

**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

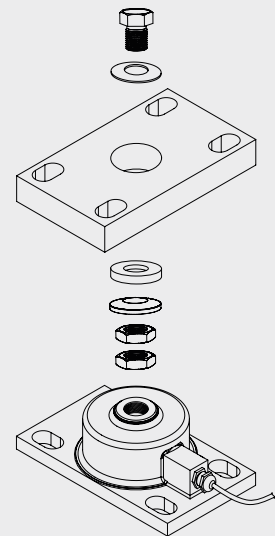
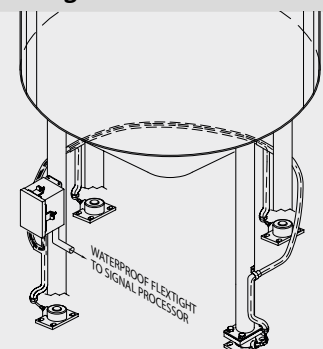
**Features**

- 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

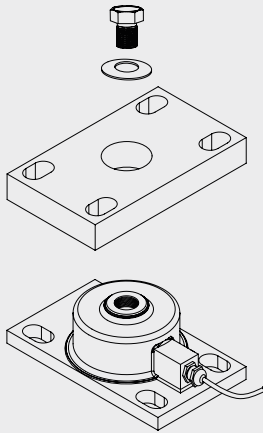
**Communication**
 **10...30 V DC**
**LD3™**

**Load Disc LD3 with LT3 leveling top adapter plate**

**Typical Load Disc installation on vessel legs**


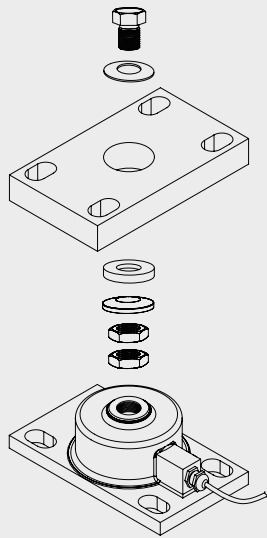
Specification		
<b>Technical Features</b>	Excitation Voltage - Operating Range Maximum Current Impedance Recommended Supply Voltage Compression Functional Integrity Humidity Protection Class Materials  Electrical connection  Cable  Shipping Weight	10...30 V DC 3 mA @ 12 VDC excitation 7.5 k $\Omega$ $\pm$ 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)
<b>Measurement Accuracy</b>	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 $\pm$ 1 %
<b>Deflection</b>	Model 01K to 05K Model 07K to 25K	0.1...0.15 mm 0.2...0.3 mm
<b>Temperature ranges</b>	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)
<b>Base Plate Size (length x width) Installed Height</b>	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")
<b>Top Adapter Plate Size (length x width)</b>	All models	152.4 x 88.9 mm (6.0 x 3.5")

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

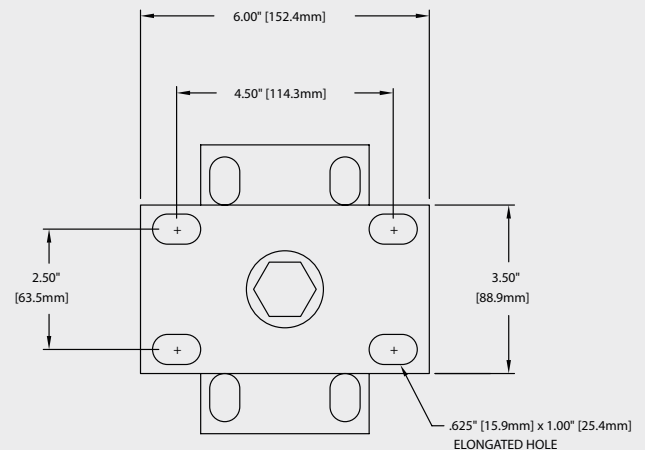
## LD3 with UA3 Top Adapter Plate



## 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

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

## Operating temperature

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

## Cable Length

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

## Finish

<b>X</b>	Brushed Finish
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## Fix value

X

LD3

01K

F

015

X

X

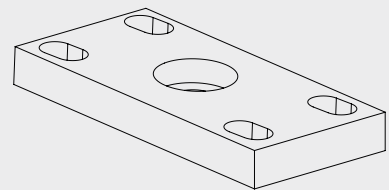
## Accessories

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

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

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

## Top adapter plate (various models)



## Junction Box (various models)

