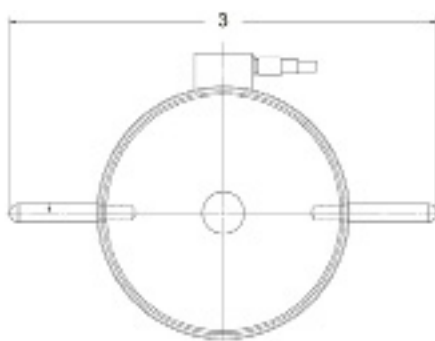
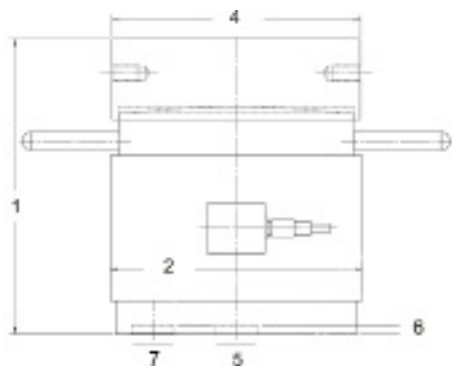
Ordering Information

Capacity (kN)	300	600	1,000	1,500	2,000	2,500	3,000	5,000	7,500	10,000
Part No.	PIC-300KN	PIC-600KN	PIC-1,000KN	PIC-1,500KN	PIC-2,000KN	PIC-2,500KN	PIC-3,000KN	PIC-5,000KN	PIC-7,500KN	PIC-10,000KN





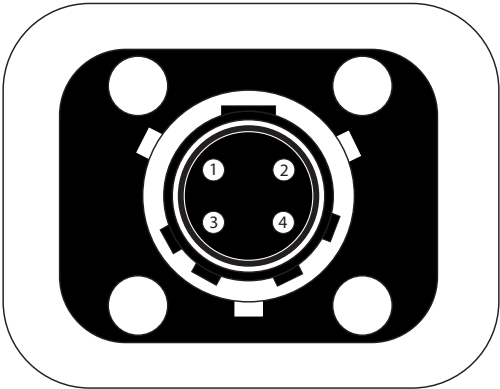
Dimensions



Dimensions	Model - Capacity (lbf / kN)								
	20,000, 60,000 / 100, 300	120,000 / 600	200,000 / 1,000	300,000 / 1500	400,000 / 2000	500,000, 600,000 / 2500, 3000	1,000,000 / 5000	1,500,000 / 7500	2,000,000 / 10,000
1 – Overall Height w/ Top Adapter (in/mm)	5.79 / 147	7.48 / 190	8.26 / 210	11.22 / 285	11.22 / 285	12.80 / 325	15.75 / 400	17.32 / 440	13.78 / 350
2 – Overall Width w/o Handles (in/mm)	2.99 / 76	4.17 / 106	4.64 / 118	5.67 / 144	5.67 / 144	6.46 / 164	8.27 / 210	9.37 / 238	11.81 / 300
3 – Overall Width w/ Handles (in/mm)	N/A	N/A	N/A	15.28 / 388	15.28 / 388	16.06 / 408	17.87 / 454	18.97 / 482	18.90 / 480
4 – Width of Top Adapter (in/mm)	2.24 / 57	3.46 / 88	3.46 / 88	5.08 / 129	5.08 / 129	5.83 / 148	7.48 / 190	8.58 / 218	11.65 / 296
5 – Centering Thread Size	M8x1.25	M12x1.75	M12x1.75	M16x2.00	N/A	N/A	N/A	N/A	N/A
6 – Thread Depth (mm)	10	15	20	20	20	20	20		
7 – 3 Hole Thread Size	N/A	N/A	N/A	N/A	3xM16x2.00	3xM16x2.00	3xM16x2.00	3xM20	4xM30

Wiring

ISO 376 Precision	
Connector Pin	Description
Pin 1	Excitation + (Blue)
Pin 2	Excitation - (Black)
Pin 3	Signal + (White)
Pin 4	Signal - (Red)





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.

