

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; it improves performance by maintaining a 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 is 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.

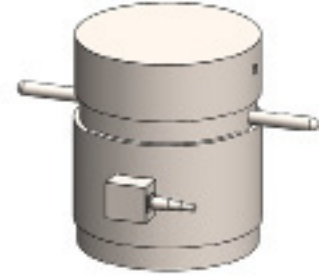
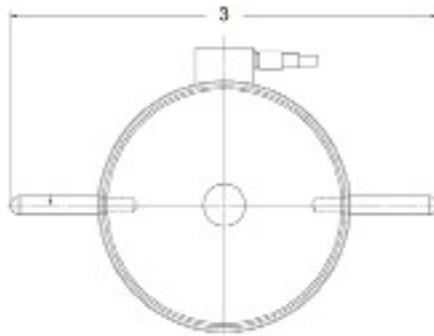
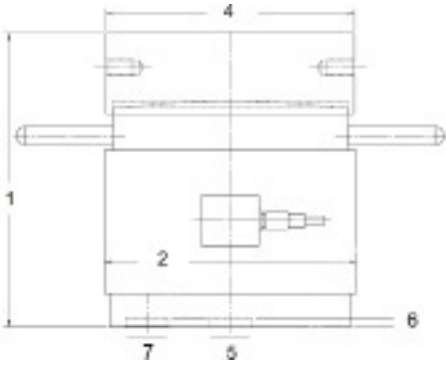
Ordering Information

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	17.32 / 440	
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	9.37 / 238	
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	18.97 / 482	
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	8.58 / 218	
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	3xM20	

Wiring

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

