



Technical Specifications

LD360s™ Compression Load Cell

A rugged, stainless steel load cell for in-process vessels and tanks. Sets new standards for the ultimate in cleanability with vessel hold-down protection built-in.

The LD360s™ is a rugged, stainless steel load cell for in-process tanks and bulk storage vessels. It combines vessel “hold-down” with unprecedented cleanability never before seen in load cell design. The LD360s™, using proven KM semiconductor strain gage technology, continuously measures the weight of the material in the tank, provides batching information control, and supplies material-on-hand information for a variety of applications.

Its sealed, stainless steel construction, as well as its unique NEMA-6P rated cable system, makes the LD360s™ ideal for use in high-pressure wash-down environments where cleaning and sanitizing chemicals are used. The LD360s™ is particularly suitable for use on mixing and blending vessels, surge hoppers and vessels with agitators. Standard load ranges are from 1,000 to 25,000 lbs (453 to 11,340 kg) per vessel support with system performance accuracies of 0.08%. Batching accuracies could be much higher.

The design of the LD360s™ keeps the vessel’s center of gravity low and stable. Vessel tipping, “walking”, or overturning is eliminated, protecting your valuable product. Violent agitation is also no match for its integral hold-down design. Installation is simple. Unlike conventional load cells, no extra external hardware, turnbuckles, or specific cell orientation is needed, even in areas of seismic activity or winds (outdoor vessels). This lock-down design eliminates the moving pivot points, bearing surfaces and “floating” hardware that can cause long term maintenance and accuracy problems as well as provide a home for bacteria.

The high output of the sensor provides immunity to industrial noise and allows longer cable runs to keep electronics out of the intensive cleaning area. The LD360s™ identical bolt hole and height dimension for all capacity ranges simplifies plant-wide design and installation. A wide range of accessories such as mounting plates with leveling, make for easy installation and start-up.



Features & Benefits

Cleanability

Simple, self-contained design virtually eliminates bacteria hiding places and withstands rigorous CIP cleaning practices.

Easy To install

Single footprint and height dimension over all capacity ranges allows for a common system design. Minimal deflection (0.008 inches) reduces plumbing effects for better system accuracy. Optional hardware with built-in leveling features eliminates shimming. High output semiconductor gage provides 2000-foot cable runs and better noise immunity.

Virtually Maintenance Free

Fusion-bonded gages provide a robust and rugged load cell. Unique NEMA-6P load cell and optional cable system provides unsurpassed protection in washdown environments.

Specifications:

Mechanical

Compression: 4 x rated load

Tension: 1 x rated load

Shear: 0.5 x rated load

Functional Integrity: 2 x rated load (compression)

Electrical

Excitation Voltage - Operating Range:

10VDC - 14VDC

Impedance: 7.5K Ohms +/-1%

Maximum Current: 3 mA @ 12VDC excitation

Output (for 12VDC excitation)

Non-Linearity/Hysteresis combined:

0.8% Performance: 0.1% standardized output

Return to Zero: .05% of standardized output

Zero Balance: 1% Rated Capacity

Rated Output (@ 12 VDC excitation):

360 mV +/-1% (30mV/V nominal)

Environmental

Temperature Range - Standard: 0- to 100-F

(-18-C to 38-C)

Temperature Range - Mid: 50- to 150-F

(10-C to 66-C)

Temperature Effects - Zero Shift:

Std/Mid Temp Ranges: 0.006% /°F (0.011% /°C)

Temperature Effects - Sensitivity Change:

+/- 0.015% /°F, 0- 100-F

Humidity: 100%

Storage Temp Range:

-40- to 176- F (-40- to 80-C)

Rating: NEMA-6P (includes NEMA-4, NEMA-4X and NEMA-6); sealed for high-pressure caustic wash-down and prolonged submergence in water. (Cable must be installed and tightened to meet rating.)

Physical

Construction: 17-4 PH stainless steel

Connector: 6P rated sealed 4-conductor, 12mm male receptacle

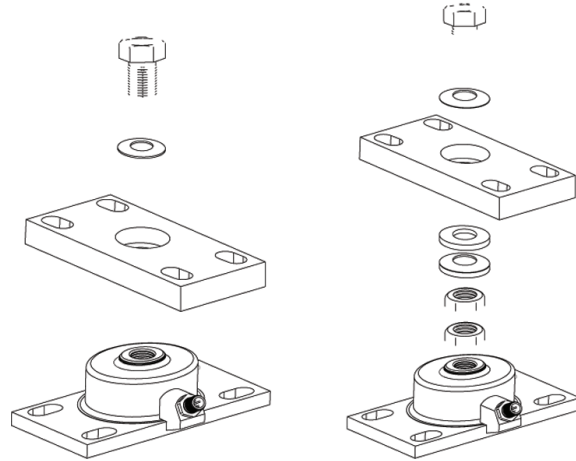
Cable Assembly: Female molded connector to 4m (13 ft) pigtail

Shipping Weight: 8.5 lbs. (3.9 kg)

Approvals:



DIMENSIONS	
Base Plate Size Length x Width	6.00" [152.4mm] x 3.50" [88.9mm]
Installed Height LD360s W/UA360 1K-10K lbs 15K-25K lbs LD360s W/LT360 1K-7.5K lbs Only LD360s W/AD360 1K-7.5K lbs Only	2.76" [70.1mm] 3.33" [84.6mm] MIN: 4.094" [104mm] MAX: 4.219" [107.2mm] MIN: 4.094" [104mm] MAX: 4.219" [107.2mm]
Top Plate Size Length x Width UA3xi LT3xi AD3xi	6.00" [152.4mm] x 3.50" [88.9mm] 6.00" [152.4mm] x 3.50" [88.9mm] 6.00" [152.4mm] x 6.00" [152.4mm]



LD360s with UA360
Top Adapter Plate

LD360s with LT360
Leveling Top Adapter Plate

Ordering Information			
LD360s-a-b-c-d			
[b] Rated Load		[d] Finish	
01K	1000 lbs (453 kg)	P	Polished
02K	2000 lbs (907 kg)	Top Installation Hardware	
03K	3000 lbs (1,362 kg)	NO1	No Hardware kit (Standard)
05K	5000 lbs (2,268 kg)	UA360	Universal Top Adapter Plate
7.5K	7,500 lbs (3,402 kg)	TP360	Top Adapter Plate
10K	10,000 lbs (4,536 kg)	LT360	Universal Leveling Top Adapter Plate [1K to 7.5K lbs only]
15K	15,000 lbs (6,804 kg)	AD360	Anyadapter Leveling Top Adapter Plate [1K to 7.5K lbs only]
20K	20,000 lbs (9,072 kg)		
25K	25,000 lbs (11,340 kg)		
[c] Operating Temperature		Additional Hardware	
X	Ambient Temp 0° to 100°F (-18° to 38°C) (Standard)	NO1	No Hardware kit
F	Mid-range Temp 50° to 150°F (10° to 66°C)	LB360	Leveling Base Adapter Plate
		Warranty	
		X	Standard 2 yr warranty

P/N 97-7071-04 Rev. A
Specifications subject to change without notice.
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