

Product Information LD3™
FOOD

Load Disc LD3™

Application/Specified usage

- Rugged, stainless steel load disk for standard in-process tanks and bulk storage vessels
- Level control through dynamic, continuous and accurate weight measurement
- Standard load ranges from 450 kg (1,000 lb) to 11,300 kg (25,000 lb)
- Thanks to the average measuring accuracy of 0.08 % 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
- Horizontal tanks
- Tanks for dry and bulk material

Features

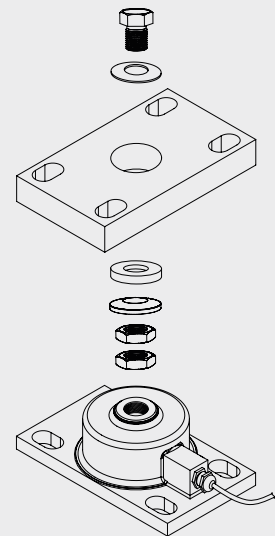
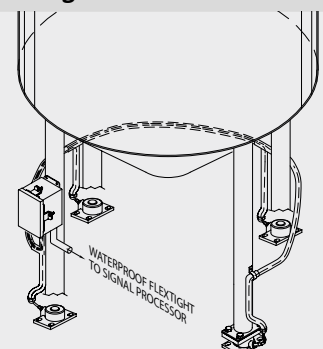
- Simple, self-contained design in brushed finish withstands rigorous washdown or corrosive environments
- Single footprint over all capacity ranges allows for a common system design
- Minimal deflection (0.2 mm (0.008")) reduces plumbing effects for better system accuracy
- Optional, three-dimensional 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

Options/Accessories

- Pre-fabricated cable
- Analog output via universal universal transmitter "SG-45"
- Various mounting hardware: Top-plate adapters for any application and installation environment

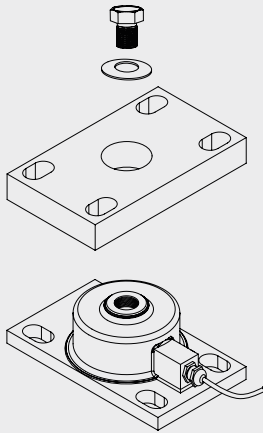
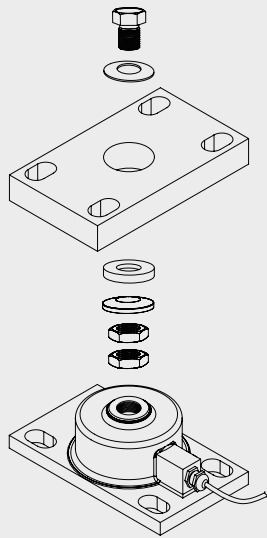
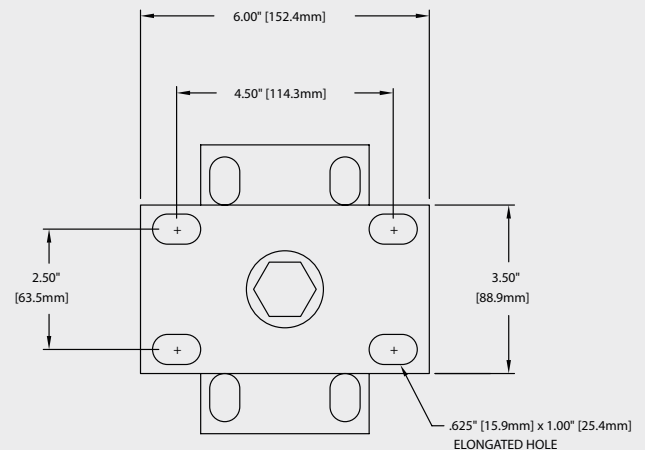
Communication

10...30 V DC
LD3™

Load Disc LD3 with LT3 leveling 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	10...30 V DC 3 mA @ 12 VDC excitation 7.5 kΩ ±1 % 12 V DC 4 x rated load 2 x rated load (compression) 100 % IP68 / NEMA-6P Stainless steel 1.4542 (17-4 PH 900), Brushed Finish Nickel plated brass / polyimide, with neoprene grommet 22 AWG 3 conductor unshielded with PVC sheath (4.5 m) 2.3 kg (5 lbs)
Measurement Accuracy	Non-Linearity/Hysteresis Combined Return to Zero Zero Balance Rated Output	0.08 % performance 0.05 % standardized output 1 % rated capacity 360 mV DC @ 12 V DC ±1 %
Deflection	Model 01K to 05K Model 07K to 25K	0.1...0.15 mm 0.2...0.3 mm
Temperature ranges	Ambient Temperature Range Temperature Sensitivity Storage Temperature Range	Standard: -18...38 °C (0...100 °F); Mid: 10...66 °C (50...150 °F); 0.027 %/°C (0.015 %/°F) -40...80 °C (-40...176 °F)
Base Plate Size (length x width) Installed Height	All models LD3 with UA3 LD3 with LT3	152.4 x 88.9 mm (6.0 x 3.5") Model 01K to 10K: 70.1 mm (2.76") Model 15K to 25K: 84.6 mm (3.33") Model 01K to 07K: adjustable from 104 to 107.2 mm (4.09 to 4.22")
Top Adapter Plate Size (length x width)	All models	152.4 x 88.9 mm (6.0 x 3.5")

Accuracy table		
Model	Rated Load	Tolerance / Accuracy
01K	= 454 kg	± 0.36 kg
02K	= 907 kg	± 0.73 kg
03K	= 1,361 kg	± 1.01 kg
05K	= 2,268 kg	± 1.81 kg
07K	= 3,402 kg	± 2.72 kg
10K	= 4,536 kg	± 3.63 kg
15K	= 6,804 kg	± 5.44 kg
20K	= 9,072 kg	± 7.26 kg
25K	= 11,340 kg	± 9.07 kg

LD3 with UA3 Top Adapter Plate**LD3 with LT3 Leveling Top Adapter Plate****LD3 with UA3/ LT3 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 -40...176 °F (-40...80 °C)
- Relative humidity max. 98 %

Conventional usage

- Not suitable for applications in explosive areas.
- 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

LD3

Load Disc

Load rated

01K	454 kg (1,000 lb)
02K	907 kg (2,000 lb)
03K	1,361 kg (3,000 lb)
05K	2,268 kg (5,000 lb)
07K	3,402 kg (7,500 lb)
10K	4,536 kg (10,000 lb)
15K	6,804 kg (15,000 lb)
20K	9,072 kg (20,000 lb)
25K	11,340 kg (25,000 lb)

Operating temperature

X	Standard Temperature, -18 °C to 38 °C (0 °F to 100 °F)
F	Mid-Range Temperature, 10 °C to 66 °C (50 °F to 150 °F)

Cable Length

015	4.6 m (15 ft) - Operating Temp X
015T	4.6 m (15 ft) - Operating Temp F
025	7.6 m (25 ft) - Operating Temp X
025T	7.6 m (25 ft) - Operating Temp F
050	15.2 m (50 ft) - Operating Temp X
050T	15.2 m (50 ft) - Operating Temp F
100	30.5 m (100 ft) - Operating Temp X
100T	30.5 m (100 ft) - Operating Temp F

Finish

X	Brushed Finish
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Fix value

X

LD3

01K

F

015

X

X

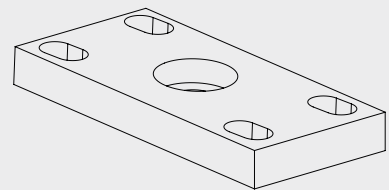
Accessories

One cable 22 AWG 3 conductor unshielded (4.6 m length) is supplied with each LD3

LT3	Leveling Top Adapter Plate (Model 01K to 07K only)
UA3	Universal Top Adapter Plate
LB3	Leveling Base Plate

JB-S-P1	Junction box Half Bridge, Plastic, 1 hole entry
JB-S-P2	Junction box Half Bridge, Plastic, 2 hole entry
JB-S-A4	Junction box Half Bridge, Aluminium, 4 hole entry
JB-S-S1	Junction box Half Bridge, Stainless Steel, 1 hole entry
JB-S-S2	Junction box Half Bridge, Stainless Steel, 1 hole entry

Top adapter plate (various models)



Junction Box (various models)

