

# Kistler Morse - Sensor de Pesagem Load Disc II



## Technical Specifications

### LD3™ Compression Load Cell

**Low Cost - High Performance Compression Load Cell  
Suitable for a Wide Range of Applications**

Utilizing the proven KM semiconductor strain gage technology, the LD3 Compression Load Cell continuously measures the weight of material for in-process and bulk storage vessels. The LD3 is suitable for a wide range of applications from dry, solid material measurement to high-pressure washdown, corrosive or submerged environments and is available in capacities from 1,000 lbs. to 25,000 lbs.

The LD3 incorporates a unique self-leveling feature that actually provides a single-point "trim" while allowing up to a 3° tilt or rotation in all directions. Finally there is a solution for sloped or not quite level environments.

The LD3 is designed to handle off-center forces and therefore significantly reduces installation efforts, time and cost while still delivering optimum performance.

Many competitive load cell designs lend themselves to the entrapment of bacteria, requiring extensive cleaning and maintenance. With its smooth surfaces and hermetically sealed design, the LD3 requires less than 10% of the cleaning needed for beam or pancake-style load cells.

The LD3's monolithic design eliminates the need for restraints or stay rods and provides options for seismic applications.



## Features & Benefits

### **Versatile Load Cell for Dry to Wet Applications**

Due to its low cost and high performance, this load cell is suitable for applications ranging from bulk dry solids to sanitary washdown or corrosive environments.

### **Cleanability and Strength For CIP/SIP**

Built-in vessel hold-down eliminates mechanical pivot points, a source of bacteria traps and system errors. This leads to less operator time spent cleaning.

### **NEMA-6P / IP68 Submersion Rating, 17-4 ph 900 SS Construction**

Unsurpassed waterproof protection and corrosion resistance for long life in rigorous CIP wash down and corrosive areas.

### **Minimal Deflection**

Better system performance on tanks with pipes and process plumbing connections versus load cells that need stay rods or check rods.

# Specifications

## Load Range (Capacities)

1000 lbs (454 kg) to 25000 lbs (11340 kg)

## 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:**

10 VDC - 30 VDC

**Recommended Supply Voltage:** 12 VDC

**Maximum Current:** 3 mA @ 12 VDC excitation (0° F)

**Output Resistance:** 7.5K Ohms +/-1%

## Output

**Non-Linearity/Hysteresis Combined:**

0.08% Performance: 0.08% rated output  
Consult factory for batching accuracy;  
typically 0.05% to 0.01% full scale

**Return to Zero:** 0.05% rated output

**Zero Balance:** 1% rated output

**Rated Output:** 30 mV/V +/-1%

**Deflection:** 0.004"-0.006" for capacities 1000-5000 lbs  
0.008"-0.012" for capacities 7500-25000 lbs

## 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 - Zero Shift:**

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

**Temperature - Sensitivity Change:**

0.015% /° F (0.027% /° C) 0° - 100° F

**Storage Temp Range:** -40° to 176° F (-40° to 80° C)

**Humidity:** 100%

## Physical

**Construction:** 17-4 PH 900 stainless steel

**Connector:** Nickel plated brass body with polyimide insert  
and neoprene grommet

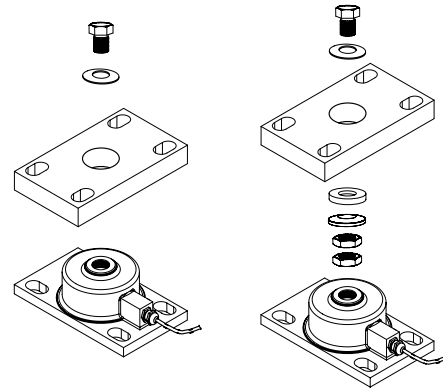
**Cable:** 22 AWG 3 conductor unshielded with PVC sheath  
(15' standard)

**Rating:** NEMA-6P; IP68 5 Bar; 70 psi

**Shipping Weight:** 5 lbs. (2.3 kg)

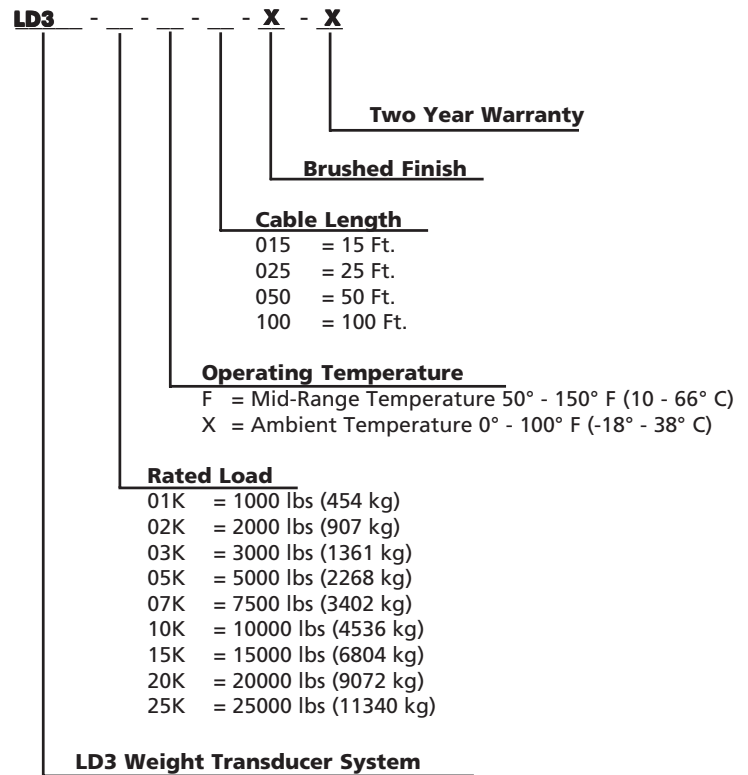
## DIMENSIONS

Base Plate Size Length x Width	6.00" [152.4mm] x 3.50" [88.9mm]
Installed Height LD3 W/UA 1K-10K lbs 15K-25K lbs	2.76" [70.1mm] 3.33" [84.6mm]
LD3 W/LT3 1K-7.5K lbs Only	MIN: 4.094" [104mm] MAX: 4.219" [107.2mm] (Adjustable)
LD3 W/AD3 1K-7.5K lbs Only	MIN: 4.094" [104mm] MAX: 4.219" [107.2mm]
Top Plate Size Length x Width	
UA3	6.00" [152.4mm] x 3.50" [88.9mm]
LT3	6.00" [152.4mm] x 3.50" [88.9mm]
AD3	6.00" [152.4mm] x 6.00" [152.4mm]



LD3 with UA3  
Top Adapter Plate

LD3 with LT3  
Leveling Top Adapter Plate



LD3 Weight Transducer System

P/N 97-7014-01 Rev A

Specifications subject to change without notice.  
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