

Product Information LD360s™
FOOD

Load Disc LD360s™

Application/Specified usage

- Rugged, stainless steel **load disc in hygienic design** for 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
- Bioreactors
- Horizontal tanks
- Tanks for dry and bulk material

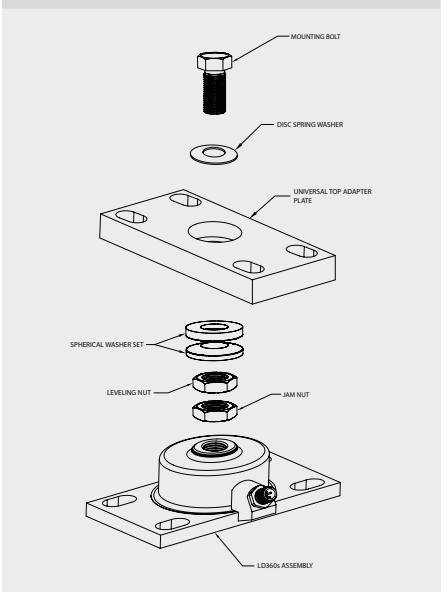
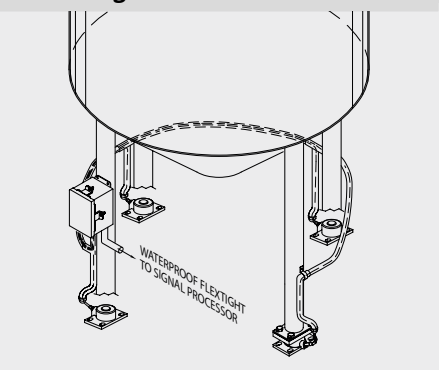
Features

- Simple, self-contained design with polished surface virtually eliminates bacteria hiding places and withstands rigorous CIP cleaning practices
- 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
- High output semiconductor gauge provides 600 m (2000 foot) cable runs and better noise immunity
- Fusion-bonded gages provide a robust and rugged load cell
- Protection class IP68 (NEMA-6P) and optional cable system provides superior protection in wash-down environments
- Half-Bridge Strain Gauge Technology

Options/Accessories

- Pre-fabricated cable for M12 connector
- Analog output via universal transmitter "SG-45"
- Various mounting hardware: Top-plate adapters for any application and installation environment

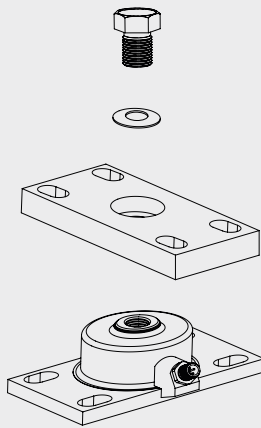
Communication
 **10...30 V DC**
LD360s™

Load Disc 360s with LT360 leveling top adapter plate

Typical Load Disc installation on vessel legs


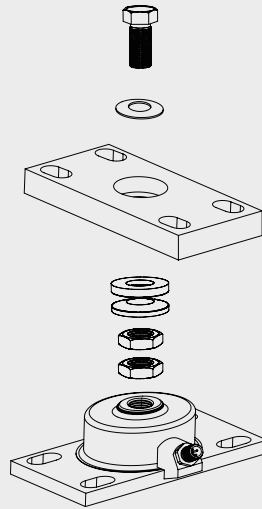
Specification		
Technical Features	Excitation Voltage - Operating Range	10...30 V DC Half-Bridge
	Maximum Current	3 mA @ 12 VDC excitation
	Impedance	7.5 kΩ ±1 %
	Recommended Supply Voltage	12 V DC
Compression	Functional Integrity	4 x rated load
	Humidity	2 x rated load (compression)
Protection Class	Humidity	100 %
	Materials	IP68 / NEMA-6P
Electrical connection	Materials	Stainless steel 1.4542 (17-4 PH 900), Polished Finish
	Cable	IP68 / 6P rated sealed 4-conductor, 12 mm male receptacle
Shipping Weight	Electrical connection	IP68 / 6P rated sealed 4-conductor, 12 mm male receptacle
	Cable	Female molded connector to 4 m (13 ft) pigtail
Measurement Accuracy	Shipping Weight	2.3 kg (5 lbs)
	Non-Linearity/Hysteresis Combined	0.08 % performance: 0.1 % standardized output
	Return to Zero	0.05 % standardized output
	Zero Balance	1 % rated capacity
Rated Output	Rated Output	360 mV DC @ 12 V DC ±1 %
	Deflection	All models
Temperature ranges	Ambient Temperature Range	0.2 mm
	Temperature Sensitivity	Standard: -18...38 °C (0...100 °F); Mid: 10...66 °C (50...150 °F);
	Storage Temperature Range	0.027 %/°C (0.015 %/°F) -40...80 °C (-40...176 °F)
Base Plate Size (length x width)	All models	152.4 x 88.9 mm (6.0 x 3.5")
	LD360s with UA360	Model 01K to 10K: 70.1 mm (2.76")
Installed Height	LD360s with LT360	Model 15K to 25K: 84.6 mm (3.33")
	LD360s with LT360	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

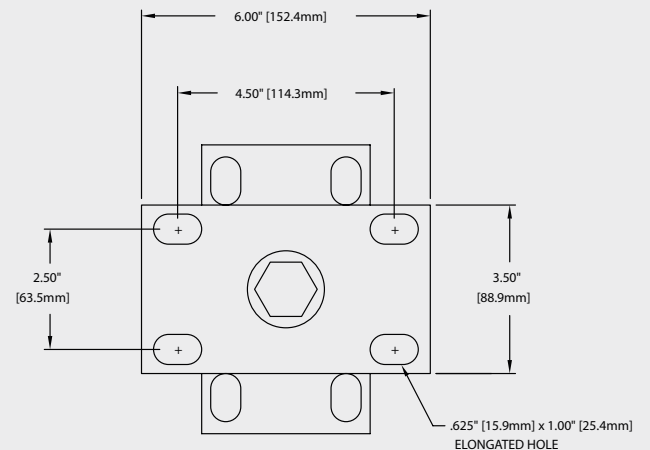
LD360s with UA360 Top Adapter Plate



LD360s with LT360 Leveling Top Adapter Plate



LD360s with UA360 / LT360 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

LD360s

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)

Finish

P	Polished Finish
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Fix value

X

LD360s

01K

F

P

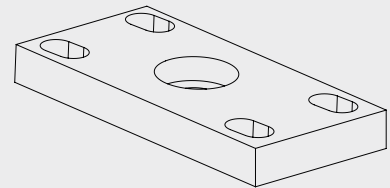
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Accessories

One cable with M12 quick connection (4 m length) is supplied with each LD360s

LT360	Leveling Top Adapter Plate (Model 01K to 07K only)
UA360	Universal Top Adapter Plate
LB360	Leveling Base Plate
61-4023-01	Quick Connect Molded Y Connector, Half Bridge or Full Bridge
33-2077-0	Quick Connect 4 m LD360s Quick Disconnect Cable Both Ends, Male/Female
27-2103-01	Quick Connect Field-Wired Connector, Male
33-2079-01	Quick Connect 4 m LD360s Cable Assembly, One End Female/One End Pigtail
4PT-Conduit Kit	Quick Connect Connector Wire Kit for Use in Conduit for a 4-Legged System
4PT-Kit	Quick Connect Connector Kit for a 4-Legged System
3PT-Conduit Kit	Quick Connect Connector Wire Kit for Use in Conduit for a 3-Legged System
3PT-Kit	Quick Connect Connector Kit for a 3-Legged System
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)



PVC-cable



Junction Box (various models)

