

**Product Information LD3xiC™**
**FOOD**

# Load Disc LD3xiC™

**Application/Specified usage**

- High-accuracy, stainless steel **load disk for heavy-duty in-process tanks and bulk storage vessels**, particularly suitable for use on vibrating devices such as mixing and blending vessels, surge hoppers and vessels with agitators.
- The "Cage" mounting fixture compensates in 3D for structural misalignment and offsets side loads due to positioning errors, thermal tank expansion, etc., while providing a high-strength structural support.
- Level control through dynamic, continuous and accurate weight measurement
- Standard load ranges from 5,000 kg (11,000 lb) to 10,000 kg (22,000 lb)
- Thanks to the outstanding measuring accuracy of 0.03 % even smallest weight variations are detected
- Weighing technology from the proven Kistler-Morse semiconductor strain gauge technology guarantees long-life operation

**Application Examples**

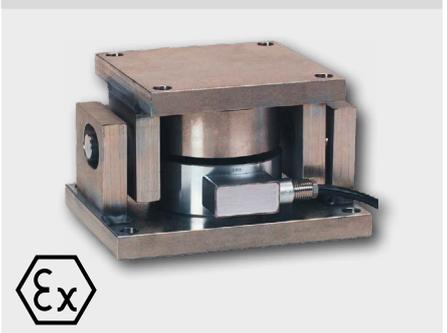
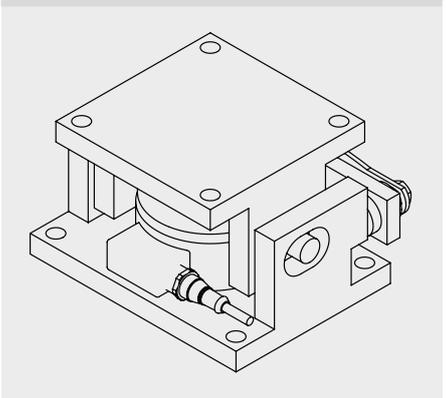
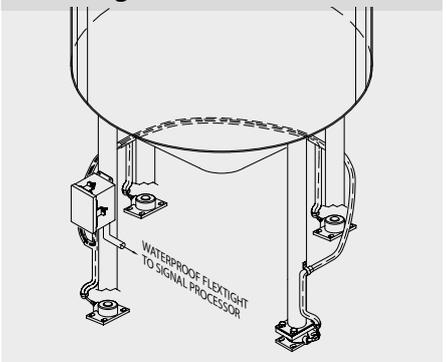
- Process vessels with agitator
- Mixing and blending devices
- Ingredient exchange containers
- Bioreactors
- Horizontal tanks
- Tanks for dry and bulk material

**Features**

- Simple, self-contained and rugged design in brushed finish withstands rigorous washdown or corrosive environments
- Single footprint over all capacity ranges allows for a common system design
- The Load Disc sensor unit can be installed after the mounting of the Cage, making the set-up, access and replacement more easy and flexible
- The 3D-compensation of the Cage guarantees perfect measurement results even with shear forces due to transversal agitator pressure, unbalanced filling or thermal expansion of horizontal tanks
- Fusion-bonded gauges provide a robust and rugged load cell
- Protection class IP68 (NEMA-6P) and the solid the design provide superior protection in wash-down, corrosive or even submerged environments
- Full-Bridge Strain Gauge technology

**Options/Accessories**

- Pre-fabricated cable
- Analog output via universal universal transmitter "SG-45"

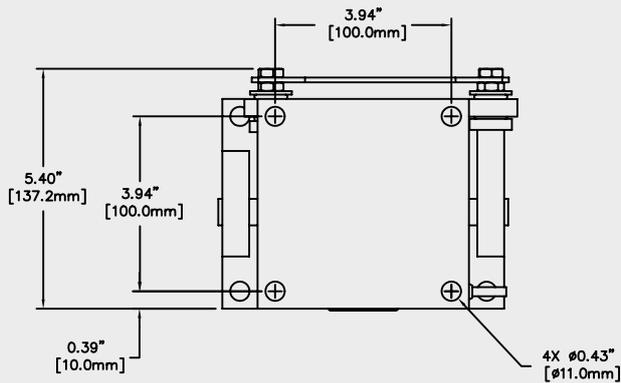
**Communication**
 **5...15 V DC**
**LD3xiC™**

**LD3xiC with „Cage“ fixture hardware**

**Typical Load Disc installation on vessel legs**


Specification		
<b>Technical Features</b>	Excitation Voltage - Operating Range Maximum Current Impedance Recommended Supply Voltage Compression Functional Integrity Humidity Protection Class Materials (Load Cell unit and Cage)  Electrical connection Cable  Shipping Weight	5...15 V DC Full-Bridge 16 mA @ 10 V DC excitation 700 $\Omega \pm 1 \%$ 10 V DC 3 x rated load 1.5 x rated load (compression) 100 % IP68 / NEMA-6P Stainless steel 1.4542 (17-4 PH 900), Brushed Finish Sealed cable attached 4-conductor, shielded, with tinned pigtail (5 m (16 ft)) 3.9 kg (18.7 lb)
<b>Measurement Accuracy</b>	Non-Linearity/Hysteresis Combined Return to Zero Zero Balance Rated Output	0.03 % rated load 0.026 % rated load / > 30 min. 1 % rated capacity 2 mV/V $\pm 0.1 \%$
<b>Deflection</b>	All models	0.1...0.2 mm
<b>Temperature ranges</b>	Ambient Temperature Range Temperature Sensitivity Storage Temperature Range	-10...40 °C (14...104 °F) (0.0017 %/°C (0.00094 %/°F)) -20...80 °C (-4...176 °F)
<b>Base Plate Size (length x width)</b> <b>Top Plate Size (length x width)</b> <b>Installed Height</b>	LD3xiC with Cage	160 x 120 mm (6.30 x 4.72 in) 120 x 120 mm (4.72 x 4.72 in) 100.0 mm (3.94 in)
<b>Authorizations</b>	All models	ATEX

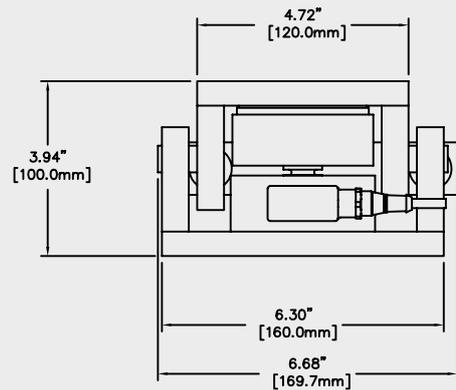
## Accuracy table

Model	Rated Load	Tolerance / Accuracy
<b>11000</b>	= 5,000 kg	$\pm 1.5$ kg
<b>16500</b>	= 7,500 kg	$\pm 2.25$ kg
<b>22000</b>	= 10,000 kg	$\pm 3.0$ kg

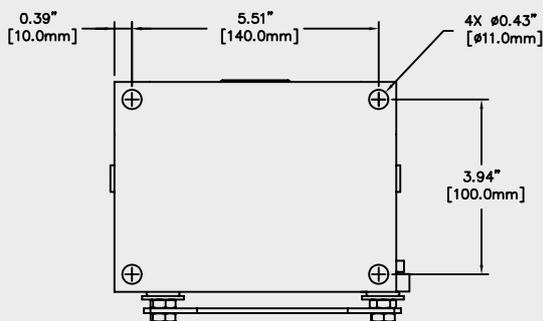
LD3xiC with Cage, Top Plate dimensions



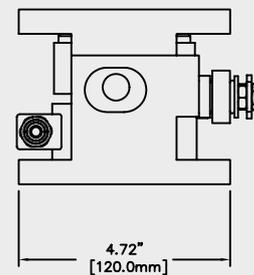
LD3xiC with Cage, Lateral dimensions



LD3xiC with Cage, Base Plate dimensions



LD3xiC with Cage, Lateral dimensions

**Transport/Storage**

- Do not store outside
- Store in an area that is dry and dust-free
- Do not expose to corrosive media
- Protect against solar radiation
- Avoid mechanical shock and vibration
- Storage temperature -20...80 °C (-4...176 °F)
- Relative humidity max. 98 %

**Conventional usage**

- Not suitable for applications in safety-relevant system parts (SIL).

**Cleaning/Maintenance**

- When using a pressure washer, do not point the nozzle directly at the electrical connections.

**Standards and guidelines**

- Compliance with the applicable regulations and directives is mandatory.

**Reshipment**

- Sensors shall be clean and free of media or heat-conductive paste and must not be contaminated with dangerous media!
- Use suitable transport packaging only to avoid damage of the equipment!

**Note on CE**

- Applicable directives: Electromagnetic Compatibility Directive 2014/30/EU
- Compliance with the applicable EU directives is identified by the CE label on the product.
- The operating company is responsible for complying with the guidelines applicable to the entire installation.

**Disposal**

- Electrical devices should not be disposed of with household trash. They must be recycled in accordance with national laws and regulations.
- Take the device directly to a specialized recycling company and do not use municipal collection points.

## Order Code

LD3xiC

Load Disc with Cage

## Load rated

**11000** 5,000 kg (11,000 lb)**16500** 7,500 kg (16,500 lb)**22000** 10,000 kg (22,000 lb)

## Cable

**X** 5 m (16.4 ft) Pigtail Cable Attached

## Finish

**X** Brushed Finish

## Hardware

**C** Caged Hardware (Standard)**J** Caged Hardware with Jacking Bolts**N** No Hardware (Load Cell Unit replacement)

LD3xiC

**11000****X****X****C**

## Accessories

One cable 5 m (16.4 ft) Pigtail is supplied with each LD3xi. The caged version LD3xiC does NOT require adapter plates.

<b>JB-F-P1</b>	Junction box Full Bridge, No trim pods, Plastic, 1 hole entry
<b>JB-F-P2</b>	Junction box Full Bridge, No trim pods, Plastic, 2 hole entry
<b>JB-F-A4</b>	Junction box Full Bridge, No trim pods, Aluminium, 4 hole entry
<b>JB-F-S1</b>	Junction box Full Bridge, No trim pods, Stainless Steel, 1 hole entry
<b>JB-F-S2</b>	Junction box Full Bridge, No trim pods, Stainless Steel, 2 hole entry
<b>JB-T-P</b>	Junction box Full Bridge, With trim pods, Plastic, 5 hole entry
<b>JB-T-A</b>	Junction box Full Bridge, With trim pods, Aluminium, 5 hole entry
<b>JB-T-S</b>	Junction box Full Bridge, With trim pods, Stainless Steel, 5 hole entry

## Junction Box (various models)

