

Product Information LD3xi™
FOOD

Load Disc LD3xi™

Application/Specified usage

- High-accuracy, stainless steel load disk for smaller-capacity in-process tanks and bulk storage vessels, particularly suitable for use on mixing and blending vessels, surge hoppers and vessels with agitators.
- Level control through dynamic, continuous and accurate weight measurement
- Standard load ranges from 100 kg (220 lb) to 2,500 kg (5,500 lb)
- Thanks to the outstanding measuring accuracy of 0.03 % even smallest weight variations starting from 30 gr (0,066 lbs) 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

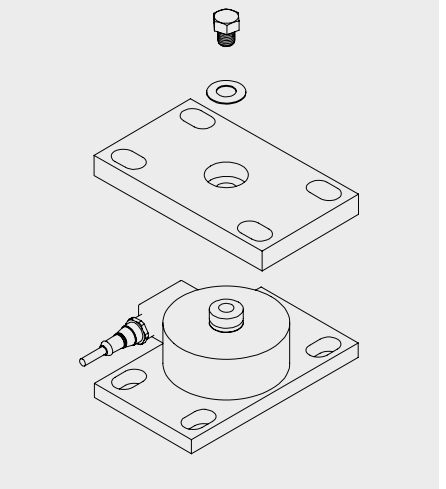
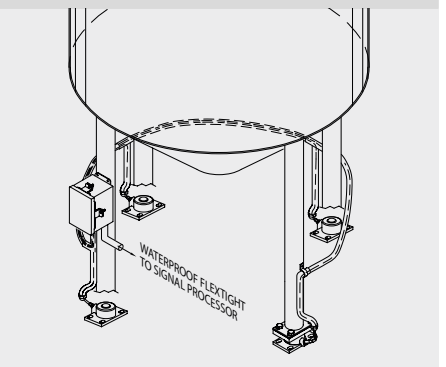
Features

- 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
- Minimal deflection (0.1 to 0.2 mm (0.004 to 0.008")) reduces plumbing effects for better system accuracy
- Optional, three-dimensional adaptive hardware with built-in leveling features eliminates shimming
- 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 transmitter "SG-45"
- Various mounting hardware: Top-plate adapters for any application and installation environment

Communication

5...15 V DC
LD3xi™

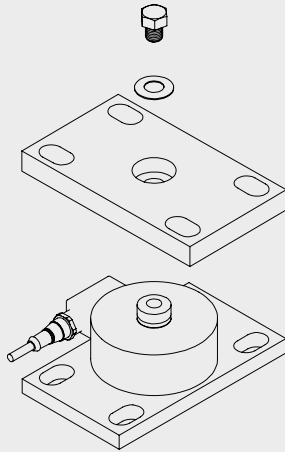
Load Disc LD3xi with UT3 Universal Top Adapter Plate

Typical Load Disc installation on vessel legs


Specification		
Technical Features	Excitation Voltage - Operating Range Maximum Current Impedance Recommended Supply Voltage Compression Functional Integrity Humidity Protection Class Materials Electrical connection Cable Shipping Weight	5...15 V DC Full-Bridge 16 mA @ 10 V DC excitation 700 Ω \pm 2 % 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)) 2.5 kg (5 lbs)
Measurement Accuracy	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 %
Deflection	All models	0.1...0.2 mm
Temperature ranges	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)
Base Plate Size (length x width) Installed Height	All models LD3xi with UA3xi LD3xi with LT3xi	152.4 x 88.9 mm (6.0 x 3.5") 69.3 mm (2.75") Adjustable from 127 to 131.3 mm (5 to 5.2")
Top Adapter Plate Size (length x width)	All models	152.4 x 88.9 mm (6.0 x 3.5")
Authorizations	All models	ATEX

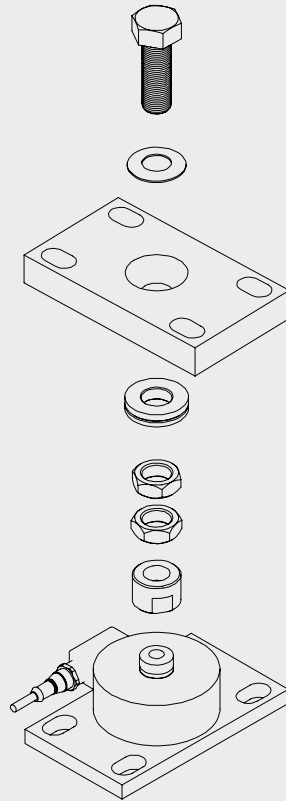
Accuracy table

Model	Rated Load	Tolerance / Accuracy
220	= 100 kg	\pm 0.03 kg
550	= 250 kg	\pm 0.08 kg
1100	= 500 kg	\pm 0.15 kg
2200	= 1,000 kg	\pm 0.30 kg
5500	= 2,500 kg	\pm 0.75 kg

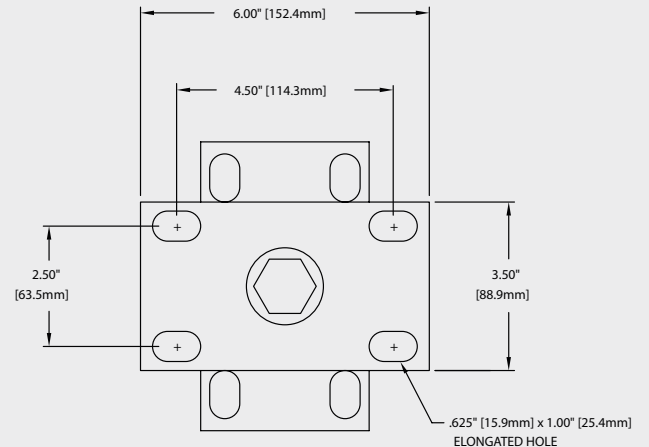
LD3xi with UA3xi Top Adapter Plate



LD3xi with LT3xi Leveling Top Adapter Plate



LD3xi with UA3xi / LT3xi Top Adapter Plate



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 %

Cleaning/Maintenance



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

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!

Conventional usage



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

Standards and guidelines



- Compliance with the applicable regulations and directives is mandatory.

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

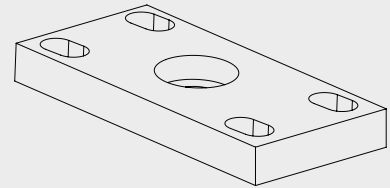
LD3xi	Load Disc			
	Load rated			
	220	100 kg (220 lb)		
	550	250 kg (550 lb)		
	1100	500 kg (1,100 lb)		
	2200	1,000 kg (2,200 lb)		
	5500	2,500 kg (5,500 lb)		
	Cable			
	X	5 m (16.4 ft) Pigtail Cable Attached		
	Finish			
	X	Brushed Finish		
	Fix value			
	X			
LD3xi	220	X	X	X

Accessories

One cable 5 m (16.4 ft) Pigtail is supplied with each LD3xi

LT3xi	Leveling Top Adapter Plate
UA3xi	Universal Top Adapter Plate
LB3xi	Leveling Base Plate
JB-F-P1	Junction box Full Bridge, No trim pods, Plastic, 1 hole entry
JB-F-P2	Junction box Full Bridge, No trim pods, Plastic, 2 hole entry
JB-F-A4	Junction box Full Bridge, No trim pods, Aluminium, 4 hole entry
JB-F-S1	Junction box Full Bridge, No trim pods, Stainless Steel, 1 hole entry
JB-F-S2	Junction box Full Bridge, No trim pods, Stainless Steel, 2 hole entry
JB-T-P	Junction box Full Bridge, With trim pods, Plastic, 5 hole entry
JB-T-A	Junction box Full Bridge, With trim pods, Aluminium, 5 hole entry
JB-T-S	Junction box Full Bridge, With trim pods, Stainless Steel, 5 hole entry

Top adapter plate (various models)



Junction Box (various models)

