

# Technical Specifications

## LD3xiC Compression Load Cell

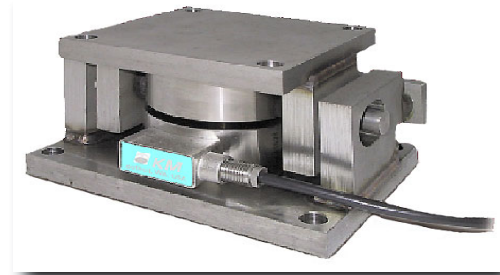
### Process Tank Weighing For Dry-To-Wet Operating Conditions

#### **DRY-TO-WET OPERATING CONDITIONS: LD3xiC**

From bakery, pasta, confectionary and spice processing to resins, concrete/aggregate, sand, pulp, minerals and other dry-to-wet operating conditions, the full bridge, foil gauge LD3xiC offers very specific advantages not available in most higher-priced load cells. Standards include a tough “cage” mounting fixture into which the 17-4 stainless steel LD3xiC load cell securely locks in place. Since the LD3xiC load cell can be installed before or after the tank is installed onto the “cage” fixture, you have more flexibility in mounting procedures. If ever the load cell needs to be replaced, it can be removed without having to remove the “cage” fixture itself. The LD3xiC is available in virtually all popular weight capacities from 220 lbs to 22,000 lbs. and is easy to specify due to identical dimensions and price throughout the uniform range.

This stainless steel load cell has been designed to ease the installation of weighing and batching systems, in tanks, bins and in static or vibrating hoppers.

The unique “cage” arrangement compensates for minor structure misalignment and offsets side loads due to positioning errors, thermal tank expansion, etc., while providing a high-strength structural support.



### Features & Benefits

#### **Easy to Install and Access**

Sensor mounted into rugged “cage” fixture hardware which never requires removal in the event of load cell changeovers.

#### **Single Footprint and Cost**

Easy to design in, regardless the capacity.

#### **Load Self Alignment**

Ensures high performance.

#### **All Stainless Steel Sensor Design**

Beneficial in washdown environments for corrosion free sensor.

#### **Self Checking and Overlift**

#### **Protection Structure**

No check rods needed.

#### **High Functional Overload**

#### **Capacity**

Allows overloading vessel without damaging load cells.

#### **Universal Product Approvals**



# Specifications

## Mechanical

- Compression:** 3 x rated load
- Tension:** 1 x rated load \*
- Shear:** 0.5 x rated load \*
- Functional Integrity:** 1.5 x rated load (compression)

## Electrical

- Excitation Voltage - Operating Range:** 5-15 VDC
- Recommended Supply Voltage:** 10 VDC
- Maximum Current:** 16mA @ 10 VDC excitation (0° F)
- Input Resistance:** 700 ohms ± 2 ohms
- Insulation Resistance:** > 5 megohms

## Output

- Non-linearity/Hysteresis combined:** 0.03% rated output
- Return to Zero over 30 min:** 0.026% rated output
- Creep over 30 min:** 0.028% rated output
- Creep over 20 and 30 min:** 0.008% rated output
- Zero Balance:** 1% rated output
- Rated Output:** 2 mV/V ± 0.1%
- Output Resistance:** 705 ohms ± 2 ohms

## Environmental

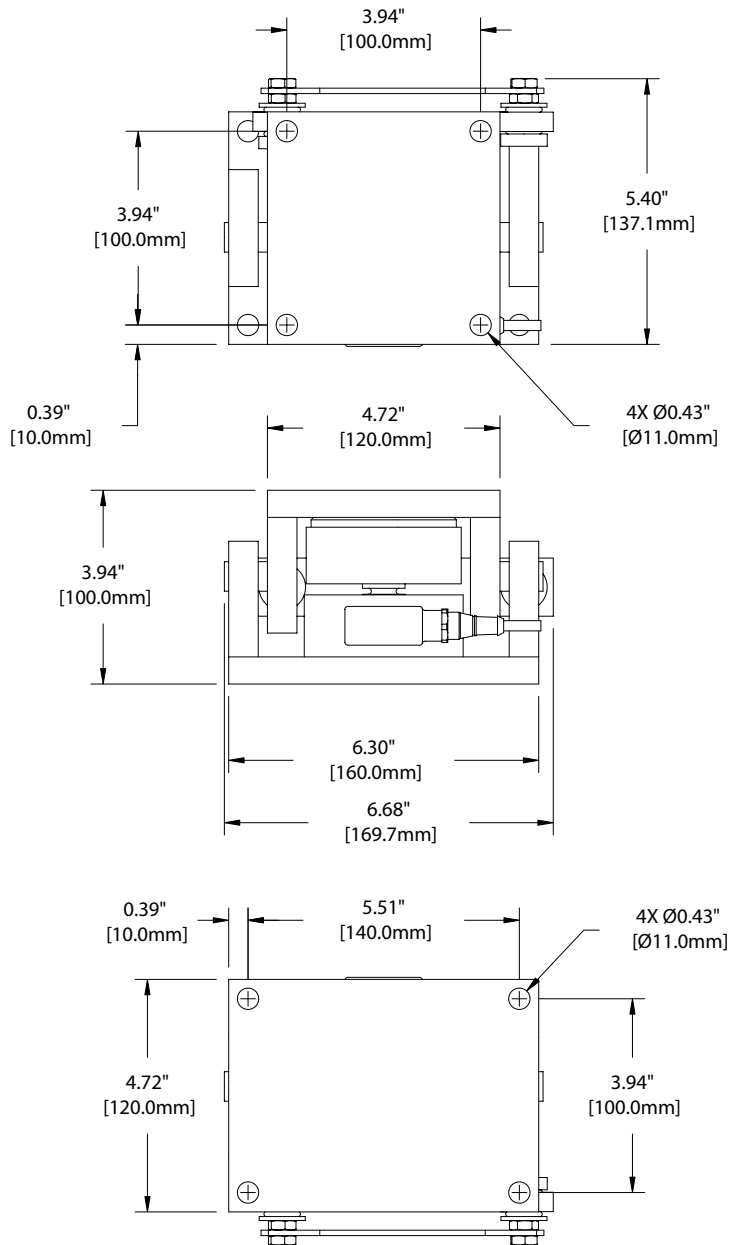
- Temperature Range - Standard:** 14° to 104° F (-10° to 40° C)
- Temperature Zero Shift:** 0.0013%/°F (0.0024%/°C)
- Temperature Sensitivity Change:** 0.00094%/°F (0.0017%/°C)
- Storage Temp Range:** -4° to 176° F (-20° C to 80° C)
- Humidity:** 100%

## Physical

- Construction (load cell and cage):** 17-4 PH 900 stainless steel
- Cable :** 4-conductor, 22 gage shielded, 16 ft. (5m) long, with tinned pigtail termination
- Rating:** IP68 (100h at 1m water column)
- Shipping Weight:** 18.7 lbs (8.5 kg)

Approvals:  

\* Tension and shear strength are for the load disc only. The "cage" design effectively de-couples the sensor from tension and shear loads.



### WIRING INFORMATION

RED	:EXC.(+)	WHITE	:EXC.(-)
GREEN	:SIG.(+)	BLUE	:SIG.(-)
BARE	:GND		

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KM is represented in your area by:



### WORLD HEADQUARTERS

150 Venture Boulevard  
Spartanburg, SC 29306 USA

**1.800.426.9010**

tel: 864.574.2763

fax: 864.574.8063

kistlermorse.com

