

PROCESS TANK WEIGHING FOR BROADEST RANGE OF APPLICATIONS RANGING FROM

- **DRY-TO-WET OPERATING CONDITIONS**
- **WET-TO-SANITARY SIP/CIP OPERATING CONDITIONS**

Process Tank Weighing, unlike a mere scale, demands far more from a loadcell system. KM's generation 3 Load Discs are unequalled in their performance response to your needs. Your process is environmentally and functionally abusive but you want full runtime, no downtime and reliable, repeatable measurements. Operating conditions vary and so do your priorities. KM's various Load Discs are designed to meet the highest priorities for each condition so you get the results that you expect, and more.

DRY-TO-WET OPERATING CONDITIONS: LD3xiC

In bakery, pasta, confectionary and spice processing to resins, concrete/aggregate, sand, pulp, minerals and other dry-to-wet operating conditions, the 3xiC offers very specific advantages not available in most higher-priced load cells. Standards include a tough "cage" mounting fixture into which the 17-4 stainless steel 3xiC cell securely locks in place. Since the 3xiC cell can be loaded before or after the tank is installed onto the "cage" fixture, you have more flexibility in mounting procedures. If ever the cell needs to be replaced, it can be unloaded without having to remove the "cage" fixture itself. The 3xiC is available in virtually all popular weight capacities from 220 lbs to 22,000 lbs. and is easy to specify due to identical dimensions and price.



Features & Benefits

Easy to Install and Access

Mounts into rugged "cage" fixture hardware which never requires removal in the event of cell changeovers.

Single Footprint and Cost

Easy to design in, regardless the capacity.

Universal Product Approvals

CE, OIML R60.



WET-TO-SANITARY OPERATING CONDITIONS

High-Risk/High-Cost Applications: LD360s

Where process risks are highest and costly downtime or deviation must absolutely be avoided, the Load Disc 360s series is the first choice with leading biopharmaceutical, pharmaceutical, and food and beverage processors. Monolithic lock-down security is beautifully packaged in 17-4 food-grade smooth stainless steel and a watertight Turck system eliminates any potential moisture buildup (including condensation-induced damage). The 360s features forgiving installation, startup and handles loading from virtually any direction, available in 0.08% and 0.2% accuracies in capacities from 1,000- 25,000 lbs.

Moderate-Risk/High-Value Applications: LD3xi

The 3xi shares many common features to the higher cost 360s but features higher accuracies for smaller-capacity weighing applications and is available in weight ranges between 220 lb. and 5,500 lb. 3xi also features 17-4 smooth stainless steel packaging and an optional Turck cabling system and extended warranty.

Features & Benefits

Cleanability and Strength For CIP/SIP

Built-in vessel hold-down eliminates mechanical pivot points, a source of bacteria traps and system errors caused by hardware gradually binding. Less operator time spent cleaning.

NEMA-6P / IP68 Submersion Rating, 17-4 ph 900 SS Construction

Unsurpassed waterproof protection and corrosion resistance for long life in rigorous CIP wash down areas. First load cell ever with a sealed cabling system option.

Minimal Deflection

Better system performance on tanks with pipes and process plumbing connections.

LD3xiC Specifications

Mechanical

Compression: 3 x rated load

Tension: 1 x rated load

Shear: 0.5 x rated load

Functional Integrity: 1.5 x rated load (compression)

Electrical

Excitation Voltage - Operating Range: 5-15 VDC

Recommended Supply Voltage: 10 VDC

Maximum Current: 16mA @ 10 VDC excitation (0° F)

Output Resistance: 700 ohms +/- 2%

Output

Non-linearity/Hysteresis combined:

0.03% rated output

Return to Zero over 30 min:

0.026% rated output

Creep over 30 min: 0.028% rated output

Creep over 20 and 30 min: 0.008% rated output

Zero Balance: 1% rated output

Rated Output: 2 mV/V +/- 0.1%

Environmental

Temperature Range - Standard:

14° to 104° F (-10° to 40° C)

Temperature Zero Shift: 0.0013%/°F (0.0024%/°C)

Temperature Sensitivity Change:

0.00094%/°F (0.0017%/°C)

Storage Temp Range: -4° to 176° F (-20° C to 80° C)

Humidity: 100%

Physical

Construction: 17-4 PH 900 stainless steel

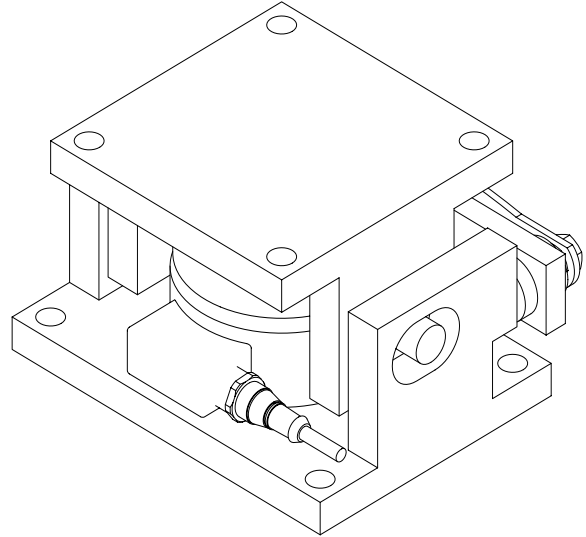
Cable : 4-conductor, 22 gage shielded, 16 ft. (5m) long, with tinned pigtail termination

Rating: IP68 (100h at 1m water column)

Shipping Weight: 18.7 lbs (8.5 kg)

Approvals: CE, OIML R60

DIMENSIONS	
Installed Height	3.94" [100.0mm]
Base Plate	6.00" [160.0mm] x 4.72" [120.0mm]
Top Plate	4.72" [120.0mm] x 4.72" [120.0mm]
Overall Length	6.88" [169.7mm]
Overall Depth	5.40" [137.2mm]



LD3xiC

Ordering Information			
LD3xiC-a-b-c-d-e			
[a] Transducer Accuracy		[c] Cabling	
3	± 0.03% of rated load	X	Attached 5 meter pig-tail cable (Standard)
[b] Rated Load		[d] Finish	
220	220 lbs (100 kg)	X	Brushed
550	550 lbs (250 kg)	[e] Installation Hardware	
1100	1100 lbs (500 kg)	X	Cage Hardware
2200	2200 lbs (1000 kg)	N	None
5500	5500 lbs (2500 kg)		
11000	11,000 lbs (5000 kg)		
16500	16,500 lbs (7500 kg)		
22000	22,000 lbs (10000 kg)		

LD3xi Specifications

Mechanical

Compression: 3 x rated load

Tension: 1 x rated load

Shear (capacity 220 lbs -2200 lbs): 0.5 x rated load
(capacity 5500 lbs): 0.25 x rated load

Functional Integrity: 1.5 x rated load (compression)

Electrical

Excitation Voltage - Operating Range: 5-15 VDC

Recommended Supply Voltage: 10 VDC

Maximum Current: 16mA @ 10 VDC excitation (0° F)

Output Resistance: 700 ohms +/- 2%

Output

Non-linearity/Hysteresis combined:

0.03% rated output

Return to Zero over 30 min:

0.026% rated output

Creep over 30 min: 0.028% rated output

Creep over 20 and 30 min: 0.008% rated output

Zero Balance: 01% rated output

Rated Output: 2 mV/V +/-0.1%

Environmental

Temperature Range - Standard:

14° to 104° F (-10° to 40° C)

Temperature Zero Shift: 0.0013%/ °F (0.0024%/°C)

Temperature Sensitivity Change:

0.00094% /° F (0.0017% /° C)

Storage Temp Range: -4° to 176° F (-20° C to 80° C)

Humidity: 100%

Physical

Construction: 17-4 PH 900 stainless steel

Connector : optional 6P rated sealed 5-conductor,
12mm male receptacle

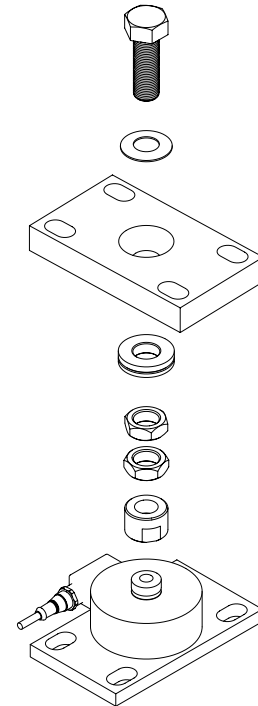
Cable : 4-conductor, 22 gage shielded, 16 ft. (5m) long,
with tinned pigtail termination

Rating: IP68 (100h at 1m water column)

Shipping Weight: 5 lbs (2.3 kg)

DIMENSIONS

Base Plate Size Length x Width	6.00" [152.4mm] x 3.50" [88.9mm]
Installed Height LD3xi W/UA3xi LD3xi W/LT3xi LD3xi W/AD3xi	2.79" [70.8mm] MIN: 5.00" [127mm] MAX: 5.17" [131.3mm] MIN: 5.00" [127mm] MAX: 5.17" [131.3mm]
Top Plate Size Length x Width UA3xi LT3xi AD3xi	6.00" [152.4mm] x 3.50" [88.9mm] 6.00" [152.4mm] x 3.50" [88.9mm] 6.00" [152.4mm] x 6.00" [152.4mm]



LD3xi with LT3xi Leveling Top Adapter Plate

Ordering Information			
LD3xi-a-b-c-d-e-f-g			
[a] Transducer Accuracy		[e] Top Installation Hardware	
3	± 0.03% of rated load	AD3XI	Anyadapter Leveling Top Adapter Plate
[b] Rated Load		LT3XI	Leveling Top Adapter Plate
220	220 lbs (100 kg)	NO	No Hardware
550	550 lbs (250 kg)	NO	No Hardware
1100	1100 lbs (500 kg)	UA3XI	Universal Top Adapter Plate
2200	2200 lbs (1000 kg)	[f] Additional Hardware	
5500	5500 lbs (2500 kg)	LB3XI	Leveling Base Adapter Plate
[c] Cabling Connector		[g] Warranty	
X	Attached 5-meter pig-tail cable (Standard)	X	Standard 1 yr warranty
T	Turck Connector	3S	Extended Warranty (3 yr total) without Turck option
[d] Finish		3T	Extended Warranty (3 yr total) with Turck option
X	Brushed		

LD360s Specifications

Mechanical

Compression: 4 x rated load

Tension: 1 x rated load

Shear: 0.5 x rated load

Functional Integrity: 2 x rated load (compression)

Electrical

Excitation Voltage - Operating Range:

10VDC - 30VDC

Recommended Supply Voltage: 12 VDC

Maximum Current: 3 mA @ 12VDC excitation (0° F)

Output Resistance: 7.5K Ohms +/-1%

Output

Non-Linearity/Hysteresis combined:

0.08% Performance: 0.08% rated output

0.2% Performance: 0.2% rated output

Consult factory for batching accuracy;

typically 0.05% to 0.01% full scale

Return to Zero: .05% rated output

Zero Balance: 1% rated output

Rated Output: 30 mV/V +/-1%

Environmental

Temperature Range - Standard:

0° to 100° F (-18° C to 38° C)

Temperature Range - Mid:

50° to 150° F (10° C to 66° C)

Temperature - Zero Shift:

Std/Mid Temp Ranges: 0.006% /° F (0.011% /° C)

Temperature - Sensitivity Change:

0.015% /° F (0.027% /° C) 0° - 100° F

Storage Temp Range: -40° to 176° F (-40° to 80° C)

Humidity: 100%

Physical

Construction: 17-4 PH 900 stainless steel

Connector: 6P rated sealed 5-conductor, 12mm male receptacle

Cable Assembly: Female molded connector to 4m (13 ft) pigtail

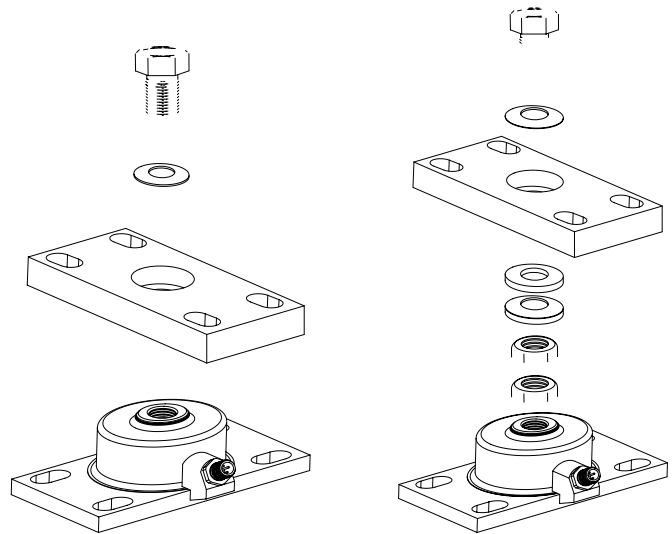
Rating: NEMA-6P (includes NEMA-4, NEMA-4X and NEMA-6); sealed for high-pressure caustic washdown and prolonged submergence in water. *(Cable must be installed and tightened to meet rating.)*

Shipping Weight: 5 lbs. (2.3 kg)

Approvals: FM

DIMENSIONS

Base Plate Size Length x Width	6.00" [152.4mm] x 3.50" [88.9mm]
Installed Height LD360s W/UA360 1K-10K lbs 15K-25K lbs LD360s W/LT360 1K-7.5K lbs Only LD360s W/AD360 1K-7.5K lbs Only	2.76" [70.1mm] 3.33" [84.6mm] MIN: 4.094" [104mm] MAX: 4.219" [107.2mm] MIN: 4.094" [104mm] MAX: 4.219" [107.2mm]
Top Plate Size Length x Width UA3xi LT3xi AD3xi	6.00" [152.4mm] x 3.50" [88.9mm] 6.00" [152.4mm] x 3.50" [88.9mm] 6.00" [152.4mm] x 6.00" [152.4mm]

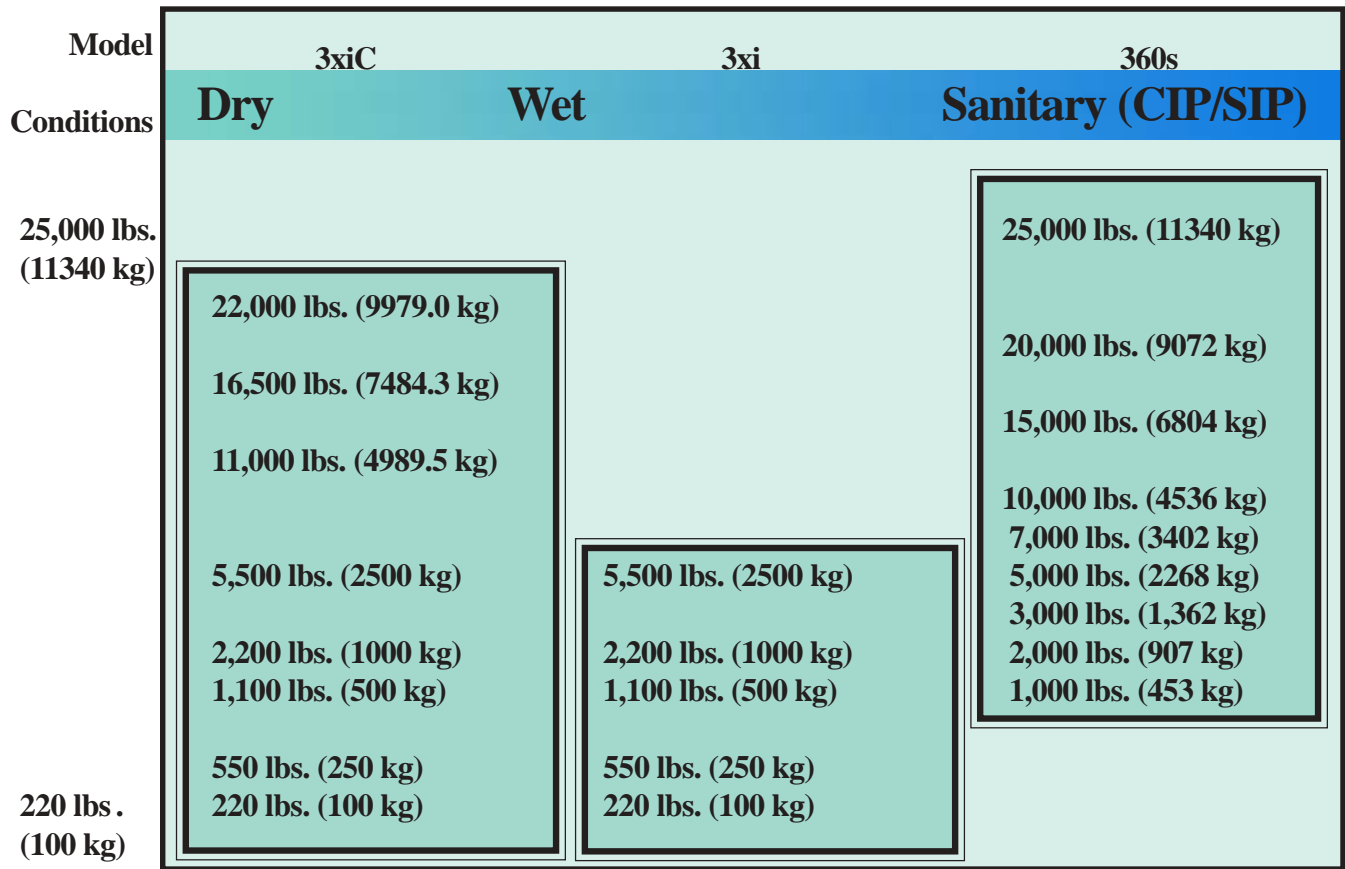


LD360s with UA360
Top Adapter Plate

LD360s with LT360
Leveling Top Adapter Plate

Ordering Information			
LD360s-a-b-c-d-e-f-g			
[a] Transducer Accuracy		[d] Finish	
1	± 0.08% of rated load	X	Brushed (Standard)
2	± 0.2% of rated load	P	Polished
[b] Rated Load		[e] Installation Hardware	
01K	1000 lbs (453 kg)	NO1	No Hardware kit (Standard)
02K	2000 lbs (907 kg)	UA360	Universal Top Adapter Plate
03K	3000 lbs (1,362 kg)	TP360	Top Adapter Plate
05K	5000 lbs (2,268 kg)	LT360	Universal Leveling Top Adapter Plate [1K to 7.5K lbs only]
07K	7000 lbs (3,402 kg)	AD360	Anyadapter Leveling Top Adapter Plate [1K to 7.5K lbs only]
10K	10,000 lbs (4,536 kg)		
15K	15,000 lbs (6,804 kg)		
20K	20,000 lbs (9,072 kg)		
25K	25,000 lbs (11,340 kg)		
[c] Operating Temperature		[f] Additional Hardware	
X	Ambient Temp 0° to 100° F (-18° to 38° C) (Standard)	NO1	No Hardware kit
		LB360	Leveling Base Adapter Plate
		[g] Warranty	
F	Mid-range Temp 50° to 150° F (10° to 66° C)	E	Standard 3 yr warranty
			7 year Extended warranty (10 yrs)

KM Load Disc Family



FEATURES	LD3xiC	LD3xi	LD360s
Sanitary	N/A	Better	Best
Accuracy	.03%	.03%	.08 or .2%
Return to Zero	.026%	.026%	.05%
Temperature ranges	Standard	Standard	Standard Mid-range
Sensitivity	2mV/V	2mV/V	30mV/V
Bridge Output	Full Bridge	Full Bridge	Half Bridge
Trim Box	Yes*	Yes*	N/A
Cell Orientation Req.	Yes	No	No
Polished Cell	N/A	N/A	Yes*
Nema 6P Connector	N/A	Yes*	Yes
Quick-Disconnect	N/A	Yes*	Yes
Molded Junction Box	N/A	Yes*	Yes*
Universal Top Plate	N/A	Included	Included
Top Adapter Plate	N/A	No	Included
Leveling Top Plate	N/A	Included	Included (to 7.5K)
"Cage" Fixture	Included	N/A	N/A
Standard Warranty	1 Year	1 Year	3 Year
Extended Warranty	3 Year*	3 Year*	10 Year*

* Available Options

KM Instrumentation Available

Single Display SVS

A high speed, high-resolution weight indicator with versatile network interfaces and Sentry DSP digital filtering.

Single, No Display STX

A stand-alone blind weight indicator for in-process or bulk inventory weighing applications where a display is not required.

4-Vessel Weigh II

A 1-4 vessel weight indicator featuring easy to read LCD display, menu driven "quick-config" and net/tare/gross functions with modular output options.

Multi-Vessel MVS

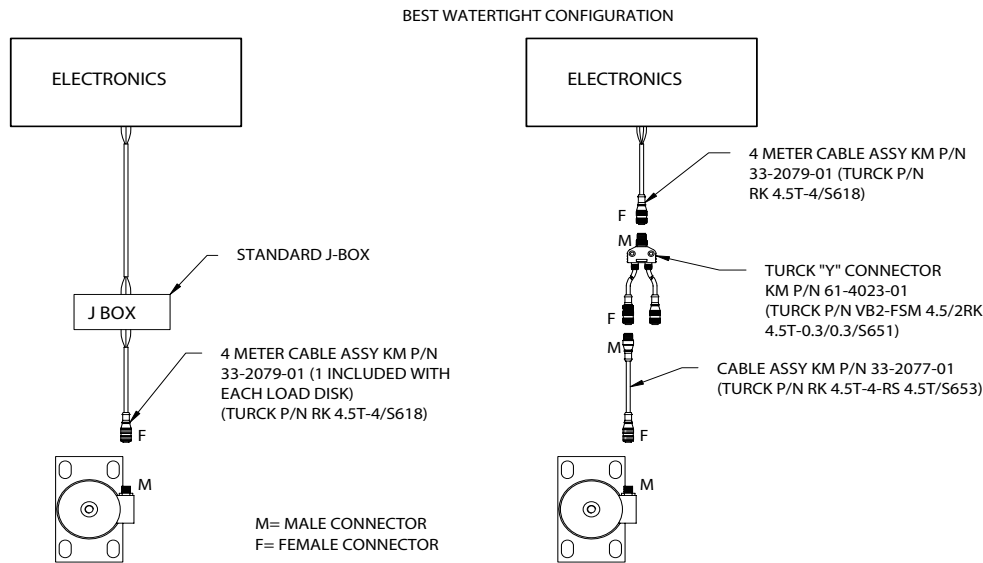
A vessel weight or level indicator (in a 19" rack) for measuring and monitoring bulk material inventories or demanding in-process applications.

Intranet/Internet ORB 2.0

A complete communications integration platform that interfaces Kistler-Morse's rugged line of level, weight and flow indicators and controllers with customer internet/intranet networks utilizing industry standard TCP/IP protocol and Ethernet wired/wireless connections.

Typical Cabling Diagram

For a Quick Disconnect System (LD360s and LD3xi)



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Specifications subject to change without notice.
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KM Load Disc Family

Cable Options

	LD3xiC	LD3xi	LD360s
CABLE LENGTH			
13 Feet (4m) Std.	N/A	N/A	N/A
16 Feet (5m) Std.	√	√	√
QUICK DISCONNECT			
Turck Cable	N/A	√**	√
TURCK CABLES			
33-2079-01 (4m) Female/Pigtail	N/A	√**	√
33-2077-01 (4m) Male/Female	N/A	√**	√ *
61-4023-01 Molded Junction Box	N/A	√**	√ *
J-BOX/INSTRUMENT CABLE			
Belden 8791	N/A	N/A	√
Belden 8723	√	√	N/A
TRIM BOX			
Full Bridge/4 POT	√ *	√ *	N/A
OPTIONS			
* Optional with standard product			
** Optional with optional Turck™ cabling connector			