



 **PROLIFT**  
HANDLING LTD

**Load Measuring  
Devices**

# LMS Load Link

Accurate and reliable tensile load monitoring for lifting applications.

Suitable for all industry sectors including marine, offshore and subsea. Due to the robust, lightweight high tensile aluminium design these load links are ideal for mobile applications and available as either cabled or wireless with a range of options.

Retro-fit load monitoring to existing applications where shackles are already available and fits all major shackle manufacturers including Van Beest, Crosby and GN Rope.

## Options

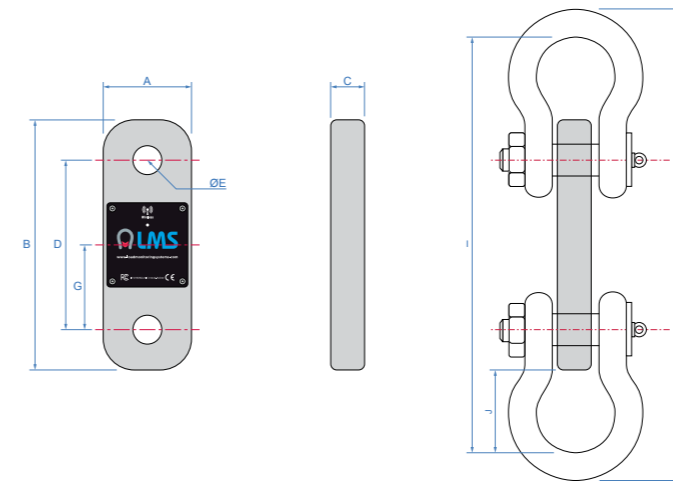
- Wireless & Internal Antenna
- Matched Telemetry Displays
- Rent this item
- Cabled with 49.2ft flying cable
- Data Logging Software Available
- ATEX version



Specifications	
Overload Tested (Proof Load)	200% rated load (6.5te - 250te sizes) 150% rated load 300te and above
Minimum Breaking Load (MBL)	5Te to 400Te 500Te
	500% rated load 450% rated load
Dead Load Offset	+/- 0.1mV
Accuracy	< 0.5% of applied load
Repeatability	< +/- 0.1% of applied load
Hysteresis up to FS	Minimal
Operating temperature	-20°C to +70°C
Environmental Rating	IP67
Range	800 Meters (straight line uninterrupted view)
Transmit rate	900ms (standard)
Antenna (Wireless Version)	Internal
Radio (Wireless Version)	2.4 Ghz; worldwide licence free
Cabled Version Output Signals	<b>Analogue signals</b> 4-20mA in 2 or 3 wire output with 10-30VDC supply 0-5VDC or 0-10VDC 3-wire output with 10-30VDC supply
	<b>Digital signals</b> RS232 with a protocol of your choice with 5-20VDC supply RS485 with a protocol of your choice with 5-20VDC supply
Cable Version Connection Type	Load link with plug-in socket and 15m, 4-core screened PUR cable with matched plug-in connector fitted. Other types on request.
Battery Type / Lifespan	Load Cells
	Display
Calibration	12 months (calibration service available)
Warranty	12 months
Material Finish	Lightweight, high tensile grade aluminium, hard anodised for marine environments.
Traceability and Safety Compliance	BS EN ISO 7500-1:2004, Machinery directive 2006/42/EC (SI 2008/1597)
ATEX Options	
Zone 2	Standard options (wireless and cabled) - see datasheet
Zone 1	Standard options (wireless and cabled) - see datasheet
Zone 0	Stainless steel construction, cabled options – Contact Prolift Handling for more details

## Features

- Load link designs from 6.5Te to 500Te as standard other capabilities on request
- Designed to be rigged & operated with a Working Load Link (WLL) of the same capacity
- Safety factor of 5:1
- Accuracy <0.5% of applied load
- ATEX versions available for zones 0, 1, & 2
- Subsea variants available on request
- Every unit load tested and certified



Load Link Dimensions mm																
Capacity Tonne	1	3.25	6.5	13.5	17	25	35	55	85	100	150	200	250	300	400	500
A	52	60	84	84	93	127	137	163	198	236	272	331	353	398	490	540
B	151	183	238	292	302	332	386	466	518	610	695	769	829	937	1037	1137
C	31	31	32	45	50	60	70	75	104	105	136	150	175	190	198	198
D	117	133	162	182	182	206	226	286	310	350	395	419	469	517	547	607
ØE	12	20	27	40	43	55	61	75	86	100	118	135	145	158	180	190
G	58.5	66.5	81	91	91	103	113	143	155	175	197.5	209.5	234.5	258.5	273.5	303.5
Weight (kg)	0.35	0.65	1.35	2.3	3	5.7	8.25	16	23.45	36.05	59.5	89.5	123.5	167	251	311

Load Link & Shackle Dimensions mm																
	1	3.25	6.5	13.5	17	25	35	55	85	100	150	200	250	300	400	500
H	221	312	397	556	592	702	777	1006	1201	1435	1533	1815	1977	2183	2398	2588
I	201	280	353	486	516	612	677	876	1051	1245	1323	1575	1717	1903	2058	2228
J	25	48.5	57.5	97	107	140	145.5	205	266.5	317.5	314	403	444	483	510.5	545.5
Combined Weight (kg)	0.67	2.13	4.89	15.38	19.38	34.14	47.31	95.18	147.45	256.05	409.5	559.5	693.5	847	1371	1681
Kit Weight (kg)	2.5	6	5	6	6.7	9.5	12	23	30	47	74	106.15	140.15	183.65	267.65	327.65

Shackle Size/Type	1	3.25	6.5	13.5	17	25	35	55	85	100	150	200	250	300	400	500
Van Beest						G-4163						P-6036				
GN Rope						H9						H10				
Crosby						G2130 to G2140										



## Load Cell Data Logging

LMS-LOG100 Advanced data logging software provides real time monitoring of up to 100 load cell devices simultaneously.

Remotely access your data quickly and easily from a computer, tablet & smart phone via web browser. Export data in standard JSON or CSV formats with customizable reporting to suit your needs.



## Displays & Portable Case

Rugged case design with foam compartments to firmly hold the load link, telemetry display, spare set of batteries. Can also accommodate connecting cable for wired units and matched set of shackles.

- Lockable case
- Plastic case available for 6.5Te - 85Te
- Custom transport case 100Te - 500Te

## LMS Load Cell Display

Our advanced handheld display allows you to connect and monitor up to 12 wireless load monitoring devices.

These displays are matched to the LMS devices and feature a simple to use tactile keypad and easy to read multi-digit 9mm LCD display and a maximum wireless range of 600m+.



### T24-HS Features

- Display for individual or summed load values.
- Calibrated in Te with pounds resolution accuracy (alternative weighing units on request eg kg, kN, lb, Te).
- Tare function.
- Fully configured and calibrated for your application.
- Sleep/wake acquisition modules.
- Very low power consumption for long battery life.
- Auto shutdown feature available on request.
- Power by 2 x AA internal batteries.
- Worldwide licence exempt 2.4 GHz radio.
- RS232 output available on request. Requires base station for wireless displays and dual cable on cabled displays.
- Operating Temperature -10°C to +50°C.
- Relative humidity 95% noncondensing.
- Environmentally sealed to IP65.
- Carry case available.

### T24-HDP Features

- All the basic features of the T24-HS with the addition of;
- Dual Unit Function – The user can select two different units of measurement.
- Peak Hold Function – The display has the option to select & hold the highest 'Peak' recorded reading.

### Dimensions

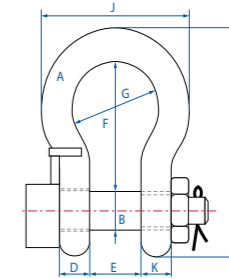


## LMS Load Pin Shackle

Robust, compact high tensile steel design from 2Te to 2000Te.

Ideal for precise tensile load monitoring for your lifting, static, pulling or weighing applications. Suitable for all industry sectors including marine, onshore, offshore and subsea.

You can be confident each shackle and load pin is up to the task with the certified load test before delivery.



### Options

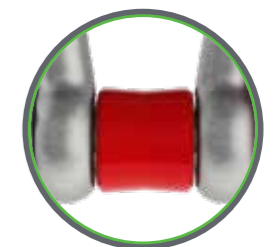
- Wireless & Internal Antenna
- Matched Telemetry Displays
- Rent this item
- Cabled with 49.2ft flying cable
- Data Logging Software Available
- ATEX version

### Standard Designs (Van Beest Shackles)

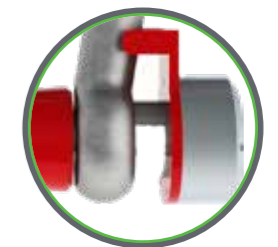
Capacity Te	Dimensions (mm)								Weight (kg)
	a	b	d	e	f	g	h	j	
3.25	16	19	16	26	63	43	110	75	1.7
4.75	19	22	19	31	76	51	129	89	1.9
6.5	22	25	22	36	83	58	143	102	3.2
13.5	35	38	35	57	133	92	227	238	6.54
25	45	50	45	74	178	126	300	216	14.22
35	50	57	50	83	197	138	331	238	19.85
55	65	70	65	105	260	180	433	310	39.59
85	75	83	73	127	329	190	527	340	62
120	95	95	91	147	400	238	647	428	110
150	105	108	102	169	410	275	688	485	160
200	120	130	113	179	513	290	838	530	235
250	130	140	118	205	554	305	904	565	285
300	140	150	123	205	618	305	996	585	340
400	170	175	164	231	668	325	1114	665	560
500	180	185	164	256	718	350	1190	710	685
600	200	205	189	282	718	375	1243	775	880
700	210	215	204	308	718	400	1263	820	980
800	210	220	204	308	718	400	1270	820	1100
900	220	230	215	328	718	420	1296	860	1280
1000	240	240	215	349	718	420	1336	900	1460

### Features

- Design uses VanBeest™ Greenpin® shackles as standard, others on request
- Load pins from high-strength stainless steel
- Safety factor of 5:1
- Up to 12 shackles can be linked to the handheld display for individual or summed load values
- Integral signal conditioning
- Subsea variants available on request
- Special design available on request



Centralising bobbin for improved load cell accuracy



Integrated aerial for added protection

### Standard Designs (Crosby Shackles)

Capacity (Tonne)	Dimensions (mm)								Weight (kg)
	a	b	d	e	f	g	h	j	
6.5	24.6	25.4	22.4	36.6	84	58	148	102	3.2
25	44.5	51	49	73	178	127	313	225	18

## LMS Load Pin

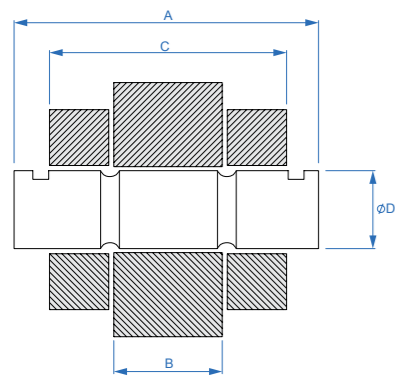
Accurate real-time load monitoring of any load bearing pin connection or joint.

Load pins are integrated in mechanical structures and mechanisms to provide precise load monitoring accurate to 1%, safety factor of 5:1 and all proof-loaded to 150%.

Used in construction, automation, marine, offshore and subsea, these pins can be designed to suit your application with capacities from 2Te to 2000Te.

### Options

- Wireless & Internal Antenna
- Matched Telemetry Displays
- Rent this item
- Cabled with 49.2ft flying cable
- Data Logging Software Available
- ATEX version



Indicate preferred side for load pin head and anti-rotation plate with enquiry.

Each load pin will be designed and manufactured to suit your application, ensuring maximum performance and ease of installation.

Detailed above are the most critical dimensions. When making an enquiry, please provide these values (A, B, C and D) along with any additional requirements/restrictions due to the application such as pin length, head size etc.



### Features

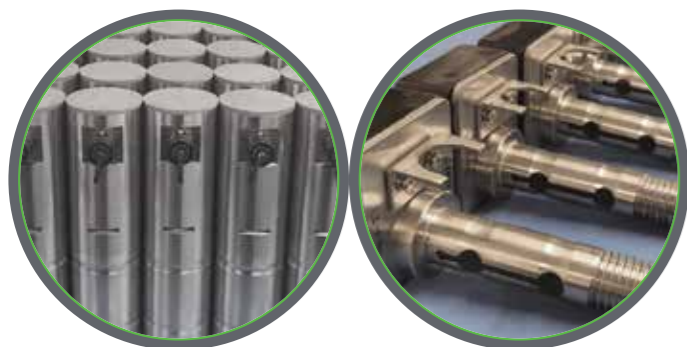
- Output options include mV, mA, V, RS232 with others available (on request)
- Single, dual and redundant bridge designs
- Standard operating temperature -20°C to +80°C
- Plug-in connector versions available
- Integral signal conditioning available
- Enclosure IP67 as standard
- Subsea variants (on request)
- Every unit load tested and certified



### Load Pin Locking

The load pin needs to be securely locked into position. This can be achieved by the following common methods:

- Single anti-rotation plate
- Double anti-rotation plate (both on one end or one on each end of pin)
- Anti-rotation plate, split pin & washer
- Anti-rotation plate and lock nut on threaded end of load pin
- Anti-rotation yoke (similar to shackles), split pin & washer



## LMS Running Line Tensiometer

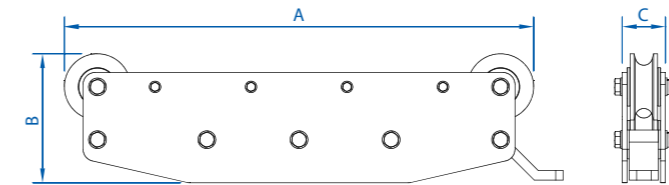
For winch, crane, towing, laying and tensioning applications.

Monitor speed, payout for wire rope, synthetic rope, dyneema, fibre optic and cable systems in marine, offshore, onshore and subsea applications.

Incorporate data logging and the matched line monitor display for capacities up to 120Te.

### Options

- Wireless & Internal Antenna
- Matched Telemetry Displays
- Rent this item
- Cabled with 49.2ft flying cable
- Data Logging Software Available
- ATEX version



### Features

- 20 Running line tensiometer designs
- Line capacities up to 120Te
- Rugged design for operation in the most extreme environments
- Simple and quick access for line/rope fitting
- Marinised design ensures corrosion prevention in offshore environments
- Line mounted supplied with tether/swivel mount as standard with the options for bolt on feet or trunnion mount (pivot on 2 feet)
- Custom mounts available on request



Use in conjunction with LMS handheld displays

### Line Monitor Displays

Matched with our running line tensiometer featuring simple to use keyboard and clear multi-digit 0.35mm LCD display.

- Calibrated in tonne with weight resolution accuracy available in kg, lb or kN
- Wireless range of 600m+
- Tactile keypad
- Low power consumption for long battery life

RLM Dimensions (mm)					
Rope Size	Model	A	B	C	Weight (kg)
10	1	722	250	162	21.5
13	1	722	250	162	21.5
16	1	722	250	162	21.5
19	1	722	250	162	21.5
22	1	722	250	162	21.5
25	1	722	250	162	21.5
22	2	810	270	186	37
25	2	810	270	186	37
28	2	810	270	186	37
32	3	963	297	188	56
35	3	963	297	188	56
38	3	963	297	188	56
40	3	963	297	188	56
42	4	1029	296	198	77
44	4	1029	296	198	77
48	4	1029	296	198	77
52	8 ST	1250	426	185	125
56	8 ST	1250	426	185	125
64	8 ST	1250	426	185	125
70	8 EX	1703	488	278	330
77	8 EX	1703	488	278	330
88	8 EX	1703	488	278	330
103	8 EX	1703	488	278	330

## LMS Compressive Load Cell

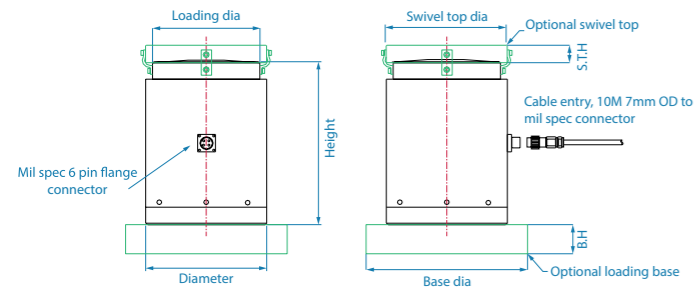
Compressive load monitoring indoors, outdoors or subsea.

Perfectly at home in the laboratory or hostile marine environment, the compact and robust stainless steel design can be used for weighing, force measurement and calibration.

Standard capacities from 2Te to 1000Te, accuracy better than 1% and each unit proof loaded to 200% (LOLER compliant) and certified.

### Options

- Wireless & Internal Antenna
- Matched Telemetry Displays
- Rent this item
- Cabled with 49.2ft flying cable
- Data Logging Software Available
- ATEX version



### Typical Load Cell Sizes

Capacity (Tonne)		50	100	200	300	500	1000
Diameter (mm)	øA	75	120	125	150	200	290
Height (mm)	B	110	142	180	180	300	425
Loading Diameter (mm)	øC	60	90	110	130	170	250
Spherical Cap Diameter (mm)	øF	65	93	125	150	200	290
Spherical Cap Height (mm)	G	10	18	30	30	50	50

### New Centre of Gravity Feature

The Centre of Gravity (COG) function found within T24LOG100 gives you the tools to quickly calculate and visualise centre of gravity from up to eight sources of weight data. Choose your weight data, specify the X and Y co-ordinates and let LOG100 do the work to calculate and display the position of COG.



Cabled versions with 10m gilded exit flying cable as standard. Other lengths available on request.

### Features

- Cells designed to your application
- Safety factor of 5:1
- Operating temperature -20°C to +80°C as standard
- Enclosure IP67 rated
- Output options include mV, mA, V, RS232 with others available, on request
- Single, dual and redundant bridge designs
- Extra support base flanges available on request
- Plug-in connector versions available
- Integral signal conditioning available
- Subsea variants available on request

## LMS Digital Pad Eye Tester

Allows you to proof test your pad eyes to ensure a safe lift.

Lightweight, portable tool for testing pad eyes, lifting lugs, and eye bolts. It can be used upright, inverted, or in a horizontal plane. Models are available up to 10Te & 30Te models proof test capability. Equipped with an adjustable clevis height and Digital Mounted Display.

### Features

- Light weight and portable
- Assist handles on two sides
- Large dial capacity readout
- Xylan coated finish
- 10ft. polyurethane hose with quick couplers
- Lightweight two-speed hand pump with locking handle
- Proof tested and calibrated
- Carrying case



### Our Unique Digital Pad Eye Tester

There are many pad eye testers in the market however the main unique difference with LMS pad eye tester is the on board 'Digital display' (Tonnes, US Ton, Lbs, Kg) and the ability to transmit the information wirelessly to a Hand held Display, a Laptop or PLC and finally the Bluetooth feature for use with a Mobile Phone, Tablet or Laptop.

### Applications

Proof testing pad eyes, lifting lugs, and eye bolts. Can be used upright as pictured, inverted, or in a horizontal plane.



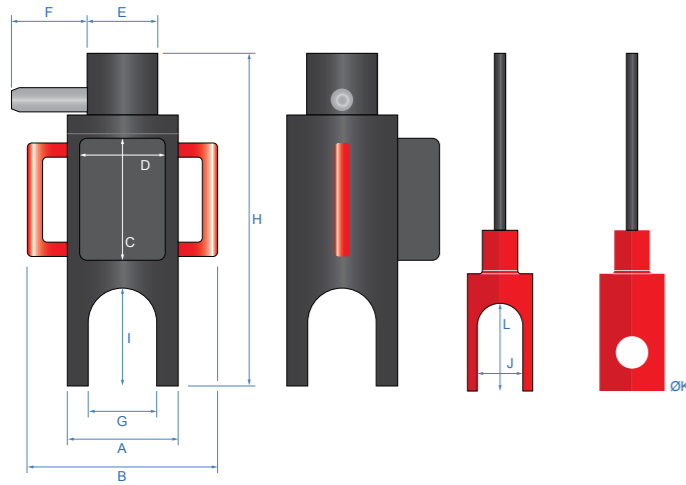
### Display Options

- Standard – On Board Digital Display
- Bluetooth – Mobile & Table App
- Wireless – Laptop or Handheld Display
- Data Logging – Laptop

# LMS Digital Pad Eye Tester

Technical information.

Padeye Tester Dimensions (mm)												
SWL	A	B	C	D	øE	F	G	H	I	J	øK	Weight
10te	124.5	258.5	188.5	99.5	70.5	77	78.5	471	120	52	33	11.5kg
30te	203	330	188.5	99.5	115	96	100	767	234	72	53	56kg



Features
Digital Mounted Display
Peak Value
Zero Function
Overload Warning
Displays readings in US TN, Tonnes, kg & lb
Lightweight with Handles for Easy Transport
Bluetooth Signal
Radio Wireless Signal Transmitter with a range of up to 800m
Hydraulic High pressure hoses
Hydraulic Hand pump
Threaded rod to allow varying heights
Additional threaded rod to increase the height
Hose nozzle equipped with quick coupling that can be detached from the Padeye tester for transport
Easily assembled and disassembled for transport and replacing parts

Spec		
Battery Type & Lifespan - 8 x AA 1.5V @ 80 hours +		
Safety Factor - 4:1		
IP Rating - IP65		
Stroke - Variable with adjustable threaded length		
Proof loaded - 125%		
Calibration - <1% of FSD, valid for 12 Months		
Warranty - 12 Months		
	10te Tester	30te Tester
	3.25te	9.5te
	4.75te	12te
	6.5te	13te
	8.5te	17te
	10te	30te
Five Pins and Collar Sets -		



# LMS Load Cell Data Logging

LMS-LOG100 Advanced data logging software provides real-time monitoring of up to 100 load cell devices simultaneously.

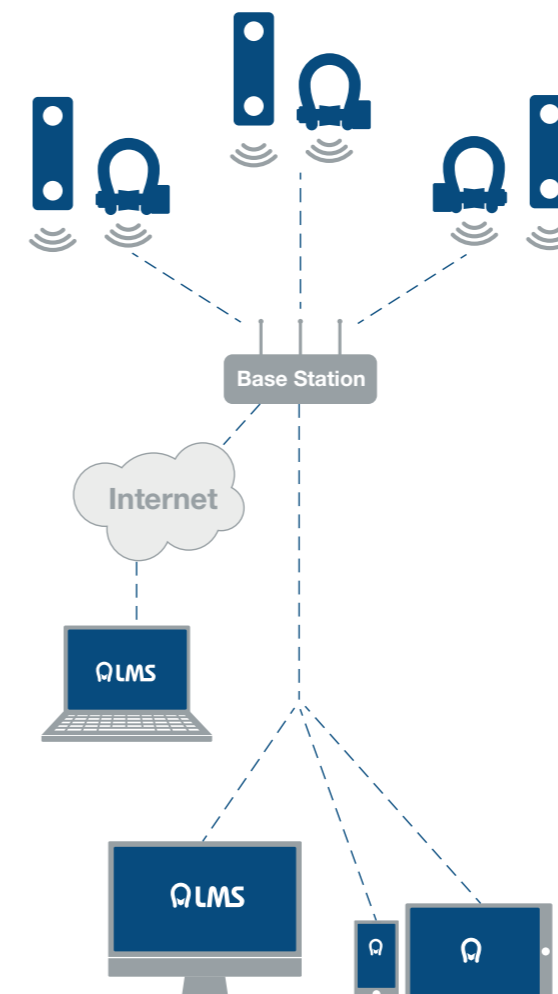
Quick and easy to remotely access your data on computer, tablet & smart phone via web browser. Export data in standard JSON or CSV formats with customisable reporting to suit your needs.



## Options

- Wireless & Internal Antenna
- Matched Telemetry Displays
- Rent this item
- Cabled with 49.2ft flying cable
- Data Logging Software Available
- ATEX version

## How it Works



## Product Support

- Load Shackle
- Load Link
- Line Rider Tensiometer
- Compressive Load Cell
- Load Pin

## Features

- Log data at timed intervals, manually (on demand), on entering & exiting a pre-set overload/underload, during an overload/underload.
- Visual display and audible alarm indicators for overload/underload conditions as well as loss of communication
- Display live data readings on a visual graphic of your application (picture/drawing/schematic)
- Display numeric and graph data
- Units of measurement selectable to match load cell
- Built in web server
- Defined algorithms and maths functions
- Works with USB base station
- Windows 8, 7, Vista & XP compatible
- Supplied pre-installed on computer with or without display screen
- System can be installed on existing computers



Use in conjunction with LMS handheld displays